

# Regulation to Mitigate the Misfueling of Vehicles and Engines with Gasoline Containing Greater Than Ten Volume Percent Ethanol and Modifications to the Reformulated and Conventional Gasoline Programs

Summary of Public Comments and Supplemental Response to Comments

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## Summary of Public Comments and Supplemental Response to Comments

Compliance and Innovative Strategies Division  
Office of Transportation and Air Quality  
U.S. Environmental Protection Agency

<b>1. Misfueling Mitigation Program</b> .....	<b>1</b>
1.1 Labeling Requirements .....	1
1.1.1 Warning Portion of Label .....	1
1.1.2 Description of Motor Vehicles That Can Use E15 .....	3
1.1.3 Statements About Prohibition and Damage.....	5
1.1.4 Addressing Non-English Speakers and Testing Labels .....	9
1.1.5 Portable Containers .....	11
1.1.6 Color, Size, Shape, Font, and Placement of Labels .....	12
1.1.7 Separate Labels for Different Levels of Ethanol .....	16
1.1.7.1 E0 and E10.....	16
1.1.7.2 Blends Greater than E15 .....	18
1.1.8 Coordination with Federal Trade Commission (FTC).....	22
1.1.9 E10 Labeled as E15 .....	25
1.2 Product Transfer Document (PTD) Requirements .....	25
1.2.1 General Support for Proposed PTD Requirements.....	25
1.2.2 PTD Requirements Downstream of the Point of Ethanol Addition.....	26
1.2.2.1 Standardization of PTD Language.....	26
1.2.2.2 RVP.....	26
1.2.3 PTD Requirements Up To and Including the Point of Ethanol Addition .....	28
1.2.3.1 General.....	28
1.2.3.2 Applicability of PTD Requirements to Ethanol Producers.....	28
1.2.3.3 PTD Language .....	29
1.2.3.4 Octane .....	30
1.2.4 General PTD Requirements .....	30
1.2.4.1 General.....	30
1.2.4.2 Abbreviations.....	31
1.2.4.3 Placement of Required Language .....	31
1.2.4.4 Product Codes .....	31
1.3 Ongoing Implementation Survey .....	32
1.3.1 Nationwide Survey Program Requirement .....	32
1.3.2 RVP Survey .....	34
1.3.3 Independent Survey Associations .....	35
1.3.4 Responsible Parties for the Survey .....	36
1.3.5 Statutory Authority to Require Survey .....	37
1.3.6 Survey Protocols .....	38
1.3.7 Portable Analyzers .....	42
1.3.8 Scope of Survey .....	43
1.3.9 Survey Reporting Year .....	43
1.3.10 Small Businesses.....	44
1.3.11 Visual Monitoring of Pumps.....	44
1.3.12 Public Availability of Survey Plans and Results .....	45
1.3.13 Public Input.....	45
1.4 Program Outreach .....	46
1.4.1 EPA Public-Private Outreach Program.....	47
1.4.2 Website for Public Outreach.....	49

1.4.3 Public Outreach Message.....	51
1.5 Other Misfueling Mitigation Measures.....	53
1.5.1 Need for More Mitigation Measures.....	53
1.5.2 Comparisons to the Ultra-low Sulfur Diesel (ULSD) Program.....	60
1.5.3 Comparison to the Unleaded Gasoline Program.....	60
1.5.4 E0/E10 Availability and Petition to Require ≤E10 Availability.....	61
1.5.4.1 E0/E10 Availability .....	61
1.5.4.2 Petition for Rulemaking to Require ≤E10 Availability .....	64
1.6 Modification of the Complex Model .....	65
1.6.1 Support of EPA’s Proposed Modifications to the RFG Complex Model.....	65
1.6.2 VOC Emissions from Permeation in the Complex Model.....	66
1.6.3 NOx and Toxic Emissions in the Complex Model .....	67
1.6.4 Justification for Modification of the Complex Model .....	69
1.6.5 Representation of Other Renewable Fuels in the Complex Model.....	70
1.6.6 Updating Inventory Models .....	71
1.6.7 Modification of the VOC Adjustment for RFG in Chicago and Milwaukee.....	71
<b>2. Other Issues Addressed by Commenters.....</b>	<b>72</b>
2.1 Cost of Compliance.....	72
2.1.1 Cost Estimates.....	72
2.2 The Applicability of the Statutory 1.0 psi RVP Waiver to E15.....	73
2.2.1 Support for No RVP Waiver (1.0 psi) for E15 .....	73
2.2.2 Opposition to Applying 1.0 psi Waiver Only to E10.....	75
2.2.3 Interpretation of CAA section 211(h) .....	79
2.3 Fuel Storage and Dispensing Equipment Transition to E15.....	88
2.3.1 Underground Storage Tanks and Dispensing Equipment.....	88
2.3.2 Comingling of E10 and E15 .....	90
2.4 Credit for RFG Downstream Oxygenate Blending.....	92
2.5 Compliance, Enforcement and Warranty.....	92
2.5.1 EPA’s Commitment to Enforcement .....	92
2.5.2 Liability and Warranty Issues .....	93
2.5.2.1 Retailers and Petroleum Marketer .....	93
2.5.2.2 Vehicle, Engine and Equipment Manufacturers .....	96
2.5.2.3 Ethanol Producers and Importers.....	100
2.5.2.4 Consumers.....	101
2.5.3 Affirmative Defense Provisions.....	101
2.6 Technical Basis for the Rule .....	102
2.6.1 Technical Issues/Justification .....	102
2.6.1.1 Fuel Dispensers.....	102
2.6.1.2 Fuel Quality .....	103
2.6.1.3 Fuel Additives.....	105
2.6.1.4 Effect of E15 on Engines, Vehicles, and Equipment.....	106
2.6.1.5 Safety Concerns .....	109
2.7 Legal and Other Issues.....	110
2.7.1 Legal/Statutory Authority .....	110
2.7.2 E15 Waiver .....	113
2.7.3 Federal Preemption .....	118
2.7.4 Energy Policy.....	120
2.8 E15 Emissions and Anti-backsliding.....	123

## Forward

EPA published a Notice of Proposed Rulemaking (NPRM) (“Regulation To Mitigate the Misfueling of Vehicles and Engines With Gasoline Containing Greater Than Ten Volume Percent Ethanol and Modifications to the Reformulated and Conventional Gasoline Programs; Proposed Rule”) in the Federal Register on November 4, 2010 (75 FR 68044). EPA received comments on this proposed rule via mail, e-mail, and facsimile, and at one public hearing held in Chicago, Illinois on November 16, 2010. Copies of all comments submitted are available at the EPA Docket Center Public Reading Room. Comment letters and transcripts of the public hearing are also available electronically through <http://www.regulations.gov> by searching Docket ID EPA-HQ-OAR-2010-0448.

For each comment summarized in this document, the name of the business, group or individual submitting the comment and the document number assigned to the comment letter is provided. Comment summaries are paraphrased from the original submissions, often using the same phrasing as the original but not always. EPA’s responses to comments are generally provided immediately following each comment or group of comments raising similar issues. In many cases, EPA provided responses to specific comments or groups of similar comments in the Preamble to the final rulemaking. Rather than repeating those responses in this document, EPA has referenced the Preamble

## 1. Misfueling Mitigation Program

### 1.1 Labeling Requirements

#### 1.1.1 Warning Portion of Label

*What Commenters Said:*

**Organization:** Growth Energy

**Document Number:** EPA-HQ-OAR-2010-0448-0083, pp. 2-4

**Comment:** The label as written will seriously impair long-term progress towards achieving the country's stated goals for renewable fuels since it will unnecessarily promote skepticism and concern over any future approval for E15 and create the misperception that E15 is an inferior fuel. EPA should not use the terms "caution," "warning," or "stop" or the use of a stop sign at the top of a fuel label since it does not provide consumers any real information regarding the fuel and may create unnecessary concerns regarding such fuels.

**Organization:** Minnesota Department of Agriculture

**Document Number:** EPA-HQ-OAR-2010-0448-0027, p. 1

**Comment:** When Minnesota became the first state to mandate use of E10, pumps that dispensed E10 were required to carry a label that specified the contents of the pump, which created confusion and negative perception among consumers about ethanol, resulting in a decline in use of E10. Retailers suffered undeserved consequences in the form of lower sales and profits. In 1992, the labels were made voluntary and ethanol blend sales improved dramatically. Since 1997, Minnesota has blended 10 percent ethanol into nearly all of its gasoline without significant problems. Based on this example, commenter notes that labels for E15 are unnecessary and should not be required.

**Organization:** National Association of Convenience Stores (NACS) and Society of Independent Gasoline Marketers of America (SIGMA); National Petrochemical and Refiners Association (NPRA)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0055, p. 10; EPA-HQ-OAR-2010-0448-0067, p. 11

**Comment:** A critical element to the label is the key advisory word. The Agency proposed the word "CAUTION." Commenter believes that "CAUTION" strikes the appropriate balance between more dire words (such as "WARNING") and less eye-catching words (such as "ATTENTION").

**Organization:** Petroleum Marketers Association of America

**Document Number:** EPA-HQ-OAR-2010-0448-0080, p. 5

**Comment:** EPA should not use the word "STOP" on any portion of the label, since this word would confuse consumers with respect to functional operability of the dispenser and may discourage approved fueling.

**Organizations:** Alliance of Automobile Manufacturers (Alliance); Petroleum Marketers Association of America (PMAA)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0072, p. 12; EPA-HQ-OAR-2010-0448-0080, 0096, pp. 3-4

**Comment:** EPA should use the word "WARNING!" instead of the proposed "CAUTION" or the alternative "ATTENTION." The word "WARNING" is used on EPA diesel fuel dispenser labels and should therefore be used on the E15 label for consistency. In addition, the word "WARNING" generally means to desist from a specified course or prohibited action. Producers are the known parties to consumers and therefore the prime target for lawsuits and the only defense to such lawsuits (and a meager one at best) is a strongly worded dispenser label that fully informs consumers about the product they are using. The word "WARNING" is a more appropriate choice because in both common law jurisprudence and popular culture it generally follows that a person who engages in a prohibited act in spite of an informed warning is ultimately responsible for the consequences that follow. Commenter also specifically states that the word "WARNING" should be followed by an exclamation point.

**Organization:** American Lung Association (ALA)

**Document Number:** EPA-HQ-OAR-2010-0448-0097, pp. 2, 3

**Comment:** The proposed "CAUTION" label is inadequate and understates the needed admonition. EPA should use much clearer and stronger language, either "WARNING" or "STOP" in large type, of at least 24-point font. EPA should consider larger font sizes, perhaps as large as 30-point type across the top of the pump label. Commenter supports using the depiction of the "stop sign" with the word "STOP" as the label if EPA adopts the use of the word "STOP" as the top line message for the label. Labels for engine and equipment for which E15 is not approved could state "WARNING Do Not Fill with E15", "STOP Do Not Fill with E15", "WARNING – E15 Prohibited" "STOP – E15 Prohibited", "WARNING – NO E15" or "STOP – NO E15". For new cars and trucks for which E15 is approved, the label could state "E15 Approved" or "E15 – OK."

**Organization:** Petroleum Marketers and Convenience Stores of Iowa (PMC)

**Document Number:** EPA-HQ-OAR-2010-0448-0070, p. 1

**Comment:** EPA should consider allowing individual retailers to choose between "WARNING," "CAUTION," and "STOP." Because the retail facility owner offering E15 is doing so under the complex circumstances created by the Agency's decision to allow E15 for use in 2007 and newer light-duty motor vehicles, the individual facility owner should be given the choice as to what legal warning component best suits their retail facility offering E15 in order to limit their liability under the CAA.

*Response:*

The comments above regarding the choice of word for the warning portion of the label are addressed in section III.B.2 of the Preamble of the final rule. Related liability issues are discussed in section IV.E.2.a of the Preamble and section 2.5.2 of this document.

We disagree with the comment that E15 labels are unnecessary because E10 has been present in nearly all gasoline in Minnesota without significant problems. As we explained in our recent E15 waiver decisions, test data and other information including engineering analysis demonstrate E15 will not have a significant adverse impact on the emissions of MY2001 and newer light-duty motor vehicles. However, there is insufficient test data to make the same demonstration for other vehicles and nonroad equipment, and there are

engineering reasons for concern that E15 may cause or contribute to the failure of those vehicles and equipment to comply with emission standards. EPA therefore included as a condition of the E15 partial waivers that E15 pumps be labeled to inform consumers of the appropriate use of the fuel in order to avoid misfueling. The E15 label that EPA is promulgating in this rule serves the same purpose, and will promote efficient and effective implementation of the waiver labeling condition and further reduce the potential for misfueling.

As discussed in the Preamble, we selected "Attention" as the appropriate warning component of the label in light of public comments and expert advice. We also decided to establish a standardized E15 label so that consumers will more readily recognize and heed it from one retail station to the next. However, we are also providing fuel providers with an opportunity to seek EPA approval of an alternative label that may vary in certain ways as needed to address issues such as pump configurations that may require small changes in size or shape to accommodate the label. Fuel providers may also supplement the required E15 label with other labels and signs that the fuel provider considers appropriate, considering its customers or other circumstances.

### **1.1.2 Description of Motor Vehicles That Can Use E15**

*What Commenters Said:*

**Organization:** Environmental Working Group

**Document Number:** EPA-HQ-OAR-2010-0448-0071, p. 4

**Comment:** Given the wide range of potential consumer engines, the notation "This fuel might damage other vehicles or engines," should read, "This fuel should not be used in: older vehicles; engines such as all motorcycles; all heavy-duty engines such as school buses, transit buses, and delivery trucks; boat motors; all off-road vehicles such as boats and snowmobiles; all engines in off-road equipment such as lawnmowers and chain saws; all model year 2000 and older cars, light-duty trucks, and SUVs; and all 2001-2006 cars, light-duty trucks, and medium-duty passenger vehicles." This more detailed statement will ensure that when owners are fueling older vehicles or any of the numerous small engines subject to failure from ethanol fuels that they are made aware of all potential consequences of using E15 by language on the label.

**Organization:** National Petrochemical and Refiners Association (NPRA)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0067, p. 11

**Comment:** A fourth category should be added to the E15 pump label: "2007 and newer medium-duty passenger vehicles." The "2007 and newer medium-duty passenger vehicles" category is listed in EPA's partial waiver approval for E15 at 75 FR 68094 and 68095 (and at 75 FR 68048 in the misfueling mitigation proposal). This should also be listed on the E15 pump label if it is expressed in a way that consumers will understand.

**Organization:** National Association of Convenience Stores (NACS) and Society of Independent Gasoline Marketers of America (SIGMA)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0055, p. 11

**Comment:** The label should include clear and concise language advising the consumer of the authorized uses of E15. Commenter believes the best terminology to use for this purpose would

read: "Approved for use only in flexible fuel vehicles and 2007 and newer cars and light duty trucks."

**Organization:** Alliance of Automobile Manufacturers (Alliance)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0072, p. 12

**Comment:** In the listing of vehicle types permitted to use E15, EPA should list "Flex-Fuel Vehicles" first, ahead of the other listed vehicles. Commenter also states that some new cars sold in 2007 may actually be 2006 model year vehicles. As such, EPA should add "Model Year" to the legal approval statement. In addition, the approval for use on the label should be conditional upon the consumer being aware of vehicle manufacturer advice. Commenter adds that to increase white space it would be acceptable to shorten the sentence by combining cars and trucks (e.g., "Use only in certain Model Year 2007 and newer gasoline cars and light duty trucks...").

**Organization:** Petroleum Marketers Association of America (PMAA)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0080, 0096, p. 3

**Comment:** The proposed legal component notice for the E15 label is repetitive and too long. More concise notice is required to maintain the consumer's attention and provide clarity. As an alternative, EPA should use the following language for the legal approval component: "Use only in flex-fuel vehicles and 2007 and newer cars and light duty trucks."

**Organization:** ValvTect Petroleum Products

**Document Number:** EPA-HQ-OAR-2010-0448-0086, p. 2

**Comment:** Since most boaters purchase gasoline for their trailerable boats at land-based stations where E15 will be available at a lower price than E10, the potential for misfueling is high. EPA should incorporate more robust warning labels for boaters, particularly since misfueling would put the boater at risk (e.g., the risk of stalling several miles offshore).

*Response:*

The comments above regarding the label's description of vehicles and other products that can use E15 are largely addressed in section III.B.2.b of the Preamble of the final rule. Related liability issues are discussed in section IV.E.2.a of the Preamble and section 2.5.2 of this document.

In response to comments raising particular issues for boats, we added a specific reference to "boats" to the description of the vehicles and equipment that may not use E15 to address concerns about whether consumers consider boats to be either vehicles or equipment and the misfueling risk for boaters. For reasons discussed in section III.F of the Preamble, we do not agree that E15 will necessarily be made available at a lower price than E10 and that other mitigation measures are necessary to establish at this time.

We did not adopt the suggestion of indicating on the label that E15 is "approved" for use in specific types of vehicles because consumers might interpret that as a broader approval or endorsement than EPA has provided or is legally authorized to provide. Under the Clean Air Act, EPA may waive the statutory prohibition on the introduction into commerce for a fuel or fuel additive that is not substantially similar to the fuel and fuel additives used to test for compliance with vehicle standards, if a demonstration is made that the new fuel or fuel additive will not cause or contribute to failures of emissions

standards. In the case of E15, EPA granted partial waivers allowing E15 to be introduced into commerce for use in MY2001 and newer vehicles based on testing, engineering and other information about the impact of E15 on vehicle emissions. EPA's action is thus limited to allowing E15 to be introduced into commerce for use in certain vehicles that available information shows can continue to meet emissions standards when operated on E15.

We also did not adopt the suggestion that we include "model year" on the label in reference to the vehicles that can use E15. As noted in the Preamble of the final rule, FTC staff advised that label text be kept to a minimum in order to increase the likelihood that consumers read the label. We believe the final label's reference to "2001 and newer" passenger vehicles will be understood by consumers as referring to the model year, since vehicles are prominently advertised and sold as from a particular model year. Owner's manuals also generally indicate the model year of the vehicle.

### 1.1.3 Statements About Prohibition and Damage

*What Commenters Said:*

**Organizations:** National Petrochemical and Refiners Association (NPRA); National Association of Convenience Stores (NACS) and Society of Independent Gasoline Marketers of America (SIGMA)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0067, p. 11; EPA-HQ-OAR-2010-0448-0055, p. 11

**Comment:** EPA proposed "Federal law prohibits its use in other vehicles and engines." EPA should replace this statement with the following: "Federal law prohibits its use in all other vehicles and nonroad engines and equipment." NACS and SIGMA recommend that the label include clear and concise language advising the consumer of the prohibited uses of E15. NACS and SIGMA support the use of the bolded and italicized word "prohibits" and advises expanding the phrase to read as follows: "Federal law prohibits use in other vehicles and nonroad engines and equipment."

**Organization:** Petroleum Marketers Association of America (PMAA)

**Document Number:** EPA-HQ-OAR-2010-0448-0080, 0096, p. 3

**Comment:** EPA's proposed legal warning component is generally sufficient. However, for the sake of consistency with the prohibition language in other EPA dispenser labels, the following alternative to the legal warning component of the proposed E15 label should be used: "Federal law prohibits use in all other model year vehicles and engines." The proposed language for the technical warning component in the NPRM is not strong enough to capture consumer attention and convey the consequences of misfueling. EPA should add language to the technical warning component that warns against the use of E15 in nonroad gasoline powered equipment such as lawn mowers, leaf blowers, and chain saws. There remains considerable debate over the effect of E15 on this type of equipment, particularly with respect to potential for catastrophic failure of plastic fuel storage tanks. For this reason, PMAA supports the following alternative language for the technical warning component of the E15 label: "May DAMAGE all other model year vehicles and engines"; "Not recommended for gasoline powered equipment."

**Organizations:** Alliance of Automobile Manufacturers (Alliance); National Association of Convenience Stores (NACS) and Society of Independent Gasoline Marketers of America (SIGMA)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0072, p. 12; EPA-HQ-OAR-2010-0448-0055, p. 11

**Comment:** Commenters generally agree with including the statement "this fuel might damage other vehicles" on the label's technical warning component since it is essential to include some statement concerning the potential damage to engines that could occur if E15 is used in non-approved engines. NACS and SIGMA, suggests that EPA shorten the advisory to read as follows: "May cause damage." This would benefit the readability of the label. This commenter provides an illustration of a possible label that incorporates this as well as other suggestions for the label design.

**Organization:** National Petrochemical and Refiners Association (NPRa); Pennsylvania Department of Environmental Protection (PA DEP)

**Document Number:** EPA-HQ-OAR-2010-0448-0067, p. 11; EPA-HQ-OAR-2010-0448-0058, p. 2

**Comment:** The warning on the proposed label (i.e., "This fuel might damage other vehicles") is too temperate to inform the public of the damage that could occur from the use of E15. Misfueling has been observed to cause damage to vehicles' emission control systems, especially those manufactured prior to 2000. The label is misleading and vague in identifying nonroad engines as a group of engines to which damage may occur. Also, the current proposed statement could imply that E15 will not damage waived vehicles under any circumstances, which no one can guarantee. NPRa notes that ongoing CRC testing may yet show waived vehicles could have problems. NPRa notes that the statement "This fuel may damage other vehicles" on the proposed label should be replaced with the statement "This fuel may cause damage in non-approved vehicles and engines." PA DEP suggests that the statement read as follows: "This fuel will damage other vehicles. Federal law prohibits its use in other vehicles and engines, including off-highway vehicles and engines."

**Organization:** Engine Manufacturers Association (EMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0082, pp. 7-8

**Comment:** EPA's proposed label fails to meet the federal safety label formatting requirements prescribed by ANSI Z535.4 for both content and alternative language comprehension. Commenter notes that they strongly support the labeling concept proposed by Robert Stegall during his oral testimony presented at the November 2010 hearing, which uses the international symbols for "use" and "do not use" and includes graphical representations of appropriate and inappropriate products, thereby overcoming and minimizing potential confusion stemming from language barriers. For the informational component, the wording should simply read "CONTAINS E-15 ETHANOL" since it is clear and concise. The legal component should read as follows: "USE OF THIS FUEL IN ENGINES AND EQUIPMENT NOT APPROVED BY EPA IS A VIOLATION OF FEDERAL LAW AND COULD RESULT IN INJURY OR PROPERTY DAMAGE." With regard to the technical warning component, EPA's proposed language is insufficient since it fails to identify the types of vehicles and engines for which use is prohibited and fails to address portable containers.

**Organizations:** National Marine Manufacturers Association (NMMA); Outdoor Power Equipment Institute (OPEI)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0095, pp. 4-6; EPA-HQ-OAR-2010-0448-0053, pp. 16-17

**Comment:** EPA's proposed label for E15 pumps does not identify the nature of the hazard or indicate preventative action. In addition, it is not "sufficiently strong enough" to capture the user's attention, particularly given the safety hazards that could result from misfueling. Given the increased risks of serious hazards (e.g., unintended clutch engagement of chainsaws), EPA should ensure that the final label contains warning symbols or icons that comply with the well-recognized format established under the ANSI Z535 standards. The hazard-consequences of misfueling ("injury and property damage") should also be addressed in the label content. Commenters provide additional discussion, and NMMA specifically notes that the language on the pump should state "Will Cause Injury or Property Damage" since E15 is likely to result in engine damage and increased emissions for unapproved engines and products. NMMA supports the using of "WARNING" with the standard ANSI icon indicating potential danger. The label should incorporate language, or somehow communicate, that use of the fuel is (1) illegal for use in marine and other nonroad engine applications; (2) WILL damage the product; (3) will void the product warranty. NMMA adds that referencing damage to "vehicles and engines" does not effectively or clearly communicate the danger or legal prohibition, particularly to boaters since it is unreasonable to assume that a boat owner will act as though his vessel or engine is a vehicle. OPEI provides an illustration (Exhibit D) of their recommended label for pumps that dispense fuels containing between E10 and E15 blends.

**Organization:** American Petroleum Institute (API)

**Document Number:** EPA-HQ-OAR-2010-0448-0081, pp. 3-7

**Comment:** EPA's label, as proposed, does not provide the critical information to the consumer to make an informed decision. EPA should finalize a label that is a single EPA-FTC label and as such, commenter provides a suggested label that is a combination of their recommended label to the FTC in May 2010 and EPA's proposed label. Commenter provides both an illustration of their proposed label as well as additional discussion to describe each portion of the label, including components for: information, legal approval, technical warning, and legal warning. With respect to the technical warning, EPA should include the statement "Its use may cause damage to vehicles, engines, and equipment." and a statement that fuel economy would be adversely affected. With regard to the legal warning, the label should clarify that "Federal law prohibits use in other vehicles and nonroad engines and equipment," which clearly states the fact that unauthorized use is a violation of federal law. Commenter also provides specific suggestions with regard to font size and label placement on the pump to maximize visibility, including the suggestion that the label be sized as close to the octane label dimensions as possible due to space constraints on some dispensers.

**Organization:** National Petrochemical and Refiners Association (NPRA)

**Document Number:** EPA-HQ-OAR-2010-0448-0067, p. 2

**Comment:** EPA's proposed language does not provide adequate warning to the consumer and does not illustrate clearly enough the harm that could result. Specifically, the statement "This fuel might damage other vehicles" does not convey the extensive vehicle damage that could be caused. In addition, the statement "Federal law prohibits its use in other vehicles and engines" does not communicate the significant physical injuries that may result from using E15 in small engines, such as lawn mowers, chain saws, and weed-eaters. These types of small engines are used extensively, often by teenagers and young adults who may not fully grasp the prohibition or

may not even know to look for such labels at the pump dispenser. The potential risks demand more effective measures be employed to prevent the misuse of E15.

**Organization:** Alliance of Automobile Manufacturers (Alliance), Association of International Automobile Manufacturers (AIAM)

**Document Number:** EPA-HQ-OAR-2010-0448-0072, pp. 5-8, 12; EPA-HQ-OAR-2010-0448-0079, pp. 13-14

**Comment:** In addition to the four components EPA proposes (ethanol content, legal approval, technical warning, and legal warning), a statement requesting that consumers check their owner's manual should also be a universal requirement for all ethanol blend labels finalized under this rulemaking. Manufacturers need their customers to use and rely on that manual, not just for fuel recommendations but for all kinds of issues, including safety. EPA cannot ignore the automakers' role in advising customers about the proper fuel to use in their cars or warranty contracts with customers. Alliance specifically requests that the following statement be used: "Check Vehicle Owner's Manual for manufacturer recommendations and warranty." AIAM cites to the CRC study (Impact of E15/E20 Blends on OBDII Systems - Pilot Study; March 2010) and EPA statements in the NPRM to support their assertion that misfueling in model year 2006 and older vehicles is likely to cause or contribute to higher OBD MIL illumination and resultant warranty claims. Commenters provide additional discussion on this issue, noting that the failure of the proposed rule to align the fuel dispenser labels with the existing owner guides, or to warn consumers about the potential consequences of fueling with E15, seems almost certain to lead to customer dissatisfaction, disputes, and/or litigation.

*Response:*

The comments above regarding the prohibition and damage statement portion of the label are largely addressed in section III.B.2.c of the Preamble of the final rule. Related liability issues are discussed in section IV.E.2.a of the Preamble and section 2.5.2 of this document.

Some commenters raised the issue of applying ANSI standard Z535.4 for communicating safety-related information to the E15 label. ANSI (American National Standards Institute) is a private sector, non-profit membership organization that promotes and facilitates voluntary consensus standards and the means to assess them within the private sector. The standards range from aspects of product design (size, specifications, operation) to internal environmental procedures in the manufacturing standards to safety labels. The standards ANSI develops are voluntary and do not have the force of law. In instances in which ANSI standards are incorporated by reference in a government regulation, then the regulation itself is the mechanism that would require the use of a particular standard. According to ANSI, the Z535.4 standard applies to product safety and provides guidance (e.g. colors, language and icons) for warnings about the hazards of equipment and their operation.

While we agree that government agencies should consider relevant consensus standards in developing regulatory requirements, we do not believe that the ANSI Z535.4 standard for communicating safety information is appropriately applied to the E15 label. The purpose of the E15 label is to minimize misfueling with E15 because of the potential damage that E15 could cause to the emission control-related systems of vehicles, engines

and equipment not covered by the E15 partial waivers and the potential emission increases that damage to those systems could cause. The risk to those systems generally requires exposure to E15 over a period of time. Several commenters urged EPA to include a warning of potential injury on the E15 label. As explained in the Preamble, the information before the Agency (i.e. test data and other information provided by the E15 waiver applicants and in public comments on the waiver request and on the proposed rule) does not provide a clear or sufficient basis for including such a broad warning. It likewise does not support application of ANSI Z535.4 to the E15 label. To develop a label that would effectively convey information that consumers need to avoid misfueling, we considered a broad range of public comments and expert advice, including advice from labeling experts at the Federal Trade Commission. In many cases, the comments and advice did not support following specific components of the ANSI Z535.4 standard.

A number of the commenters urged EPA to state on the E15 label that E15 “will” damage vehicles and equipment not covered by the partial waivers and “will” void the product warranty for those products. The test data and other information on which we based our denial of the E15 waiver request for such products do not support the suggested damage language. As we explained in the October 2010 waiver decision, there is insufficient test data to show that the vehicles and equipment not covered by the partial waivers could continue to meet emission standards if operated on E15, and there are engineering reasons for concern that E15 may cause or contribute to the failure of those vehicles and equipment to meet emission standards. Test data are also insufficient to show that vehicles and equipment not covered by the partial waivers will be damaged. While engineering analysis suggests that damage could occur, it does not establish that it will occur. As a result, it would be inappropriate to indicate on the label that E15 “will” cause damage. At the same time, we have revised the relevant label language from “might” to “may” to better convey that there is some potential for E15 to damage older vehicles and gasoline-powered equipment.

It would be also inappropriate for the label to state that E15 “will” void product warranties. Manufacturer warranties vary and not all manufacturers condition their warranties on use of particular fuels. Also, as discussed further in the section of the Preamble and this document that address liability issues, while EPA regulations governing emission warranties allow a manufacturer to condition emission warranties on use of a broadly available fuel, manufacturers may not deny a warranty claim based on use of a different fuel if that fuel did not cause the problem for which the warranty claim is made.

#### **1.1.4 Addressing Non-English Speakers and Testing Labels**

*What Commenters Said:*

**Organization:** Outdoor Power Equipment Institute (OPEI)

**Document Number:** EPA-HQ-OAR-2010-0448-0053, pp. 16-17

**Comment:** A relatively high percentage of commercial landscapers that purchase fuel for lawn, garden, and forestry products will not be able to read or comprehend EPA's proposed English-narrative warning label. Therefore, generic symbols or icons that comply with the format under the ANSI Z535 standards should be used.

**Organization:** American Lung Association (ALA)

**Document Number:** EPA-HQ-OAR-2010-0448-0097, pp. 2-3

**Comment:** It is not clear from the proposal that EPA has conducted any consumer research to understand how the labels will be understood by the public, particularly those with low literacy or who are non-English speakers. EPA should conduct consumer research to determine the most effective messages to convey this information to consumers. EPA should include graphics, images, and/or icons on the label to depict the types of engines and vehicles that should not be fueled with E15. A series of images such as lawnmowers, boats, motorcycles, gas cans (used for refueling small engines) and/or other small engines such as chainsaws depicted in a circle with a slash or X across the image would convey to consumers not to use E15 fuel for such engines. Absent such clarity, it is doubtful that consumers would understand that the phrase "other vehicles and engines" refers to their particular engine or vehicle.

**Organization:** ECHO, Inc.

**Document Number:** EPA-HQ-OAR-2010-0448-0033, p. 2

**Comment:** Commenter notes generally that the proposed label may not be understood by the non-English speaking portion of the U.S. population and should include symbols. Commenter provides an example of the type of labeling features they would like EPA to incorporate.

**Organizations:** National Marine Manufacturers Association (NMMA); Outdoor Power Equipment Institute (OPEI)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0095, p. 5; EPA-HQ-OAR-2010-0448-0053, pp. 16-17

**Comment:** Consistent with ANSI Z535.3 requirements, EPA should conduct a human comprehension test of at least 50 people to make sure that the warning symbols in the final label will achieve at least an 85% comprehension rate. NMMA adds that EPA should also consult relevant industry partners to test various market segments, such as boaters or outdoor power equipment users specifically. NMMA offers their assistance to the Agency in testing the label with real audiences. EPA should also consider testing the label before a panel of human factors experts, or experts in safety signage and warning language.

*Response:*

The comments above regarding non-English speakers are addressed in section II.B.2.d of the Preamble of the final rule. In response to comments about label testing, EPA considered copy testing the proposed and other label designs but, in view of limited Agency resources, we decided to rely on consideration of public comments (including input from industry experts), our recent labeling experience (i.e., ULSD), and expert FTC staff advice to develop an effective label. For the final E15 label, we adopted the basic format, fonts and color scheme of FTC's existing labels for alternative fuels and proposed labels for mid-level ethanol blends, so we expect the new E15 label to look familiar to the public and be understood as providing additional information concerning the appropriate use of E15. Fuel providers may supplement the E15 label with additional signage or other means of communication to provide more information (including translations) to their customers as appropriate to their circumstances. In addition, the final rule provides some flexibility for development and use of alternative E15 labels with EPA approval.

### 1.1.5 Portable Containers

*What Commenters Said:*

**Organizations:** National Marine Manufacturers Association (NMMA); Outdoor Power Equipment Institute (OPEI)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0095, p. 3; EPA-HQ-OAR-2010-0448-0053, p. 4

**Comment:** Nonroad products are generally fueled from portable containers, which are in turn fueled at the same time and location as the vehicle utilized to transport the container from the filling station to the location of the marine or off-road equipment. Many types of nonroad products are exclusively refueled from portable containers, which have a range of opening sizes for refueling of the container. Thus, any fuel dispensing nozzle used to fill a vehicle could also be used to fill the portable container. OPEI provides additional discussion and asserts that the labels for pumps dispensing fuels greater than E10 should also warn against those fuels being dispensed into portable containers. NMMA also provides additional discussion, noting that boaters put the same gasoline in their boats as they put in their cars, trucks, and outdoor power equipment. This commenter asserts that EPA's proposal fails to address the risk of misfueling in cases where portable fuel tanks are the primary mechanism to obtain fuel.

**Organization:** Engine Manufacturers Association (EMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0082, p. 11

**Comment:** It is a stretch to assume that an individual filling a 2007 or newer light-duty vehicle with E15 fuel at the pump will conduct a separate transaction to fill a portable fuel container that will be used to fuel nonroad engines/equipment. Retail fuel outlets focus their efforts on improving customer convenience and minimizing overhead costs - both of which will be compromised when multiple transactions/stops are required in order to avoid misfueling. It is unreasonable to expect the typical consumer to understand why a fuel that is acceptable for their light duty vehicle is not acceptable for their other gasoline powered engines/equipment.

**Organization:** National Marine Manufacturers Association (NMMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0095, pp. 2-4

**Comment:** EPA should not proceed with the proposed regulation because it is deficient and counteracts the express purpose of the waiver denial for nonroad engines and equipment. EPA's decision to partially approve E15 for new motor vehicles poses substantial problems for the boating and marine manufacturing community relating to consumer confusion, misfueling, and the long-term availability of compatible gasoline. The risk of misfueling is uniquely high in the recreational marine sector for a variety of reasons including the fact that the overwhelming majority of recreational boats are towable and refueled at regular automotive gas stations. Boaters typically avoid fueling at marina or on-water fuel docks because of the premium paid and because marina fuel docks are also relatively rare in terms of overall fuel stations. Additionally, many boaters utilize portable fuel tanks to fill up their secondary marine equipment (e.g., generators, small-horsepower motors). EPA's proposal fails to contemplate the risk of misfueling in cases where portable fuel tanks are the primary mechanism to obtain fuel. Ultimately, boaters put the same gasoline in their boats as they put in their cars, trucks, and outdoor power equipment. EPA's current policy pathway to "bifurcate" the fuel supply will substantially confuse consumers and jeopardize the performance of their products, and potentially their safety.

**Organization:** Outdoor Power Equipment Institute (OPEI)

**Document Number:** EPA-HQ-OAR-2010-0448-0053; pp. 4-5

**Comment:** As part of the administrative record in this rulemaking, EPA needs to address the issue of E15 storage and make sure that consumers fully appreciate the hazards. In this context, commenter asserts that pump labels should warn against dispensing fuels with ethanol greater than 10% into portable containers. Commenter also indicates that EPA's analysis should address the E15 fuel distribution and storage issues and concerns raised by Jimmy Eavenson of MTD at the Chicago hearing, which include: 1) E-fuels can deteriorate quickly with accelerated results occurring with heat, moisture, and UV exposure (can happen within one month of storage); 2) most nonroad fuel systems are not sealed and this results in fuel contamination and loss of volatiles; 3) multiple concerns associated with material compatibility - e.g., permeation with E-fuels has been at significantly higher rates through certain plastics, nylon, rubber, etc.; and 4) increased engine performance concerns with storage or use of E-fuels - e.g., metallic component and system corrosion by-products restrict orifices, clog filters, etc.

*Response:*

For the reasons discussed in Preamble section III.B.2.e, the Agency considered prohibiting dispensing of E15 into portable containers but decided that it is not necessary or appropriate. As explained in the Preamble, we believe that the misfueling mitigation program established in today's action and under the E15 partial waivers will adequately address the misfueling of vehicles, engines, and equipment not covered by the partial waivers. As part of that program, fuel providers are encouraged to provide more information, including warnings against dispensing E15 into portable containers for use in nonroad equipment, to their customers as appropriate to their circumstances. (See Preamble section IV.E.2.a for discussion of retailers with a high proportion of customers fueling nonroad vehicles.) Misfueling mitigation measures that would be appropriate for a retailer to employ in addition to those required by today's rule may vary depending on the particular circumstances at, and customers served by, the retailer. Regarding incompatibility with materials used in nonroad equipment, EPA notes that this rule specifically prohibits E15 use in nonroad equipment and is designed to minimize the potential of misfueling of such equipment as well as vehicles and engines not covered by the E15 partial waivers.

### **1.1.6 Color, Size, Shape, Font, and Placement of Labels**

*What Commenters Said:*

**Organization:** Renewable Fuels Association (RFA)

**Document Number:** EPA-HQ-OAR-2010-0448-0088, p. 3

**Comment:** Fuel dispensing equipment today contains a myriad of product notifications, warnings, and consumer information. There are state, federal, and market driven obligations that may vary greatly between regions and markets. Ultimately, it is the gasoline marketer that will have the best insight into how to inform consumers about the availability of E15, and they will be highly motivated to avoid misfueling. Rather than proscribing a one-size fits all label, EPA should allow gasoline marketers to determine the color scheme and appropriate size of the E15 label.

**Organization:** IL Corn Growers Association (ICGA)

**Document Number:** EPA-HQ-OAR-2010-0448-0092, p. 2

**Comment:** It is important to give the petroleum marketers and gasoline retailers some flexibility in the label size, color, and shape since they are the ones responsible for informing the consumer of what vehicles can use up to E15 fuel.

**Organizations:** Growth Energy; National Association of Convenience Stores (NACS) and Society of Independent Gasoline Marketers of America (SIGMA); Outdoor Power Equipment Institute (OPEI); National Marine Manufacturers Association (NMMA)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0083, p. 2; EPA-HQ-OAR-2010-0448-0055, pp. 8-9; EPA-HQ-OAR-2010-0448-0053, p. 13, 16; EPA-HQ-OAR-2010-0448-0095, pp. 4-5

**Comment:** The final rule should require warning labels to be located next to the product-selector, and not the nozzle. NACS and SIGMA added that this will ensure that customers notice the warning label as they choose what product to purchase, which is the crucial moment when the label's purpose is served. If the label is located closer to the nozzle, customers are likely to have already selected a product by the time they notice the label, rendering it less effective. These commenters added that the labels should also have an adhesive requirement to avoid easily peeling and falling off of the pump.

**Organizations:** Alliance of Automobile Manufacturers (Alliance); National Marine Manufacturers Association (NMMA)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0072, p. 12; EPA-HQ-OAR-2010-0448-0095, p. 7

**Comment:** The label warning consumers not to use E15 in certain products and engines should be placed directly in the consumer's line of sight on the fuel pump, clearly visible, and with sufficiently strong warning symbols to capture his or her attention. Alliance specifically noted that labels should be placed in the top one-third of the pump housing rather than the top two-thirds. NMMA noted that should this require fuel retailers to move existing labels or signs on fuel dispensers, EPA should require and enforce the movement of existing labels. The risks posed by misfueling are substantial enough to warrant EPA's aggressive enforcement of prominent placement of this label.

**Organizations:** ECHO, Inc.; Specialty Equipment Market Association (SEMA)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0033, p. 3; EPA-HQ-OAR-2010-0448-0094, p. 3

**Comment:** Commenters note generally that the label should be placed where the consumer can easily view the information. SEMA recommends that for pumps with multiple activation buttons and one hose, the label should be on the button and that for pumps with multiple hoses, it could appear in the same location as the octane ratings for the other hoses (or above/below the octane rating).

**Organization:** National Marine Manufacturers Association (NMMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0095, pp. 4-5

**Comment:** EPA should ensure the implementation of a clear, concise, strong, and standard warning label across all retail fuel pumps selling E15. These labels should be placed directly above or below (or next to) the button a consumer would use to select the fuel grade. This

placement should be tested for highest visibility and mandated consistently across all fuel pumps. Additionally, EPA should require uniform, visible colors and standard fonts and font sizes for all labels. EPA should also incorporate standard images that communicate to consumers non-verbally, as in a boat or marine engine circled and crossed out to indicate that E15 is not approved for marine use. In addition, EPA should work with industry to settle on national, uniform language to outline the specific nature of the danger to operators of unapproved equipment.

**Organizations:** National Association of Convenience Stores (NACS) and Society of Independent Gasoline Marketers of America (SIGMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0055, p. 10

**Comment:** The proposed shape of the label, which mirrors that of the label used for communicating the sulfur levels in on-road diesel fuels, is relatively standard and does not stand out on a product dispenser. The label should be designed to differentiate it from other labels. One shape recommended by many experts is the octagonal design of a stop sign. Other shapes to consider include a starburst or the triangular symbol for "hazard." Commenter strongly recommends that the Agency design a mandatory label in some shape other than a square or rectangle. The commenters add that while the proposed neon-orange color is intended to attract the attention of the consumer, industry experts advise that the most effective color combination for close proximity viewing is a yellow background with black lettering. EPA should change the required label as recommended by the experts.

**Organization:** Petroleum Marketers Association of America (PMAA)

**Document Number:** EPA-HQ-OAR-2010-0448-0080, 0096, pp. 4-5

**Comment:** EPA should select a unique shape for the label (such as a triangle or other design) to make sure it stands out from the existing square and rectangular dispenser labels currently in use (and should be as large as possible to ensure visibility). EPA should ensure that the color scheme, layout, dimension, wording, and letter font for the E15 dispenser label should be consistent with other labeling requirements. While regulatory flexibility in the design aspects of dispenser labels under the ULSD regulations were initially welcomed by petroleum marketers, the lack of consistency in label design resulted in confusion and uncertainty with respect to compliance and enforcement. EPA should adopt specific label size, color, dimension and design requirements similar to those specified for dispenser labels under the Federal Trade Commission (FTC) regulations. Commenter provides additional discussion and specifically notes that the label should have contrasting colors on the upper and lower portions.

**Organization:** ECHO, Inc.

**Document Number:** EPA-HQ-OAR-2010-0448-0033, p. 2

**Comment:** Commenter notes generally that the color of the proposed label does not conform to ANSI standards.

**Organization:** North Dakota Ethanol Council

**Document Number:** EPA-HQ-OAR-2010-0448-0089, p. 2

**Comment:** The E15 label should have green lettering and a blue "e" and should be consistent with North Dakota's current E10 label, which was originally created by the Ethanol Promotion and Information Council (EPIC).

**Organizations:** Alliance of Automobile Manufacturers (Alliance); National Petrochemical and Refiners Association (NPRA)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0072, p. 11; EPA-HQ-OAR-2010-0448-0067,

**Comment:** EPA should add "E15" to the top of the label to identify the type of gasoline.

**Organization:** American Lung Association (ALA)

**Document Number:** EPA-HQ-OAR-2010-0448-0097, p. 3

**Comment:** Fuel that is approved for all vehicles and engines should be labeled with the word "ATTENTION" in 24-point type or larger and include the ethanol concentration and which engines and vehicles the fuel is approved for.

**Organizations:** National Marine Manufacturers Association (NMMA); Outdoor Power Equipment Institute (OPEI)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0095, p. 5; EPA-HQ-OAR-2010-0448-0053, pp. 16-17

**Comment:** EPA should ensure that the final label contains warning symbols or icons that comply with the well-recognized format established under the ANSI Z535 standards, which are the most credible and well-respected standards that govern hazard warnings, including the ignition hazards at gasoline pumps at fuel stations. Commenters provide additional discussion and OPEI provides an illustration (Exhibit D) of their recommended label, which relies on generic symbols that have been put into the ANSI Z535 format. NMMA notes that EPA should explicitly state products for which E15 is prohibited and recommends that the label include standard images or icons of a range of products -- boats, lawnmowers, heavy-duty trucks, snowmobiles, motorcycles, old autos, new autos, etc. -- with corresponding circles and red slashes for unapproved products. These images should be accompanied by language explaining the legal prohibition and communicating the danger ("May Cause Injury or Property Damage") in proximity to a standard warning or hazard icon developed by ANSI. This commenter specifically states that EPA should engage ANSI in label development.

*Response:*

The comments above regarding the color, size, shape, font, and placement of labels are largely addressed in section III.B.2.f of the Preamble of the final rule. In response to several comments, we considered different shapes for the E15 label, but decided to retain the proposed shape in order to be consistent with FTC's alternative fuel labels and possible ethanol labels. In general, we adopted a number of aspects of FTC's label design so that the E15 label would be part of a coordinated federal labeling scheme for gasoline-ethanol blends. At the same time, the E15 label's "Attention" flag and damage and prohibition statements set it apart from other labels and will help ensure that consumers notice it and the information it provides to avoid misfueling.

We did not adopt the suggestion of green lettering and a blue "e" for the label in order to maintain consistency with North Dakota's E10 label. Other commenters urged us to adopt a yellow or orange background and black lettering, based on voluntary labeling (ANSI) standards and/or industry expert advice. For our final label, we adopted the FTC alternative label color scheme, which is a variation of yellow and black, to achieve labeling consistency and effectiveness. Other commenters also urged us to establish a nationally uniform label, including color scheme, so that consumers could more easily

recognize the label. We have adopted that approach. However, the rule does not prevent the use or display of additional labels or signs that do not conflict with the required label. In addition, the rule allows EPA to approve alternative labels that vary somewhat in size and shape and other aspects as appropriate to address varying circumstances such as pump design and non-English speaking customers.

EPA is not including an adhesive requirement as part of the rule's labeling provisions. Under the rule and partial waivers, E15 pumps must bear the specified E15 label (unless an alternative is approved). If the label peels away, the pump owner will be in violation of rule and (if the pump owner is also a fuel manufacturer) waiver requirements. It is best left to pump owners and label manufacturers to determine what adhesive should be used to ensure that the E15 label remains on the pump.

### **1.1.7 Separate Labels for Different Levels of Ethanol**

#### **1.1.7.1 E0 and E10**

*What Commenters Said:*

**Organizations:** American Petroleum Institute (API); Renewable Fuels Association (RFA)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0081, p. 7; EPA-HQ-OAR-2010-0448-0088, p. 3

**Comment:** There is no need to label E10. There are a large variety of state-required labels for E10 that would result in dual labels and further cluttering of dispensers. The focus should be on labels for fuels containing more than 10 volume percent ethanol and the environmental impacts of such fueling while leaving the actual ethanol content to consumer protection initiatives. EPA should not go beyond its mandate to label E15.

**Organization:** Growth Energy

**Document Number:** EPA-HQ-OAR-2010-0448-0083, p. 4

**Comment:** Labels should be required only for those fuels that are not approved for use in all vehicles and engines.

**Organization:** American Coalition for Ethanol (ACE)

**Document Number:** EPA-HQ-OAR-2010-0448-0087, p. 7

**Comment:** If a label is required for E15, it should be simple and based on existing label regulations that have proven to be successful in preventing misfueling.

**Organization:** Petroleum Marketers Association of America (PMAA)

**Document Number:** EPA-HQ-OAR-2010-0448-0080, 0096, pp. 3, 5

**Comment:** EPA should not require an E10 dispenser label for all dispensers that supply E10 or in the alternative, only for those E10 dispensers at a location where E15 is also sold. The FTC currently requires an E10 dispenser label pursuant to 16 CFR Part 306, Automotive Fuel Ratings Certification and Posting. The FTC simply requires the E10 label to state the percentage of ethanol contained in the gasoline-ethanol blend. Since EPA does not restrict the use of E10 with respect to specific model year vehicles or engines, no additional legal approval component, technical warning component or legal warning component is required for the E10 label. In other words, the FTC label is sufficient to convey the informational component of the E10 blend.

Commenter adds that EPA should use the following informational label component for dispensers supplying gasoline-ethanol blends greater than 10% but not more than 15%: "E-15 Gasoline (Contains 15% Ethanol Maximum)". This language is more clear and concise than the proposed language in the NPRM and is more consistent with the layout of the EPA Ultra-low Sulfur Diesel (ULSD) labels.

**Organizations:** Engine Manufacturers Association (EMA); Specialty Equipment Market Association (SEMA)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0082, p. 7; EPA-HQ-OAR-2010-0448-0094, p. 3

**Comment:** If a pump labeling approach is expected to effectively minimize misfueling, it is essential that the consumer can easily determine which fuel is acceptable for any given product. EPA should require that E10 and lower pumps bear labels containing information comparable to the information found on E11 and higher pumps.

**Organization:** National Marine Manufacturers Association (NMMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0095, pp. 6-7

**Comment:** Commenter supports a standard informational label for E10 or less fuel, such as: "This Fuel Contains Maximum 10% Ethanol. Approved for all Vehicles, Vessels, Engines, and Equipment." Commenter adds that a label for E10 should be required in all cases (i.e., even when E15 is not being sold at a particular location).

**Organization:** Petroleum Marketers and Convenience Stores of Iowa (PMC)

**Document Number:** EPA-HQ-OAR-2010-0448-0070, p. 2

**Comment:** Commenter notes that as they continue to explore the offering of higher blends of ethanol at retail locations, they believe that it is important to protect retailers and consumers by providing product transparency. Because of the introduction of E15, the potential liability associated with the offering, and the period of consumer confusion that is sure to follow, it is necessary to further explore the potential for creating a uniform label for E10.

**Organizations:** National Association of Convenience Stores (NACS) and Society of Independent Gasoline Marketers of America (SIGMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0055, p. 8

**Comment:** Commenters do not provide additional detailed discussion regarding the need for separate labels for E10-E15 fuel versus fuel greater than E15, but state generally that a warning label should be required for all products for which the use is not approved in all engines (any pumps dispensing fuel less than 10% ethanol should not be labeled). Because E15 is only suitable for use in certain vehicles, it is imperative that any pumps dispensing it contain a label warning consumers of this fact and a similar rationale applies to pumps dispensing E85.

**Organization:** Alliance of Automobile Manufacturers (Alliance)

**Document Number:** EPA-HQ-OAR-2010-0448-0072, p. 11

**Comment:** Instead of using the phrase "This fuel contains 15% ethanol maximum," EPA should include the lower limit and avoid overlap with E10. The statement should say: "This fuel contains between 11% and 15% ethanol." This will help consumers distinguish E15 from E10.

**Organization:** Outdoor Power Equipment Institute (OPEI)

**Document Number:** EPA-HQ-OAR-2010-0448-0053, p. 18

**Comment:** Current pump labeling for E0 to E10 is inconsistent. Some labels are transparent, not easy to read, located in various places on the pump, and vary from state to state. Clear and consistent national labeling, including uniform placement of labels, would reduce confusion by consumers. Commenter provides suggested labels for E0 and E10 pumps (Exhibit D) and adds that the E0 label should clearly state "Contains no Ethanol," and the E10 label should clearly state "Contains up to 10% Ethanol."

*Response:*

Preamble section III.B.2.g responds to comments on requiring different labels for E0 and E10. We also considered alternative language for describing E15 fuel, as suggested by several commenters. The proposed label description, "[t]his fuel contains 15% ethanol maximum," was intended to reflect that the partial waivers cover fuel with more than 10% ethanol and up to 15% ethanol and that the related misfueling mitigation measure apply to the same range of gasoline-ethanol blends. Commenters noted that the proposed description was longer than necessary and not grammatical. One commenter suggested that the description indicate that the fuel could contain between 11% and 15% ethanol. However, the waivers and mitigation measures apply to any fuel above 10% and up to 15% ethanol, not just fuel having 11% and up to 15% ethanol. We concluded that the most accurate, easily understood and concise description for purposes of the E15 label was "up to 15% ethanol."

### **1.1.7.2 Blends Greater than E15**

*What Commenters Said:*

**Organization:** Alliance of Automobile Manufacturers (Alliance)

**Document Number:** EPA-HQ-OAR-2010-0448-0072, p. 13

**Comment:** For a pump dispensing E30 only, the label should identify the fuel as E30 and not as some blend between E15 and E85. However, blender pumps may dispense several different gasoline-ethanol blends, and requiring separate but duplicative labels for each blend would unnecessarily clutter the face of the pump, as well as burden the retailer. In this case, a single pump label should indicate the ethanol range and cautionary information as long as the specific blend level is indicated on each individual hose holder, button, or hose activator. Essentially, consumers should be able to identify the specific fuel they are buying in a consistent manner.

**Organization:** Environmental Working Group

**Document Number:** EPA-HQ-OAR-2010-0448-0071, pp. 2, 4

**Comment:** Retailers making only marginal profits on their gasoline/ethanol sales have an incentive to vary the percent of ethanol blended with gasoline to maximize their profit margins. E85's ethanol percentage can range from 70 to 85 percent ethanol, but the E85 label leads consumers to believe that the blend contains 85 percent ethanol. Various engines, especially older or small engines, can be severely damaged by higher gasoline-ethanol blends, and because chemical properties can also vary extensively between different blends, a change from E70 to E85 can lead to drastically different effects on tank corrosion and engine capabilities. Similarly, studies have shown that differences between E10, E15, and E20 are significant, especially in their effects on tank and pump corrosion and the probability of leakage. The E20 blend is the least compatible of these three blends with current infrastructure. It is essential that EPA ensure

that actual blend percentage is very close to the labeled blend percentage to help mitigate misfueling, consumer confusion, and other negative effects. In each case, the label should read "contains between XX% and XX% Ethanol and XX% to XX% regular gasoline." Based on this wording, commenter provides specific suggested text for E0, E10, and E85 fuel. The label should read "contains between XX% and XX% Ethanol and XX% to XX% regular gasoline." As such, the E15 label should include the following text: "E15. Contains between 12.5% and 17.5% ethanol and between 82.5% and 87.5% regular gasoline. WARNING: ONLY to be used in 2007 and newer gasoline cars, light-duty trucks, medium-duty passenger vehicles, and flex-fuel vehicles. Federal law prohibits use in all other vehicles and engines."

**Organization:** Petroleum Marketers and Convenience Stores of Iowa (PMC)

**Document Number:** EPA-HQ-OAR-2010-0448-0070, p. 2

**Comment:** As it stands today these fuels are reserved for use in flex-fuel vehicles only. Iowa has implemented the labeling requirements proposed by the FTC for mid-level gasoline-ethanol blends (including E85) and would encourage the Agency to give deference to the proposal put forward by the FTC. Once again, requiring an additional label for these fuels would likely be counter-productive to the period of consumer education that has already started to take place in states where mid-level gasoline-ethanol blends and E85 are already widely available. Additionally, any expense added through a new label in the form of material cost or labor would come with little benefit to either consumer or retail facility owner.

**Organization:** Outdoor Power Equipment Institute (OPEI)

**Document Number:** EPA-HQ-OAR-2010-0448-0053, p. 17

**Comment:** The E85 pump warning language should be consistent with the language used on E15 pump labels and should rely more on generic symbols consistent with the ANSI Z535 format. Commenter provides an illustration of their recommended label for E85 (Exhibit E). In addition, commenter notes that the E85 label should say "Contains 70% to 85% Ethanol" because according to the ASTM D5798 standard, E85 must contain at least 70% ethanol so it is not accurate to say "Contains up to 85% ethanol."

**Organization:** Boat Owners Association of the U.S.

**Document Number:** EPA-HQ-OAR-2010-0448-0078, p. 3

**Comment:** For the proposed flex-fuel label, the word "only" should be added to the third line so that it reads "for use in flex-fuel vehicles only."

**Organization:** American Petroleum Institute (API)

**Document Number:** EPA-HQ-OAR-2010-0448-0081, p. 8

**Comment:** Commenter notes that they currently do not endorse the use of blending dispensers for mid-level gasoline-ethanol blends because there is currently no ASTM specification for the potential blended fuels. They also do not endorse the storage and handling of E98 as a base fuel for blender dispensers due to safety concerns. Commenter observes, however, that there may be legacy blending dispensers currently in use under state and local agency workarounds and that there are currently a limited number of newer blending dispenser models that have been listed for higher gasoline-ethanol blends. Blender dispensers offering mid-level gasoline-ethanol blends should have labels alerting consumers that the fuels are only allowed in flex-fuel vehicles, and the label should be consistent with the label for E85 dispensers. Commenter provides an illustration of their recommended label for E85 that could also be used for blender dispensers in the event that the issues they raise regarding the use of these dispensers have been addressed.

**Organization:** Outdoor Power Equipment Institute (OPEI)

**Document Number:** EPA-HQ-OAR-2010-0448-0053, p. 18

**Comment:** Blender pumps and pumps dispensing intermediate gasoline-ethanol blends need to have the same clear warnings and limitations as the labels for E0, E10, E15, and E85 fuels. Each intermediate blend offered for sale must also have a separate label on or next to each selection button for each blend offered. For example, an E30 label should clearly state "Contains \_\_\_% to 30% Ethanol" or whatever the standard tolerance range is defined as. Commenter provides a recommended label for blender pumps (Exhibit E). Commenter also notes that no standard currently exists to indicate what the allowable range of ethanol is in intermediate blends, and the Agency should consider requiring a standard to be developed to define allowable blend ratios for intermediate blends.

**Organization:** National Marine Manufacturers Association (NMMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0095, p. 6

**Comment:** EPA should ensure consistent, robust labeling for all blender pumps. Commenter suggests labels with similar text and standard symbols that they have recommended for the E15 label advising consumers that a 10% maximum is allowable for marine applications. Commenter adds that blender pumps are inherently confusing and that EPA should contemplate limiting blender pumps to existing and future flex-fuel only, separate, segregated fuel pump islands. Blender pumps should not be mingled with pumps that dispense regular fuel, as this will substantially contribute to consumer confusion as well as widespread inadvertent misfueling.

**Organization:** Petroleum Marketers Association of America (PMAA)

**Document Number:** EPA-HQ-OAR-2010-0448-0080, 0096, p. 6

**Comment:** The current legal warning label component under Option 1 is too narrow. It limits blender pumps to flex-fuel vehicles only. However, under the partial waiver, E15 is approved for 2007 and newer model year vehicles and potentially for 2001 and newer vehicles. If EPA approves the label in Option 1, these vehicles would not be allowed to fuel with E15 at blender pumps. Petroleum marketers who plan to supply E15 at retail sites will largely do so through the use of existing blender pumps since they are designed to dispense midgrade gasoline-ethanol blends. As such, retailers will feel more comfortable using blender pumps to dispense E15 blends. There are legal reasons for using blender pumps over traditional dispensers as well. It is still largely unknown whether E15 will be allowed for use in dispensers with a UL certification limited to an E10 maximum. To avoid violation of state and local fire laws, retailers are likely to favor blender pumps to dispense E15 product. Commenter further notes that although Option 2 is preferred, they would consider supporting the implementation of Option 1 if the following revisions to the informational and legal approval components to the label are made: "E-15 – E-85 (Contains between 15% and 85% ethanol); For use in flex-fuel vehicles only." and "E-15 (Contains 15% ethanol MAXIMUM); For use in model year 2007 and newer cars and light duty trucks and flex fuel vehicles." Another option would be to place the E15 label adjacent to the E15 selector on the blend pump and allow the E15 to E85 label to cover the remaining higher blend selectors. Commenter adds that they could also support adoption of both Options 1 and 2 which would allow retailers to decide which label would be appropriate based on current consumer demand at a given location.

**Organization:** North Dakota Ethanol Council

**Document Number:** EPA-HQ-OAR-2010-0448-0089, p. 2

**Comment:** As blender pumps become more prevalent nationwide, a national labeling standard should be developed so the public is exposed to the same label, thus decreasing consumer confusion.

**Organization:** American Petroleum Institute (API)

**Document Number:** EPA-HQ-OAR-2010-0448-0081, pp. 7-8

**Comment:** Commenter provides an illustration of their recommended label of E85 fuel that could be used as an alternative to the EPA-proposed E85 label. The recommended label contains the same type of information as EPA's proposed label but adds a contrasting colored banner across the top. Commenter adds that the FTC has also proposed an E85 label. The EPA should work with the FTC to prevent conflicting or duplicative labeling requirements.

**Organization:** Growth Energy

**Document Number:** EPA-HQ-OAR-2010-0448-0083, p. 4

**Comment:** Commenter supports the use of labels for gasoline-ethanol blends that contain more than 10% ethanol such that labels would be required for only those fuels that are not approved for use in all vehicles and engines. Commenter provides an illustration of their suggested label for E30 and E85 fuels, which is generally consistent with their proposed label for E15.

Commenter asserts that consistent labeling of fuels available at retail gas stations will best provide consumers with information necessary to make the appropriate decision and supports EPA's efforts to work with the FTC to ensure consistency between all labeling requirements.

**Organizations:** Alliance of Automobile Manufacturers (Alliance); Association of International Automobile Manufacturers (AIAM); Outdoor Power Equipment Institute (OPEI)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0072, p. 12; EPA-HQ-OAR-2010-0448-0079, p. 8; EPA-HQ-OAR-2010-0448-0053, pp. 15-16

**Comment:** EPA is correct in stating that "imposing separate labeling requirements may confuse consumers and would ultimately limit the effectiveness of labeling to mitigate misfueling." Consumers will be more likely to avoid misfueling if there is a uniform ethanol warning label with a standard color code. All pumps should be required to have consistent and coordinated federal labels, regardless of what blends may or may not be offered at each station.

**Organization:** American Lung Association (ALA)

**Document Number:** EPA-HQ-OAR-2010-0448-0097, p. 3

**Comment:** For E85 and blender pumps, EPA should use much clearer and stronger language (either "WARNING" or "STOP" in at least 24-point font). EPA should use the depiction of the "stop sign" as well with the word "STOP." These signs should include the specific vehicles (i.e. Flex-Fueled Vehicles) for which the fuel is approved. The signs should also clearly state which vehicles and engines for which the fuel is unsuited, including graphic images and icons consistent with the graphic images or icons proposed for E15; for example, the sign should include images of the type of vehicle or engine with a slash or X across it.

**Organization:** Boat Owners Association of the U.S.

**Document Number:** EPA-HQ-OAR-2010-0448-0078, p. 3

**Comment:** All gasoline fuel pumps should be clearly labeled identifying the product coming out of the pump. If EPA only requires fuel labeling for E15 pumps, boaters may be led to believe that the absence of a label means that the fuel is fine to use for their boat, when it may be that the

label has not yet been applied. It would be easier to promote active consumers (i.e., to educate all users of gasoline that they should start reading pump labels for all uses).

**Organization:** New York State Department of Environmental Conservation (NY DEC)

**Document Number:** EPA-HQ-OAR-2010-0448-0069, p. A1

**Comment:** EPA should implement requirements for a family of labels for gasoline, E15 and other mid-level gasoline-ethanol blends, and E85. These labels should employ language appropriate for each fuel that meets/exceeds the FTC requirements proposed in March 2010 (75 FR 12470). This family of labels should also follow the color conventions of the FTC program: yellow for gasoline and orange for mid-level gasoline-ethanol blends (including E15) and E85.

*Response:*

Preamble section III.B.2.g addresses comments on labels for blends greater than E15. As discussed there, the FTC has proposed labels for higher gasoline-ethanol blends, and we designed the final E15 label to coordinate with FTC's current alternative fuel labels and proposed gasoline-ethanol blend labels. Since EPA and FTC have different statutory authorities enacted to serve different, although often complementary, purposes, it is appropriate for each agency to implement its own authority in consultation with the other agency so that the two agencies' labels can work together effectively. EPA and FTC have taken this approach to gasoline-ethanol blend labeling.

With respect to blender pumps, to the extent these pumps are used to dispense E15, they are required to bear the E15 label in a place that will allow the consumer to associate the label with the specific mechanism dispensing E15. For example, in the case of a blender pump with a button for each of several gasoline-ethanol blends, the E15 label should be near to or on the button for dispensing E15 so that it is clear to the consumer which button dispenses E15. In line with current industry practice, we would expect the buttons for the higher blends to have a label associated with them that makes clear that the higher blends are for flex-fuel vehicles only. EPA has previously advised that retail stations selling mid- and high-level blends may reduce the risk of a violation by clearly marking the pumps dispensing those blends as for FFVs only.

### **1.1.8 Coordination with Federal Trade Commission (FTC)**

*What Commenters Said:*

**Organizations:** Outdoor Power Equipment Institute (OPEI); IL Corn Growers Association (ICGA); National Automobile Dealers Association (NADA); Renewable Fuels Association (RFA)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0053, p. 15; EPA-HQ-OAR-2010-0448-0092, p. 2; EPA-HQ-OAR-2010-0448-0085, p. 2; EPA-HQ-OAR-2010-0448-0088, p. 3

**Comment:** Since the prior FTC label is no longer subject to notice and comment, EPA should ask the FTC to re-notice a revised proposed FTC label that is based on the final EPA label.

**Organization:** Petroleum Marketers Association of America (PMAA)

**Document Number:** EPA-HQ-OAR-2010-0448-0080, 0096, pp. 5-6

**Comment:** EPA should not require any midlevel ethanol dispenser label (including labels for E15, E85 and labels for blender pumps) without full integration with both current and proposed FTC ethanol label requirements. A single compliant label for each blend level is essential for the success of the proposed misfueling mitigation program. Gasoline dispenser housings are already crowded with an array of labels required by federal, state, and local regulatory authorities and there is little room left on gasoline dispenser housings for duplicative product labels. Commenter provides additional discussion, noting that the informational component for ethanol content required under 16 CFR Part 306 should be integrated into each EPA dispenser label and that EPA should enter into an Memorandum of Understanding with the FTC that establishes a single label and a reciprocal compliance agreement.

**Organization:** Engine Manufacturers Association (EMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0082, p. 9

**Comment:** EPA must resolve jurisdiction and content control on a federal level with the FTC. EPA's interest in preventing misfueling transcends FTC (or state) interests with respect to creating a consistent, understandable and clear labeling program. If the FTC is in the strongest position to assert federal control of pump labeling, EPA should work with the FTC to ensure that the final fuel labeling program effectively conveys EPA's misfueling control information.

**Organization:** New York State Department of Environmental Conservation (NY DEC)

**Document Number:** EPA-HQ-OAR-2010-0448-0069, pp. A1-A2

**Comment:** EPA should continue to coordinate with the FTC on labeling requirements. The one aspect of the FTC's requirements that is not provided for on EPA's proposed E15 label is the fuel's octane rating. The greatest risk of unintentional misfueling of gasoline vehicles and engines comes from blender pumps. These pumps dispense gasoline, a variety of mid-level ethanol blends, and possibly E85. If two separate sets of labels are used (one for ethanol content, another for octane), cases where a customer prefers premium octane gasoline may result in a purchase of a mid-level blend not suitable or legal for their vehicle, simply because it had the octane sticker they were seeking. EPA should provide a consistent location on its labels for the FTC's octane rating. Ultimately, there must be one comprehensive label providing consumers with all of the information required by both the EPA and the FTC.

**Organization:** Iowa Renewable Fuels Association (IRFA)

**Document Number:** EPA-HQ-OAR-2010-0448-0059, p. 2

**Comment:** Fuel pump labeling has not been within the scope of EPA activities. The FTC has designed informative pump labels so motorists can choose the fuel that best fits their needs. Consistency is also a factor in how the FTC determines label design. The case in point is the set of labels created for blender pumps and E85 dispensers, which simply identify the ethanol blend level and a statement of explanation. Each label is the same color and same design.

**Organizations:** Alliance of Automobile Manufacturers (Alliance); American Petroleum Institute (API); Association of International Automobile Manufacturers (AIAM); National Petrochemical and Refiners Association (NPRRA); Specialty Equipment Market Association (SEMA)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0072, pp. 5-6; EPA-HQ-OAR-2010-0448-0081, pp. 3-4, 7-8, 10; EPA-HQ-OAR-2010-0448-0079, p. 8; EPA-HQ-OAR-2010-0448-0067, p. 5; EPA-HQ-OAR-2010-0448-0094, p. 3

**Comment:** The EPA labeling format and methodology should be consistent with the final FTC label to prevent customer confusion. There is great potential for conflicting EPA and FTC labeling requirements, particularly on blends between 10 and 15 vol% given that EPA granted a partial waiver. EPA, FTC, and other relevant Agencies must collaborate in producing a unified design scheme for use in all gasoline-ethanol blend pumps. Allowing multiple labels conveying similar information will only overwhelm and confuse consumers, many of whom will likely disregard all the labels as a result. The best outcome would be a single EPA-FTC label since even a single additional label on the front of dispensers will be difficult to place. This issue should be resolved prior to a final rulemaking from either agency.

**Organizations:** National Association of Convenience Stores (NACS) and Society of Independent Gasoline Marketers of America (SIGMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0055, pp. 9-10

**Comment:** The requirements for gasoline-ethanol blends containing between 10 and 70 vol% ethanol that were proposed by the FTC (75 FR 12470) should be withdrawn since it did not contemplate EPA's partial waiver for restricted use of E15 or the proposed rule. Multiple labeling regimes will confuse retailers and consumers, thereby frustrating Congressional and Agency objectives. Since the prohibition on use of certain gasoline-ethanol blends is inherently an environmental issue, it fits squarely within EPA's jurisdiction and expertise. As such, EPA should have sole jurisdiction over any labeling regime based on its own final rule.

**Organization:** National Marine Manufacturers Association (NMMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0095, p. 7

**Comment:** EPA has primacy of authority of this issue under the CAA. Commenter notes that they are willing to support EPA in ensuring cooperation from FTC to facilitate coordination on any new ethanol fuel pump labels. EPA should utilize industry support if necessary to ensure that FTC yields and coordinates with EPA.

**Organizations:** IL Corn Growers Association (ICGA); National Automobile Dealers Association (NADA); Renewable Fuels Association (RFA)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0092, p. 2; EPA-HQ-OAR-2010-0448-0085, p. 2; EPA-HQ-OAR-2010-0448-0088, p. 3

**Comment:** The FTC should not require an additional label for E15 since it would be duplicative and unnecessary. EPA should coordinate its E15 fuel labeling effort with the FTC to assure that only one label is required. Dueling E15 labels will only add more confusion for consumers and further undermine the federal government's objective of promoting renewable fuel consumption. RFA adds that the proposed FTC label is highly inflammatory and is based on absolutely no data relating to emissions, fuel system compatibility, or performance.

*Response:*

As indicated in other responses to comments and in Preamble section III.B.2, we consulted with FTC's staff experts to develop an effective E15 label that coordinates with FTC's existing alternative fuel labels and proposed gasoline-ethanol blend labels. We will continue to consult with FTC as they consider action on their proposed gasoline-ethanol blend labels.

### 1.1.9 E10 Labeled as E15

*What Commenters Said:*

**Organizations:** National Association of Convenience Stores (NACS) and Society of Independent Gasoline Marketers of America (SIGMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0055, p. 9

**Comment:** To facilitate the introduction of E15, EPA should ensure that equipment labeled as containing ethanol blends greater than E10 be permitted to dispense lower ethanol blends without violating the final rule. This would assure retailers that in the event of ethanol supply disruptions, they would not need to discontinue using (or remove the labels from) certain equipment designed to dispense or store higher ethanol fuels. This policy would make retailers more willing to begin storing and selling E15.

*Response:*

Fuel dispensers that are labeled as dispensing E15 but dispense a gasoline-ethanol blend that contains 10 vol% or less ethanol content will not be in violation of the regulations being promulgated by today's final rule.

## 1.2 Product Transfer Document (PTD) Requirements

### 1.2.1 General Support for Proposed PTD Requirements

*What Commenters Said:*

**Organizations:** Outdoor Power Equipment Institute (OPEI); Petroleum Marketers and Convenience Stores of Iowa (PMCI)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0053, p. 21; EPA-HQ-OAR-2010-0448-0070, p. 2

**Comment:** Commenters generally support EPA's proposed standardized PTDs downstream from the point of blending and/or up to and including the point of blending. The use of PTDs and the proposed language will help reduce the rate of misfueling and will help make retailers aware of any violations that result through the inappropriate comingling of blendstocks. PMCI notes that a failure to indicate the type of product being transferred and its suitability for blending at this point in the fuel distribution chain increases the likelihood of a misblending error as the product moves down the chain of sale.

**Organization:** Engine Manufacturers Association (EMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0082, p. 8

**Comment:** EMA strongly supports the NPRM's proposed PTD requirements. The use of an enhanced document system rather than an onerous additional product documentation system strikes the appropriate balance between accurate information and acceptable cost.

**Organization:** Petroleum Marketers Association of America (PMAA)

**Document Number:** EPA-HQ-OAR-2010-0448-0080.1, pp. 6-7

**Comment:** Commenter has no objection to the proposed general PTD requirements in the NPRM since the proposed requirements (with the exception of the additional PTD language) are already followed by downstream petroleum marketers.

*Response:*

EPA acknowledges these commenters' support for the proposed PTD requirements, and today's PTD requirements are discussed in Preamble section III.C.

## **1.2.2 PTD Requirements Downstream of the Point of Ethanol Addition**

### **1.2.2.1 Standardization of PTD Language**

*What Commenters Said:*

**Organization:** Growth Energy

**Document Number:** EPA-HQ-OAR-2010-0448-0083, p. 5

**Comment:** EPA's proposed PTD language regarding both the ethanol content and RVP for all gasoline/ethanol blends should be simplified and standardized. The PTD language should read as follows: "Contains at least ## volume percent ethanol and up to ## volume percent ethanol. RVP does not exceed ## psi." This proposed language provides all parties in the fuel supply chain with necessary information regarding both ethanol content and RVP of the proposed fuel. Commenter asserts that their proposed language is the only modification to PTDs necessary to ensure proper use of E15 and other approved fuels.

*Response:*

EPA agrees that standardizing the language for gasoline-ethanol blends will make it simpler and easier to understand, and is finalizing changes to the required PTD language for gasoline-ethanol blends to reflect this. However, we are finalizing the language for E0 to read as proposed, "E0: Contains no ethanol," since the standardized language suggested by commenters contains more information than necessary for gasoline containing no ethanol. At the same time, EPA does not believe that this standardized language is sufficient in and of itself to ensure proper use of E15 or other approved fuels as the commenter suggests. EPA believes that additional language is necessary to provide clarity concerning gasoline-ethanol blends designed to take advantage of the 1 psi RVP waiver. The language for this purpose is further discussed in Preamble section III.C.1.

### **1.2.2.2 RVP**

*What Commenters Said:*

**Organization:** American Petroleum Institute (API)

**Document Number:** EPA-HQ-OAR-2010-0448-0081, p. 10

**Comment:** The requirement to include the RVP of a blendstock for oxygenate blending (BOB) on the PTD is not useful and may be misleading. This requirement was not included in the RFG regulations and there has been no need for it. The magnitude of the RVP "bump" for a given ethanol concentration varies among BOBs and producers adjust the RVP of their BOB such that

the RVP of the blend will comply with RVP/VOC regulations when blended with the specified level of ethanol. Such an approach has worked for almost 25 years, and there is no reason to complicate this approach. PTD requirements for BOBs should not be required to contain anything more than the type and level of oxygenate with which they should be blended. Requirements should be flexible (e.g., some may choose to include a statement on PTDs while others may choose to include the information in product descriptions). Regulated parties are already prohibited from releasing a finished E10 (or E15) product into the marketplace that exceeds the regional and/or seasonal RVP requirements in place. If a regulated party indicates on a PTD that a BOB is suitable for blending with E10, it means it will meet all the finished product requirements including RVP. Additional language placed on PTDs should be optional at the discretion of the regulated party.

**Organization:** National Petrochemical and Refiners Association (NPRA)

**Document Number:** EPA-HQ-OAR-2010-0448-0067, p. 13

**Comment:** EPA proposes that "the RVP does not exceed [fill in the appropriate value]" must be included on PTDs downstream of the point of ethanol addition (75 FR 68053). EPA should not implement this proposed requirement, which is unnecessary. The petroleum industry has a long record of distributing summer gasoline (and will be able to continue distributing summer E0, E10 and E15) with the correct RVP to an area without this regulation and E15 does not materially change this situation.

**Organization:** Petroleum Marketers Association of America (PMAA)

**Document Number:** EPA-HQ-OAR-2010-0448-0080, 0096, p. 7

**Comment:** Regarding PTD requirements downstream of the point of ethanol addition, the reported RVP for E10 and E15 should be based on the intended RVP that the manufacturer of the blendstock for oxygenate blending designed for as identified on the PTD for the blendstock. RVP testing after the point of blending would not be required in order to provide accurate RVP information on the PTD headed downstream. Commenter supports EPA's proposed notification for ethanol content and maximum RVP for PTDs below the point of blending and believes that the proposed PTD requirements will eliminate the need for additional fuel testing for downstream petroleum marketers. EPA should incorporate additional language on the E10 PTDs to help avoid inadvertent comingling with E15. There is a possibility that E10 product which benefits from the 1 psi RVP waiver may become commingled inadvertently downstream with straight gasoline or E15 blends and thus become non-compliant. To help avoid this, it would be helpful to downstream parties as well as to drivers delivering fuel if EPA required the following language on E10 PTDs: "This blend subject to 1psi RVP waiver. Do not Blend with gasoline containing less than 9% vol ethanol or E-15."

**Organizations:** National Association of Convenience Stores (NACS) and Society of Independent Gasoline Marketers of America (SIGMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0055, pp. 12-13

**Comment:** To prevent downstream violations of the RVP standards, the following language in bold font should be added to the PTD for a blendstock or base gasoline (BOB) designated to take advantage of the 1psi allowance for E10: "The use of this gasoline to manufacture a gasoline-ethanol blend with less than 9 vol% ethanol or E15 may cause an RVP violation." E15 is likely to have a Reid Vapor Pressure (RVP) of greater than 9.0 pounds per square inch (psi) during non-summer months, resulting in an increase in evaporative emissions beyond what auto manufacturers have been required to control. Further complicating matters is the fact that CAA

Section 211(h)(4) limits the 1.0 psi waiver to gasoline-ethanol blends that contain E10. The regulation implementing that provision, 40 CFR 80.27(d), plainly states that the only ethanol blends qualifying for the waiver are those between E9 and E10 (inclusive). Accordingly, it is difficult to conceive of an interpretation of Section 211(h) that deems any gasoline blend above E10 eligible for the RVP waiver in section 211(h)(4). Consequently, the final rule must ensure that PTDs make it clear that anything above E10 does not receive the 1 pound psi waiver (which is not currently the case in the rule as proposed). Commenters request that the PTDs contain the following language in bold font on all fuel where the waiver would not apply: "Adding ethanol to this product will result in a blend higher than E10 and not qualify for the one pound waiver."

*Response:*

Preamble section III.C.1 addresses these comments. As discussed there, EPA agrees that adding to PTDs language concerning gasoline-ethanol blends designed to take advantage of the 1 psi RVP waiver would be useful and appropriate, because it would help prevent inadvertent downstream RVP standard violations that might otherwise become more likely with the entry of E15 into the market. We are therefore adding a provision for that language in the final rule.

### **1.2.3 PTD Requirements Up To and Including the Point of Ethanol Addition**

#### **1.2.3.1 General**

*What Commenters Said:*

**Organization:** Petroleum Marketers Association of America (PMAA)

**Document Number:** EPA-HQ-OAR-2010-0448-0080, 0096, p. 7

**Comment:** PMAA has no objections to the requirements for PTDs generated up to and including the point of blending as proposed and believes that it is important to ethanol blenders. PMAA supports the EPA proposal in the NPRM to require upstream PTDs to include the maximum potential RVP for gasoline blendstock used for oxygenate blending (BOB) along with the maximum ethanol content that may be added to the BOB.

*Response:*

EPA agrees that the maximum potential RVP and suitable ethanol content should be included on the PTD for BOBs to facilitate ethanol blender compliance with the applicable EPA summertime RVP requirements in light of the increasing complexity that will come with the introduction of E15 into the market.

#### **1.2.3.2 Applicability of PTD Requirements to Ethanol Producers**

*What Commenters Said:*

**Organization:** Renewable Fuels Association (RFA)

**Document Number:** EPA-HQ-OAR-2010-0448-0088, pp. 3-4

**Comment:** With respect to PTD requirements, EPA identifies upstream parties as ethanol blenders, fuel manufacturers, and fuel additive manufacturers (ethanol producers). But ethanol producers will not produce the E15 blends, only supply the denatured fuel grade ethanol blending component. The bulk sale of fuel grade ethanol by ethanol producers could be used in blends of 5%, 10%, or 85% ethanol with gasoline; the ultimate use of ethanol is unknown at the time of sale from the ethanol producer. Commercial transactions of ethanol producers are at a minimum one transaction once removed from retail fuel transactions and as such, it is unclear how ethanol producers would require information on a PTD.

**Organization:** American Coalition for Ethanol (ACE)

**Document Number:** EPA-HQ-OAR-2010-0448-0087, p. 7

**Comment:** Commenter supports the PTD requirements as they apply to the actual blender of fuels. Ethanol plants create one form of ethanol, and cannot predict what blend their fuel will be used to create, yet refiners are likely to use different base fuels that will only be suitable for blending at certain levels.

*Response:*

In the proposed and final regulations in 40 CFR 80.1503, PTDs are required for transfers of blendstocks for oxygenate blending (BOBs) and base gasoline upstream of an ethanol blending facility. If an ethanol producer is not transferring custody or title to any of the products listed in the previous sentence, then the ethanol producer would not be subject to the requirements in §80.1503(a). EPA did not intend to imply that the requirements in §80.1503(a) would extend to any parties other than those transferring custody of conventional blendstock for oxygenate blending or base gasoline.

### 1.2.3.3 PTD Language

*What Commenters Said:*

**Organization:** Alliance of Automobile Manufacturers (Alliance)

**Document Number:** EPA-HQ-OAR-2010-0448-0072, p. 14

**Comment:** EPA should modify the wording on the PTDs to ensure that the blendstock for oxygenate blending (BOB) is not improperly used for E11-E14 blends. Commenter generally supports EPA's proposals for upstream and downstream PTDs and agrees with the need to keep separate documents for fuels subject to the 1.0 psi RVP waiver. However, the PTD should refer to E9 or E10 rather than the generic term "ethanol blends." For E15, the PTD should refer to the finished blend quality and the law (e.g., "Designed for the special RVP allowance for E10 only. Federal law prohibits use in making finished gasoline blends containing less than 9 vol% ethanol or more than 10 vol% ethanol.").

*Response:*

EPA agrees that additional language on PTDs upstream of the point of ethanol blending is necessary to ensure that BOBs designed to take advantage of the 1 psi RVP waiver are not blended with ethanol to the E11-E15 level. However, EPA believes that the term "ethanol blends" is well understood by all parties in industry. Therefore, EPA is not making the commenter's suggested changes to the language on the upstream PTDs.

*What Commenters Said:*

**Organization:** American Petroleum Institute (API)

**Document Number:** EPA-HQ-OAR-2010-0448-0081, pp. 10-11

**Comment:** Given the sufficiency of the information in proposed §80.1503(a)(1)(vi)(A) and the unnecessary restrictions the additional proposed language of this requirement would impose on the fuel distribution system (i.e., §80.1503(a)(1)(vi)(B) and (C)), the additional proposed language should be removed from the final rule.

*Response:*

Preamble section III.C.2 addresses this comments.

### **1.2.3.4 Octane**

*What Commenters Said:*

**Organization:** Renewable Fuels Association (RFA)

**Document Number:** EPA-HQ-OAR-2010-0448-0088, p. 4

**Comments:** None of the proposed PTD wording addresses octane specifically. Commenter requests further information on the intention to identify blendstocks suitable for blending with ethanol up to 15 vol% ethanol with wording on PTDs. They presume the wording "suitable for blending with ethanol at a concentration up to 15% ethanol" is meant to cover "any ethanol" blendstock for oxygenated blending (BOB), indicating the vapor pressure is low enough to accommodate 15% ethanol and is independent of any octane statements.

**Organization:** American Coalition for Ethanol (ACE)

**Document Number:** EPA-HQ-OAR-2010-0448-0087, p. 7

**Comments:** Information on the octane rating of the blendstock should be included on the PTD since it is critical to proper blending at terminals.

*Our response:*

EPA does not regulate octane in fuels, and thus does not believe that it would be appropriate for the Agency to require, as the commenters suggest, the inclusion of the octane rating of the blendstock the PTD. Parties in the distribution chain are free to add information to PTDs as they deem useful and appropriate.

### **1.2.4 General PTD Requirements**

#### **1.2.4.1 General**

*What Commenters Said:*

**Organization:** American Coalition for Ethanol (ACE)

**Document Number:** EPA-HQ-OAR-2010-0448-0087, p. 7

**Comment:** Commenter states that in order to assure the retailer that it is receiving the fuel that the station advertises for sale (and to allow quick responses to inquiries by customers or regulators), a copy of the PTD should also be provided at the station level to document the actual fuel being sold.

*Response:*

EPA is finalizing the proposed general PTD requirements, including the requirement that the PTD be used by (and provided to) all parties in the distribution chain, down to where the actual fuel is being sold, dispensed or otherwise made available to the consumer. This is discussed in Preamble section III.C.3.

#### **1.2.4.2 Abbreviations**

*What Commenters Said:*

**Organization:** Petroleum Marketers Association of America (PMAA)

**Document Number:** EPA-HQ-OAR-2010-0448-0080, 0096, p. 7

**Comment:** EPA should allow for the use of abbreviations since available space for additional information on these documents is extremely limited. Abbreviations should be used wherever possible, for example "%" in place of "percent" and "vol" in place of volume, provided that such abbreviations would not sacrifice clarity of the notification. This would allow more space for the required wording without reducing appropriate notification to the reader.

*Response:*

EPA generally agrees that abbreviations can appropriately be used and has largely adopted this suggestion, as discussed in Preamble section III.C.3.

#### **1.2.4.3 Placement of Required Language**

*What Commenters Said:*

**Organization:** Petroleum Marketers Association of America (PMAA)

**Document Number:** EPA-HQ-OAR-2010-0448-0080, 0096, p. 7

**Comment:** EPA should allow for the placement of text on the back of PTDs since available space for additional information on these documents is extremely limited. EPA should also allow the PTD information to be printed on the back of the document so long as reference is made on the front directing the reader to pertinent information on the back. This would allow more space for the required wording without reducing appropriate notification to the reader.

*Response:*

EPA generally agrees that the back of PTDs can be used and has largely adopted this suggestion, as discussed in Preamble section III.C.3.

#### **1.2.4.4 Product Codes**

*What Commenters Said:*

**Organization:** Petroleum Marketers and Convenience Stores of Iowa (PMCI)

**Document Number:** EPA-HQ-OAR-2010-0448-0070, p. 2

**Comment:** If product codes are allowed to be used on PTDs in place of the language required in its proposal, EPA should require that a key for the product codes be included on the PTD which clearly indicates the suitability of the fuel subject to the transfer for blending with ethanol. Commenter recognizes that certain parties may view the additional product transfer document language required under this proposal as a burden, which may encourage many regulated parties to use product codes on their PTDs. The proposed rule states that product codes could be used to convey the required information so long as the codes are clearly understood by each transferee. Product codes are often used in the current fuel distribution chain and in certain instances have created confusion among transferee's of fuel.

*Response:*

EPA understands the importance of PTDs conveying information in a manner that will be understood by each transferee, and the final rule generally requires that product code keys be included on downstream PTDs. Preamble section III.C.3 further addresses this comment.

### **1.3 Ongoing Implementation Survey**

#### **1.3.1 Nationwide Survey Program Requirement**

*What Commenters Said:*

**Organizations:** National Association of Convenience Stores (NACS) and Society of Independent Gasoline Marketers of America (SIGMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0055, pp. 13-14

**Comment:** The individual survey option EPA proposes will not be able to provide the Agency with accurate information to the degree that a nationwide survey would. Even though EPA would prefer to limit surveys to only those areas that have E15 being introduced into commerce, entities will not know where E15 is being introduced. EPA would need to coordinate with state weights and measures offices to determine how those entities might assist the Agency in conducting the survey. The survey cannot be geographically limited because the outlets that will be using E15 are currently unknown. As such, EPA should eliminate Survey Option 1 and only permit Survey Option 2 when it promulgates a final rule. A method similar to the proposed nationwide program has worked well in the ULSD and RFG programs, and there is no reason to deviate from that for the E15 program.

**Organization:** Petroleum Marketers Association of America (PMAA)

**Document Number:** EPA-HQ-OAR-2010-0448-0080, 0096, p. 8

**Comment:** Commenter generally supports the proposed ethanol content survey that would test retail fuel samples for compliance with maximum ethanol content of gasoline blends. The ethanol survey is based on the RFG and ULSD sampling and testing survey with which retailers are already familiar. EPA should implement Option 2 which establishes a national survey based

on the current RFG and ULSD models, since this is the most efficient and cost effective way to manage the thousands of sites that the survey sample requires in any given year.

**Organization:** American Lung Association (ALA)

**Document Number:** EPA-HQ-OAR-2010-0448-0097, p. 4

**Comment:** Commenter supports EPA's proposed Option 2 and encourages EPA to maximize the number of samples obtained and expedite the analysis of those samples.

*Response:*

Preamble section III.D.1.b addresses these comments.

*What Commenters Said:*

**Organization:** Engine Manufacturers Association (EMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0082, p. 8

**Comment:** EPA should implement a robust fuel ethanol content survey and violation reporting process. The ULSD survey provided valuable insight into both the pump label and fuel composition aspects of the transition from low-sulfur to ultra-low sulfur diesel. However, the ULSD survey program lacked an obvious enforcement element. The E15 survey must be accompanied by an enforcement component in order to ensure that the consequences for violating the misfueling regulation are communicated to all involved parties.

*Response:*

The comment is not clear on how the ULSD survey requirement lacked an obvious enforcement element, nor is it clear about what such a requirement should be. EPA agrees that the survey should have an enforcement component, and today's action requires a time-tested, rigorous survey program as part of a regulatory structure that allows EPA to both identify and enforce violations. In the rule, EPA outlines a comprehensive list of prohibited acts (*see* §80.1504) and the corresponding list of penalties for violating today's regulations (*see* §80.1506). Similar to other fuels programs, EPA will closely monitor survey results and take appropriate enforcement action when violations are identified.

*What Commenters Said:*

**Organization:** Growth Energy

**Document Number:** EPA-HQ-OAR-2010-0448-0083, p. 5

**Comment:** EPA should retain both survey options and to the extent that a national survey program is established, EPA should include a provision that obligated parties that elect not to share in the costs of the national survey shall not be entitled to use of that data and must conduct individual surveys under Option 1. Commenter generally supports the survey components and structure as proposed by EPA, but asserts that the survey should not include any requirements regarding fuel RVP.

*Response:*

The final rule maintains both survey options. Preamble section III.D addresses comments about providing two survey options and provides more information. Regarding the RVP survey comment, please see below.

### 1.3.2 RVP Survey

*What Commenters Said:*

**Organization:** American Petroleum Institute (API)

**Document Number:** EPA-HQ-OAR-2010-0448-0081, p. 17

**Comment:** A national RVP survey to ensure summer RVP standards are met is unnecessary. Companies should be able to rely on PTD requirements and recordkeeping requirements to show they transferred a compliant fuel. There would be no benefit from such a program. Enforcement-by-survey should be a voluntary election by regulated parties in exchange for enforcement flexibility. No such flexibility has been proposed by EPA in this NPRM.

**Organization:** National Petrochemical and Refiners Association (NPRA)

**Document Number:** EPA-HQ-OAR-2010-0448-0067, p. 8

**Comment:** Commenter opposes the inclusion of a national RVP survey because industry would be forced to inappropriately fund enforcement.

**Organizations:** Alliance of Automobile Manufacturers (Alliance); Outdoor Power Equipment Institute (OPEI)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0072, p. 16; EPA-HQ-OAR-2010-0448-0053, p. 21

**Comment:** Requiring RVP testing (including for E10) as part of the national surveys will provide an additional quality and compliance check on the sampled blends. Testing RVP as part of the survey program would be a low-cost approach to best ensure downstream RVP compliance and mitigate the increased emissions and damages to engines from higher RVP fuels.

**Organizations:** National Association of Convenience Stores (NACS) and Society of Independent Gasoline Marketers of America (SIGMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0055, p. 14

**Comment:** The proposal notes that "adding testing for RVP to [the national] survey would be a low-cost approach to enforcing downstream RVP standards and help provide an affirmative defense for upstream parties in the event of a violation downstream." RVP requirements are currently enforced at the state level and it is not an area EPA should involve itself in policing, as dual regulatory programs would only serve to complicate retailers' compliance efforts and discourage the widespread introduction of E15.

**Organization:** New York State Department of Environmental Conservation (NY DEC)

**Document Number:** EPA-HQ-OAR-2010-0448-0069, pp. A2-A3

**Comment:** All samples should be analyzed for RVP. The added expense to measure RVP, and thus monitor another potential source of E15 excess emissions, is modest.

**Organization:** American Petroleum Institute (API)

**Document Number:** EPA-HQ-OAR-2010-0448-0081, p. 12

**Comment:** To the extent that RVP is tested as part of the survey, this should be limited to E15, which is the focus of the entire proposal. It is inappropriate for EPA to expand this to require RVP testing of E10 or E0.

*Response:*

Preamble section III.D.1 addresses comments concerning, and provides more information about testing fuel samples for RVP as part of the ongoing implementation survey program. In the final rule, EPA is requiring RVP testing of E15 since the E15 partial waivers require that E15 fuel not exceed 9 psi RVP in the summertime in order to avoid emission increases that might otherwise result. EPA is not requiring RVP testing of E0 and E10.

### 1.3.3 Independent Survey Associations

*What Commenters Said:*

**Organization:** Environmental Working Group

**Document Number:** EPA-HQ-OAR-2010-0448-0071.1, p. 5

**Comment:** Allowing regulated parties to form their own consortium and hire their own independent survey association could undermine the independent nature of the survey. Given the potential financial and human costs of consistent mislabeling, direct testing should be completed on-site by EPA or state government regulators. If a regulated party is found to be out of compliance, the entity should be fined accordingly.

**Organization:** American Coalition for Ethanol (ACE)

**Document Number:** EPA-HQ-OAR-2010-0448-0087, p. 7

**Comment:** Including the survey as part of the annual (or more frequent) inspections performed by State Weights and Measures officials would be a more proper and impartial approach. Commenter adds that if a special survey is required, it should be completed by the actual physical supplier of product to the location, as others in the supply chain have no knowledge of what fuels were used until the supplier loads them for delivery to the location.

*Response:*

Requiring implementation surveys conducted by independent survey associations has a proven track-record of success for over 15 years in the RFG and ULSD programs. The surveys conducted for the RFG and ULSD programs have increased incentives for and helped responsible parties demonstrate compliance with program requirements, and few if any questions have been raised about the reliability of the information obtained. To help ensure survey integrity, EPA proposed and is finalizing provisions that allow EPA to monitor sampling and testing of fuel samples to determine whether survey program requirements are being met and that surveyors remain independent (*see* § 80.1502(b)(3)(ix)). Additionally, EPA will ensure that surveyors and laboratories used to conduct the testing of fuel samples are independent through the survey plan approval process. EPA is also finalizing provisions that would allow EPA to revoke approved survey plans if appropriate in light of implementation problems (*see* § 80.1502(e)(2) and Preamble section III.D.1 for more discussion). EPA will fine a regulated party found to

be out of compliance with § 80.1506 according to the nature of the violation. Commenters provided no evidence that current independent survey requirements have proven inadequate. Therefore, based on our successful implementation of similar survey programs over the past 15 years, we are requiring that independent surveyors conduct surveys as proposed.

### 1.3.4 Responsible Parties for the Survey

*What Commenters Said:*

**Organization:** National Petrochemical and Refiners Association (NPRA)

**Document Number:** EPA-HQ-OAR-2010-0448-0067, pp. 5-8

**Comment:** Under the proposed regulatory text (40 CFR 80.1502), any gasoline refiner, gasoline importer, ethanol blender, ethanol producer or ethanol importer is given two options to comply with new survey requirements. Either the "responsible party" conducts four quarterly surveys concerning whether other parties are meeting EPA requirements each year – or the party joins in the funding of a consortium designed to conduct a survey program. EPA cites the ULSD and the RFG programs as the precedent for this requirement. However, those programs differ from the proposed program and as such, do not support the creation of EPA's proposed survey requirement. With respect to the ULSD program, the survey program was an option that could be used as an affirmative defense if a violation of the standard was found (whereas the survey under the proposed program would be a requirement). For RFG, the fuel content and other requirements of the program apply automatically under the CAA on the basis of the area in which the fuel is sold (i.e., "covered areas" as defined in Section 211(k)(10)(D), with other areas able to opt-in). By contrast, a waiver of fuel requirements under CAA section 211(f)(4) merely allows for the introduction into commerce of such fuel (i.e., unlike the RFG program, fuel distributors and retail outlets are not required to sell fuel which has a specified content merely on the basis that a waiver has been granted). The proposed survey program requirements are neither an affirmative defense as structured under the ULSD program nor do they stem from mandatory gasoline content requirements mandated by Congress, as in the RFG program. Today, there are industry-funded national retail surveys for RFG and highway diesel conducted by an independent survey group. These were approved by EPA to meet industry requests for regulatory flexibility and were not created to require industry to fund enforcement. The practice of an industry-funded retail survey is not a precedent for an industry mandate to fund enforcement. Commenter provides additional background discussion on the retail surveys and notes that in all cases, this industry-funded random retail sampling and testing program was an appropriate response to industry's request for regulatory flexibility and that industry was never forced to participate in any of these national retail surveys; it was always an option.

**Organization:** Chevron

**Document Number:** EPA-HQ-OAR-2010-0448-0073, p. 2

**Comment:** EPA proposes to institute a self-enforcement scheme patterned after the RFG and ULSD surveys. The Agency should recall that industry accepted those surveys and their large role in enforcement in order to gain flexibility in enforcement. Now, in contrast with the cooperative relationship that has developed in the application of enforcement-by-survey, EPA proposes to require multiple parties, including those that do not authorize E15 to be offered under their trademarks, many without control over the disposition of their refinery-produced product, and those who may have no intention of marketing E15, to participate and pay for

expensive surveys without offering any flexibility in return. Such a heavy-handed and misguided proposal is not likely to garner the cooperation of regulated parties, cooperation that will be essential to ensuring that a survey approach to enforcement is effective. This overly-broad survey approach, along with the cost and complexity of such a survey, may deter any attempt at marketing E15 for the foreseeable future.

**Organization:** American Petroleum Institute (API)

**Document Number:** EPA-HQ-OAR-2010-0448-0081, pp. 11-12, 15

**Comment:** The objective of the survey is to verify that dispensers have been properly labeled for the product being dispensed. Ultimately, those are the responsibilities of the retail site owner and operator, not the fuel manufacturer. Given the fuel manufacturer's lack of direct control over those activities, it is inappropriate to require fuel manufacturers to fund and participate in the periodic surveys. This is a more traditional enforcement function of the regulatory agency itself. In the event that EPA decides not to assume responsibility for retail fuel dispenser labeling and the fuel ethanol content survey, this responsibility should fall solely on the ethanol blenders and marketers that choose to blend and market E15. It is inappropriate to include refiners, importers, ethanol producers and ethanol importers as obligated parties since these activities do not automatically put a company into the decision making role of whether to blend or market E15.

**Organization:** Marathon Petroleum Company

**Document Number:** EPA-HQ-OAR-2010-0448-0056, p. 2

**Comment:** Since the purpose of the survey is to monitor the compliance with the rule, EPA should take on the financial burden and administrative workload to manage the survey.

**Organization:** Renewable Fuels Association (RFA)

**Document Number:** EPA-HQ-OAR-2010-0448-0088, p. 4

**Comment:** Because ethanol producers' commercial transactions take place independently of retail fuel blending and commercial sale, it is difficult to understand or comment on the elements of a fuel pump labeling survey. Further, ethanol producers have no input or authority to conduct a labeling survey, or the regulatory background on retail labeling requirements.

*Response:*

Preamble section III.D.1.a addresses the comments about whether an industry-funded ongoing implementation survey program requirement should be imposed on gasoline producers/importers, ethanol producers/importers, and ethanol blenders. There we clarify that only gasoline and ethanol producers/importers and ethanol blenders that choose to make, or participate in making, E15 will be subject to the survey requirement.

### **1.3.5 Statutory Authority to Require Survey**

*What Commenters Said:*

**Organization:** National Petrochemical and Refiners Association (NPRA)

**Document Number:** EPA-HQ-OAR-2010-0448-0067, pp. 6-8

**Comment:** EPA is proposing to promulgate misfueling regulations under the authority provided in CAA section 211(c). This authority allows the Administrator to "control or prohibit the manufacture, introduction into commerce, offering for sale or sale of any fuel or fuel additive."

In the case of E15, however, it is the EPA's grant of a partial waiver under the authority of CAA section 211(f)(4) that provides legal authority to introduce E15 into commerce in certain vehicles identified within the partial grant of a waiver promulgated by the Administrator. While the Administrator is seeking to condition the grant of the CAA section 211(f)(4) waiver on the successful completion of this proposed rule, EPA cannot further bootstrap authority found within CAA section 211(c) to layer additional requirements onto the waiver determination in CAA section 211(f)(4). In effect, CAA section 211(f)(4) does not support the survey requirements proposed in this rule and CAA section 211(c) does not provide authority for EPA to add additional conditions onto waivers granted under CAA section 211(f)(4). The survey requirements that are proposed effectively put fuel suppliers in the position of enforcement officials. They are to impose survey requirements on a representative sample of possible customers for the explicit purpose of uncovering violations. Apart from the disruption to normal business relationships that might occur from this requirement, EPA cannot utilize authority meant to prohibit or control the sale of fuel as authority to effectively "conscript" private sector enforcement personnel. EPA has the authority to impose rational and reasonable reporting and enforcement provisions, but CAA section 211(c) cannot be stretched so far as to make this authority unrecognizable.

*Response:*

It is not correct that the partial waivers are somehow “conditioned” on the “successful completion” of the proposed misfueling mitigation measures rule. As explained in Preamble section IV.G, EPA’s E15 partial waiver decisions, under CAA section 211(f)(4), and the misfueling mitigation measures rulemaking, under CAA section 211(c), are separate but related EPA actions. Fuel manufacturers introducing E15 into commerce under the E15 partial waivers must still meet the waivers’ conditions. While the misfueling mitigation measures established by today’s rule should facilitate meeting some of those conditions, they do supplant or replace the obligation of E15 fuel manufacturers to develop and implement misfueling mitigation plans approved by EPA. The purpose of today’s misfueling mitigation rule is to further reduce the potential for misfueling and the emission increases that misfueling would cause. It is also incorrect that EPA is relying on CAA section 211(f)(4) authority to establish the misfueling mitigation measures in today’s rule, and on CAA section 211(c) authority for the partial waiver decisions. As we explain in the Preamble to today’s rule, EPA is exercising its authority under section 211(c) to establish misfueling mitigation and other requirements in order to prevent emission increases that might otherwise result.

### **1.3.6 Survey Protocols**

*What Commenters Said:*

**Organization:** Alliance of Automobile Manufacturers (Alliance)

**Document Number:** EPA-HQ-OAR-2010-0448-0072, p. 15

**Comment:** Commenter notes that they have experience with conducting surveys, and that a critical concern is the integrity of the sampling and testing process. For example, laboratories must be certified and must calibrate their test equipment, and samples must be properly drawn and handled. EPA should impose process requirements to ensure data integrity, whether the survey is conducted by a consortium or by individual parties.

*Response:*

EPA concurs with this comment. EPA is requiring such protocols to ensure the integrity of surveys under both survey options. EPA will approve a survey plan only if it adheres to adequate sampling, testing, and data quality methods so that the integrity and effectiveness of the survey is not compromised.

*What Commenters Said:*

**Organization:** National Petrochemical and Refiners Association (NPRA)

**Document Number:** EPA-HQ-OAR-2010-0448-0067, pp. 8-9

**Comment:** With respect to product selection, all products should be sampled at the selected retail site. To satisfy the sampling concerns listed in the NPRM and to maximize the breadth of the survey and for statistical purposes, the following sampling protocol is suggested: 1) E15/E10 site – procure 2 samples - sample E15 product (certainty) and 1 additional sample based on prioritized representative state product mix; 2) E15/E10/EXX site – procure 2 samples - sample E15 product (certainty) and 1 additional sample based on prioritized representative state product mix; 3) E15 only site – procure 2 samples of E15 products based on prioritized representative product mix; and 4) E10 only site – procure 1 sample based on prioritized representative state product mix. Also, augmented sampling should be required (at the end of the each survey/quarter) to determine if any additional sampling is necessary to achieve the annual program sample requirement.

*Response:*

EPA generally concurs with this comment and believes that the final regulations ensure that the survey will obtain representative samples of gasolines dispensed at retail stations in the surveyed area(s) (see § 80.1502(b)(4)(iv)(C)). EPA will consider specific fuel sample selection scenarios and the need for augmented sampling as part of the survey plan approval process.

*What Commenters Said:*

**Organization:** American Petroleum Institute (API)

**Document Number:** EPA-HQ-OAR-2010-0448-0081, p. 12

**Comment:** Section 80.1502(a) states that a survey must be conducted "in all areas which may be supplied with their gasoline, blendstock for oxygenate blending, ethanol, or gasoline-ethanol blend if these may be used to manufacture E15 or as E15." This is overly broad. Commenter provides additional discussion and examples to illustrate their point and concludes that effectively this provision would impose the obligation to conduct the surveys on all refiners/importers and ethanol producers/ importers. Commenter believes that this is not what EPA had intended. The best solution to the problems created by EPA's proposed language is to limit the obligation to conduct the surveys to ethanol blenders and marketers.

**Organization:** National Petrochemical and Refiners Association (NPRA)

**Document Number:** EPA-HQ-OAR-2010-0448-0067, p. 9

**Comment:** With respect to transitioning to E15, EPA should consider survey plans that comprehend the phase-in of E15 (in lieu of a nationwide survey). In general, both gasoline and ethanol refiners, importers and blenders could have difficulty in pinpointing areas of E15 distribution. To mitigate this concern and ensure adequate survey coverage for potential E15 distribution, the most practical solution is the implementation of a full state survey based on refiner, importer, and blender input. For example, if only a city within a state is expected to receive E15 distribution, the entire state would be surveyed. This approach is administratively efficient and creates sufficient buffer areas to ensure that potential E15 distribution would be covered by the survey.

*Response:*

EPA partially concurs with these comments and will only approve survey plans that appropriately define the survey area based on all areas that may reasonably be supplied by a responsible party's E15, gasoline, blendstock for oxygenate blending, ethanol, or gasoline-ethanol blend that is intended for use in or as E15. However, EPA does not agree that it would necessarily be appropriate to define survey areas based on state boundaries. It does not seem reasonable to require small businesses that choose to market E15 in very limited geographical areas to survey large areas that are not anticipated to have E15. Furthermore, in many parts of the country, state lines do not appropriately or sufficiently describe or define gasoline distribution areas. EPA will consider the appropriate survey areas through the survey plan approval process. If a responsible party's relevant fuel (i.e., E15 or gasoline, blendstock for oxygenate blending, ethanol, or gasoline-ethanol blend that is intended for use in or as E15) can be or is intended to be marketed and sold in an area that is either difficult to define or would potentially be nationwide, then such a party would have to conduct a survey with an approved survey plan under Survey Option 2.

*What Commenters Said:*

**Organization:** National Petrochemical and Refiners Association (NPRA)

**Document Number:** EPA-HQ-OAR-2010-0448-0067, pp. 9-10

**Comment:** The NPRM requires overnight delivery of the samples to the lab, but this is not possible under this program due to structural issues with the proposed sampling plan. The samplers or ICs (Independent Contractors) primarily sample later in the day (they have other full-time jobs) and in general sample multiple locations during a survey period. In addition, the shipping carrier requires advance notice for pickup (usually one day for the RFGSA programs) for the following day. Due to these issues, overnight shipping is not an option. Next day shipping is an option but will add an additional \$450,000 to \$475,000 to the cost of the program. It is recommended that EPA adopt the same shipping/delivery system for the E15 program that is currently in place for the ULSD program. The NPRM proposes samples be analyzed within 24 hours of sampling, which commenter does not believe to be possible. To determine ethanol content under 40 CFR 80.46, D5599 (OFID) and D4052 (Density) are required. In addition, there may be a requirement for RVP during the summer season (June 1- Sept. 15). D5599 will drive the sample analysis process and it takes 45 minutes to run the test. Based on the anticipated sample loads (50-75 samples per business day) for this program (and several best case scenarios in the lab – shipping issues, equipment uptime, process control issues) to receive, prep, split, insert QA/QC samples, run the test via auto samplers, review results, and rerun/confirm any

PNCs, the best case scenario would be 72 hours. Commenter asserts that the most realistic goal would be 4-5 days, but this would require additional resources/costs of approximately \$450,000. EPA should consider a more normal sampling-processing schedule (10-12 business days). There will still be some incremental costs versus the original proposed process estimated at \$50 million annually. Once samples are analyzed and confirmed the results would be released and posted to the website on a daily basis. If EPA modifies the program, the estimated costs need to be reassessed. The original annual cost of the program (\$2,050,000) provided to EPA by the RFG Survey Association was based on 7,500 annual samples, ground shipment, and 30 day turn-around for the sample analysis (PNC would be handled on an expedited basis). The RFG Survey Association would initially recommend a sample size of 9,500 samples to ensure meeting the minimum sample requirement. The estimated annual cost of this program with the ground shipping proposal and 10-12 business day turn-around for sample analysis is \$2,400,000.

**Organization:** American Petroleum Institute (API)

**Document Number:** EPA-HQ-OAR-2010-0448-0081, p. 12

**Comment:** The requirements for overnight shipment of the samples collected and testing within 24 hours are not practical and should be deleted in favor of accepted laboratory procedures.

**Organization:** Growth Energy

**Document Number:** EPA-HQ-OAR-2010-0448-0083, p. 7

**Comment:** EPA's proposal that a survey fuel sample be shipped on the same day it is collected, and that the sample be analyzed for ethanol content within 24 hours is unnecessary to ensure program integrity, is not practically feasible, and creates unnecessary additional costs. Next-day shipping and expedited laboratory analyses (4 days compared to standard lab turn-around of 10-12 days) could add as much as approximately \$1 million per year of additional cost with little impact on program compliance.

*Response:*

EPA partially concurs with these comments. EPA is finalizing a minimum sample size of 7,500 for national surveys (see Preamble section III.D.1.c for more discussion), and will consider larger sample sizes through the survey plan approval process if appropriate. EPA has extended the amount of time allowed for the shipping and analyzing of fuel samples as part of the survey program (see the Preamble section III.D.1 for more discussion).

*What Commenters Said:*

**Organization:** Environmental Working Group

**Document Number:** EPA-HQ-OAR-2010-0448-0071.1, p. 5

**Comment:** Commenter recommends that the ongoing implementation survey cover a larger percentage of service stations (a minimum of 20%) to ensure compatibility with fuel regulations.

*Response:*

EPA does not concur with this comment. EPA is finalizing the proposed minimum sample size of 7,500 samples per year for nationwide surveys conducted under Survey Option 2. The commenter did not provide any justification for why 7,500 samples would

be inadequate nor did they provide justification for why 32,000 samples are necessary. Please see Preamble section III.D.1 for more discussion.

*What Commenters Said:*

**Organization:** Growth Energy

**Document Number:** EPA-HQ-OAR-2010-0448-0083, p. 6

**Comment:** Under both survey options, the sample size required should be sufficient to provide a reasonable assessment of compliance with E15 requirements, but not so large so as to create unnecessary costs and burdens. Sampling also should be limited to geographic regions with E15 market saturation above *de minimis* levels. For example, EPA could provide that sampling in a state or region need not occur until the year after E15 has achieved at least a 5% market penetration based on data from the prior year. Commenter supports the three sampling strata of 1) densely populated areas; 2) transportation corridors; and 3) rural areas.

*Response:*

EPA does not concur with this comment. EPA is finalizing the proposed sample size methodology for nationwide surveys under Survey Option 2 and will determine minimum sample size requirements for localized surveys under Survey Option 1 through review and approval of the survey plans. Please see Preamble section III.D.1 for more discussion on why today's sample size determination methodology is most appropriate for the ongoing implementation survey program.

### 1.3.7 Portable Analyzers

*What Commenters Said:*

**Organization:** Outdoor Power Equipment Institute (OPEI)

**Document Number:** EPA-HQ-OAR-2010-0448-0053, p. 22

**Comment:** The compliance survey program should be expanded to include a review of whether misfueling is occurring and at what estimated rates, but should be used as a back-up compliance measure. The survey program should include a review of the warning labels used at gasoline retailers and testing of ethanol content and RVP at fuel pumps dispensing E10 and higher blends. Portable analyzers are available and if the analysis of the fuel sample is close to the limit, a highly accurate fuel analyzing technique should be used.

*Response:*

EPA is not requiring the visual monitoring of fuel dispensers to determine misfueling rates at this time. Please see the Preamble section III.D.1.a for more discussion. The survey program does include a review of the E15 labels used at retail stations, requires the testing of ethanol content of fuel samples, and requires the testing of RVP for fuel samples labeled as E15. EPA does not believe that portable analyzers provide results that are accurate enough to determine whether fuel samples violate RVP standards or ethanol content requirements. In other words, these samples would need to be shipped to and analyzed at an appropriate laboratory in addition to the field analysis. This would pose a significant additional cost on responsible parties. Based on experience, we believe the

survey provisions of the final rule will be effective in promoting compliance with E15 labeling and content requirements and identifying instances of noncompliance.

### 1.3.8 Scope of Survey

*What Commenters Said:*

**Organization:** Alliance of Automobile Manufacturers (Alliance)

**Document Number:** EPA-HQ-OAR-2010-0448-0072, pp. 14-15

**Comment:** EPA should broaden its view beyond E15 compliance and consider the overall ethanol blend market, which may also provoke misfueling. The survey efforts present a unique opportunity to gather important information at a nominal additional cost. Even though the waiver decision applies to E15, it also implicitly continues the existing prohibition on using higher gasoline-ethanol blends in conventional vehicles. EPA's proposed rule also imposes labels on intermediate blends and E85. Blender pumps are already in the marketplace with little to no government supervision and information about this submarket is completely lacking. As such, blender pumps and all their fuels should be included to check labeling, RVP and ethanol content.

*Response:*

EPA is not finalizing survey requirements for E85 and blender pumps, nor are we finalizing label requirements for gasoline-ethanol blends containing greater than 15 vol% ethanol. Please see Preamble section III.D.1 for more information on why EPA is not requiring these pumps to be surveyed, and Preamble section III.B.2.g for more information on why EPA is only requiring labels for E15.

*What Commenters Said:*

**Organization:** New York State Department of Environmental Conservation (NY DEC)

**Document Number:** EPA-HQ-OAR-2010-0448-0069, p. A2

**Comment:** The E15 survey should be conducted as a facet of EPA's compliance and enforcement strategy and as such, should cover a sampling of all stations, not just those advertising E15. EPA should take enforcement action when violations are found by the survey.

*Response:*

EPA concurs with this comment. The survey program will cover all retail stations in geographic areas that are surveyed, not just those that advertise selling E15. EPA will take appropriate enforcement action when violations are found by the survey.

### 1.3.9 Survey Reporting Year

*What Commenters Said:*

**Organization:** Growth Energy

**Document Number:** EPA-HQ-OAR-2010-0448-0083, p. 7

**Comment:** Survey plans should be submitted to EPA by March 31 of each year and EPA should review and approve such plans by May 31 of each year, allowing sufficient time to implement

the plan beginning in July. Commenter does not support EPA's proposal that proof of payment of a surveyor be sent to EPA by certain deadlines. If obligated parties fail to comply with EPA Survey Requirements, they will be subject to penalties under the Clean Air Act. The requirement to provide EPA proof that a surveyor has been paid by a certain time imposes an additional and unnecessary cost.

*Response:*

EPA is maintaining the calendar year for the annual implementation schedule for ongoing surveys for the reasons discussed in Preamble section III.D.1.

### **1.3.10 Small Businesses**

*What Commenters Said:*

**Organization:** Petroleum Marketers Association of America (PMAA)

**Document Number:** EPA-HQ-OAR-2010-0448-0080, 0096, p. 8

**Comment:** Any survey adopted by EPA must ensure that small business petroleum retailers are protected from arbitrary process, uneven enforcement or unjustified costs.

*Response:*

EPA concurs with this comment. EPA believes that providing two survey options will allow businesses to determine which option will be the most cost-effective method of complying with ongoing survey requirements. Please see Preamble section III.D.1 for more information regarding survey flexibility and section V.C for Regulatory Flexibility Act information addressing small business concerns.

### **1.3.11 Visual Monitoring of Pumps**

*What Commenters Said:*

**Organization:** National Marine Manufacturers Association (NMMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0095, p. 11

**Comment:** Participation in this survey could be used to meet a portion of a periodic sampling and testing requirement to have access to a regulated party's affirmative defenses. Lack of participation in such surveys would constitute condoning or facilitating misfueling. In addition, in the field, monitoring of self-serve customer fueling should be included in focus group evaluations of any proposed labeling scheme.

**Organization:** Alliance of Automobile Manufacturers (Alliance)

**Document Number:** EPA-HQ-OAR-2010-0448-0072, pp. 14-15

**Comment:** The person taking samples as part of the fuel properties surveys could stay at the pump for a short additional period to observe consumer behavior at the pump. These observations need not be made at every survey, but enough observations should be made, recorded, and analyzed to determine the rate and extent of misfueling.

*Response:*

See the response at section 1.3.7 above concerning visual pump monitoring, and Preamble section III.D.1.a for responses to comments concerning affirmative defenses.

### **1.3.12 Public Availability of Survey Plans and Results**

*What Commenters Said:*

**Organization:** Alliance of Automobile Manufacturers (Alliance)

**Document Number:** EPA-HQ-OAR-2010-0448-0072, p. 14

**Comment:** EPA should make both survey plans and results available publicly and in a timely fashion. The survey plans should be made public as soon as EPA approves them, and the data collected by the survey should be made public within 30 days of receipt or within the same quarter of sampling.

*Response:*

EPA partially concurs with this comment. Please see Preamble section III.D.1.a for more information regarding making survey plans and results publicly available.

*What Commenters Said:*

**Organization:** Environmental Working Group

**Document Number:** EPA-HQ-OAR-2010-0448-0071.1, p. 5

**Comment:** Survey results should be made available to the public via an EPA website to ensure full information disclosure.

*Response:*

EPA concurs with this comment. Please see Preamble section III.D.1.a for more information regarding making survey plans and results publicly available.

### **1.3.13 Public Input**

*What Commenters Said:*

**Organization:** Boat Owners Association of the U.S.

**Document Number:** EPA-HQ-OAR-2010-0448-0078, p. 3

**Comment:** EPA should consider integrating multiple public input opportunities on the fuel labeling survey that could help gather input from the public more efficiently and quickly (e.g., Facebook, Smartphone apps, etc.). Through these types of mechanisms, members of the public could help develop the database and the survey with respect to where labels have been installed and where they have not.

**Organization:** Outdoor Power Equipment Institute (OPEI)

**Document Number:** EPA-HQ-OAR-2010-0448-0053, p. 14

**Comment:** EPA and affected stakeholders should set up an ongoing investigation group to get early warnings from misfueling problems in the field. This early warning system could be

developed or managed through the compliance survey program and additional responsive control measures could be developed as needed.

*Response:*

Before E15 can be introduced into commerce, responsible parties must demonstrate that areas that could have E15 in the marketplace will be surveyed. The plans and results of these surveys will inform EPA about which areas have E15 in the marketplace and largely determine whether fuel dispensers are properly labeled. Consequently, establishing additional systems for gathering information, including from the general public, is not necessary at this time. However, members of the public may report potential violations through EPA's Office of Enforcement and Compliance Assurance webpage. Use of social media to both disseminate and receive information from the public will also be pivotal in any industry-led public education and outreach effort.

*What Commenters Said:*

**Organization:** Environmental Working Group

**Document Number:** EPA-HQ-OAR-2010-0448-0071.1, p. 5

**Comment:** Each entity offering E15 should register with an online database. This would ensure that EPA and state government agencies are aware of new entities that would be subject to sampling for the E15 label and ethanol content survey.

*Response:*

We do not believe it is necessary to require entities that choose to manufacture, introduce into commerce, offer for sale, or sell E15 to register with an online database. As discussed in Preamble section IV.G, EPA will be aware of ethanol producers/importers and gasoline refiners/importers that manufacture E15 or intend to manufacture ethanol, gasoline, or a blendstock intended for use in the manufacture of E15 because these parties must first register under 40 CFR 79. These parties must also submit plans demonstrating how they will satisfy the waiver conditions prior to the introduction of E15 into commerce, and demonstrate how other parties will be informed of the misfueling mitigation requirements to which those parties would become subject under this rule (e.g., labeling, PTDs). Additionally, the plans under both survey options will help identify where E15 is being sold. If a responsible party elects to conduct a localized survey under Survey Option 1, they will have to identify all areas which may be reasonably expected to be supplied with their gasoline, blendstock for oxygenate blending, ethanol, or gasoline-ethanol blend if these may be used to manufacture E15 or as E15. If a responsible party elects to conduct a nationwide survey under Survey Option 2, areas that are offering E15 will most likely be found through the nationwide survey. Therefore, the survey requirements finalized as part of today's action coupled with the waiver conditions will provide EPA an accurate picture of where and when E15 will be introduced into commerce. In light of these other requirements, EPA does not believe that creating such a reporting system is necessary or cost-effective.

## 1.4 Program Outreach

### 1.4.1 EPA Public-Private Outreach Program

*What Commenters Said:*

**Organizations:** National Association of Convenience Stores (NACS) and Society of Independent Gasoline Marketers of America (SIGMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0055, p. 12

**Comment:** Effective outreach to consumers and stakeholders is essential to the successful implementation of EPA's program. The Clean Diesel Fuel Alliance (CDFA) is a good model for such outreach. EPA should work with private industry to develop: 1) a website containing educational information for consumers (such as what fuels are suitable for use in their vehicles); 2) educational brochures and pamphlets (which retailers can choose to provide in their stores); 3) a 1-800 number staffed by knowledgeable professionals who can answer questions that consumers, retailers, or other stakeholders may have; 4) workshops and/or roundtable discussions to monitor the effectiveness of E15's introduction into commerce and consider ways to improve this transition; and 5) workshops and/or roundtable discussions to identify remaining technical, legal, and market-based obstacles to the safe, legal, and profitable introduction of E15 and to develop strategies to overcome these obstacles.

**Organization:** Outdoor Power Equipment Institute (OPEI)

**Document Number:** EPA-HQ-OAR-2010-0448-0053, pp. 13-14

**Comment:** EPA should conduct a broad and comprehensive outreach to consumers (particularly at retail gasoline stations) so that they understand the fuels-selection process and the consequences of their selection. EPA and retailers should remind consumers to read the owner's manuals for their products to determine which fuels are acceptable.

**Organization:** American Coalition for Ethanol (ACE); IL Corn Growers Association (ICGA); Renewable Fuels Association (RFA)

**Document Number:** EPA-HQ-OAR-2010-0448-0087, p. 8; EPA-HQ-OAR-2010-0448-0092, pp. 2-3; EPA-HQ-OAR-2010-0448-0088, p. 5

**Comment:** Outreach to consumers and stakeholders will be a critical component for a successful introduction of E15 into the marketplace. Commenters indicate that they are ready to partner with EPA and other stakeholders in any campaign to promote the energy, environmental and performance benefits of increasing ethanol use in today's automotive engines.

**Organization:** Environmental Working Group

**Document Number:** EPA-HQ-OAR-2010-0448-0071, p. 5

**Comment:** Commenter notes that although EPA should serve as the primary point of contact for fuel/ethanol labels (not an industry organization), an alliance similar to that formed under the ULSD program should be formed for public outreach. This alliance should also include representation from environmental groups and consumer advocacy organizations.

**Organization:** American Automobile Association (AAA)

**Document Number:** EPA-HQ-OAR-2010-0448-0068, p. 2

**Comment:** While EPA outlines that outreach should include engagement through a "variety of media," commenter remains concerned that inadequate guidance has been provided with respect to the shape and results of the proposed public outreach campaign. EPA should provide further

direction for what baseline acceptable level of engagement is appropriate and necessary to accompany the partial waiver for introduction of E15 gasoline into the market.

**Organization:** National Marine Manufacturers Association (NMMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0095, pp. 9-10

**Comment:** The proposed rule does not contain any specific public education proposal. EPA assumes that an E15 outreach campaign would be similar to the outreach efforts for ULSD - a stakeholder collaboration called the Clean Diesel Fuel Alliance (CDFA). However, the ULSD program is not analogous to the E15 fuel stream bifurcation. With respect to E15, EPA simply assumes that "all parties that may be involved in bringing higher gasoline-ethanol blends to market would participate in a coordinated industry-led consumer education and outreach effort" (75 FR 68056). However, ethanol producers and corn-industry groups will seek to aggressively market E15, and in fact many stated for the record that no label was necessary, or that only an informational label was needed. Commenter provides additional discussion on this issue and asserts that EPA and other relevant federal agencies should seek funding and additional resources from Congress to establish a program and hire staff in a way that matches the fundamental change to the nation's fuel supply that EPA is undertaking. Commenter adds that EPA cannot simply rely on the goodwill of industry stakeholders who have a direct and obvious financial incentive to sell the product to as many consumers as possible, and to promote their product.

**Organization:** Alliance of Automobile Manufacturers (Alliance)

**Document Number:** EPA-HQ-OAR-2010-0448-0072, p. 16

**Comment:** Although it is important to ensure that consumers have access to accurate, appropriate, and timely information, it is unlikely that manufacturers could participate in any outreach efforts. First, EPA's waiver decision conflicts with manufacturer recommendations for existing conventional vehicles (non-FFVs). Second, the industry cannot endorse EPA's waiver decision because it continues to believe that it was premature, with important research still pending. Finally, despite the available test data, each manufacturer will still need to decide how and when to communicate with its customers, and what it will say to them concerning specific products. These company decisions are business choices that must be made privately to comply with antitrust law.

**Organization:** American Lung Association (ALA)

**Document Number:** EPA-HQ-OAR-2010-0448-0097, p. 2

**Comment:** Commenter observes that it is unclear which entity will underwrite and participate in education and outreach and that EPA has not provided any structure or expectations for stakeholder participation. EPA should develop a comprehensive public education plan that includes a website with accurate consumer information, and use of other media, including social media to provide this information. EPA should also develop and distribute educational materials including public service advertisements to warn against misfueling and must commit resources to communicate accurate information to correct misinformation about the appropriate use of E15.

*Response:*

Section III.E of the Preamble addresses comments about facilitating a public-private partnership and EPA's role in public outreach. As we state there, the ULSD outreach program provides a successful example of a public education and outreach campaign led

by industry with EPA participation. The ULSD program demonstrates that industry is best situated to coordinate with the parties involved in the production, transport, and marketing of fuels to provide effective consumer education. Businesses interact with consumers every day and in various ways (e.g., advertising, web sites, and pamphlets) about the fuels they sell, and can draw on their experience and proximity to develop and implement effective public educational campaigns.

We recognize the need for accurate and objective information in educating the public about the appropriate use of E15. As in the ULSD program, EPA will participate in development and dissemination of E15 outreach materials. It is also important to remember that under the partial waivers and today's rule, businesses that decide to sell E15 will need to make decisions about how to promote E15 in a manner that also minimizes misfueling. We intend to work with E15 stakeholders to convey accurate information and monitor the effectiveness of misfueling mitigation efforts, including public education and outreach.

We are not establishing a specific education proposal or plan at this time. As noted above, we believe stakeholders have a valuable and leading role to play in the development and implementation of such a plan. Also, the specific components of an education and outreach campaign may change or evolve as E15 enters the market. Since the E15 partial waivers allow, but do not require, E15 to be introduced into commerce for MY2001 and later light-duty motor vehicles, it is now up to businesses to decide whether and how to market E15. In light of the various additional steps that need to be taken to make and market E15, it is likely that E15 will be introduced in some areas first and expand into other areas over time. As that occurs, it will become clear which businesses and other groups have a stake in E15 and should be part of educational efforts. The evolving nature of E15's introduction into commerce also means that components of an educational campaign can be implemented, tested and expanded as appropriate.

We welcome commenters' specific suggestions for an E15 public education program and will include them in discussions with stakeholders involved in developing an outreach campaign. We also recognize that any outreach conducted by vehicle and engine manufacturers will likely reflect their continued concerns for the compatibility of E15 with older and newer vehicles.

#### **1.4.2 Website for Public Outreach**

*What Commenters Said:*

**Organization:** American Petroleum Institute (API)

**Document Number:** EPA-HQ-OAR-2010-0448-0081, p. 12

**Comment:** The Clean Diesel Fuel Alliance uses a website that has worked well to disseminate relevant information. EPA should develop a website for misfueling mitigation information and, potentially, other communication tools for identifying misfueling mitigation measures. The website development will need to consider how consumer queries should be handled to mitigate any possible misfueling activities. If the EPA elects to finalize this rulemaking prior to the completion of industry testing, a public education campaign should educate consumers of all potential risks to all vehicles as well as other gasoline-powered engines and the expected impact

on fuel economy. The reach and magnitude of this change in ethanol content requires a stronger outreach.

**Organization:** Growth Energy

**Document Number:** EPA-HQ-OAR-2010-0448-0083, p. 7

**Comment:** Commenter notes that they have established a new website that serves as a platform to deliver detailed, up-to-date, and accurate information on E15 and EPA's approval for use of E15 in certain vehicles. They offer this website as a dedicated information source about E15. Commenter indicates that they are willing to work with other private and public stakeholders in selecting and managing content for this website as part of a broader public education effort to prevent misfueling.

**Organization:** Alliance of Automobile Manufacturers (Alliance)

**Document Number:** EPA-HQ-OAR-2010-0448-0072, p. 16

**Comment:** To the extent an outreach effort develops, EPA should ensure that it includes a website that directs consumers to the appropriate locations on each vehicle manufacturer's website.

**Organization:** American Lung Association (ALA)

**Document Number:** EPA-HQ-OAR-2010-0448-0097, p. 2

**Comment:** EPA should develop a comprehensive public education plan that includes a website with accurate consumer information, and use of other media, including social media to provide this information.

**Organization:** Environmental Working Group

**Document Number:** EPA-HQ-OAR-2010-0448-0071.1, p. 5

**Comment:**

EPA's online Green Vehicle Guide could be used as a basis for consumer information on fueling their vehicles, with a separate page for nonroad engines. The guide could be easily altered to clearly indicate if each engine is able to run on E0, E10, E15, or E85 blends, etc. Engine warranty information could also be linked through this website so that owners can easily access their vehicle or other engine's warranty and liability information.

*Response:*

We agree that a website for providing information about the appropriate use of E15 is apt to be an important element of any public education and outreach campaign. As we work with stakeholders to develop and conduct public outreach, we will raise for consideration the various suggestions made by commenters concerning the creation and content for such a website.

*What Commenters Said:*

**Organization:** National Marine Manufacturers Association (NMMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0095, p. 7

**Comment:** Instead of creating a website, EPA should use all available space on a label to communicate clear warnings and information to consumers.

*Response:*

EPA believes that the appropriate amount of information is on the label. A label with a great deal of detail is more likely to be ignored. Section 1.1 of this document and section III.B of the Preamble to the final rule discuss comments on labels that address NMMA's concern.

### **1.4.3 Public Outreach Message**

*What Commenters Said:*

**Organization:** Engine Manufacturers Association (EMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0082, pp. 8, 11

**Comment:** Commenter states that the public outreach message must strongly and clearly communicate the negative impacts of misfueling in order to effectively dissuade intentional misfueling for financial or convenience reasons. Commenter further states that the process of educating consumers about using diesel fuel in diesel vehicles and premium gasoline in certain selected light-duty vehicles has been an onerous and difficult process. Even with extensive and ongoing educational processes in place, unknowing consumers continue to fuel diesel vehicles with gasoline and avoid using premium fuel even when recommended by the manufacturer. Commenter provides additional discussion and cites a recent incident in which the manufacturer was forced to recall vehicles for safety reasons when consumers intentionally misfueled with regular grade gasoline in lieu of the required premium grade. Commenter believes it is unreasonable to assume that EPA's proposed misfueling controls will result in a higher degree of compliance than history reflects and as such, those controls are destined to fail.

*Response:*

We agree that an important part of the public outreach message is to provide more information about the potential damage that misfueling could cause. The required E15 label includes the statement that use of E15 in vehicles and engines not covered by the partial waivers "may cause damage," and any accompanying public education campaign should communicate additional information that will help consumers understand the nature and consequences of the damage that could result. We plan to work with stakeholders in developing and implementing an outreach program that provides such information.

We understand that past efforts by governments and/or the private sector have not avoided all instances of consumer misfueling, but as explained in section III.F of the Preamble on other misfueling mitigation measures, we believe that the rule being promulgated today, together with the partial waivers, will effectively minimize misfueling. We will also work with stakeholders to monitor the introduction of E15 and the effectiveness of the misfueling measures put in place under today's rule and the partial waivers, along with the public education and outreach efforts that accompany E15's entry into the market. With that information, we can assess whether additional mitigation measures or outreach may be needed.

### **1.4.4 Energy Content and Fuel Prices**

*What Commenters Said:*

**Organization:** Association of International Automobile Manufacturers (AIAM)

**Document Number:** EPA-HQ-OAR-2010-0448-0079, pp. 8-9

**Comment:** Many consumers buy fuel based almost exclusively on price per gallon and may be attracted to E15 due to its lower price. Consumers, however, may fail to understand that the lower prices for higher ethanol gasoline are due to lower energy content, which will affect fuel economy. Ethanol contains about two-thirds of the energy content of gasoline per unit volume; hence, gasoline blended with ethanol has a lower energy content than neat gasoline. Fuel with higher ethanol content (such as E15), therefore, should be priced lower per gallon than fuel without ethanol or with less ethanol (such as E0 or E10) in order to provide the same value to consumers. EPA should develop a unit pricing approach for gasoline options similar to those used in grocery stores. In this case, unit pricing for the gasoline pump label would provide the price per gasoline-energy-equivalent and would allow consumers to compare fuel options on an apples-to-apples basis. Without an understanding of the relationship between energy content to price, many consumers may intentionally misfuel with E15 because they falsely perceive it to be a better bargain.

**Organization:** Engine Manufacturers Association (EMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0082, pp. 10-11

**Comment:** EPA has previously suggested that E0 could be distributed as "Premium" grade fuel with E15 distributed as "Regular" grade to align the consumer cost structure with the energy content. This approach would further exacerbate the likelihood of intentional misfueling based on the price differential between regular and premium grades. The likelihood that an E0 premium grade and an E15 regular grade could be combined to provide a mid-grade fuel that complies with both RVP and T50 requirements is remote. This approach would likely result in three grades including E10, E13 and E15. In addition, the gasoline blend stock required to provide premium octane levels with less than 10% ethanol will increase blend stock fuel costs thereby increasing the current disparity between fuel costs for different octane grades.

*Response:*

In the RFS2 NPRM (*see* 74 FR 25017 (May 26, 2009)), EPA mentioned that a possible fuel configuration at the pump would be an E15 regular grade gasoline and an E10 or E0 premium grade gasoline. Although EPA suggested this possible fuel configuration, many other potential configurations may be possible. Ultimately, businesses will determine which blendstocks to produce, the amount of ethanol to be added, and the way to configure retail station tanks to market E15 based on what makes the most sense according to their business plans and consistent with national, state, and local fuel requirements. We also understand that the scenario mentioned in the RFS2 NPRM raises the issue of the comingling of E15 with lower gasoline-ethanol blends that result in a fuel that violates summertime RVP requirements. To address that issue, we have included PTD requirements designed to inform retail stations that comingling E15 with lower gasoline-ethanol blends may result in fuels that violate summertime RVP requirements (*see* section III.C of the Preamble for more information).

In light of the many decisions that businesses still need to make about whether and how to produce and market E15, we believe that it is premature to draw any conclusions about how E15 may be priced compared to E10 or to impose any requirements based on the assumption that E15 will be priced higher than E10. With respect to energy content, we agree and have acknowledged for the past 30 years that vehicles operating on E10 will have a decrease in miles-per-gallon fuel economy. However, we note that the energy content of E0 can vary from gasoline to gasoline. Also, other oxygenates, such as butanol, that have an energy content different than ethanol can also be used in making gasoline. Considering the variation in fuel composition and the comingling of fuels that occurs throughout the fuel distribution system, we believe that the establishment of a unit-pricing label would be exceedingly complicated and not practical.

As discussed in section III.B of the Preamble, the Agency believes that the label language informing consumers of possible damage to vehicles, engines, and equipment not covered under the partial waiver decisions will be effective in dissuading consumers from misfueling with E15. The costs associated with potential damage to the engine from misfueling greatly outweigh the marginal savings that may be possible if ethanol is favorably priced compared to gasoline, which has not always been the case.

## **1.5 Other Misfueling Mitigation Measures**

### **1.5.1 Need for More Mitigation Measures**

*What Commenters Said:*

**Organization:** American Lung Association (ALA)

**Document Number:** EPA-HQ-OAR-2010-0448-0097, p. 3

**Comment:** EPA should require E15 nozzle hand warmers to be a uniform and instantly recognizable color with a different texture. Commenter suggests a bright and distinctive color such as neon pink, safety orange or bright yellow to clearly indicate to customers that this fuel is different and not appropriate for many vehicles. This color and texture consistency will assist any public outreach and education efforts. Messages that state "do not use the pink handled pump for your gasoline powered equipment -- lawnmower or boat, or in your 2006 and older car" will be much easier for the consumer to understand than any discussion of ethanol concentration levels.

**Organization:** American Automobile Association (AAA)

**Document Number:** EPA-HQ-OAR-2010-0448-0068, pp. 1-2

**Comment:** Use of a label alone is insufficient and places an unfair burden of liability on consumers. EPA should consider additional measures at the pump beyond labeling to ensure that misfuelings are mitigated to the greatest extent possible. Specifically, commenter requests further study and consideration of the effectiveness of additional plans including, but not limited to, different pump nozzle grips and/or video or audio warnings when an E15 pump is lifted from a dispenser. These additional measures are worth the additional cost given the level of risk placed on consumers.

**Organization:** Outdoor Power Equipment Institute (OPEI)

**Document Number:** EPA-HQ-OAR-2010-0448-0053, pp. 11, 14

**Comment:** EPA must substantiate and explain how it will assess whether misfueling has occurred, the rate of misfueling, the need for prevention efforts to ensure compliance, and how enforcement will occur on an ongoing basis. Commenter adds that given the challenges with enforcement, EPA has a legal obligation to try and develop automatic pump-blocks. Because some of these applications have not been applied to gasoline pumps in the field, EPA should initiate a study with affected stakeholders to evaluate how these automatic systems would perform and what economic and technical challenges would need to be addressed.

*Response:*

See Preamble section III.F.1.a for our response to comments related to hand warmers. See Preamble section III.F.1 for our response to comments related to requiring further misfueling mitigation measures. As noted there, it is now up to businesses to decide whether and how to market E15 for MY2001 and newer light-duty motor vehicles, and several additional steps must be taken before E15 can be made broadly available. As a result, we currently are not in a position to assess when, where and how E15 will be marketed. With the partial waivers and today's rule, we have established a misfueling mitigation program that we believe will be effective in minimizing the potential for misfueling. We will enforce the requirements of that program, just as we enforce other EPA regulatory requirements. We typically do not share our enforcement strategy with the regulated community, and we will not do so here. We will work with stakeholders to identify any issues that arise as E15 enters the market and monitor the effectiveness of the misfueling mitigation program. We do not agree that EPA has any legal obligation to develop automatic pump-blocks at this time. Pump-blocks are among a number of additional mitigation measures that some commenters have suggested and may be considered in the future if existing measures prove insufficient.

*What Commenters Said:*

**Organizations:** American Lung Association (ALA); ECHO, Inc.; National Marine

Manufacturers Association (NMMA); Outdoor Power Equipment Institute (OPEI)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0097, p. 3; EPA-HQ-OAR-2010-0448-0033, pp. 4-5; EPA-HQ-OAR-2010-0448-0095, p. 9; EPA-HQ-OAR-2010-0448-0053, pp. 13-14

**Comment:** EPA should require all fuel stations dispensing E15 to require affirmative confirmation from consumers that they wish to purchase E15. This can be easily accomplished through a mandatory electronic key pad approval (tied to payment method or fuel grade selection), which the consumer would need to confirm prior to purchase. The electronic keypad would include a message similar to that outlined on a final label. ECHO, NMMA and OPEI specifically noted that EPA should prohibit the sale of fuel containing more than 10% ethanol from older fuel pumps that do not have electronic keypads. OPEI specifically recommends that EPA mandate the implementation of an electronic key pad approval process that is tied to the payment method or fuel grade selection, which would force the consumer to affirm on the screen (prior to pumping) that they understand that fuel containing more than 10% ethanol could: 1) not legally be used in nonroad products; 2) cause substantial damage to such products; and 3) void warranty coverage. ALA noted that many self-service gas stations require the user to key in their billing zip code prior to authorizing a credit or debit card transaction or prepayment with a cashier or other cashier authorization prior to the pump operating and that EPA should require

similar measures to preclude misfueling such as using the keypad to require consumers to type in their vehicle's model year or authorization by the cashier before proceeding to use E15.

*Response:*

See Preamble section III.F.2.b for our response to comments related to keypad confirmation.

*What Commenters Said:*

**Organizations:** American Lung Association (ALA); Association of International Automobile Manufacturers (AIAM); ECHO, Inc.; National Automobile Dealers Association (NADA); National Marine Manufacturers Association (NMMA)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0097, p. 3; EPA-HQ-OAR-2010-0448-0079, pp. 7, 10; EPA-HQ-OAR-2010-0448-0033, p. 5; EPA-HQ-OAR-2010-0448-0085, p. 2; EPA-HQ-OAR-2010-0448-0095) p. 8

**Comment:** EPA should consider implementing automatic fuel pump blocks perhaps using radio frequency identification (RFID). NMMA specifically requested that EPA begin undertaking pilot projects on RFID technology on vehicles and fuel pumps. This technology, which would be affixed to flex-fuel vehicles and E15-approved vehicles, would lock fuel dispensers out of operation for all vehicles, vessels, engines, and equipment which lack the RFID tag, which provides data identifying the vehicle and its fuel capability with a corresponding RFID reader outfitting on fuel dispensers selling E15. While new vehicles would be equipped with the RFID tag at the factory, EPA, in conjunction with industry, would need to undertake a retrofit program for past-year approved motor vehicles. While somewhat complex, this measure would provide a robust, non-intrusive misfueling safeguard and be highly effective. Over time, this will ensure that appropriate fuel is being used, and significantly reduce the risk of hazards and consumer backlash with mid-level ethanol and other biofuels.

*Response:*

See Preamble section III.F.2.c for our response to comments related to RFID technology.

*What Commenters Said:*

**Organizations:** American Lung Association (ALA); National Marine Manufacturers Association (NMMA)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0097, p. 3; EPA-HQ-OAR-2010-0448-0095, p. 9

**Comment:** EPA should consider implementing policies that require cashier lockout for mid-level blends (i.e., fuel dispensers selling E15 or other mid-level gasoline-ethanol blends would be available to dispense fuel only after the customer speaks with the cashier to unlock the pump). The cashier would need to be informed of compatible vehicles, engines, and equipment and only unlock the pump once it is determined that the consumer has approved equipment and that industry or EPA could provide a directory of approved vehicles to the cashier. The cost for this safeguard is low and the effectiveness would be high. In cases where a boat is being towed, the cashier would need to confirm with the customer that the fuel is not approved for any marine vessel and, if used, may cause injury or property damage. In addition, because the fuel pump is

dispensing E15, a label will be in place to advise the consumer as an additional information/warning source.

**Organizations:** Association of International Automobile Manufacturers (AIAM); National Marine Manufacturers Association (NMMA)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0079, p. 10; EPA-HQ-OAR-2010-0448-0095, p. 8

**Comment:** EPA should thoroughly evaluate each of the 18 potential mitigation measures to reduce the rate of misfueling that have been identified in the comprehensive report entitled "Evaluation of Measures to Mitigate Misfueling of Mid-to-High-Ethanol Blend Fuels at Fuel Dispensing Facilities" (prepared for API by Gilson Environmental LLC; April 27, 2010). EPA needs to evaluate the effectiveness and feasibility of these and other potential misfueling controls.

**Organizations:** American Lung Association (ALA); National Marine Manufacturers Association (NMMA); Pennsylvania Department of Environmental Protection (PA DEP)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0097, p. 3; EPA-HQ-OAR-2010-0448-0095, p. 9; EPA-HQ-OAR-2010-0448-0058, p. 3

**Comment:** EPA should consider mandating that E15 or other mid-level gasoline-ethanol blends can only be sold at separate, segregated, clearly-labeled fuel islands. For existing E85 pumps, or where blender pumps can be incorporated, this would represent a long-term solution to EPA's decision to bifurcate the nation's fuel stream. It would also be fairly obvious to consumers that a separate pump, which would be clearly labeled, is only for certain approved motor vehicles. PA DEP noted that this would be a cost-effective measure that would prevent or mitigate the misfueling of vehicles and equipment.

**Organization:** National Association of Clean Air Agencies (NACAA)

**Document Number:** EPA-HQ-OAR-2010-0448-0077, pp. 2, 4-5

**Comment:** Although EPA has proposed a rule to mitigate misfueling, the proposal contains neither concrete measures that will actually prevent misfueling in practice nor clear criteria for what constitutes ensuring that all reasonable precautions are achieved in practice to avoid misfueling. Additional enforcement mechanisms are needed to augment the label requirements being developed. In the absence of additional enforcement mechanisms and deterrents, it is practically impossible to limit misfueling at the retail level. Nozzle reconfiguration or some other physical limitation should be implemented at the point of sale, particularly if there are strong economic incentives for pre-MY2007 vehicles to use E15.

**Organization:** Mercury Marine

**Document Number:** EPA-HQ-OAR-2010-0448-0057, p. 2

**Comment:** Commenter suggests that pumps be manned and vehicles be labeled to indicate the appropriate fuel(s) in order to prevent misfueling. Commenter proposes that if a vehicle is approved for up to E15, the customer should have to obtain a sticker that is placed on the inside of the fuel door that tells the attendant the vehicle is approved for E15. The customer would have to provide proof that the vehicle is approved for E15 to obtain the sticker and the attendant manning the pump must see it to pump anything over E10. This would be necessary because most people do not know what model year their car is and it will help keep E15 out of boats and other non-approved uses. Certainly, EPA could require such a label for newly manufactured cars and trucks. Flex fuel vehicles already are appropriately labeled and would not require any further

labeling. Commenter adds that another possibility would be an electronic interface that would not allow the pump to dispense higher ethanol blends unless an electronic chip was in the proximity. This chip could only be obtained by the vehicle owner upon proving that the vehicle was one that was included in the permissible fleet.

*Response:*

See Preamble section III.F.1 for our response to comments concerning the general need for more misfueling mitigation measures and urging the adoption of several particular measures (i.e., handwarmers, keypad confirmation, RFID, and physical impediments to misfueling such as different nozzle sizes). A number of other specific suggestions were made, which we respond to here.

Use of full service attendants at service stations to ensure that E15 is only used in appropriate vehicles would be a large burden on service stations since most stations are now “self-service” where customers dispense the fuel they buy. API estimates the average annual cost per service station for full service attendants at \$67,500 and the annual nationwide cost at \$10.6 billion.<sup>1</sup> Separate islands at service stations for E15 and higher ethanol blends, as API noted, would likely cause congestion at the pumps, be inconvenient for the consumer, reduce the number of pumps available for higher-demand fuels, and not prevent intentional misfueling. API estimates the cost of separate islands at \$700 per station and \$40 million nationwide, and that cost does not include the consumer implications of separate islands.<sup>2</sup> In light of the uncertainties about when and how E15 will enter the market, the costs of these measures and the likely burdens they would impose on small businesses and consumers, we do not believe that either of these measures is necessary or appropriate to mitigate misfueling at this time.

We also conclude that requiring consumers to obtain E15 stickers for their vehicles that can use E15, as suggested by Mercury Marine, would be impractical. For reasons similar to those discussed in the Preamble in response to suggestions that consumers be required install RFIDs to prevent misfueling, it is questionable whether EPA can reasonably expect or require consumers to take the steps needed to acquire and affix the appropriate sticker for their vehicles. We estimate that there are over 150 million MY2001 and newer passenger vehicles on the road today, so the task of labeling those vehicles would likely involve a very large number of households and businesses. The suggestion for E15 stickers also relies on pump attendants checking the stickers before allowing a vehicle to be fueled with E15. However, using pump attendants for this purpose would entail costs similar in nature and potentially in extent to those discussed above regarding full service attendants, since it would require close attention to consumer refueling and/or pump blocks to ensure that consumers did not misfuel. The commenter suggesting stickers also urged that at least vehicle manufacturers be required to affix the E15 sticker to their new passenger vehicles. Although more feasible to implement, this narrower suggestion could raise issues for manufacturers who recommend premium grades of gasoline for particular

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<sup>1</sup> American Petroleum Institute, Evaluation of Measures to Mitigate Misfueling of Mid- to High-Ethanol Blend Fuels at Fuel Dispensing Facilities, p. 15.

<sup>2</sup> American Petroleum Institute, Evaluation of Measures to Mitigate Misfueling of Mid- to High-Ethanol Blend Fuels at Fuel Dispensing Facilities, p. 11.

models, since it is not known today whether E15 will be sold as a premium grade. We believe labeling E15 pumps is a far more efficient and practical way of alerting consumers to the need to avoid misfueling with E15. As noted above, we will monitor the effectiveness of pump labeling and the other misfueling mitigation measures implemented under today's rule and the partial waivers, and if it appears that additional measures may be needed, we will consider the various suggestions that have been made by commenters in this rulemaking.

**Organization:** National Association of Clean Air Agencies (NACAA)

**Document Number:** EPA-HQ-OAR-2010-0448-0077, pp. 2-3

**Comment:** As an additional misfueling strategy, EPA should consider requiring the establishment of a minimum number of E85 fueling outlets in nonattainment areas to discourage sub-optimal fueling of these flexible-fuel vehicles (FFVs) on conventional gasoline. This would reduce NO<sub>x</sub>, HC and CO emissions on a fleet-wide basis, particularly since major U.S. auto manufacturers have indicated that at least 50% of their new car production beginning with MY2012 will be FFVs.

*Response:*

Requiring additional E85 fueling outlets is outside the scope of this rulemaking, the purpose of which is to mitigate misfueling with E15 by vehicles, engines and equipment not covered by the E15 partial waivers.

*What Commenters Said:*

**Organizations:** Association of International Automobile Manufacturers (AIAM); Historic Vehicles Association (HVA)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0079, p. 10; EPA-HQ-OAR-2010-0448-0076, p. 2

**Comment:** EPA should convene a stakeholder meeting and/or working group to discuss what additional components are needed for a comprehensive misfueling mitigation program. Through this group, EPA could create a more constructive and widely accepted approach to increased ethanol blend levels as well as implementation of more effective and appropriate consumer notification methods.

*Response:*

See Preamble section III.F.1 for our response to comments recommending additional mitigation measures. As explained there, EPA plans to work with stakeholders going forward to monitor the introduction of E15 into commerce and the effectiveness of the mitigation measures under today's rule and the partial waivers. We also anticipate that public outreach will be developed and implemented by a stakeholder group led by industry and assisted by EPA. We expect that stakeholder meetings and working groups are likely to be useful for both of these related efforts.

*What Commenters Said:*

**Organization:** Outdoor Power Equipment Institute (OPEI)

**Document Number:** EPA-HQ-OAR-2010-0448-0053, pp. 10-14

**Comment:** EPA needs to develop an administrative record in this rulemaking that would indicate its proposed label and related measures could ultimately overcome price incentives and prevent substantial misfueling resulting in prohibited emission-related failures. To develop the required administrative record, EPA should thoroughly evaluate each of the 18 potential mitigation measures to reduce the rate of misfueling that have been identified in the comprehensive report entitled "Evaluation of Measures to Mitigate Misfueling of Mid-to-High-Ethanol Blend Fuels at Fuel Dispensing Facilities." EPA needs to quantify the total costs, impacts, effectiveness, or feasibility of the potential misfueling controls and the rates and consequences of misfueling. To determine the economic impacts of each misfueling control, EPA should apply a particular misfueling rate to the affected universe of the 400 million products (owned by businesses and consumers) that could be harmed. As part of this analysis, EPA should consider the resulting impacts on small businesses and should also assess the fuel quality of the blends being dispersed from blender pumps to determine their suitability, safety, and compliance with applicable ASTM specifications. Commenter provides additional discussion and refers to the costs cited in the proposed rule as well as the fact that there are no data to establish the frequency of costly repairs or other complications (particularly with regard to nonroad equipment).

The adverse impacts to consumers from misfueling will exceed the costs of implementing even very expensive controls. A public report by EPA asserting that certain misfueling controls could effectively and dramatically reduce the costs and damages associated with the very high rate of misfueling in the absence of such controls would provide a strong rationale for public policy officials (in the White House and on Capitol Hill) to make tax credits or other well-supported incentives available to help pay for these effective controls. There should be a dialogue between EPA, DOE, and affected stakeholders on whether any of these funds (or future funds) could be applied to installing effective and robust misfueling controls like electronic key pads or automatic blocks.

*Response:*

As this comment notes, there are no currently available data on which to base estimates for the frequency of repairs in the event that misfueling occurs and results in damage to vehicles or engines not covered by the E15 partial waivers. There are no data because E15 has yet to enter the market and the misfueling mitigation measures required under today's rule and the partial waivers have yet to be put in place. There is thus no basis for determining misfueling rates and consequences and to what extent they could be reduced by each of the 18 potential control measures for which the commenter seeks a thorough cost-benefit analysis.

As explained in Preamble section III.F.1, we believe the required misfueling mitigation program will provide strong incentives to avoid misfueling so that instances of misfueling, and the need for repairs that might result, will be minimized. We also plan to work with stakeholders to monitor the introduction of E15 into the market and the effectiveness of the required misfueling mitigation program. Once E15 enters the market and experience with mitigation measures is gained, we expect data relevant to assessing the need for and the costs and benefits of possible additional measures will become available. Until that time, however, the kind of administrative record that the commenter

seeks is not possible to assemble and thus cannot guide EPA's decision-making for today's rule.

In Preamble section IV.A, we explain that while we are not in a position to quantify the degree to which misfueling will be avoided as a result of today's rule, we recognize that avoiding even a trivial degree of misfueling (i.e., less than 0.1% of the vehicle fleet older than MY2001) would produce benefits in avoided repair costs that significantly outweigh the relatively limited costs imposed by this rule. Without the mitigation measures in today's rule and the partial waivers, we believe that emissions-related complications of misfueling would have occurred with enough frequency that the benefits of today's rule will clearly outweigh the relatively low costs.

### **1.5.2 Comparisons to the Ultra-low Sulfur Diesel (ULSD) Program**

*What Commenters Said:*

**Organization:** American Petroleum Institute (API)

**Document Number:** EPA-HQ-OAR-2010-0448-0081, pp. 12-13

**Comment:** Ultra-low sulfur diesel (ULSD) replaced low-sulfur diesel (LSD) whereas E15 will not replace E10 or neat gasoline. E0, E10, and E15 will coexist in the marketplace for an indefinite period increasing the likelihood of misfueling. The risk profile of the ULSD phase-in is completely different from that of the E15 addition. The harm associated with the ULSD phase-in involved new vehicles misfueling with LSD -- the fuel that was being phased out. Therefore, the risk associated with misfueling a new vehicle with LSD decreased with time as LSD left the marketplace to be replaced by ULSD. However, the risks associated with E15 INCREASE over time. If it is assumed that EPA eventually allows E15 to be used in MY2001 and newer vehicles, the risk of a consumer misfueling his/her MY2000 and older vehicle with E15 is lower in the short term as E15's market penetration begins. As time goes on and increasing amounts of E15 presumably enter the marketplace, the risk that a consumer with an MY2000 or older vehicle misfuels with E15 increases. Granted, vehicle turnover will decrease the number of MY2000 and older vehicles in the U.S. vehicle fleet; however, the rate of vehicle turnover is decreasing as vehicle quality and durability have improved and will take decades to complete. A key difference in the ULSD transition was the opportunity for vehicle manufacturers to educate new diesel vehicle consumers at the time of purchase about the risks of misfueling. This information was reinforced in the owner's manual and on the vehicles themselves. For E15, there is no similar opportunity for consumer education, and the proposed dispenser labels will contradict preexisting information in owners' manuals which generally require usage of gasoline/ethanol blends with no more than 10% ethanol.

*Response:*

See Preamble section III.F.1 for our response to comments related to the transition to ULSD.

### **1.5.3 Comparison to the Unleaded Gasoline Program**

*What Commenters Said:*

**Organization:** National Marine Manufacturers Association (NMMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0095, p. 8

**Comment:** An E15 pump label alone is not a sufficient safeguard against consumer misfueling. Although EPA is contemplating some upstream requirements, such as PTDs and a national survey, these will not serve a meaningful function in preventing misfueling or properly educating the consumer about appropriate, compatible, and legal fuels for their equipment. During the transition from leaded to unleaded fuels, the Agency implemented a number of actions to prevent misfueling including: 1) a warning label; 2) physical barriers, such as restricted fuel nozzle diameters; and 3) a requirement that compatible fuels be made available at certain fueling stations. Despite these efforts, misfueling rates of about 12 percent persisted for almost a decade. EPA has selected the least costly and least effective safeguard in its current proposal: labeling. EPA should reissue the proposal to the docket with additional misfueling controls for public review and comment.

**Organization:** American Lung Association (ALA)

**Document Number:** EPA-HQ-OAR-2010-0448-0097, p. 2

**Comment:** In earlier experiences, new vehicles were labeled with information about the appropriate fuel such as "unleaded fuel only" and older vehicles and engines would not be harmed or create additional pollution by using the newer fuel formulations. However, in this case, newer vehicles do not include such labeling. In addition, older vehicles and engines may be damaged and air pollution emissions may increase due to use of E15. Because of these critical differences, EPA should implement additional measures to mitigate and prevent misfueling.

*Response:*

See Preamble section III.F.1 for our response to comments related to the transition to unleaded gasoline.

## **1.5.4 E0/E10 Availability and Petition to Require $\leq$ E10 Availability**

### **1.5.4.1 E0/E10 Availability**

*What Commenters Said:*

**Organization:** Outdoor Power Equipment Institute (OPEI)

**Document Number:** EPA-HQ-OAR-2010-0448-0053, p. 8

**Comment:** Even if the market preserves one grade of gasoline as an E10 fuel, this will not address the concern about misfueling. Indeed, this will likely exacerbate the risk of misfueling because E10 will be uniformly more expensive than E15 if E10 is marketed as premium gasoline, as EPA suggests. The Minnesota ethanol mandate requires  $\leq$ E10 fuels to be marketed as the premium grade fuel. (See Minnesota Code Section 239.791; subdivision 12.) In order to mitigate misfueling, EPA should pre-empt such state incentives and require that E10 continue as regular grade gasoline, with higher blends of ethanol available as mid-grade and premium gasoline. This may help alleviate the price incentive of misfueling.

**Organization:** Outdoor Power Equipment Institute (OPEI)

**Document Number:** EPA-HQ-OAR-2010-0448-0053, pp. 5-7

**Comment:** EPA's original unleaded fuel controls in 1974 included three essential components: a warning label, robust misfueling controls, and the required availability of unleaded fuels at large gasoline stations. EPA needs to develop a comprehensive misfueling regulation that includes all three of these essential components in order to ensure the availability of E10 and prevent damage and increased emissions from nonroad products. Off-highway fuel use is a very small percentage of the total fuel delivered by any given fueling station. As older vehicles are replaced, there may be reduced E10 fuel demand for vehicles. The incentive for fueling stations to maintain a separate tank and pump for off-highway equipment is minimal and most likely would result in higher unit fuel costs, providing an additional disincentive for consumers to locate and utilize a special off-highway fuel. There is also a strong potential that the reduced volume of E10 fuel required in the marketplace would result in elimination of supply, further eroding the availability of special off-road fuel.

**Organization:** National Marine Manufacturers Association (NMMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0095, pp. 10-11

**Comment:** EPA's approval of E15 removes the incentive for fuel stations to maintain a separate tank and pump for nonroad vehicles and equipment, since doing so would result in higher fuel costs for the fuel station and reduce its operating margin. Additionally, as RFS is implemented over time, gasoline with blends of 10% or less ethanol will become increasingly less available. Either way, as has occurred with E10, which now saturates 90% of the gasoline supply, fuel for nonroad engines and equipment will become a specialty fuel at best, raising its cost, discouraging consumers from buying it, and therefore exacerbating the risk of misfueling. The scarcity of compatible fuels will eventually force consumers to misfuel, a major policy problem with EPA's current approach. Commenter asserts that EPA should utilize its clear authority to require continued availability of compatible fuels for marine engines and other products which are not approved for E15 or other mid-level ethanol blends.

**Organizations:** Alliance of Automobile Manufacturers (Alliance); Mercury Marine

**Document Numbers:** EPA-HQ-OAR-2010-0448-0072, p. 13; EPA-HQ-OAR-2010-0448-0057, p. 2

**Comment:** EPA should ensure the availability of both E0 and E10 fuel. While modern vehicles are capable of using E10, marine engines, nonroad engines, and old/antique vehicles still require E0 fuel, as do many other products. EPA should find a way to encourage the continued availability of E0 in the market.

**Organization:** Association of International Automobile Manufacturers (AIAM)

**Document Number:** EPA-HQ-OAR-2010-0448-0079, pp. 7, 10

**Comment:** In order to prevent misfueling out of necessity, EPA needs to ensure the continued availability of E0/E10 fuels. It would be within the EPA's scope of authority to issue regulations requiring gas stations to continue to dedicate pumps to E10 and lower ethanol fuel. Commenter cites to case law (*Amoco v. EPA*; 1974) to support their assertion.

**Organization:** Boat Owners Association of the U.S.

**Document Number:** EPA-HQ-OAR-2010-0448-0078, pp. 1-2

**Comment:** Given the speed with which E10 has infiltrated the market recently, commenter is concerned that boaters may not be able to find E0-E10 fuel after E15 is introduced into the market. Some boaters now actively seek out E0 after having problems with E10. In many areas, E0 is difficult to find and this situation has been exacerbated by particular states requiring

ethanol content greater than 10%. If E15 achieves similar market dominance, many boaters' only legal and practical fuel source will not be readily available. Faced with no other options, even the educated consumer could be forced to misfuel. EPA must address the question of how the government will ensure that millions of owners of boats, outdoor power equipment, and other nonroad engines that are not able to use E15 (for a variety of reasons), will have adequate and readily available fuel sources at the local level. E0 must remain an available option for those consumers who seek it out.

**Organization:** ECHO, Inc.

**Document Number:** EPA-HQ-OAR-2010-0448-0033, p. 5

**Comment:** Commenter notes generally that EPA must require fueling stations to also carry E10 if they sell E15.

**Organization:** Engine Manufacturers Association (EMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0082, p. 10

**Comment:** EPA is correct to assume that a new and different gasoline blending stock will be necessary for E15 gasoline as compared to E10 and lower gasoline (both the RVP and the T50 distillation temperature are influenced by increasing ethanol content). Unfortunately, this will require refineries to create and ship separate blending stock for E0-E10 and E15 blends. The need for terminals to establish separate tanks for storing E10 and E15 blend stock gasoline will lead to additional costs that will then reduce the potential that refineries, terminals, and retailers will maintain both blends. There is a possibility that the E0-E10 blend stock would disappear from the market. EMA claimed that EPA has indicated that it does not have the authority to require retailers to continue providing E10 and lower fuels once E15 is introduced in the marketplace. However, without such a requirement, it is impossible to prevent or control misfueling and undermines EPA's authority to grant a partial waiver for E15. Commenter provides additional discussion and concludes that the same economic forces that have displaced E0 with E10 will result in E10 being displaced by E15 absent the necessary regulatory controls needed to ensure the existence of correct fueling options.

*Response:*

See Preamble section III.F.2.d for our response to comments urging EPA to require E0/E10 availability and a rulemaking petition seeking the same.

Several clarifications are useful to make here. As noted previously, in the RFS2 NPRM (*see* 74 FR 25017 (May 26, 2009)), EPA mentioned that a possible fuel configuration at the pump would be an E15 regular grade gasoline and an E10 or E0 premium grade gasoline. Although EPA suggested this possible fuel configuration, many other potential configurations may be possible. Ultimately, businesses will determine which blendstocks to produce, the amount of ethanol to be added, and the way to configure retail station tanks to market E15 based on what makes the most sense according to their business plans and consistent with national, state, and local fuel requirements. In light of the many decisions that businesses still need to make about whether and how to produce and market E15, we believe that it is premature to draw any conclusions about how E15 may be priced compared to E10.

EPA clearly has the authority to require that certain fuels be made available under appropriate circumstances. As explained in section III.F.2.d of the Preamble, section 211(c) of the Clean Air Act authorizes EPA to control or prohibit fuels and fuel additives that cause or contribute to air pollution that may endanger public health or welfare or significantly impair emission control devices or systems. Those controls may include, where justified, requiring the availability of particular fuels needed to ensure the continued effectiveness of emissions control systems. EPA has previously established requirements under section 211(c) to ensure the availability of unleaded gasoline and USLD to protect advanced emission controls in new vehicles and engines. The Agency has not, however, prescribed the price of fuels or dictated which fuels may be marketed as which grade (regular, mid-grade or premium). Various business considerations are involved in deciding how to make and market different grades of fuel, and businesses take various government requirements (including EPA's) into account in making those decisions. In the case of E15, fuel providers that decide to make or sell E15 are subject to the misfueling prohibition, and that prohibition may be relevant in deciding among some marketing strategies.

As discussed in the Preamble and later in this document, the CAA contains a narrow preemption of state fuel requirements that can be overcome in some circumstances. Also, under the supremacy clause of the U.S. Constitution, state laws may not actually conflict with federal laws, including regulations. Whether any particular state fuel regulation is preempted by or in conflict with EPA fuel requirements, including those related to E15, requires a careful case-by-case review. EPA is not making any judgments about current state regulations potentially affecting E15 as part of this rulemaking,

#### **1.5.4.2 Petition for Rulemaking to Require $\leq$ E10 Availability**

Several organizations representing international auto manufacturers and small engine manufacturers and users submitted a rulemaking petition on March 23, 2011, requesting that EPA establish a regulatory requirement that gasoline-ethanol blends of less than or equal to 10 vol% ethanol (" $\leq$ E10") be made available wherever E15 is sold. The National Association of Convenience Stores and the Society of Independent Gasoline Marketers of America submitted the comment that is summarized below on May 27, 2011. EPA responded to the petition in section III.F.2 of the Preamble of the misfueling mitigation final rule, as described below.

##### *What Commenters Said:*

**Organization:** National Association of Convenience Stores (NACS) and Society of Independent Gasoline Marketers of America (SIGMA)

**Document Number:** EPA-HQ-OAR-2010-0116, pp. 1-7

**Comment:** Requiring the availability of  $\leq$ E10 is unnecessary because retail stations will continue to make  $\leq$ E10 available for one or more of four reasons. First, retailers who sell E15 will be exposed to a variety of risks, including claims of liability for damages caused by consumer misfueling, so retailers are likely to be reluctant to sell E15 until these risks are addressed. . Second, retailers who store and sell E15 using existing infrastructure (i.e., dispensers and tanks) could violate federal, state, and local statutes or regulations pertaining to equipment compatibility certification and local fire codes, as well as tank insurance policies and stipulations contained in bank loans extended to petroleum retail facilities. Consequently, retailers may be

unable to accommodate E15 without investing in new infrastructure. Third, there will still be a substantial quantity of MY2000 and older motor vehicles and nonroad products that are prohibited from refueling with gasoline-ethanol blends containing greater than 10 vol% ethanol and so in need of  $\leq$ E10. Petitioners have not provided any evidence that the market will fail to meet the demand of  $\leq$ E10 going forward. Fourth, it is far from certain that owners of approved vehicles will choose to refuel with E15, because higher ethanol blends get fewer miles per gallon and automobile owner's manuals (with the exception of those issued for flexible fuel vehicles) do not endorse the use of fuel containing greater than 10 vol% ethanol. Retailers will want to accommodate the segment of the market that does not wish to purchase fuel with greater than 10 vol% ethanol. There are several additional arguments against establishing a  $\leq$ E10 availability requirement. Mandating that fuel retailers sell  $\leq$ E10 will have negative unintended consequences, such as higher fuel prices and a slower introduction of higher ethanol blends into the marketplace, contrary to national renewable fuels policy. Requiring fuel retailers to sell gasoline-ethanol blends of less than or equal to 10 vol% ethanol would be unprecedented. Petitioners' reference to EPA requiring the availability of unleaded fuels in the early 1970s is misleading because at that time it was government policy to mandate the use of unleaded gasoline and eliminate the use of leaded gasoline. Today there is no mandate for gasoline-ethanol blends greater than E10, and it remains uncertain whether any significant demand for greater than E10 will exist. Thus, while requiring certain retail outlets to sell unleaded gasoline furthered the government's goal of eliminating the use of leaded fuel, requiring all retail outlets to sell  $\leq$ E10 would serve no similar purpose and could impede the achievement of the government's current goal of increasing the use of renewable fuels. Additionally, EPA mandated the sale of unleaded gasoline because there was insufficient demand for the fuel at that time, while today there is ample demand for  $\leq$ E10.

*Response:*

For reasons discussed in the Preamble section III.F.2.d, the Agency is not requiring the availability of  $\leq$ E10 in this rulemaking and is also denying the rulemaking petition. EPA recognizes that businesses have a number of considerations when deciding whether to sell E15, and agrees with the commenters that  $\leq$ E10 will continue to be available at retail stations for the foreseeable future for many of the same reasons the commenters outline. EPA also recognizes that there may be unintentional consequences from mandating  $\leq$ E10 availability, and agrees that the comparison between lead phase-down and E15 is inappropriate for reasons discussed in section III.F.2.d of the Preamble. As the transition to E15 occurs, we will work with fuel producers, distributors, and marketers to monitor the availability of E15, E10, and E0 so that any potential problems can be anticipated and addressed on a timely basis, based on real world conditions as they develop.

## **1.6 Modification of the Complex Model**

### **1.6.1 Support of EPA's Proposed Modifications to the RFG Complex Model**

**Organization:** American Petroleum Institute (API)

**Document Number:** EPA-HQ-OAR-2010-0448-0081, p. 18

**Comment:** EPA is proposing a small modification of the Complex Model for reformulated gasoline that will essentially permit users to represent the VOC exhaust emissions modeled with an E15 fuel as the same as those for an E10 fuel. Commenter supports the proposal put forward

by EPA to modify the RFG Complex Model to handle E15 and notes that it is reasonable, simple, and expedient. Commenter agrees with EPA's conservative approach based upon the very limited test data available on the exhaust emissions impacts associated with the use of E10+ fuels in 1990 model year vehicles -- the baseline vehicle technology underlying the Complex Model.

**Organization:** Growth Energy

**Document Number:** EPA-HQ-OAR-2010-0448-0083, p. 19

**Comment:** EPA's complex emissions model is used to evaluate whether a fuel meets the reformulated gasoline (RFG) standards and currently may be used only for fuels containing up to 4.0% oxygen by weight; E15 contains approximately 5.25% oxygen by weight. Growth Energy supports EPA's proposal to amend 40 CFR 80.45, to allow refiners and importers to use the Complex Model to certify gasoline containing E15, and believes the data and rationale behind the proposed amendment are sound.

### 1.6.2 VOC Emissions from Permeation in the Complex Model

*What Commenters Said:*

**Organization:** New York State Department of Environmental Conservation (NY DEC)

**Document Number:** EPA-HQ-OAR-2010-0448-0069, p. A3

**Comment:** Even if one accepts the premise that exhaust VOC emissions are unlikely to increase with E15, EPA's underlying analysis does not address evaporative VOC emissions. Section 211(k)(9) of the CAA requires EPA to consider emissions from the entire vehicle, not just exhaust emissions. Evaporative VOCs generally respond to RVP in the Complex Model. However, since the model was developed using relatively short term evaporative testing using techniques based on emissions certification testing, the Complex Model does not fully account for permeation, the migration of fuel constituents through the walls of plastic and rubber components. Since the development of the Complex Model, it has become known that ethanol dramatically increases the rate of permeation through the components of automotive fuel systems. EPA must conduct permeation testing on relevant fuel system materials to determine how permeation rates vary with ethanol content and then modify the Complex Model to reflect the change in permeation related evaporative emissions from the 0% ethanol baseline.

*Response:*

As discussed in Preamble section III.G.1.a, the referenced study did not address evaporative emissions due to permeation. However, evaporative permeation was not tested during development of the Complex Model. Thus, the model never reflected permeation emissions for any level of ethanol (E0, E10, E15 or any values in between). Recent data from CRC show that although permeation emissions increase with higher levels of ethanol, the effects of E15 are likely to be comparable to E10.<sup>3</sup> Since the permeation rates of E15 are comparable to those of E10, it would be inappropriate to modify the model to account for E15 permeation emissions and not for E10. Major changes to the Complex Model such as would be needed to reflect permeation emissions

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<sup>3</sup> Enhanced Evaporative Emission Vehicles (CRC Report: E-77-2), March 2010, and Evaporative Emissions from In-Use Vehicles: Test Fleet Expansion (CRC Report: E-77-2b), June 2010.

for different levels of ethanol are beyond the scope of this rulemaking. Since evaporative permeation from E15 is comparable to that from E10, we believe today's regulatory change to treat E15 like E10 under the Complex Model is appropriate.

### 1.6.3 NO<sub>x</sub> and Toxic Emissions in the Complex Model

*What Commenters Said:*

**Organization:** New York State Department of Environmental Conservation (NY DEC)

**Document Number:** EPA-HQ-OAR-2010-0448-0069, pp. 2, A2-A3

**Comment:** With respect to EPA's proposed modifications to the Complex Model, EPA appears to be relying on selected data that supports its conclusion that E15 causes no emissions increases, while ignoring other data from the same test program that supports a contrary conclusion. Specifically, in the absence of a fleet of 1990 technology vehicles in certification condition for testing on E15, EPA relies on testing conducted at its National Vehicle and Fuel Research Laboratory in the early 1990s. From this work, EPA now concludes that increasing gasoline ethanol content above the current valid limit of the Complex Model will not increase exhaust VOC emissions. If EPA believes that this study constitutes sufficient evidence to modify the Complex Model, then EPA must also modify the model to account for the substantial NO<sub>x</sub> increases measured during the study. Similarly, EPA should also reinstitute the requirement that RFG be certified for NO<sub>x</sub> performance using the (now altered) Complex Model. Motor vehicle technology and the fuels they use have changed greatly in the nearly 20 years since the Complex Model was developed and as such, EPA should take a fresh look at this critically important tool.

**Organization:** National Petrochemical and Refiners Association (NPRA)

**Document Number:** EPA-HQ-OAR-2010-0448-0067, pp. 11-12

**Comment:** EPA proposes that only the RFG VOC equations should be changed and sees no need to modify the toxics equations for small refiners because they are not currently producing RFG and typically certify CG as E0 with oxygenate blended downstream (75 FR 68062, November 4, 2010). EPA inappropriately dismisses the opportunity for small refineries, not subject to MSAT2 in 2011-2014, to claim the oxygen dilution from blending conventional gasoline/E15 on batch reports if they have terminal oversight. This potential activity is allowed in current regulations at 40 CFR 80.101. EPA should revise the Complex Model for antidumping toxics to account for E15. E15 will have a different anti-dumping toxics value than E0-E10 and it is not relevant whether or not small refineries are doing downstream oversight today for oxygen blending; the Agency cannot preclude this potential activity in the future. EPA may revise the ozone NAAQS to make it more stringent and some states with ozone nonattainment areas may choose RFG. The effective dates for RFG may be prior to January 1, 2015, when the small refinery relief from MSAT2 expires. Small refineries may want to produce RFG with 15 vol% ethanol or RBOB for terminal blending with 15 vol% ethanol prior to January 1, 2015, and will need a revised toxics model. EPA should issue a supplemental proposal with revised toxics equations and should not finalize this misfueling mitigation proposal until after it considers comments on its revised toxics equations proposal.

**Organization:** Renewable Fuels Association (RFA)

**Document Number:** EPA-HQ-OAR-2010-0448-0088, p. 4

**Comment:** Commenter strongly supports modification of the Complex Model to accommodate higher levels of oxygen for predicting gasoline emissions. The RFG markets are a significant

portion of the overall gasoline market in the U.S. and thus must be able to offer additional levels of ethanol blended gasoline. E15 fuel blends support the goals of the RFG program to improve the air quality. Additional levels of ethanol in RFG support the reduction of aromatics, olefins, sulfur, and benzene. However, commenter expresses concern that EPA's proposed changes do not fully recognize the toxic displacement and hydrocarbon reductions associated with the use of E15.

*Response:*

The issues raised by these commenters are discussed in Preamble Section III.G.1.b and are summarized below.

Regarding the comment concerning the Complex Model and NO<sub>x</sub> emissions, the NO<sub>x</sub> performance requirements for RFG and conventional gasoline (CG) have not been applicable to most refiners since January 1, 2007, when the Tier 2 gasoline average sulfur standard of 30 ppm took effect (see 40 CFR section 80.41(e)(2)(i) for RFG; and section 80.101(c)(3)(i) for CG). This is the case for all refiners as of January 1, 2011 (see sections 80.41(e)(2)(ii), 80.101(c)(3)(ii)). The applicability of the Complex Model to gasoline certification has thus become limited as EPA's more recent clean gasoline standards take effect and require even greater emission reductions than those required by the RFG and antidumping programs. As a result, there is no current NO<sub>x</sub> performance standard for RFG or conventional gasoline under the RFG or antidumping regulations, and the Complex Model is no longer used for modeling NO<sub>x</sub> performance. Therefore, there would be no point to modifying the Complex Model regulations to account for additional NO<sub>x</sub> emissions that may be associated with E15.

In the case of air toxics, we stated in the NPRM that we would not need to modify the Complex Model because beginning January 1, 2011, the air toxics emission standards no longer apply for gasoline subject to the new mobile source air toxic (MSAT2) nationwide benzene standard for gasoline (see 40 CFR § 80.41(e)(3) for RFG and § 80.101(c)(4) for CG). We noted, though, that small refiners can take advantage of the option for delayed compliance with the MSAT2 benzene standard until January 1, 2015. We stated that since small refiners typically certify CG as E0, with oxygenate blended downstream, their compliance with the toxics performance standard should be unaffected by the increase in ethanol content from E10 to E15. In addition, no small refiners currently produce RFG. EPA is undertaking a separate rulemaking to establish motor vehicle and fuel control measures in response to the May 21, 2010, Presidential Memorandum Regarding Fuel Efficiency Standards. As part of that rulemaking, EPA is considering whether to revise RVP standards to further reduce emissions that contribute to ozone pollution. Depending on the extent to which EPA revises RVP standards, qualifying states may be less likely to seek to opt in to the RFG program to meet their air quality needs. However, it is possible some areas may decide to opt in to the RFG program to meet their air quality needs. Since EPA would go through a separate rulemaking to approve a state request to opt in to the RFG program, the Agency will consider revising the Complex Model for purposes of the toxics performance standards at that time if appropriate. Thus, EPA is not revising the Complex Model for purposes of the toxics performance standard or revised ozone NAAQS at this time.

With respect to revising the complex model for antidumping toxics to account for E15, it would be a major undertaking to make the relevant change to the Complex Model, as we stated in the NPRM. EPA continues to believe that such an undertaking is unnecessary and unwarranted in light of current and expected practices by small refiners. Furthermore, even if we were to make the suggested change, any possibility of relevance would disappear effective January 1, 2015. In light of these considerations, EPA has not modified its Complex Model regulations to account for air toxics emissions related to E15.

#### **1.6.4 Justification for Modification of the Complex Model**

*What Commenters Said:*

**Organization:** Alliance of Automobile Manufacturers (Alliance)

**Document Number:** EPA-HQ-OAR-2010-0448-0072, pp. 18-19

**Comment:** EPA should follow the same evaluation approach it has advocated for examining ethanol effects in the past: study a 19 vehicle fleet, where different vehicle manufacturers, models and vehicle types (LDVs, LDTs, and MDPVs) are represented on a sales-weighted basis, as a minimum for evaluating a fuel's impact on vehicle emissions. In addition, EPA must develop an understanding of the effects of the interaction of increased fuel ethanol with other fuel parameters, which can only be done with different (and currently legal) base gasolines. To make the emission adjustment in the Complex Model, EPA is relying on a study conducted in 1994 by Guerrieri, et al., which examined the exhaust emissions from 1990 vehicles using gasoline with ethanol levels varying from 0 to 40 vol%. This study evaluated the test fuel's impact on emissions from five MY1990 vehicles and one MY1992 vehicle; no replicates were included. The five vehicles with 1990 vehicle technology represent only two manufacturers and include only passenger cars. Although many ethanol blends were examined, they were formulated with only one base gasoline, without adjusting for differences in any fuel properties. Also, the study used a base gasoline that could not legally be sold today, which precludes examination of the impacts of varying distillation parameters, sulfur levels, and volatilities (or even the impacts of gasoline that would otherwise have met current EPA or CARB requirements). Also, the paper pools the data from the various test vehicles, which prevents any analysis for outliers, manufacturer trends, and other important information. In short, while the data in the Guerrieri study are interesting, they do not provide statistically meaningful or defensible results.

*Response:*

With respect to the gasoline used in the Guerrieri/Caffrey study, we point out that the gasoline used for the study to develop the Complex Model was also different than today's. In fact, the gasolines used for both the original Complex Model study and the Guerrieri/Caffrey study were the same, providing some level of consistency between them. Both were designed to reflect the statutory baseline fuel for these standards: 1990 fuel, not today's fuel. While only two manufacturers and only passenger cars were represented in the analysis, and notwithstanding the other limitations of this study, the Guerrieri/Caffrey study provides the best information available and allows EPA to estimate with reasonable confidence what would be the likely effect on exhaust emissions of blends of E15 in RFG as represented by the Complex Model. As stated in the preamble of the NPRM, the outcome of that study was consistent with our engineering judgment.

That is, the general trend across vehicles of all ages is that the addition of ethanol to gasoline tends to lower VOC emissions due to its enleanment effect during open loop operation.

Preamble section III.G.1.c addresses these concerns in further detail.

### **1.6.5 Representation of Other Renewable Fuels in the Complex Model**

*What Commenters Said:*

**Organizations:** Biotechnology Industry Organization (BIO), et al.; Butamax Advanced Biofuels, LLC and Gevo, Inc. (Butamax and Gevo)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0091, pp. 1-2; EPA-HQ-OAR-2010-0448-0084, pp. 1-3

**Comment:** Commenters support the proposed revisions to the Complex Model but recommend that EPA expand it to all gasoline blends containing greater than 3.7% up to 5.8% oxygen by weight that have been approved by EPA. This would allow other renewable oxygenates such as isobutanol and pentanol to be blended in compliance with the rule. Isobutanol contains less oxygen by weight than ethanol, but at blends above 12.5 vol% will still exceed 2.7% oxygen by weight, EPA's oxygen content limit for gasoline to be considered "substantially similar." At 16.1 vol% isobutanol, the resulting gasoline would have an oxygen content of approximately 3.7% by weight, equivalent to E10 and well below the oxygen content of E15. Given the vast potential for advanced biofuels, such as isobutanol, to enter the marketplace in the next several years, this proactive regulatory change would remove one of many existing barriers to widespread distribution and use of advanced biofuels. Like ethanol, the use of isobutanol in gasoline results in lower CO and NO<sub>x</sub> emissions as oxygen content increases. Butamax and Gevo provide significant additional discussion on this issue, citing to a recent study by Argonne National Labs entitled "Impact of Ethanol and Butanol as Oxygenates on SIDI Engine Efficiency and Emissions Using Steady-State and Transient Test Procedures" (September 2010) and provides wording for a new paragraph at (c)(1)(iii)(C) that EPA should add to the regulatory text at 40 CFR Section 80.45.

*Response:*

We believe that this comment has merit, since the Complex Model treats the parameter of oxygen independently of the oxygenate which supplies it. In other words, the model was developed using fuel oxygen level as an input independent of which oxygenate contributed the oxygen. In addition we believe that the increased use of any oxygenate in the range of 4.0 to 5.8 wt% oxygen would have effects on VOC emissions that are similar directionally to those of increased ethanol use in that range. Thus, we agree with the commenters that it is not necessary to limit the higher levels of oxygen in fuel (i.e., above 4.0 wt% up to 5.8 wt%) only to ethanol for purposes of modifications to the Complex Model regulations. We have therefore modified the regulations to allow the Complex Model to be run for fuels containing oxygen levels up to 5.8 wt% from any oxygenate. Preamble section III.G.1.d contains a more detailed discussion of this issue.

### 1.6.6 Updating Inventory Models

*What Commenters Said:*

**Organization:** National Association of Clean Air Agencies (NACAA); Pennsylvania Department of Environmental Protection (PA DEP)

**Document Number:** EPA-HQ-OAR-2010-0448-0077, p. 3; EPA-HQ-OAR-2010-0448-0058, pp. 4-5

**Comment:** In addition to updating the Complex Model, other models such as Nonroad 2008, NMIM 2008 and MOVES should be updated to accommodate the addition of E15 to the fuel supply. EPA should also endeavor to determine what percentage of control systems for all types of vehicles and engines will be damaged from misfueling with E15 and quantify the impact on emissions in the models. PA DEP noted that if EPA is not going to update these other models, they should provide additional information on how emission inventories subject to these models will be updated.

*Response:*

The models mentioned by PA DEP and NACAA are periodically updated and will be revised to take into account effects of E15 as more data on emissions become available. In today's rule, EPA is prohibiting the use of gasoline-ethanol blended fuels containing greater than 10 vol% ethanol content in vehicles, engines, and equipment not covered by the E15 partial waivers and is taking several other steps to mitigate misfueling with E15. EPA believes that the final rule will help mitigate misfueling and thus help prevent adverse emissions effects.

### 1.6.7 Modification of the VOC Adjustment for RFG in Chicago and Milwaukee

*What Commenters Said:*

**Organization:** Growth Energy

**Document Number:** EPA-HQ-OAR-2010-0448-0083, pp. 18-19

**Comment:** The RFG regulations reduce the VOC standard by 2.0% for "Adjusted VOC gasoline" (i.e., gasoline that contains between 9 and 10 percent ethanol and is intended for use only in specified RFG areas around Chicago and Milwaukee). However, as with EPA's regulations implementing the one-pound RVP waiver of section 211(h), the Adjusted VOC standard is expressly limited by rule to gasoline that contains "at least 9% and no more than 10%" ethanol. As written, the standard does not apply to E15, which would be subject to the unadjusted VOC standard for RFG areas in Chicago and Milwaukee. This scenario would present additional logistical and financial challenges (e.g., the creation and storage of a lower RVP blendstock for splash-blending E15). Commenter provides additional discussion and notes that the limitation of the adjusted VOC standard to E10 is not a statutory requirement and that E15 presents no significantly different volatility concerns than E10.

**Organization:** National Petrochemical and Refiners Association (NPRA)

**Document Number:** EPA-HQ-OAR-2010-0448-0067, p. 12

**Comment:** EPA should address the need to change the special provision for the Adjusted VOC standard for Chicago and Milwaukee RFG. Commenter cites the language in Section 80.40(c)(1)

and notes that this section should be revised to extend the applicability of the concentration of ethanol to at least 9% and no more than 15% (by volume) of the gasoline.

*Response:*

Preamble section III.G.1.e provides EPA's response to these comments.

## **2. Other Issues Addressed by Commenters**

### **2.1 Cost of Compliance**

#### **2.1.1 Cost Estimates**

*What Commenters Said:*

**Organization:** Growth Energy

**Document Number:** EPA-HQ-OAR-2010-0448-0083, p. 8

**Comment:** With regard to EPA's cost estimates for pump labeling and PTDs, Growth Energy believes that EPA's estimates appear reasonable.

**Organization:** American Petroleum Institute (API)

**Document Number:** EPA-HQ-OAR-2010-0448-0081, pp. 3, 13-15

**Comment:** EPA's cost estimate excludes the costs associated with damage that may occur to approved vehicles (as evidenced by CRC testing) as well as damage to non-approved vehicles that misfuel in spite of the EPA proposed misfueling mitigation measures. EPA has also limited its analysis in this rule to one medium -- air -- and from one source of emissions -- the vehicle. For example, EPA has not looked at potential increased emissions from Stage I and Stage II vapor recovery equipment at the retail gasoline station and has not considered the potential impacts to water and the associated costs of upgrading underground storage tank systems and the dispensers that deliver the fuel to the vehicle. Based on the results of the Department of Energy's National Renewable Energy Laboratory (NREL) report of November 12, 2010, there are significant operational or material incompatibilities between legacy equipment and E15.

**Organization:** Growth Energy

**Document Number:** EPA-HQ-OAR-2010-0448-0083, pp. 8-9

**Comment:** Based on the record in the Waiver Decision, there is no evidence that use of E15 will result in any repair costs if such fuel is used in any type of vehicle or engine. Commenter supports the use of labels, PTDs and compliance surveys to ensure use of E15 in approved vehicles, and believes the costs of doing so are reasonable to ensure legal compliance, but asserts that there is no basis or need to justify such measures based on claimed avoided costs of repairs from potential use of E15 in unapproved vehicles or engines.

**Organization:** Alliance of Automobile Manufacturers (Alliance)

**Document Number:** EPA-HQ-OAR-2010-0448-0072, p. 18

**Comment:** In addition to the costs of communicating with the significant number of past and future customers about the E15 fuel change, automakers may also incur transaction costs and other expenses due to claims of damage attributed to the fuel and/or misfueling (including claims about vehicles not designed to run on E15 in the first place). Resolving the technical issues of the

role of E15 in a claim is not a simple or inexpensive matter. Resolution of claims and related litigation, meritorious or not, as well as the adverse impact on customer perceptions, will represent real costs to vehicle manufacturers. The costs of potential recalls must also be considered. Liability and warranty issues will also extend to other equipment manufacturers, fuel distributors, and retailers. While the degree to which such claims materializes, and in what time frame, remains uncertain, it is incumbent upon EPA to consider these issues in its cost analysis.

*Response:*

Preamble section IV.A discusses why we have not included the specific costs mentioned by these commenters. In brief, our cost estimates are for the misfueling mitigation measures that we are adopting in today's rule. Many of the costs described by the commenters are costs that may result from misfueling with E15, which the final rule is designed to minimize. Other costs described by commenters are associated with the potential impact E15 may have on media other than air, and the steps that may be needed to avoid that impact, such as addressing the compatibility of dispensing and storage equipment with E15. As described in the Preamble, EPA recognizes that there are a number of additional steps that need to be taken for E15 to be made available, and some of those steps involve compliance with other federal, state and local environmental and safety requirements. Since businesses are not required to sell E15, it is up to businesses to decide whether to sell E15 and incur costs that may be associated with making E15 available. EPA is considering the impact of E15 on transportation air emissions as part of its analysis of RFS requirements and a rulemaking to establish motor vehicle and fuel control measures in response to the May 21, 2010 Presidential Memorandum Regarding Fuel Efficiency Standards.

*What Commenters Said:*

**Organization:** Growth Energy

**Document Number:** EPA-HQ-OAR-2010-0448-0083, p. 8

**Comment:** Based on the number of samples proposed by EPA, the survey costs associated with expedited sample transport and analysis would lead to approximately \$1 million per year in additional costs. Further, based on estimates obtained from potential survey vendors (assuming ground shipping of samples and standard laboratory turnaround of 10-12 days), the survey program would cost approximately \$2.5 million.

*Response:*

We agree with the commenter that expedited shipping and analysis would increase the costs of the survey program. As explained in Preamble section IV.A, in response to cost and feasibility issues raised by commenters, we removed the requirement for expedited shipping and recalculated the costs of the final rule accordingly.

## **2.2 The Applicability of the Statutory 1.0 psi RVP Waiver to E15**

### **2.2.1 Support for No RVP Waiver (1.0 psi) for E15**

*What Commenters Said:*

**Organization:** Outdoor Power Equipment Institute (OPEI)

**Document Number:** EPA-HQ-OAR-2010-0448-0053, pp. 20-21

**Comment:** Commenter fully supports EPA's efforts to control Reid Vapor Pressure (RVP) thresholds. EPA has appropriately proposed to prohibit the comingling of an E10 gasoline-ethanol blend BOB with an E15 BOB. This control is needed to prevent violations of summertime RVP requirements -- unless the E10 blend has not taken advantage of the 1 psi RVP waiver. Given these blending problems, EPA should evaluate and identify blender pumps that are producing illegal fuels in terms of RVP and other characteristics and should take appropriate enforcement action as necessary. Accordingly, fuel refiners will likely need to create a special fuel or blendstock that has approximately 1 psi lower RVP than a typical fuel or blendstock intended for E10.

**Organization:** National Marine Manufacturers Association (NMMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0095, p. 12

**Comment:** Commenter supports EPA's decision to deny the 1.0 psi waiver for E15 and agrees that the CAA prohibits the extension of this waiver to E15. Commenter generally supports nationwide, consistent RVP standards without the 1.0 psi waiver, as well as the requirement for a national RVP survey in non-RFG areas. Prior to 2009, the recreational marine industry did not have to comply with evaporative emission controls. Between 2009 and 2013, boat builders and marine engine manufacturers will have collectively spent millions of dollars to achieve stringent diurnal and permeation emission reductions. The technologies to achieve these standards are based on a RVP of 9.0 psi for EPA and 7.0 psi for California. Commenter also notes that fuel distributors, evaporative emission component manufacturers and the EPA all need to be able to ensure and verify that the fuel that is being sold in the US meets the national RVP fuel standards and that failure to control the vapor pressure of fuel at the consumer level could lead to in-use non-compliance with evaporative emission standards.

**Organization:** Alliance of Automobile Manufacturers (Alliance)

**Document Number:** EPA-HQ-OAR-2010-0448-0072, p. 16

**Comment:** Commenter agrees with both the decision that the 1.0 psi RVP waiver should apply only to E10 blends and that EPA should require RVP testing (including for E10) as part of the national surveys. This will provide an additional quality and compliance check on the sampled blends.

**Organizations:** American Lung Association (ALA); Mid-American Regional Council (MARC)  
Air Quality Forum

**Document Numbers:** EPA-HQ-OAR-2010-0448-0097, p. 4; EPA-HQ-OAR-2010-0448-0075,  
pp. 1-2

**Comment:** Commenters support EPA's proposal not to grant a 1.0 psi waiver for E15 because of the increased emissions associated with such a waiver (with one commenter (ALA) citing to increased evaporative emissions as a concern). MARC notes that: 1) modeling completed by Tom Austin of Sierra Research has shown with three different methodologies that if E15 is provided the RVP waiver, the increase in on-road NOx emissions is greater than the estimated reduction in VOC emissions; and 2) a study completed by Oak Ridge National Laboratory shows that a vehicle running on E15 requires 1.7 vol% more fuel than E10 and 5.2 vol% more than E0. While it is not expected to harm the vehicle, use of E15 will reduce fuel economy and as such,

issuing a 1.0 psi RVP waiver for E15 will increase the negative impact of the fuel on local and regional air quality.

**Organization:** New York State Department of Environmental Conservation (NY DEC)

**Document Number:** EPA-HQ-OAR-2010-0448-0069, pp. 2, A2

**Comment:** The increase in RVP that occurs when ethanol is blended with gasoline hydrocarbons results in increased hydrocarbon emissions that pose significant air quality challenges for many jurisdictions, including New York State. Beyond being illegal for E15, the 1.0 psi RVP waiver is undesirable environmentally and is unnecessary. Summer reformulated gasoline is routinely blended with ethanol, generally with an RVP of approximately 7 psi, well below the conventional gasoline RVP limit of 9.0 psi.

*Response:*

As is explained in section IV.B of the Preamble and more fully discussed in Section 2.2.3 below, EPA believes that the statutory 1.0 psi RVP waiver provision is properly interpreted as applying only to E10. Section IV.C of the Preamble addresses the comment concerning the prohibition against comingling E10 and E15 BOBs. Sections III.C.2 and IV.C of the Preamble discusses potential blendstock issues for E15. As we note there, during the summer ozone season, a blendstock 1 psi lower in RVP than the typical blendstock intended for E10 (i.e., a blendstock that takes advantage of the statutory 1 psi RVP waiver) would be needed for blending of E15 in some parts of the country and not others. In areas of the country subject to reformulated gasoline (RFG) requirements or do not allow the use of a 1 psi waiver for E10 (e.g., if an approved SIP does not allow for the use of the RVP waiver), the RVP of the blendstock used for E10 is likely to be appropriate for E15, since E10 in those areas must have an RVP lower than 9.0 psi in order to meet the reformulated gasoline VOC standard. It is also worth noting that blendstock changes for meeting RVP standards would only be required during the summer ozone season when RVP standards apply. During the rest the year, blendstocks used for E10 could be appropriate for E15 for RVP purposes.

Regarding the comment urging nationwide, consistent RVP standards without the 1 psi waiver and enforcement of RVP requirements, EPA is considering further control of RVP as it develops a separate rulemaking to address air pollution from motor vehicles and fuel in response to the May 21, 2010 Presidential Memorandum Regarding Fuel Efficiency Standards. EPA takes action when it finds gasoline blends out of compliance with RVP regulations or any other applicable EPA regulations.

Preamble section III.D.1.a discusses the issue of RVP testing and surveys.

## **2.2.2 Opposition to Applying 1.0 psi Waiver Only to E10**

*What Commenters Said:*

**Organization:** American Petroleum Institute (API)

**Document Number:** EPA-HQ-OAR-2010-0448-0081, p. 17

**Comment:** The NPRM states that EPA does not have the authority to extend the 1.0 psi RVP waiver to ethanol blends above 10%. Because of its significant impact on the gasoline supply and

distribution system, API encourages the agency to find a way to overcome this perceived lack of authority and to permit the RVP waiver to be extended to E15. If necessary, API encourages the Agency to work with Congress in developing and enacting legislation to extend the waiver to E15 blends.

**Organization:** American Coalition for Ethanol (ACE); Renewable Fuels Association (RFA)

**Document Number:** EPA-HQ-OAR-2010-0448-0087, p. 7; EPA-HQ-OAR-2010-0448-0088, pp. 4-5

**Comment:** The 1.0 psi volatility tolerance should be extended to E15. According to the API report "Determination of Potential Property Ranges of Mid-Level Ethanol Blends" (April 2010), E15 fuel blends also support improvements to air quality with a reduction vapor pressure over E10 fuel blends. Vapor pressure typically rises with the addition of ethanol to gasoline; however, API's report suggests the maximum increase in vapor pressure occurs at 10 vol% ethanol. At higher ethanol concentrations such as 15 vol%, vapor pressure of the fuel blend actually decreases. Thus, EPA should extend the existing volatility tolerance for E10 to fuels containing up to 5.8 wt% oxygen .

**Organization:** Growth Energy

**Document Number:** EPA-HQ-OAR-2010-0448-0083, pp. 5, 16, 18

**Comment:** EPA should extend the 1.0 psi waiver for ethanol blends under Clean Air Act section 211(h)(4) to include all ethanol blends above 9% ethanol including E15. Imposing more restrictive RVP requirements on E15 than E10 is technically and legally unsupported and creates unnecessary challenges for manufacturers, blenders and others regarding introduction of E15 into the marketplace. EPA's current regulations limit applicability of the 1.0 psi RVP waiver to fuels that contain at least 9 vol% and no more than 10 vol% ethanol by volume of the gasoline (e.g., 40 CFR §§ 80.27(d)(2) and 80.28(g)(8)). These regulations were drafted when fuel containing 10% ethanol was the highest permissible ethanol content in gasoline and could be interpreted to preclude applicability of the 1.0 psi waiver for fuels with ethanol content above 10%, such as E15. However, this interpretation is inconsistent with the statutory language and legislative history of the waiver, its purpose, and the fact that E15 would have a nearly identical RVP to E10 and not exceed applicable RVP limits where the waiver is applied. As part of this rulemaking, EPA should amend its RVP regulations, in a manner consistent with statutory language and legislative intent, to expressly allow E15 to be covered by the 1.0 psi waiver. EPA's proposal to create a different RVP limit for E15 from E10, in addition to having no sound technical basis, creates unnecessary implementation challenges. EPA's decision is contrary to the agency's prior recognition that creating the need for a special blend stock for certain ethanol-gasoline blends is cost "prohibitive" (e.g., 52 FR 31274, 31292). EPA's decision also creates unnecessary hurdles to the use of E15 such as EPA's proposed prohibition on comingling of E10 and E15 as well as E10 BOB and E15 BOB (see 75 FR 68059). Such prohibitions, without any transition period as proposed by EPA, could cripple the introduction of E15 into the marketplace. Other requirements resulting from a more restrictive RVP limit for E15 (e.g., PTD and survey requirements) should also be stricken as they create additional and unnecessary costs (and since there is no evidence that E10 and E15 at the same RVP have any discernable difference in effect on evaporative emissions). Eliminating the RVP restriction would obviate the need for separate blendstocks for E10 and E15 as well as the need for prohibitions on blending E10 with E15 and their respective blendstocks.

**Organization:** American Petroleum Institute (API)

**Document Numbers:** (EPA-HQ-OAR-2010-0448-0081) pp. 10-11

**Comment:** The Agency should provide for fungibility of E10 and E15 blendstocks provided that ethanol is blended at the highest designated level of ethanol. This requires in summer periods that finished products have the same RVP limitation and/or VOC performance level.

**Organization:** National Petrochemical and Refiners Association (NPRA)

**Document Number:** EPA-HQ-OAR-2010-0448-0067, p. 2

**Comment:** It does not make sense for Congress to allow a 1.0 psi waiver for E10 but not E15. If regular octane conventional gasoline/E10 with the waiver is blended with premium octane conventional gasoline/E15 without the waiver to produce a midgrade, then this conventional gasoline midgrade would not qualify for the waiver. This would be very disruptive and would have the practical impact of further balkanizing gasoline markets by creating a new boutique fuel.

*Response:*

As explained in Preamble section IV.B and more fully discussed in section 2.2.3 below, EPA believes that the statutory 1.0 psi RVP waiver provision is properly interpreted as applying only to E10. EPA is aware of the API report cited in the comments and has considered it in its analysis to the extent it applies. EPA recognizes that during the summer ozone season, a blendstock that is 1 psi lower in RVP than the typical blendstock intended for E10 (i.e., a blendstock that takes advantage of the statutory 1 psi RVP waiver) would have to be available for the blending of E15 in some parts of the country, as described in the previous.

We do not agree that it would be appropriate as a policy matter for a 1.0 psi RVP waiver to be applied to E15. EPA conditioned the E15 partial waivers on, among other things, E15 not exceeding 9.0 psi RVP in the summer months in order to ensure that E15 will not cause or contribute to exceedances of evaporative emission standards by the MY2001 and newer vehicles covered by the waivers. As we explained in the partial waiver decisions, without that condition, E15 would not meet the test under CAA section 211(f)(4) for granting fuel waivers. At the same time, we noted in the January 2011 partial waiver decision that because E15 may not exceed 9.0 psi RVP in the summertime under the partial waivers, its use would result in lower evaporative emissions than use of E10 that takes advantage of the statutory 1.0 psi RVP waiver and consequently has an RVP of 10.0 psi in the summer months.<sup>4</sup> EPA is currently considering further control of RVP as it develops a separate rulemaking to address air pollution from motor vehicles and fuel in response to the President's May 21, 2010 memorandum.

*What Commenter Said:*

**Organization:** Growth Energy

**Document Number:** EPA-HQ-OAR-2010-0448-0083, pp. 10-16

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<sup>4</sup> As explained in the partial waivers decisions, E10 received a section 211(f)(4) fuel waiver by operation of law prior to the amendment made by the Energy Independence and Security Act that authorizes fuel waivers only if EPA determines that the section 211(f)(4) test is met.

**Comment:** The scientific evidence presented by Growth Energy in its waiver application, as well as subsequent studies on which EPA relied for imposing the 9.0 psi limitation, make clear that E15 will not cause MY2007 and newer vehicles to violate their evaporative emissions standards and that EPA should not impose on E15 more stringent evaporative emissions standards than those applicable to E10. Commenter asserts that EPA wrongly dismissed Growth Energy's scientific evidence and conclusions regarding the effect of E15 on evaporative emissions. EPA criticized Growth Energy for drawing conclusions about E15 by comparison to the proven effects on evaporative emissions of E10 and E6, instead of providing test results comparing E15 directly to E0 (see 75 FR 68115). EPA also criticized Growth Energy's reliance on two studies (the Stockholm Study and the CRC Report No. E065-3) and materials compatibility studies to address potential durability questions associated with use of E15 and the impact on long term evaporative emissions. EPA's criticisms are misplaced. Section 211(f) of the Clean Air Act does not require a waiver applicant to present evaporative emissions testing directly comparing the waiver fuel with E0, as EPA seems to suggest. Rather, the statutory standard is that an applicant must establish that the fuel or fuel additive, and the emission products thereof, will not cause or contribute to a failure of any emission control device or system to meet its certification emissions standards. EPA has repeatedly allowed waiver applicants to meet this statutory burden without vehicle testing by presenting a "reasonable theory" that predicts the emission effects of a fuel or fuel additive, supported only by a sufficient amount of "confirmatory testing" to demonstrate the validity of the theory. Regarding evaporative emissions specifically, EPA has granted section 211(f)(4) waivers without requiring any testing for evaporative emissions, let alone testing specifically on "entire motor vehicles" and has granted waivers where volatility has been found to be "no worse than those of commercially available fuels." Commenter provides additional discussion on this issue, asserting that the information in the waiver application provides sufficient information for EPA to grant the E15 waiver without a more restrictive RVP limitation.

EPA should interpret section 211(h)(4) of the CAA to include E15 as within the scope of the 1.0 psi waiver. Accordingly, EPA should eliminate the 9.0 RVP requirement imposed in the waiver decision and amend its regulations governing the 1.0 psi waiver at 40 C.F.R. §§ 80.27(d)(2) and 80.28(g)(8). EPA's rationale for its decision on this issue relies heavily on the findings of the Coordinating Research Council report (CRC E-77-2), "Enhanced Evaporative Emissions Vehicles" (March 2010). EPA's analysis of the effect of E15 on evaporative emissions consists of an evaluation of the five types of evaporative emissions considered in the certification process. EPA concludes for four of the five categories that E15 will not cause MY2007 and newer vehicles to exceed their evaporative emissions standards; EPA's only basis for the RVP limit regards the fifth type -- diurnal evaporative emissions. Commenter provides significant additional discussion on this issue, including a detailed chart that outlines for each of the five evaporative emission types (hot soak, running loss, permeation, unintended leaks, and diurnal), the potential issue with ethanol blends and EPA's conclusion regarding this evaporative emission type. Commenter asserts that: 1) the CRC E-77-2 results do not provide a rational basis for regulating E15 at 10.0 psi differently than E15 at 9.0 psi; and 2) the CRC E-77-2 results confirm that E15 will have the same effect on evaporative emissions as E10 at the same RVP and that there is no basis to impose the more stringent 9.0 psi summertime RVP limit on E15. For both of these conclusions, commenter provides significant additional discussion regarding why EPA cannot rely on the CRC study to make a decision on the 1.0 psi waiver.

*Response:*

We do not agree that the 9.0 psi RVP condition of the E15 partial waivers is unnecessary or inappropriate. As we explained in the partial waiver decisions, for purposes of determining whether a new fuel or fuel additive will cause or contribute to exceedances of emission standards, the proper comparison is between the emissions impact of the new fuel or fuel additive and the emissions impact of the fuel used in testing vehicles for compliance with emissions standards (i.e., E0). It is also not within scope of this rulemaking to reopen or revise the terms of the E15 partial waivers. The purpose of today's rule is to establish federal misfueling mitigation measures to further reduce the potential for misfueling with E15 that is lawfully introduced into commerce under the partial waivers.

### 2.2.3 Interpretation of CAA section 211(h)

#### *What Commenters Said:*

**Organization:** Growth Energy

**Document Number:** EPA-HQ-OAR-2010-0448-0083, pp. 17-18

**Comment:** The statutory language, legislative purpose, and legislative history support that the 1.0 psi waiver should apply to E15. Specifically, section 211(h) should be interpreted to include E15 within the scope of the waiver. Congress based the waiver in part on EPA's 1987 rulemaking that established national volatility limits for gasoline but allowed E10 to exceed the general RVP limits by 1.0 psi (see 52 FR 31274, 31292). The 1987 rulemaking established a minimum ethanol content to ensure that fuel containing only trace amounts of alcohol does not qualify for the waiver and noted that "the maximum limit set by the [211(f)(4)] waiver would still apply" (52 FR 31305). The waiver in CAA Section 211(h)(4) applies to fuels that contain a minimum of 10% ethanol, with the maximum being set by any applicable 211(f)(4) fuel waiver. The "deemed compliant" portion of the provision clarifies that it is the EPA's section 211(f)(4) waiver, not section 211(h)(4) that imposes the maximum cap on the percentage of ethanol in the fuel. Interpreting section 211(h)(4) as providing a minimum ethanol content requirement is not only consistent with EPA's early rulemaking efforts; it also is consistent with the legislative intent and history behind the RVP waiver. Commenter provides significant background discussion on the 1990 CAA Amendments and additional legal analysis/references regarding the waiver provision and concludes that the 1.0 psi waiver was intended to apply to blends such as E15 that contain "at least" 10% ethanol, but no more than any applicable 211(f)(4) waiver.

**Organization:** National Petrochemical and Refiners Association (NPRA)

**Document Number:** EPA-HQ-OAR-2010-0448-0067, pp. 2-5

**Comment:** EPA has not generally interpreted the 1.0 psi waiver in CAA section 211(h)(4) to apply solely to E10, and has acknowledged that "interpreting this provision to provide a one psi allowance only if the blend contains exactly 10% ethanol would place a next to impossible burden on ethanol blenders" (see 56 FR 24245). EPA has always determined that the Agency has some discretion to interpret the literal meaning of Section 211(h)(4) in the context of "real world" conditions and the overall intent of Congress in creating this exception. EPA is not limited to extending a 1.0 psi waiver solely to gasoline-ethanol blends that precisely blend 10% ethanol into gasoline, but rather may reasonably extend the 1.0 psi waiver to other low to moderate gasoline-ethanol blends where there is no subversion of the statutory purpose of that section. EPA could therefore reasonably interpret CAA section 211(h)(4) to extend to E15

blends. Commenter provides significant additional discussion and legal analysis on this issue, particularly with regard to the cross-reference in Section 211(h)(4) to the waiver condition under Section 211(f)(4) and asserts that: 1) Congress clearly intended that fuel distributors, blenders and sellers would be considered in compliance with fuel regulations if the fuel distributed, blended or sold was in compliance with a CAA section 211(f)(4) waiver (and other conditions of CAA section 211(h)(4) were met); 2) In a situation where a CAA section 211(f)(4) waiver has been granted and the RVP of a fuel subject to the waiver and the RVP of E10 were effectively the same, it would appear illogical for Congress to deem fuel distributors, blenders and sellers as being in compliance, but to not extend this same compliance status to fuel; and 3) The deemed to comply provision does not specifically mention 10% ethanol. The commenter also argued that the fuel for which a CAA section 211(f)(4) waiver has been granted is legal to be delivered to the consumer. Thus it appears that the main limitation on authority to extend a 1.0 psi waiver under CAA section 211(h)(4) may be viewed as applying with reference to actions that would increase RVP, rather representing a hard percentage limit on ethanol content. Commenter adds that with respect to EPA's second request for comment on this issue -- i.e., whether interpreting CAA section 211(h)(4) in this fashion would have any impact on the Agency's E15 waiver decision -- their answer is firmly "no." Indeed, the statutory construction of these sections is directly contrary to such an interpretation.

*Response:*

Evaporative emissions from motor vehicles and off-highway equipment are a major source of volatile organic compounds (VOCs) that contribute to ozone. The amount of evaporative emissions from a gasoline blend is closely related to its volatility, which generally increases when ethanol is blended with gasoline. Reid Vapor Pressure (RVP) is the most common measure of gasoline volatility under ambient conditions. In 1989, EPA began reducing gasoline volatility by limiting its RVP. (40 C.F.R. §80.27)(1989). We provided an interim RVP level that was 1.0 psi higher “for gasoline-ethanol blends commonly known as gasohol.” 54 FR 11868, 11879 (March 22, 1989). We explained that “[s]uch blends must contain at least 9% ethanol (by volume) and their maximum ethanol content may not exceed any applicable waiver conditions under section 211(f)(4).”<sup>5</sup> 54 FR 11879. We further explained that “to continue the non-regulation of gasohol RVP once gasoline RVP was reduced would create an incentive to use high RVP gasoline for blending with ethanol, effectively creating a loophole in the standard.” 54 FR 11881. In 1990, we promulgated additional RVP regulations and “for blends of gasoline with about 10 percent ethanol, or gasohol, EPA continue[d] to provide a 1.0 psi RVP allowance so as not require a special low-RVP blending gasoline.” 55 FR 23658, 23660 (June 11, 1990).

Subsequently, in the 1990 CAA amendments, Congress largely codified our RVP regulations by adding a new section 211(h). That provision established 9.0 psi as the maximum RVP during the high ozone season (generally the summer months), with authority for EPA to set a more stringent RVP level under certain circumstances. In section 211(h)(4), Congress also established that the RVP limit for “fuel blends containing gasoline and 10 percent denatured anhydrous ethanol” would be 1 psi higher

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<sup>5</sup>At proposal, we had explained that “[i]n order to qualify for treatment as gasohol, fuel would have to contain at least 9 percent ethanol [and that] the 9 percent ethanol is based on the 10 percent maximum ethanol content allowed by the section 211(f) gasohol waiver.” 52 FR 31274, 31305 n.22 (August 19, 1987).

than the RVP standard otherwise established in section 211(h). This provision is referred to as the 1 psi waiver and specifically applies to gasoline-ethanol blends containing 10 percent ethanol.<sup>6</sup> As part of section 211(h)(4), Congress also enacted a conditional defense against liability for violations of the RVP level allowed under the 1 psi waiver by stating that “[p]rovided, however, That a distributor, blender, marketer, reseller, carrier, retailer, or wholesale purchaser-consumer shall be deemed to be in full compliance with the provisions of this subsection and the regulations promulgated thereunder if it can demonstrate that – (A) the gasoline portion of the blend complies with the Reid vapor pressure limitations promulgated pursuant to this subsection; (B) the ethanol portion of the blend does not exceed its waiver condition under subsection (f)(4) of this section; and (C) no additional alcohol or other additive has been added to increase the Reid Vapor Pressure of the ethanol portion of this blend.” Section 211(h)(4). This is referred to as the “deemed to comply” provision.

Subsequent to the 1990 amendments, EPA modified its RVP regulations to conform to the new provisions. In that rulemaking EPA “did not propos[e] any change to the current requirement that the blend contain between 9 and 10 per cent ethanol (by volume) to obtain the one psi allowance.” 56 FR 64704, 64708 (December 12, 1991). We explained that “this is consistent with Congressional intent [because] the nature of the blending process . . . further complicates a requirement that the ethanol portion of the blend be exactly 10 percent ethanol.” 56 FR 24245. We also explained that the “deemed to be in full compliance” provision was “a new defense against liability for violation of the ethanol blend RVP requirement [and that] EPA believes that this statutorily mandated defense is in addition to and does not supersede any of the defenses currently contained in the regulations.” 56 FR 64708. Additionally, EPA explained that this provision would allow “a party to demonstrate the elements of the new defense by production of a certification from the facility from which the gasoline is received [and that] this defense is limited to ethanol blends which meet the minimum 9 percent requirement in the regulations and the maximum 10 percent requirement.” 56 FR 64708.

Further, in the Energy Policy Act of 2005 (EPAct 2005), Congress removed the requirement that reformulated gasoline contain oxygenate additives, and mandated that increasing volumes of renewable fuel be used in gasoline. In recognition of the expected increase in ethanol use resulting from these provisions, Congress added section 211(h)(5) to allow States to obtain an exclusion from the less stringent RVP limit under section 211(h)(4) upon demonstrating increased air pollution resulting from application of this waiver. “Upon notification, accompanied by supporting documentation, from the Governor of a State that the RVP limitation established by paragraph (4) will increase emissions that contribute to air pollution in any area in the State, the Administrator shall, by regulation, apply, in lieu of the RVP limitation established by paragraph (4), the RVP limitation established by paragraph (1) to all fuel blends containing gasoline and *10 percent denatured anhydrous ethanol* that are sold, offered for sale, dispensed, supplied, offered for supply, transported, or introduced into commerce in the area during the high ozone season” (emphasis added). Section 211(h)(5). Thus, when a State notifies EPA

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<sup>6</sup> The full text of section 211(h)(4) reads, “For fuel blends containing gasoline and 10 percent denatured anhydrous ethanol, the Reid vapor pressure limitation under this subsection shall be one pound per square inch (psi) greater than the applicable Reid vapor pressure limitations established under paragraph (1).” 42 USC § 7545(h)(4).

with the appropriate documentation that the RVP limit under section 211(h)(4) is causing an air pollution problem, EPA is to apply the more stringent RVP limit under paragraph (1) in lieu of the relaxed limit allowed under section 211(h)(4). Under section 211(h)(5) the maximum RVP standard for blends containing gasoline and 10% ethanol would be the same as for gasoline without ethanol.

The legislative history of the 1.0 psi waiver provision contained in section 211(h)(4) shows that a 1 psi waiver is allowed “for fuel blends containing gasoline and 10 per centum denatured anhydrous ethanol.” Clean Air Act Amendments of 1990, S. 1630, 101<sup>st</sup> Cong. § 214 (1990), 101st Cong., 2d Sess. at 262 (April 3, 1990); reprinted at 3 A Legislative History of the Clean Air Act Amendments of 1990 at 4380 (1993) (Leg. Hist.). Section 211(h)(4) reflects the language adopted in section 214 of the Senate bill. A companion bill in the House provided a 1 psi waiver for blends of gasoline and ethanol “containing at least 10 percent ethanol.” Clean Air Act Amendments, S. 1630, 101<sup>st</sup> Cong. § 216 (1990) 101st Cong., 2d Sess. at 294 (May 23, 1990); reprinted at 2 Leg. Hist. at 2102. The provision in the House bill was also designed to “permit gasoline containing at least 9 but not more than 10 percentum ethanol (by volume) to exceed the applicable Reid Vapor pressure requirements by up to 1.0 psi.” Clean Air Act Amendments of 1989, H.R. 3030, 101<sup>st</sup> Cong. § 214 (1989), 101st Cong., 1<sup>st</sup> Sess. at 170 (July 27, 1989); reprinted at 2 Leg. Hist. at 3906 (1993).<sup>7</sup> The purpose of the 1 psi waiver provision was to facilitate the participation of ethanol in the transportation fuel industry while also limiting gasoline volatility resulting from ethanol blending. “This provision was included in recognition that gasoline and ethanol are mixed after the refining process has been completed. It was recognized that to require ethanol to meet a nine pound RVP would require the creation of a production and distribution network for subnine pound RVP gasoline. The cost of producing and distributing this type of fuel would be prohibitive to the petroleum industry and would likely result in the termination of the availability of ethanol in the marketplace.” S. Rep. No. 101-228, at 110 (1989)(Conf. Rep.); reprinted at 5 Leg. Hist. at 8450 (1993). Also, Congress intended for this provision “to remove the possibility that ethanol blends would be used to circumvent the [gasoline] volatility restrictions.”*Id.*

In 1987, prior to adoption of the 1990 Amendments, Congress considered a legislative provision that was identical in relevant part to both section 214 of the Senate bill and section 211(h)(4). The legislative history of this provision also shows that Congress based the 1.0 psi waiver on technical data indicating that blending gasoline with 9-10% ethanol by volume results in an approximate 1 psi RVP increase. “The certainty of physical chemistry provides the assurance the addition of 10 percent ethanol to the base gasoline will not exceed 1.0 psi RVP. ... [A]nd the Clean Air Act itself which prohibits addition of more than 10 percent ethanol, alleviates any concern that the addition of ethanol to gasoline will result in different volatility levels than already recognized by EPA as adding less than 1.0 psi RVP to gasoline.” Clean Air Act Amendments: Hearings on H.R. 2521, H.R. 3054 and H.R. 3196 Before the Subcomm. on Health and the H.

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<sup>7</sup> See also, H.R. Rep. No. 101-490 at 71 and 312 (1990)(Conf. Rep.); reprinted at 2 Leg. Hist. at 3095 and 3336 (1993).

Comm. on Env't and Comm. On Energy and Commerce, 100th Cong. 1<sup>st</sup> Sess. (1987)(statement of Eric Vaughn, President and CEO of renewable Fuels Association).

In sum, the text of section 211(h)(4) and this legislative history supports EPA's interpretation, adopted in the 1991 rulemaking, that the 1.0 psi waiver in section 211(h)(4) only applies to gasoline blends containing 9-10 vol% ethanol.

In the 1991 rulemaking to implement the 1990 amendments EPA also interpreted the related deemed to comply provision in section 211(h)(4) as establishing an alternative compliance mechanism closely tied to the 1.0 psi waiver. It was interpreted as a conditional defense against liability for those parties who blend 9-10% ethanol by volume. EPA continues to interpret the deemed to comply provision in this manner, such that it does not apply to ethanol blends greater than 10 vol%. This is consistent with the text and legislative history of section 211(h)(4) and (h)(5).

The deemed to comply provision, as contained in section 214 of the Senate bill, states in pertinent part: “[p]rovided, however, that [enumerated persons] shall be deemed to be in full compliance with the provisions of this subsection and the regulations promulgated there under if it can demonstrate . . . that . . . (B) the ethanol portion of the blend does not exceed its waiver condition under subsection (f)(4) of this section.” Clean Air Act Amendments of 1990, S. 1630, 101<sup>st</sup> Cong. § 214 (1990), 101st Cong., 2d Sess. at 262; reprinted at 3 Leg. Hist. at 4380 (April 3, 1990). Section 216 of the House bill used somewhat different text from the language in the Senate bill that was finally adopted. The House bill stated that “[a] manufacturer or processor of gasoline containing at least 10 percent ethanol shall be deemed in full compliance with such standards if the Administrator provides a certification (based on testing) or other evidence acceptable to the Administrator.” Clean Air Act Amendments, S. 1630, 101<sup>st</sup> Cong. § 216 (1990) 101st Cong., 2d Sess. at 294 (May 23, 1990); reprinted at 2 Leg. Hist. at 2102; *See also* H.R. Rep. No. 101-490, at 71 (1990)(Conf. Rep.); reprinted at 2 Leg. Hist. at 3095 (1993).

As noted above, in 1987 Congress considered a bill containing language identical in relevant part to the Senate provisions finally adopted in section 211(h)(4). The provisions in that 1987 Senate bill were in response to EPA's 1987 proposed RVP rule, in which EPA proposed a 1.0 psi waiver for ethanol blends, but conditioned this waiver on the final blend being tested for RVP.<sup>8</sup> The deemed to comply provision was Congress' response to concerns that this was an impractical and overly burdensome way to implement a 1.0 psi waiver for 10% gasohol. The Committee noted that “the enforcement strategy recently proposed by the Agency . . . would be totally unworkable for those motor vehicle fuels which are a blend of gasoline and ethanol and which are allowed a higher RVP limit under the reported bill.” S. Rep. No. 100-231, 100<sup>th</sup> Cong. 1<sup>st</sup> Sess. at 149 (1987). The Senate bill describes the deemed to comply provision as “an alternative enforcement arrangement.” Under this provision, “blenders [would] be able to demonstrate compliance with the RVP limit by providing certification that the base gasoline is in compliance with the 9.0 lbs. psi limitation and a certification that the blended fuel meets the waiver conditions of the Clean Air Act (that is, the ethanol portion does not exceed 10percent by volume of the final fuel).” *Id.* Also see *Id.* at 150. Congress

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<sup>8</sup> 52 FR 31274, 31305 (August 19, 1987) (see proposed 40 CFR 80.27(d)(1)).

explained that this provision simplified compliance with the 1.0 psi waiver because “ethanol is generally blended with gasoline at the terminal in relatively small batches (thousands of gallons) [and] [r]equiring an actual test of the volatility of this blend in every case, as EPA has proposed, would not be feasible considering the very large number of batches mixed over any period, the lack of testing facilities and time to acquire testing results.” *Id.* Thus, the deemed to comply provision is tied to the 1.0 psi waiver. It is designed to provide blenders the practical benefits of the 1.0 psi RVP waiver without requiring that they conduct expensive batch by batch testing to ensure compliance with the 1.0 psi higher RVP limit, e.g. testing to show that the 9-10% ethanol blend does not exceed 10 psi limit. It is not intended as a free standing, separate authorization for a relaxed RVP limit independent of the provision for a 1.0 psi waiver for 9-10% blends.

The text of the deemed to comply provision supports this interpretation. The provision is an addition after the 1.0 psi waiver that modifies the 1 psi waiver for 9-10% blends. It is not written as a free standing RVP limit that acts separate and apart from the 1.0 psi waiver for 9-10% blends of ethanol. It references section 211(f)(4) as an indication that Congress was well aware of the existing section 211(f)(4) waiver conditions for 10% ethanol (by volume).<sup>9</sup> It refers to the ethanol blend not exceeding its section 211(f)(4) waiver conditions, and does not explicitly refer to 10% ethanol,<sup>10</sup> but the condition of not exceeding the section 211(f)(4) waiver limit cannot be read literally. A literal reading of this phrase would mean that blends containing 1%, or 2%, or 5% ethanol would all be blends that are deemed to comply, as they do not exceed the section 211(f)(4) waiver limit. Reading the deemed to comply provision as meaning any and all lawful blends that do not exceed the waiver limit would make the 1 psi waiver for 9-10% blends meaningless. It would make no sense for Congress to limit the 1.0 psi waiver to blends containing 9-10% ethanol and at the same time provide that blends with any lawful percentage, including but not limited to 9-10% ethanol, could have the same 1.0 psi allowance or a higher level of RVP. Moreover, had Congress intended that the deemed to comply provision would establish a different ethanol content for ethanol blends that would be eligible for a relaxed RVP limit, whether higher or lower content, it could have expressly employed terms to that effect.

The deemed to comply provision and the 1.0 psi waiver provision are given consistent meaning by limiting the deemed to comply provision to a subset of lawful ethanol blends. The text of the 1.0 psi waiver and the deemed to comply provision and the legislative history indicate that the deemed to comply provision was designed to address the same subset of ethanol blends that receive the 1 psi waiver – blends of 9-10% ethanol. It was not a separate and free standing RVP provision aimed at another, larger subset of lawful ethanol blends, whether above or below 9-10% blends. Instead it was tied closely to the

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<sup>9</sup> *See for example*, S. Rep. No. 100-231, 100th Cong. 1st Sess. at 149 (1987). (“[A]nd the Clean Air Act itself which prohibits addition of more than 10 percent ethanol, alleviates any concern that the addition of ethanol to gasoline will result in different volatility levels than already recognized by EPA as adding less than 1.0 psi RVP to gasoline.”).

<sup>10</sup> But see section 216 of the House bill, which provided in part that “[a] manufacturer or processor of gasoline containing at least 10 percent ethanol shall be deemed in full compliance with such standards if the Administrator provides a certification (based on testing) or other evidence acceptable to the Administrator.” H.R. Rep. No. 101-490, at 71 (1990)(Conf. Rep.); reprinted at 2 Leg. Hist. at 3095 (1993).

1.0 psi waiver provision and limits the range of ethanol blends that can take advantage of the deemed to comply provision to blends of 9-10% ethanol.

Further support for this view is provided in the action Congress took in 2005 when it adopted section 211(h)(5). There Congress required that EPA remove the relaxed RVP limit for 9-10% blends of ethanol upon notification and a specified showing by a State. That provision treats the RVP limitation of section 211(h)(4) as a whole - it refers to the RVP “limitation established by paragraph (4)” and provides that when a State notifies EPA that such limitation increases emissions that contribute to air pollution in the State, then EPA is to apply the RVP limits of paragraph (1) “in lieu of the [RVP] limitation established by paragraph (4)” for blends of 10% ethanol. It draws no distinction between the 1 psi waiver provision and the deemed to comply provision when referring to the RVP limitation in section 211(h)(4). Section 211(h)(5) recognizes the potential for an air pollution problem caused by the relaxed RVP limit in section 211(h)(4), and provides States with an appropriate solution. When a State notifies EPA that the RVP limit under section 211(h)(4) is causing an air pollution problem, EPA is to apply the more stringent RVP limit under paragraph (1) in lieu of the relaxed limit allowed under section 211(h)(4). These more stringent RVP limits are applied to blends of 9-10% ethanol. A straightforward reading of this provision is that Congress intended to provide States a meaningful and complete solution to the emissions increases stemming from the relaxed RVP provisions in section 211(h)(4), not a partial solution.<sup>11</sup> However, if the deemed to comply provision is read as applying to ethanol blends above or below 9-10% ethanol, then this provision would have at most a partial benefit for a State and in some cases no benefit at all. It would provide no relief at all for emissions from various ethanol blends different from 9-10% ethanol, including E15, even if they had RVP and emissions the same as or worse than ethanol blends of 9-10%. There is no indication Congress intended such a partial and inconsistent solution. Additionally, legislative history indicates that this provision “provides States an expedited process to eliminate the one-pound waiver in any area of a State if the State demonstrates to the Administrator that the one-pound waiver will increase emissions that contribute to air pollution in any area in the State.” S. Rep. No. 108-57, 108<sup>th</sup> Cong. 1<sup>st</sup> Sess. at 10 (2003)(Conf. Rep.). Thus, the text and legislative history indicate Congress viewed section 211(h)(5) as addressing the potential for air pollution problems from the relaxed RVP limit in section 211(h)(4), which applies to blends of 9-10% ethanol.

In sum, EPA views these three provisions – the 1.0 psi waiver and the deemed to comply provision in section 211(h)(4), and the State relief provision in section 211(h)(5) – as related provisions that should be interpreted together to harmonize them and provide significance and a balanced meaning to each of them. EPA believes that this is reasonably done by viewing the 1.0 psi waiver provision in section 211(h)(4) as applying to blends of 9-10% ethanol; by viewing the deemed to comply provision as applying to the same subset of 9-10% ethanol blends, and not applying to blends above or below the range of 9-10%; and by viewing the provision for relief to States in section 211(h)(5) as applying to the same subset of 9-10% ethanol blends. This is consistent with the text and legislative history of the three provisions, which indicate that the RVP provisions in

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<sup>11</sup> It can be noted that the title of section 211(h)(4) is “ethanol waiver” and the title of section 211(h)(5) is “exclusion from ethanol waiver,” not partial exclusion from ethanol waiver.

section 211(h)(4) are intended to work together to facilitate the use of ethanol blends of 9-10%, that the deemed to comply provision is not a free standing or separate provision that addresses fuels different from those covered by the 1.0 psi waiver, and that the provision for States in section 211(h)(5) is intended to provide relief co-extensive with the RVP limits in section 211(h)(4). This interpretation harmonizes all three provisions, gives each of them significant meaning, avoids making any of the provisions meaningless, and reasonably balances the various interests Congress was addressing in these provisions – controlling the RVP of gasoline and ethanol blends in a way that facilitates the practical downstream blending of ethanol while also preserving the ability of States to address the increased emissions associated with a relaxed RVP limit for ethanol blends.

We disagree with commenters' arguments that section 211(h)(4) should be interpreted such that E15 is eligible for the relaxed RVP provisions in section 211(h)(4). Under these commenters reading of section 211(h)(4), the 1.0 psi waiver would apply to fuels that contain a minimum of 10% ethanol while the deemed to comply provision would set the maximum ethanol content for the 1 psi waiver because it applies to blends not exceeding the section 211(f)(4) waiver. Under these commenters reading the deemed to comply provision would be a free standing provision that provides less stringent RVP limits for levels of ethanol separate and apart from the 1 psi waiver for 9-10% blends specified in section 211(h)(4). These commenters' reading recognizes that the deemed to comply provision should be read as tied to the 1.0 psi waiver, as they appear to argue that the deemed to comply provision applies the 1.0 psi waiver to blends higher than 10%.<sup>12</sup> These commenters also appear to agree that the deemed to comply provision should not be read literally but should only apply to a subset of the lawful ethanol blends, with 10% blends as a minimum.

As discussed above, however, the text<sup>13</sup> and legislative history of the 1.0 psi waiver and the deemed to comply provision indicate that they both apply to the same subset of lawful ethanol blends, those at 9-10% ethanol. These commenters improperly treat the deemed to comply provision as a separate and free standing provision that would apply relaxed RVP limits to ethanol blends greater than 10%. These commenters interpretation gives the deemed to comply provision an impact above and beyond what would be allowed under the 1 psi waiver itself, which is for blends of 9-10%. The text and legislative history, however, indicate that the deemed to comply provision was designed as an alternative enforcement arrangement that would provide blenders the practical benefits of the 1.0 psi waiver for 9-10% blends without requiring expensive batch by batch testing. It was intended to reasonably implement the 1 psi waiver for 9-10% blends, not to address other blends not covered by the 1.0 psi waiver.

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<sup>12</sup> Commenter's interpretation also would not appear to be limited to fuels that would only increase RVP by 1 psi. Under their interpretation, the fuel blend would be in compliance as long as it met the waiver conditions, no matter how much higher the RVP of the resulting blend would be.

<sup>13</sup> Selection of one House's version over another is by no means insignificant, and rejection of an amendment should be taken into consideration in discerning statutory text. As shown earlier, Section 211(h)(4), which reflects the language adopted in the Senate bill, provides a 1 psi waiver "for fuel blends containing gasoline and 10 percent denatured anhydrous ethanol."

As discussed above, EPA agrees with these commenters that the deemed to comply provision should not be read literally but instead read consistently with the 1 psi waiver provision and so as applying to a subset of lawful ethanol blends. We disagree, however, that the appropriate subset of blends intended by Congress includes blends above 10%. As discussed above, it would make no sense for Congress to limit the 1.0 psi waiver to blends containing 9-10% ethanol, and at the same time provide that a broader group of blends, including blends with 9-10% ethanol and higher lawful percentages, could have the benefit of the same or a higher level of RVP. The specific provision for 9-10% blends would become largely meaningless. For example, under these commenters interpretation the provision would amount to Congress saying the benefits of a 1.0 psi waiver are limited to blends of 9-10% ethanol, but any blend from 9-15% ethanol will get those same benefits and be deemed in compliance with applicable RVP limits. If the deemed to comply provision becomes a free standing RVP limitation that applies to a different subset of ethanol blends than the 1.0 psi waiver, then the specific 1.0 psi waiver provision for 9-10% blends starts to lose meaning as a separate provision. These commenters seem to realize this, and appear to argue that both the 1.0 psi waiver and the deemed to comply provision apply to this larger subset of ethanol blends. While EPA agrees that the 1.0 psi waiver and the deemed to comply provision both apply to the same subset of ethanol blends, the text and legislative history indicate that these provisions apply to 9-10% ethanol blends, and neither of them applies to a larger subset of ethanol blends as argued by commenters.

Further, none of these commenters discussed section 211(h)(5) or explained how their respective interpretations would interact with section 211(h)(5), which also specifies 10% blends and provides for relief from the emission consequences of the 1 psi waiver only with respect to 10% blends. As discussed above, section 211(h)(5) allows States an “expedited process” for the elimination of the 1.0 psi waiver for 9-10% blends in areas where application of the waiver would create air quality problems. S. Rep. No. 108-57, 108<sup>th</sup> Cong. 1<sup>st</sup> Sess. at 10 (2003)(Conf. Rep.). It is premised on the long existing interpretation of section 211(h)(4) that allows a relaxed RVP limit, through a 1.0 psi waiver and a deemed to comply provision, for fuel blends containing gasoline and 9-10% ethanol. As discussed above, however, these commenters reading would result in a relaxed RVP limit and resulting increased emissions from blends greater than 10 percent under the deemed to comply provision. This reading would in effect also render section 211(h)(5) meaningless and inoperative, in whole or in part. While these commenters failed to address this provision, EPA’s interpretation reasonably harmonizes all three of these interrelated provisions and provides a balanced and meaningful interpretation.

EPA’s interpretation views the 1.0 psi waiver provision in section 211(h)(4) as applying to blends of 9-10% ethanol; the deemed to comply provision as applying to the same subset of ethanol blends, and not applying to blends above or below the range of 9-10%; and the provision for States’ relief from the 1.0 psi waiver in section 211(h)(5) as applying to the same blends of 9-10% ethanol. The text of the relevant statutory provisions and the legislative history support this interpretation. This interpretation harmonizes all three provisions, gives each of them significant meaning, avoids making any of the provisions meaningless, and reasonably balances the various interests Congress was addressing in these provisions – controlling the RVP of gasoline and ethanol blends in a way that both facilitates the practical downstream blending of ethanol

while also preserving the ability of States to address the increased emissions associated with a relaxed RVP limit for ethanol blends.

## **2.3 Fuel Storage and Dispensing Equipment Transition to E15**

### **2.3.1 Underground Storage Tanks and Dispensing Equipment**

*What Commenters Said:*

**Organizations:** National Association of Convenience Stores (NACS) and Society of Independent Gasoline Marketers of America (SIGMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0055, p. 3

**Comment:** Most equipment in service at petroleum retail locations is certified by Underwriters Laboratories (UL) as compatible with gasoline blended with up to 10% ethanol. This certification is required by local fire codes, and failure to comply with those codes could result in fines, penalties, and/or the loss of a business. Retailers that store and sell E15 with equipment that is not officially certified also risk violating certain regulations of the Occupational Safety and Health Administration (OSHA), tank insurance policies, state tank fund requirements, and stipulations contained in bank loans extended to petroleum retail facilities. Retailers would need to ensure that both underground storage tank equipment and fuel dispensers are compatible with E15. If compatibility cannot be confirmed, replacement of the equipment or dispensers would be necessary which is very expensive.

**Organization:** Petroleum Marketers Association of America (PMAA)

**Document Number:** EPA-HQ-OAR-2010-0448-0080, p. 2

**Comment:** An effective misfueling mitigation program alone will not remove all the impediments that stand in the way of widespread introduction of E15 at the retail level. The majority of petroleum marketers will continue to resist supplying E15 so long as compatibility questions persist with regard to existing retail storage tank system and dispensing equipment, marine engines, motorcycles and nonroad power equipment. These remaining compatibility issues create an unacceptable risk of liability for petroleum marketers that will largely bar the introduction of E15 so long as they exist. EPA's Office of Transportation and Air Quality should work closely with the Office of Underground Storage Tanks and the Department of Energy to resolve storage tank and dispensing system compatibility issues and continue to move forward with regard to E15 effects on marine engines, motorcycles and nonroad power equipment. Once these remaining compatibility issues are resolved and the risk of liability is reduced to an acceptable level, petroleum marketers will be able to fully embrace E15 gasoline blends.

**Organizations:** American Petroleum Institute (API)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0081, pp. 14-15

**Comment:** With 40% of the E10-rated new equipment failing tests and 70% of previously used E10 rated equipment failing tests it is clear that there are serious issues with using any fuel dispensing and storage equipment that is not specifically listed for E15. The implication is that many retailers may have to install new fuel systems in order to safely sell E15 in the future. The cost of installing new systems may be a barrier to the introduction of E15 fuel in the marketplace. In the NREL report results, all six dispensers tested developed leaks or malfunctions in the meter manifold or valves. Six of 10 nozzles failed. Six of nine breakaways failed including every reconnectable breakaway. Leaks, lack of containment and reduced levels

of safety for breakaways, hose and nozzles are significant issues that have been underplayed by the style of the NREL report. The only satisfactory performance came from the three shear valves and the one flow limiter that were tested. All of the other equipment types had examples of failed compatibility tests. Based on the NREL report, a reasonable conclusion could be that the tests have shown that both used and new equipment that is listed for E10 may have compatibility problems with E15 unless the equipment is specifically designed to dispense E15. In order to assure that equipment placed in E15 service will perform properly and safely, the following criteria must be met as specified in API RP 1626: 1) Material compatibility verification (by testing, engineering analysis or manufacturer's claims); 2) Equipment demonstrates continued functionality; 3) Equipment is listed for use with up to E15; and 4) Equipment has the appropriate approvals from local, state or federal agencies for site operations. The information needed by owners and operators is well documented in API 1626, Chapter 7, and annex C to that report. Essentially every element of the UST and dispensing system must be fully evaluated for suitability for use with E15. The NREL report did not test the following equipment: tanks; tank linings; piping; leak detection and tank measurement sensors and systems; secondary containment or secondary containment sumps or seals; spill buckets; flexible connectors; Stage 1 or 2 vapor recovery equipment or Enhanced vapor recovery (EVR) sensors; tank hardware like overfill valves, drop tubes, extractor valves, fill caps, etc. Commenter (API) notes that they are testing Stage 1 systems and that this testing will be complete in the second quarter of 2011.

**Organization:** National Automobile Dealers Association (NADA)

**Document Number:** EPA-HQ-OAR-2010-0448-0085, p. 2

**Comment:** EPA should coordinate with federal and state underground storage tank (UST) program administrators and inspectors to ensure tank system compatibility. Policies are needed to help avoid corrosion and conductivity issues and potential vehicle and emissions performance compromises by keeping sludge, dirt, or water from fuel storage systems from getting into higher ethanol content gasohol.

**Organization:** Environmental Working Group

**Document Number:** EPA-HQ-OAR-2010-0448-0071, p. 6

**Comment:** Higher blends of ethanol may result in tank corrosion, which in turn can lead to ground water contamination. Double-walled storage tanks are being installed as older single-walled tanks are replaced. Since many service stations do not have adequate funding to quickly update their infrastructure, more leaks will occur as ethanol blends are introduced into older infrastructure that was not designed to store higher ethanol blends. EPA should conduct thorough testing of E15 with both old and new underground storage tanks, both single- and double-walled tanks, various piping and pump infrastructure, and analyze short-term and long-term effects, among others. After these analyses have taken place, fundamental questions about the future of higher ethanol blends can then be examined, especially regarding limitations of our current infrastructure and related environmental impacts. For instance, E15 should not be allowed to be stored in a tank unless it is double-walled and is compliant with testing at least once every three years, per current government regulations. Government follow-up with cases of current leaking underground storage tanks should also be completed and associated funding should be fully allocated to ensure proper closure of these older tanks.

*Response:*

EPA is aware of material compatibility concerns associated with increasing the ethanol content of gasoline. To prevent groundwater contamination from leaking underground storage tanks (USTs), EPA regulations (40 CFR Part 280) require that UST systems be made of or lined with materials that are compatible with the fuel stored. EPA's Office of Underground Storage Tanks is issuing guidance for determining whether existing UST systems are compatible for storing E15. As briefly discussed in section IV.E.2.c of the Preamble, other federal, state and/or local agencies regulate fuel dispensing and other fuel-related equipment, so businesses that decide to sell E15 will need to consider what further steps they may need to take to ensure compliance with applicable requirements.

*What Commenters Said:*

**Organization:** Pennsylvania Department of Environmental Protection (PA DEP)

**Document Number:** EPA-HQ-OAR-2010-0448-0058, p. 4

**Comment:** Prevention of E15 misfueling is necessary to avoid engine and emission control system damage from phase separation, which occurs in ethanol-blended gasoline if a percentage of water in the fuel reaches a threshold that causes ethanol to separate from the gasoline. This would most likely not be seen in laboratory testing because well mixed fuel would likely be used. In a retail gasoline storage tank that holds 6,000 gallons of E10 fuel, it takes less than 18 gallons of water to cause phase separation, which can reduce the octane rating from the gasoline portion of the fuel (and upon combusting in an engine, can cause severe damage to the engine and emissions control system). The effect of phase separation on emissions should also be better quantified by EPA.

*Response:*

Both baseline and non-baseline gasoline must meet ASTM D4814-93a, under 40 CFR § 79.56(e)(3)(i)(A)(4). ASTM D4814 contains a workmanship statement indicating that finished gasoline shall be visually free from water. This workmanship statement has been in place in order to ensure proper tank maintenance and minimize any potential problems that may be introduced from water. Further, it has been well documented over the past two decades that water should not be in the fuel distribution system, regardless of whether gasoline contains ethanol. Therefore, while it is possible that E15 could absorb more water than E10, water should not be in the fuel distribution system. Additionally, EPA is unaware of any significant or widespread problems associated with water phase separation in storage tanks either in vehicles or in USTs.

### **2.3.2 Comingling of E10 and E15**

*What Commenters Said:*

**Organizations:** Outdoor Power Equipment Institute (OPEI)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0053, p. 21

**Comment:** Commenter supports EPA's proposed controls to prevent an RVP exceedance through requiring residuals of higher RVP E10 fuel to be completely removed from an underground storage tank before E15 is added into the tank.

**Organizations:** National Corn Growers Association

**Document Numbers:** EPA-HQ-OAR-2010-0448-0074, p. 3

**Comment:** EPA should provide relief to affected retailers and wholesalers when transitioning to a different blend of fuel. Undue cost of completely cleaning out all tanks would burden these businesses and could possibly affect the decision to adopt a new fuel. Transitional batches of fuel could be allowed for a short period with appropriate documentation.

*Response:*

These comments are addressed in section IV.C of the Preamble of the final rule.

*What Commenters Said:*

**Organization:** National Association of Clean Air Agencies (NACAA)

**Document Number:** EPA-HQ-OAR-2010-0448-0077, p. 5

**Comment:** The issue of commingling E10 and E15 was not addressed in the rulemaking. The amount of co-solvents, corrosion inhibitors and stability additives varies depending on the amount and type of oxygenates in the fuel, vapor/liquid relative characteristics, RVP blending values, octane blending values and other factors. While a range of E10 fuels is routinely mixed in-use by consumers who switch brands of fuel, insufficient data exists to assess the impact of commingling E15 with E10 blends. Such in-use blending could conceivably result in a finished blend in the fuel tank that does not have sufficient corrosion inhibitors and stability agents to avoid added material compatibility concerns and/or phase separation during cold temperature operation.

*Response:*

As is explained in section IV.C of the Preamble, the prohibition on commingling of E10 and E15 during the high ozone season applies to the level of the end-user dispensing tank (typically an underground retail station tank) and would not be applicable to commingling of E10 and E15 in a consumer's vehicle tank. The E15 waiver decisions describe why the Agency concluded that E15 blends would not cause these types of materials compatibility problems in vehicles covered by the decisions.<sup>14</sup> Additionally, EPA notes that, under the conditions of the E15 waiver decision, the ethanol used must meet ethanol ASTM standards in order to be utilized for blends containing E15.<sup>15</sup> Among other things, these standards limit the amount of various impurities that may contribute to these problems. Further, all fungible systems (tanks, pipelines, etc.) must typically meet ASTM gasoline standards which specify blending practices that mitigate these problems. Currently, we are unaware of any problems with regard to industry practices in these areas. Furthermore, we do not believe that there is any need for co-solvents for blends containing E15. Additionally, although EPA does not directly control the level of additives that either mitigate corrosion or add stability to a fuel, it is typical industry practice to assure sufficient additive levels to provide the needed properties for gasoline blends. We therefore believe that if the two fuel blends commingle in a vehicle tank, the

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<sup>14</sup> See 75 FR 68128, November 4, 2010 and 76 FR 4681, January 26, 2011.

<sup>15</sup> ASTM International D4806-10, Standard Specification for Denatured Fuel Ethanol for Blending with Gasolines for Use as Automotive Spark-Ignition Engine Fuel.

intermediate levels of additives would be sufficient for the corresponding intermediate level of ethanol because the resulting additive levels would be proportionate to the amount of ethanol present (assuming different additive levels were needed and used for one blend versus the other).

*What Commenters Said:*

**Organization:** American Petroleum Institute (API)

**Document Number:** EPA-HQ-OAR-2010-0448-0081, pp. 16, 18

**Comment:** EPA's prohibition of comingling E10 using the 1.0 psi waiver and E15 in storage because it may lead to RVP allowance exceedances is unnecessary and overly burdensome. Regulated parties are already responsible for ensuring that their finished products in the marketplace do not exceed the regional and/or seasonal RVP requirements. This requirement would result in retailers draining tanks empty, perhaps unnecessarily, before transitioning to E15. Considering that most station owners will likely switch from E10 to E15 only once, there is no reason to require the complete removal of all product at the considerable expense of time and money for a one-time event. If EPA remains compelled to restrict the blending of these ethanol blends at retail stations, it is appropriate that the prohibitions be limited only to the summer months when RVP is restricted.

*Response:*

Section IV.C of the Preamble addresses the comment concerning the prohibition of comingling E10 and E15 BOBs. We agree with the commenter that under today's rulemaking violations associated with RVP increases would be restricted to the high ozone season.

## **2.4 Credit for RFG Downstream Oxygenate Blending**

*What Commenters Said:*

**Organizations:** American Petroleum Institute (API)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0081, p. 18

**Comment:** With regard to how the regulation should address the credit of oxygenate blended downstream of the refiner, the enforcement provisions in the proposed rule are a sufficient deterrent that will prevent a downstream oxygenate blender from adding a volume of ethanol other than the PTD-specified amount. Therefore, EPA should credit refiners with the full claimed ethanol content. Survey data should reinforce the claimed information and should be sufficient for compliance.

*Response:*

This comment is addressed in Preamble section IV.D of the final rule.

## **2.5 Compliance, Enforcement and Warranty**

### **2.5.1 EPA's Commitment to Enforcement**

*What Commenters Said:*

**Organization:** Engine Manufacturers Association (EMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0082, p. 5

**Comment:** Commenter supports EPA's denial of the waiver request for heavy-duty on-highway vehicles, on-road and nonroad motorcycles, and all nonroad engine/equipment categories, but is unsure whether EPA is committed to the associated enforcement efforts. However, commenter states that EPA staff indicated during the public hearing on the proposed misfueling mitigation rule that the Agency is not committed to enforcing the proposed measures preventing the misfueling of nonroad engines/equipment. Specifically, EPA questioned the existence of information pertaining to the influence of ethanol blends greater than E10 on nonroad engines/equipment.

*Response:*

EPA is committed to enforcing the prohibitions and requirements of today's action. We do not believe that EPA staff has indicated otherwise. EPA denied the E15 waiver request for use in nonroad vehicles, engines, and equipment based on available information and the Agency's engineering assessment. We conditioned the E15 partial waivers on measures being taken to mitigate the potential that such vehicles, engines and equipment would be misfueled with E15. We are issuing the final misfueling mitigation rule in order to further reduce the potential for misfueling, and we intend to enforce both the waiver conditions and the rule provisions.

## **2.5.2 Liability and Warranty Issues**

### **2.5.2.1 Retailers and Petroleum Marketer**

*What Commenters Said:*

**Organizations:** National Association of Convenience Stores (NACS) and Society of Independent Gasoline Marketers of America (SIGMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0055, pp. 2-3

**Comment:** Although EPA clearly understands that a warning label on all gasoline pumps dispensing E15 is needed to allow for the successful introduction of such products in the marketplace, this alone is not enough to promote its introduction and use. Misfueling mitigation measures must be developed with a focus on consumer responsibility during self-service refueling operations, particularly since in today's market, many retail facilities are quite large with 25 dispensers or more and it is difficult to monitor all activities at their stations. Policies must be in place to protect retailers from liability associated with an individual's actions over which retailers have no control.

**Organization:** National Marine Manufacturers Association (NMMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0095, p. 11

**Comment:** The bulk of EPA's efforts in the Affirmative Defenses for Liable Parties section of the proposed rule are on addressing that the fuel is always what it purports to be through testing of the fuel and blend equipment. EPA states that they would "typically not hold a self-service fuel retailer liable for customer misfueling if the retailer has labeled their dispensers

appropriately and did not condone or facilitate such misfueling" (75 FR 68060). However, EPA has provided no way to assess if misfueling is in fact occurring at those self-serve pumps or defined what "condoning or facilitating such misfueling" would look like. EPA should require self-service retailers to demonstrate that the design of their fuel pumps and signage adequately prevents self-service misfueling errors in order to have the benefit of any affirmative defense.

*Response:*

See Preamble section IV.E.2.a for our response to comments relating to relieving retailers of potential liability when a consumer misfuels a vehicle. Preamble section III.D.1.a addresses the issue of whether the implementation survey required by today's rule should include monitoring of consumer fueling.

*What Commenters Said:*

**Organizations:** National Association of Convenience Stores (NACS) and Society of Independent Gasoline Marketers of America (SIGMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0055, pp. 2, 4-8

**Comment:** Introducing gasoline with greater than 10 vol% ethanol into the marketplace puts all fuel retailers in a very difficult situation. The transition to offer customers the ability to use E15 is a complicated process, requiring the cooperation of many private industries and government agencies. It requires a legal and regulatory regime that enables retailers to sell product without exposing themselves to an unreasonable risk of litigation and enforcement actions. Use of E15 by vehicle and machine owners is likely to void the warranties provided by their engine and auto manufacturers. Currently, auto manufacturers extend warranties on the existing fleet to accommodate no more than E10, and they have not been willing to amend their warranties to provide coverage retroactively in the event consumers refuel with blends higher than ten percent. Retailers need to be protected from liability should a self-service customer misfuel their vehicle or engine and void the associated warranty. Compliance with the labeling requirements should be presumptive evidence that fuel providers have not made prohibited sales, unless there is contrary evidence indicating that the providers have been engaged in the misfueling activity. In order to facilitate E15's introduction into commerce, EPA must ensure that fuel retailers who comply with the labeling requirements are insulated from legal liability. If they are subject to private lawsuits or EPA enforcement actions notwithstanding their compliance with the law, they will be far less likely to sell E15. It is important to note that when lead was phased out in the 1980s and different sized fill pipes were introduced to prevent misfueling, many consumers still went to extraordinary measures to bypass the fill pipe-nozzle restrictions since leaded fuel was cheaper. A similar situation exists today with E15 (i.e., a cheaper fuel due to the lower cost of ethanol and federal tax credits). Commenter provides significant additional discussion on this issue, asserting that: 1) EPA's proposed affirmative defenses inadequately protect retailers; and 2) compliance with EPA's labeling scheme should insulate retailers from liability absent extenuating circumstances. With respect to the first point, commenter notes that having retailers demonstrate that they did not commit or cause the violation and that they possess PTDs indicating that the fuel was in compliance in order to avoid liability, is insufficient. If the customer ignores or misunderstands a labeling scheme devised by EPA, the fault lies with either the customer for not following instructions or EPA for devising a label that is not adequately informative. With regard to the second point, commenter asserts that the final rule should specifically state that retailers who are fully compliant cannot be held liable (in either an EPA enforcement action or a private

lawsuit) for any consequences of misfueling in the absence of conduct by the retailer that encourages misfueling. Commenter says further that although this approach seems to be consistent with EPA policy and is reflected in the Preamble (see 75 FR 68060), it should also be specifically included in the final rule language.

**Organization:** Growth Energy

**Document Number:** EPA-HQ-OAR-2010-0448-0083, p. 9

**Comment:** EPA, in the proposed rule, states it "would typically not hold a self-service fuel retailer liable for customer misfueling if the retailer has labeled their dispensers appropriately and did not condone or facilitate such misfueling" (75 FR 68060). Such retailers should be exempted from liability for use of E15 in unapproved vehicles or engines by customers under the above circumstances. The retailer liability exemption provision, however, is not among the affirmative defenses included under proposed section 80.1507, nor is it exempted from the liability provisions in proposed sections 80.1504 and 80.1505. EPA should include liability protection for retailers from customer use of E15 in unapproved vehicles or engines in the final rule.

**Organization:** Iowa Renewable Fuels Association (IRFA)

**Document Number:** EPA-HQ-OAR-2010-0448-0059, p. 2

**Comment:** Commenter notes generally that fuel retailers should be "held harmless" from any misfueling penalties under the CAA when their pumps are properly labeled. A penalty provision would discourage retailers from offering renewable fuels and would increase dependence on foreign oil imports.

*Response:*

Preamble section IV.E.2.a addresses the comment that retailers that properly label fuel pumps should not be held liable for violation of the misfueling prohibition by consumers in the absence of conduct by the retailer that encourages misfueling. See Preamble section IV.E.2.c for our response to comments relating to E15 compatibility issues with storage tanks and dispensing equipment. Preamble section IV.E.2.c also contains our response to comments relating to protecting retailers from financial liability for potential damage resulting from consumer misfueling that may affect vehicle warranties, and our response regarding EPA's lack of ability to dictate the rights and liabilities that private parties may have in relation to each other under state law. See Preamble section III.F.1 for our response to comments related to the transition to unleaded gasoline. We note that today's rule is designed to minimize the potential for misfueling and the problems that misfueling could cause.

*What Commenters Said:*

**Organizations:** American Petroleum Institute (API); Marathon Petroleum Company

**Document Numbers:** EPA-HQ-OAR-2010-0448-0081, pp. 3, 16; EPA-HQ-OAR-2010-0448-0056, p. 2

**Comment:** Commenters strongly disagree with the EPA's statement that "Compliance with the labeling requirement does not ensure that the responsible parties have not made prohibited sales." Because EPA has deemed that its misfueling mitigation strategy is sufficient to prevent misfueling, EPA must stand behind its requirements and release fuel providers from liability

associated with misfueling. Positive compliance survey results and proper labels must result in liability protection for the entire product manufacturing and distribution chain. Some fuel providers may consider the misfueling liability risks of selling E15 too high to justify the investment in infrastructure. Consequently, it is counterproductive to the acceptance of E15 to hold fuel providers responsible for a consequence that this rulemaking purports to prevent. API provides significant additional discussion on this issue, noting that the proposed section 80.1505(b) would make gasoline refiners liable for label violations under Section 80.1504(b) for failing to identify the proper ethanol content, and that similar labeling requirements under EPA's diesel fuel regulations in 40 CFR Part 80, Sections 80.570 and 80.612(b) place the labeling responsibility on the retailer (since they have the responsibility for affixing the label), not on the branded refiner. Commenter also asserts that although EPA states that the Agency would typically not hold a self service fuel retailer liable for customer misfueling (provided the retailer has labeled their dispensers appropriately and has not condoned/facilitated misfueling), it should also specify that other parties in the distribution chain would also not be held liable for such misfueling when labels are appropriately used or when the warranties have been supplied to the retailer by entities in the manufacturing and distribution chain. At minimum, a defense for a branded supplier should be that the branded supplier has a program notifying its retailers of the requirements of the law.

*Response:*

See Preamble section IV.E.2.a for our response to comments relating to labeling and retailer liability. See the same section regarding the proposition that positive survey results and proper labels, and/or a program to notify branded retailers of the requirements of the law, should be deemed to satisfy the duties of the entire distribution chain above the retailer.

### **2.5.2.2 Vehicle, Engine and Equipment Manufacturers**

*What Commenters Said:*

**Organization:** Engine Manufacturers Association (EMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0082, p. 12

**Comment:** The test program foundation for the 2008 NREL report entitled "Effects of Intermediate Ethanol Blends on Legacy Vehicles and Small Non-Road Engines, Report 1" was inadequate. The conclusions expressed in the report are not supported by the data used for the report. Emissions measured for non-handheld small nonroad engines substantially increased over the useful life period when operated on either E15 or E20 fuel blends. The reported deterioration is much greater than equivalent units tested using E0 and E10. Despite the small sample size, the data show that such misfueling will result in increased likelihood of failures. Manufacturers are concerned that these increased emission levels will manifest themselves as customer complaints, warranty claims, and product failures resulting in increased manufacturing costs and reduced customer acceptance.

*Our Response:*

The final rule prohibits the use of E15 in MY2000 and older light-duty motor vehicles, and all heavy-duty gasoline-powered vehicles, motorcycles, and nonroad engines,

vehicles, and equipment. See Preamble section IV.E.2.b for a discussion of the limits of any potential manufacturer liability for warranty claims resulting from misfueling. We note that today's rule is designed to minimize the potential for misfueling and the problems that misfueling could cause.

*What Commenters Said:*

**Organization:** Engine Manufacturers Association (EMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0082, p. 13

**Comment:** Fuel system components are generally included within the scope of emission-related components. The inclusion of both exhaust and evaporative emission controls in EPA's Phase 3 regulations for Small SI engines/equipment has significantly expanded the components that fall within the scope of emission-related defect reporting requirements. In addition, the Phase 3 regulations mandate that manufacturers take action to investigate and report those defects. These investigations and reporting activities will be complicated by the impact of misfueling. Commenter recommends that EPA provide guidance to manufacturers regarding emission-related defect reporting requirements associated with determination of misfueling influences. Without such guidance, manufacturers will be subject to substantially increased compliance costs associated with investigations and defect reporting requirements.

*Response:*

See Preamble section IV.E.2.b for a discussion of manufacturers' duty to investigate and report defects that may be related to misfueling and for a discussion of measures retailers may use to demonstrate lack of causation, facilitation or condoning of misfueling.

*What Commenters Said:*

**Organization:** American Automobile Association (AAA)

**Document Number:** EPA-HQ-OAR-2010-0448-0068, p. 1

**Comment:** Commenter acknowledges that making unintentional misfueling impossible is cost prohibitive, but asserts that the use of a label alone is insufficient. Labels will not fully address the risk of voiding the warranty and unintentionally violating federal law that motorists assume under this proposal. Fuel system defects may show up months or even years after misfueling, but the manufacturer could conceivably analyze a failure, conclude that gasoline containing greater than 10% ethanol had been used at some time and deny a warranty claim. For those with vehicles that are no longer covered under warranty, the impact could be more insidious as the need to replace certain parts could come sooner than expected, resulting in additional consumer costs to vehicle ownership.

**Organization:** Alliance of Automobile Manufacturers (Alliance)

**Document Number:** EPA-HQ-OAR-2010-0448-0072, pp. 6-8

**Comment:** EPA's regulations require vehicle manufacturers to provide purchasers of all new motor vehicles with "written instructions for the proper maintenance and use of the vehicle, by the purchaser" (40 CFR 86.1808-01). These are integral to ensuring that vehicles are properly serviced and that emission control system parts continue to function properly. Vehicle purchasers are advised that the vehicle's emissions warranty coverage is contingent upon proper maintenance. In compliance with the performance warranty regulations (e.g., 85.2104(h)(5)), and

to ensure that consumers use the correct fuel, manufacturers have specified the type of fuel that should be used in their vehicles. The owner's manuals for nearly all gasoline-fueled vehicles manufactured during the model years for which EPA intends to allow use of E15, specify that any fuel containing more than 10% ethanol should not be used. EPA's waiver decision and misfueling NPRM cannot retroactively impair a contract between a vehicle manufacturer and a vehicle purchaser. Nothing in EPA's waiver decision or its misfueling NPRM either states or implies that EPA's rulings "overrule" any contrary language in existing vehicles owner's manuals, nor could EPA take such a position. First, nothing in CAA 211(f) gives EPA the authority to nullify a manufacturers' vehicle maintenance instructions in owner guides issued in accordance with EPA regulations. Second, neither Congress nor a federal agency may impair private contracts with a law or a rule that exceeds their authority.

**Organization:** Association of International Automobile Manufacturers (AIAM)

**Document Number:** EPA-HQ-OAR-2010-0448-0079, pp. 11-13

**Comment:** The federal emissions warranty program does not extend to the use or misuse of E15 fuel. Under this program, the manufacturer is required to cover the cost of repairs for emission-related failures that are not associated with misuse of the vehicle, a failure to follow maintenance instructions, and/or manufacturer defects. Thus, emission-related damages caused by E15 use or misuse will not be covered by federally mandated emissions warranties to the extent that the owner's manual does not allow for the use of E15 (and emissions-related failure stemming from E15 use is not attributable to manufacturer defects). It is within a manufacturer's discretion to limit its warranty to E10 use, and the current in-service fleet (with the exception of flex-fuel vehicles) was not designed for ethanol blends greater than E10.

**Organization:** National Automobile Dealers Association (NADA)

**Document Number:** EPA-HQ-OAR-2010-0448-0085, p. 2

**Comment:** Most new and used vehicles sold by dealers have language in their owners' manuals specifically warning against the use of greater than 10% ethanol in gasoline, often indicating that component damage and drivability problems not covered by warranty may result. EPA must not send the motoring public conflicting messages without the consent and cooperation of the manufacturer involved.

*Response:*

See Preamble section IV.E.2.b for conditions precedent to legitimate denial of a consumer warranty and also when and how manufacturers must honor, or may deny, vehicle and equipment warranties. In addition, EPA notes that manufacturer warranties have expired for the vast majority of MY2000 and older light duty vehicles, which are among the vehicles types not covered by the E15 partial waivers. Today's rule prohibits misfueling such vehicles with E15, and to the extent some vehicles might nonetheless be misfueled, it is unlikely that few, if any, would result in warranty claims.

Clean Air Act section 211(f)(4) authorizes waivers for fuels and fuel additives for which a demonstration is made that the fuel or fuel additive will not cause or contribute to failure of emission standards. The fuel specified by manufacturers for their vehicles in owners' manuals or as a warranty condition is not determinative of whether that statutory test can be met. In the case of E15, testing and analysis were sufficient to make the statutorily required demonstration for a fuel waiver.

EPA's decision to grant partial waivers allowing E15 to be sold for use in MY2001 and newer light-duty motor vehicles does not prevent manufacturers from acting on warranty claims in accordance with the terms of the warranty and EPA's regulations governing emissions-related warranties. Retailers of vehicles, engines, equipment and fuel may also provide their customers with information about fueling with E15 in addition to that required under today's rule and the partial waivers. As described in Preamble section III.E and earlier in this document, EPA also anticipates that the public education and outreach efforts that accompany the introduction of E15 into the market will communicate additional useful information to consumers.

See Preamble section IV.E.2.c for a discussion of EPA's lack of authority to modify rights and liabilities between private parties in a manner other than is set forth in the Clean Air Act.

*What Commenters Said:*

**Organization:** Association of International Automobile Manufacturers (AIAM)

**Document Number:** EPA-HQ-OAR-2010-0448-0079, pp. 15-16

**Comment:** EPA acknowledges that misfueling has the clear potential to damage emission control systems and increase emissions. If EPA subjects a group of vehicles to in-use testing and finds that they are failing to meet their applicable emission standards, will the Agency be able to determine whether such failures are caused due to inherent defects in the vehicles or due to misfueling? If EPA cannot objectively distinguish between cars that have improperly used E15 and those that used an approved fuel, it is unclear how the Agency will prevent manufacturers from being held liable for consumer misfueling. Without a clear policy delineating how EPA intends to enforce the warranty and in-use compliance testing, EPA is essentially attempting to place the cost of misfueling (as well as costs associated with legal E15 use to the extent that it has unanticipated impacts) on auto manufacturers' shoulders. These issues must be addressed as part of a more comprehensive and effective misfueling program that will actually prevent misfueling, which will in turn avoid costs and unfair liabilities being placed on auto manufacturers.

**Organization:** Outdoor Power Equipment Institute (OPEI)

**Document Number:** EPA-HQ-OAR-2010-0448-0053, pp. 22-23

**Comment:** In the proposed rule, EPA has created affirmative defenses for gasoline retailers, distributors, and blenders that undertake or implement certain precautions, but has not created or discussed the creation of similar "safe harbor" provisions for engines, vehicles, or equipment manufacturers. Because of misfueling with fuels containing greater than 10% ethanol, manufacturers of lawn, garden, and forestry products could become unfairly subject to defect reporting, emission warranty obligations, or emission-recall requirements. EPA should ensure that these manufacturers are not unfairly penalized and should also identify some examples where a manufacturer could rely on "good engineering judgment" to determine that a reported claim or defect resulted from misfueling.

**Organization:** Engine Manufacturers Association (EMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0082, pp. 11-13

**Comment:** Commenter expresses concern that EPA staff has adopted a dismissive attitude towards the real concerns raised by Small SI engine and equipment manufacturers regarding the unavoidable misfueling of such engines and equipment with E15. In theory, the consumer would be responsible for the effects of the intentional misfueling of such products with E11-E15, but experience has shown that consumers are rarely held accountable for their actions. Companies have either voluntarily or been forced to absorb substantial costs associated with unacceptable, but predictable consumer behavior. EPA's proposed rule fails to create any protection for engine, vehicle, or equipment manufacturers unfairly subjected to defect reporting, emission warranty obligations, or emission-recall requirements resulting from misfueling.

*Response:*

See Preamble section IV.E.2.b for our response to comments relating to how misfueling with E15 might impact manufacturer defect reporting requirements, warranty and recall obligations. EPA is concerned about the potential for misfueling of vehicles, engines and equipment not covered by the partial waivers, and is issuing today's final rule to further reduce that potential

### **2.5.2.3 Ethanol Producers and Importers**

*What Commenters Said:*

**Organization:** American Petroleum Institute (API)

**Document Number:** EPA-HQ-OAR-2010-0448-0081, p. 17

**Comment:** In the Preamble to the NPRM and in the proposed survey requirements in §80.1502, ethanol producers/importers are added to the traditional list of responsible parties (i.e., fuel producers/importers and ethanol blenders). However, in the proposed §80.1505 where liable parties are specified, ethanol producers are conspicuously absent. It is not clear how ethanol producers/importers can cause prohibited acts beyond misrepresenting the product specification or blending denaturant at the incorrect level. EPA should be consistent in how companies are treated and recognize that both ethanol and gasoline producer's level of responsibility at retail is limited.

*Our Response:*

As discussed in section IV.E of the Preamble, the rule's approach to assigning liability for downstream violations is similar to that taken in other EPA fuel programs and reflects the nature of the fuel distribution system and the respective abilities of different links in the fuel distribution chain to affect downstream compliance. With respect to ethanol producers that produce ethanol used in E15, the liability provisions of today's rule reflects their role in introducing E15 into commerce and mitigating the potential for misfueling. Under today's rule, ethanol producers that produce ethanol intended for use in producing E15 may be held liable for failing to implement an approved survey and causing other violations if E15 is distributed before a survey plan is approved and commenced. They are included in the "Who Is Liable" section (§ 801505(a)), which makes "any" person liable for a violation of § 801504(a) – (i). They may also be liable for downstream violations to the extent they undertake other functions specified in §80.1505(a). Those functions include those typically performed by gasoline producers or distributors, so

ethanol producers that also act as gasoline producers or distributors are liable as specified for those roles.

#### 2.5.2.4 Consumers

*What Commenters Said:*

**Organization:** American Petroleum Institute (API)

**Document Number:** EPA-HQ-OAR-2010-0448-0081, p. 16

**Comment:** If the dispensers are appropriately labeled and despite such labeling a person intentionally misfuels a motor vehicle or nonroad equipment, the regulations do not impose any regulatory liability on such persons. Without that possibility of regulatory liability, enforcement of the misfueling prohibitions becomes more difficult with the potential for increased air emissions and vehicle or equipment damage. EPA is encouraged to modify this proposal accordingly to assist in compliance with the misfueling prohibitions.

**Organization:** Pennsylvania Department of Environmental Protection (PA DEP)

**Document Number:** EPA-HQ-OAR-2010-0448-0058, p. 2

**Comment:** Upstream of the consumer, there are control measures to verify the ethanol content and consequences for non-compliance. However, there is no mechanism for oversight of consumer fueling and no consequence to the consumer for intentional misfueling of a vehicle or equipment other than the potential cost of replacement. The pump label, if not clearer, will not prevent misfueling. There should be stronger language and fines for a consumer who intentionally violates the regulation if caught misfueling a noncompliant vehicle.

*Response:*

See Preamble section IV.E.2.a, discussing § 80.1504(a)(1) and confirming that consumers are liable for intentional misfueling.

#### 2.5.3 Affirmative Defense Provisions

*What Commenters Said:*

**Organization:** Growth Energy

**Document Number:** EPA-HQ-OAR-2010-0448-0083, p. 9

**Comment:** EPA's proposed affirmative defense provisions are similar to those under the RFG program. However, under the RFG program a carrier may use another party's quality assurance program as part of the carrier's affirmative defense, provided the other party completed a proper quality assurance program. By comparison, proposed section 80.1507(a)(1)(iii)(B) only allows a carrier to rely on the sampling and testing program portion of the other party's quality assurance program. EPA should change this provision to allow a carrier to rely on all aspects of another party's properly-completed quality assurance program as part of the carrier's affirmative defense so that there is a consistent set of affirmative defenses across all fuel programs.

*Response:*

The sampling and testing program is the major part of the required quality assurance program, and it would be inappropriate to require the carrier to duplicate this aspect of the program. However, other aspects of a quality assurance program, such as ensuring compliance with PTD requirements, or verifying the presence of required labeling may be uniquely appropriate for carriers. Accordingly, EPA does not concur that relieving carriers of all duties of a quality assurance program is merited in the context of implementing a misfueling mitigation program for E15 and is therefore not making the requested change.

## **2.6 Technical Basis for the Rule**

### **2.6.1 Technical Issues/Justification**

#### **2.6.1.1 Fuel Dispensers**

**Organization:** Outdoor Power Equipment Institute (OPEI)

**Document Number:** EPA-HQ-OAR-2010-0448-0053, p. 5

**Comment:** Blender pumps and other pumps that dispense varied options through a single hose and nozzle will cause problems since after a vehicle is filled up with mid-level ethanol, there will be a half gallon of that mid-level ethanol fuel remaining in the hose. That residual amount could be dispensed into a portable container even if the consumer properly selected E0 to E10 fuels for refueling. Therefore, fuel hoses should be designated specifically for E0 to E10 fuels in order to prevent contamination from residual mid-level ethanol.

*Response:*

We agree that blender pumps with single dispensing hoses for providing E0 to E10 fuels and E15 fuel present a unique challenge for dispensing gasoline into portable containers since there may be a small amount of the last blend pumped through the hose which would still remain in the hose when the hose is subsequently used to dispense the next blend. Should the first blend pumped be E15, the hose would contain a quantity of E15 which could then be blended into a vehicle for which E15 is not approved or a portable container intended to be used to fuel a nonroad engine such as a lawn mower.

EPA is unaware of any organized survey of dispenser hose diameters or lengths and, therefore, it is difficult to precisely say what the average, high or low end levels of the residual amount of fuel in a hose actually is. Dispensing hoses range in length and diameter, but a general estimation of the volume of hoses currently sold in the marketplace based on their lengths and inside diameters would indicate that the half gallon estimate of the commenter is in the appropriate range (e.g., a ten-foot hose with a one-inch inside diameter would have a volume of about 0.4 gallons).

In the case of a vehicle with a 10 to 20-gallon (or more) fuel tank, this small amount of E15 would be unlikely to change the ultimate ethanol concentration in the vehicle's tank to any significant degree. However, with a portable container containing, for example, 2.5 gallons (a typical size for such a container), 20 to 25 percent of the E15 fuel in the portable container could be the residual E15. In such a situation, the resulting blend in the container would be approximately equivalent to E11, assuming the container was fully

filled and the residual E15 was equal to 0.5 gallons. In the October Waiver Decision, we explained that there are insufficient data to determine the specific effects of E11 on motor vehicles or nonroad engines. However, since E11 would not have a greater impact than E15, EPA granted partial waivers allowing ethanol blends greater than 10 vol%, and up to 15 vol%, ethanol to be introduced into commerce for MY2001 and newer light-duty motor vehicles.

Although a one-time use of E11 in an engine not approved for E15 may have minimal consequences, a blender pump utilizing a single dispensing hose does present a unique situation. We expect that fuel providers selling E15 using blender pumps will take steps as part of their public outreach and other misfueling mitigation efforts to avoid inadvertent misfueling. More generally, as E15 enters the market, the issue of potential commingling of E15 with E10 in dispensing hoses can be usefully addressed by stakeholders as they develop a broad public education and outreach campaign that provides both consumers and retailers with the information they need to avoid misfueling. As a participant in that effort, EPA will help ensure that the issue is raised and effective responses are implemented.

*What Commenters Said:*

**Organizations:** National Association of Convenience Stores (NACS) and Society of Independent Gasoline Marketers of America (SIGMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0055, pp. 3-4

**Comment:** Underwriters Laboratories (UL), an independent testing and certification company, has stated that "under normal business conditions, E10 at the dispenser can vary from about 7 to 13 percent ethanol." A similar variance is likely to exist for E15, and a higher maximum level (up to 18%) may be necessary to allow pumps to be certified to deliver E15.

*Response:*

EPA does not concur with this comment or its premise. As we explained in the October Waiver Decision (*see* 75 FR 68138-68141), the range of expected ethanol content values typically encountered through fuel sampling is due to inherent variability of the ASTM test procedure used to measure the concentration of ethanol in gasoline (both within the same testing laboratories and between different laboratories). The Agency concluded after thoroughly analyzing EPA's fuels program data and third-party data that the observed distribution in measurements of ethanol content is precisely what one would expect to see for fuel samples that actually contained no more than 10 vol% ethanol. In other words, the blending of ethanol into gasoline is a relatively precise process and the varying ethanol contents measured in the field is primarily a result of variability in the test methods for ethanol content. Furthermore, the certification of fuel dispenser components is outside of the scope of this rulemaking.

### **2.6.1.2 Fuel Quality**

*What Commenters Said:*

**Organization:** National Association of Clean Air Agencies (NACAA)

**Document Number:** EPA-HQ-OAR-2010-0448-0077, p. 5

**Comment:** The use of E15 will affect vapor pressure and the distillation characteristics of the final fuel formulation. As a result, the existing margins of compliance built into current evaporative control systems, as well as OBD systems, are at some risk due to the use of E15. Although the RVP level of E15 is likely to be less than that for E10, due to the non-ideal mixture characteristics of alcohols blended with gasoline, careful attention must be paid to the aggregate volatility impact of E15 introduction. EPA should, at a minimum, identify steps that blenders should take to ensure that the anticipated distillation curve of E15 matches E10 fuel.

*Response:*

EPA acknowledges that increases in RVP and distillation may adversely affect evaporative emissions control systems in motor vehicles. In response to this concern, the Agency placed a waiver condition limiting the summertime RVP of E15 to 9.0 psi (*see* 75 FR 68149 (November 4, 2010)). In the partial waiver decisions, EPA also addressed the potential impact of E15 use on OBD systems and MILs (*see* 75 FR 68094 (November 4, 2010) and 76 FR 4662 (January 26, 2011)). Identifying the steps that blenders should take to ensure that the anticipated distillation curve of E15 matches E10 fuel is outside of the scope of this rulemaking. Although EPA does not require gasoline to meet specific distillation parameters (other than valid range limits necessary to certify batches of fuel with the Complex Model), many states require that gasoline meet specific volatility and distillation classes. EPA expects that fuels in these areas, including E15 that is introduced into commerce, will meet the necessary seasonal and geographic requirements.

*What Commenters Said:*

**Organization:** National Association of Clean Air Agencies (NACAA)

**Document Number:** EPA-HQ-OAR-2010-0448-0077, p. 5

**Comment:** Changes to the distillation characteristics resulting from E15 may also affect the Drivability Index (DI) used by auto manufacturers to optimize the performance of vehicles. Changes in DI due to E15 have been shown to create noticeable changes in performance of some vehicles and may therefore result in aftermarket tampering to adjust for these differences. Due to the relative paucity of data on this issue, EPA should exercise caution with this decision and postpone final action until such data is available on a large number of test vehicles.

*Response:*

Although this issue is outside of the scope of this rulemaking, EPA addressed the potential effects of E15 on the driveability/operability of vehicles, engines, and equipment in the partial waiver decisions (*see* 75 FR 68094 (November 4, 2010) and 76 FR 4662 (January 26, 2011)). EPA does not require that gasoline meet the Driveability Index (DI); however, many states require that gasoline sold in those states meet certain ASTM specifications, including DI. EPA expects that fuels meet appropriate seasonal and geographic fuels requirements where applicable.

*What Commenters Said:*

**Organizations:** Outdoor Power Equipment Institute (OPEI)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0053, pp. 20-21

**Comment:** So that engines can operate properly, the blended fuels being marketed need to meet tight specifications for all the characteristics that can be adversely affected by ethanol blending, including distillation curves, flammability limits, water absorption, gum, and RVP. Any E15 introduced into commerce must comply with ASTM D4814 (and engines are designed to work with fuel meeting that standard), but it does not appear that E15 fuels would be in compliance with these standards, which could potentially impair startability and operability issues. The blending of ethanol within the fuel station (splash blending) is more likely to result in an RVP that is unpredictable and/or too high, resulting in increased evaporative emissions, vapor locks and increased heat that will damage engines. There is no verification mechanism to ensure blender pumps are dispensing a continuum of fuels in compliance with ASTM D4814. Commenter notes that the blending should be done at a refinery that can better control the process, and adds that in the proposal, EPA only raises specification concerns associated with RVP of the blended fuel, but other specifications should also be addressed.

*Response:*

EPA regulations and the Clean Air Act include various provisions that address the composition of motor fuels that may be introduced into the marketplace, since the characteristics of fuels may impact emissions. Furthermore, the conditions placed on the waiver (75 FR 68094, November 4, 2010, and 76 FR 4662, January 26, 2011) address RVP and fuel ethanol quality. Comments regarding other gasoline properties are not within the scope of this FRM. In this rule, as is explained in Preamble section IV.B and more fully discussed in section 2.2.3 above, EPA is interpreting the statutory RVP waiver provision (Clean Air Act section 211(h)(4)) as applying only to E10, so E15 will need to meet applicable RVP requirements. EPA may consider changes to nationwide RVP standards in the future but it is not within the scope of this rulemaking. EPA will take action when it finds gasoline blends out of compliance with RVP regulations or any other applicable EPA regulations.

### **2.6.1.3 Fuel Additives**

**Organization:** ValvTect Petroleum Products

**Document Number:** EPA-HQ-OAR-2010-0448-0086, p. 2

**Comment:** Even though certain fuel additives (e.g., ValvTect Ethanol Gasoline Treatment) could help prevent certain problems associated with higher ethanol blends in later model marine engines that were designed for ethanol use, it will not prevent engine component compatibility problems in certain older model marine engines, fuel tanks, and/or fuel hoses that were not designed for using higher ethanol blends.

*Response:*

Unless a marine engine is designated for flex fuel, the rule prohibits introducing E15 into it, regardless of when it was manufactured, or what fuel additives are used.

*What Commenters Said:*

**Organizations:** Alliance of Automobile Manufacturers (Alliance)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0072, p. 17

**Comment:** Detergency is becoming more important than ever as automakers use more advanced fuel injectors in their engines for better control and fuel economy. Also, detergent registrations only go up to E10, which means E15 will remain unmarketable until EPA addresses this registration issue.

*Response:*

EPA requires fuel manufacturers to certify the detergents they add to gasoline to prevent the accumulation of deposits in engines and fuel systems. EPA regulations currently require that national certification test fuels used to demonstrate the effectiveness of these detergents contain 10% ethanol by volume. Although EPA may consider the impact of E15 use on detergent certification regulations, EPA did not propose any such changes in this rulemaking and consideration of detergent regulations are outside of the scope of this rule. Under the current regulations, detergents certified utilizing the current national certification fuel would satisfy detergency requirements for potential new fuels, including E15, entering the market until any changes in the detergency requirements were adopted.

#### **2.6.1.4 Effect of E15 on Engines, Vehicles, and Equipment**

*What Commenters Said:*

**Organization:** Historic Vehicles Association (HVA)

**Document Number:** EPA-HQ-OAR-2010-0448-0076, p. 2

**Comment:** Despite the limited and inadequate amount of testing that has been done on older vehicles and nonroad engines, there has been consistent data to indicate damage to vehicle emission control systems, decreased fuel economy, fire risks during transportation and retail dispensing, and worse emissions. Historic vehicles clearly were not designed to accommodate the chemical properties of a fuel additive like ethanol. The corrosive effect on fuel system components for historic vehicles imposes serious burdens on owners (e.g., installing retrofits with compatible modern components, addressing damage to historically correct components after fueling with ethanol blends, etc.) which may require the owner to stop driving the vehicle.

*Response:*

We acknowledge the issues raised by the commenter. We note that E10 has been in commerce in the U.S. for over 30 years, and in that time manufacturers and consumers have made adjustments to the extent necessary to accommodate or use that fuel in many vehicles, and in the case of some vehicles, decided that fueling with E0 (or another specified fuel) is advisable or recommended. The E15 partial waivers allow, but do not require, fuel providers to introduce E15 into commerce for use in MY2001 and newer light-duty vehicles. There is no prohibition on a refiner continuing to offer E0 for historic or any other vehicles and engines. The E15 partial waiver decisions acknowledge that ethanol increases the vapor pressure of gasoline, so there can be an increase in evaporative hydrocarbon emissions with its use. However, as we explained in the decisions, newer vehicles have more robust evaporative control systems designed for E10 and testing and analysis indicate they can also accommodate E15. It is also worth noting that any additional refueling emissions are captured with vapor recovery systems in urban

areas. Please see the Preamble section IV.H for a discussion on EPA's upcoming efforts to study and address the potential adverse effects of increasing renewable fuels use on air quality and public health.

*What Commenter Said:*

**Organizations:** National Association of Clean Air Agencies (NACAA); Pennsylvania Department of Environmental Protection (PA DEP)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0077, p. 5; EPA-HQ-OAR-2010-0448-0058, p. 4

**Comment:** The final rule should protect motorists from unnecessary illumination and repair of maintenance indicator lights (MILs), which could malfunction due to the presence of E15 and affect the OBD system designed to detect and offset excess emission occurrences. Conversely, consumers may simply ignore all MIL illumination if they suspect such malfunction indicators are in error due to the use of E15 leading to higher vehicle emissions. PA DEP provides additional discussion on this issue noting that misfueling with E15 could lead to MIL illumination and catalytic converter damage as well as adverse effects on air quality and public health.

*Response:*

The Agency addressed E15's expected impact on maintenance indicator lights (MILs) and catalysts in detail in the partial waiver decisions (*see* 75 FR 68094 (November 4, 2010) and 76 FR 4662 (January 26, 2011)). For vehicles covered by the partial waivers, we do not expect E15 to lead to unnecessary illumination and repair of MILs or catalyst damage. For vehicles and engines not covered by the partial waivers, the misfueling mitigation provisions of today's rule and the partial waivers are designed to effectively mitigate the potential for misfueling and thus any impact misfueling might have on emission control systems. Please see Preamble section IV.H for a discussion on EPA's upcoming efforts to study and address the potential adverse effects of increasing renewable fuels use on air quality and public health.

*What Commenter Said:*

**Organization:** National Association of Clean Air Agencies (NACAA)

**Document Number:** EPA-HQ-OAR-2010-0448-0077, p. 5

**Comment:** Commenter states that adding 15% ethanol to gasoline will change the solubility properties of the fuel compared to those of E10. These effects are different from changes to volatility. Such changes have been shown to increase HC permeation emissions. EPA provided no analysis of the impact of E15 on permeation emissions. In contrast, California's latest Predictive Model governing ethanol/gasoline blends takes special note of permeation effects of increased ethanol levels in gasoline. Testing by CRC also suggests that the increase in permeation emissions is essentially linear as a function of ethanol content in low-level blends.

*Response:*

Please see the January partial waiver decision (76 FR 4662 (January 26, 2011)) for our explanation of how the CRC E-77 test programs and other information, including compliance and in-use data, provide an adequate basis for determining that E15 will not significantly impact evaporative emissions of MY2001 and newer light-duty vehicles.

*What Commenters Said:*

**Organization:** Pennsylvania Department of Environmental Protection (PA DEP)

**Document Number:** EPA-HQ-OAR-2010-0448-0058, pp. 3-4

**Comment:** EPA has not fully investigated the effects of E15 on engine, fuel system, and emission control materials. In the waiver application, Growth Energy submitted a series of studies completed by the State of Minnesota and RFA to EPA as supporting evidence. However, the studies were not real-world studies; they were laboratory studies that did not adequately test the durability of engine, fuel system, and engine control materials using E15. The studies demonstrated mixed results on the materials tested. Additionally, the studies were performed only on components of the engine and/or fuel and emissions systems, and not the entire engine, fuel, and emission control system. In order to best evaluate effects on materials and emissions, it is best to test the emission control system components when they are installed in a vehicle operating on E15. Without long term durability studies, the effects of E15 on engines, fuel systems and emission control systems cannot be adequately documented and could result in accelerated component failure in vehicles.

*Response:*

Please see the October and January partial waiver decisions (75 FR 68093 (November 4, 2011) and 76 FR 4662 (January 26, 2011) respectively) for our explanation of how available test data and other information provide an adequate basis for determining that E15 meets the statutory test for a fuel waiver with respect to MY2001 and newer light-duty vehicles with applicable standards.

*What Commenters Said:*

**Organization:** Growth Energy

**Document Number:** EPA-HQ-OAR-2010-0448-0083, p. 8

**Comment:** There is no evidence in the record that use of E15 will cause the failure of vehicles or emission control devices to meet emission standards. To the contrary, evidence in the record supports that use of E15 will not cause such problems. The need for measures to prevent use of E15 in unapproved vehicles is very low. The approach proposed by EPA in the rule -- pump labels, tracking E15 through commerce with PTDs, use of compliance surveys, and public outreach -- is sufficient to ensure that E15 is used only in approved vehicles.

*Response:*

As noted in the waiver decisions, EPA lacks data showing that use of E15 is compatible with the types of vehicles and engines not covered by the partial waiver decisions. As noted in Preamble section IV.E, EPA believes the measures finalized in the rule are sufficient to mitigate the potential that those vehicles and engines will be misfueled with E15.

### 2.6.1.5 Safety Concerns

*What Commenters Said:*

**Organization:** Engine Manufacturers Association (EMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0082, p. 13

**Comment:** Manufacturers are subject to the regulations administered by the Consumer Product Safety Commission (CPSC). If a safety-related liability situation arises, manufacturers are concerned that they will be subject to expensive and time-consuming evaluations in order to determine the role of misfueling. This could be particularly problematic for legacy nonroad products, built and placed into the distribution system prior to the introduction of E15. Nonroad product manufacturers generally have little or no ability to identify or notify the consumers who actually own their products. CPSC could force manufacturers to take proactive steps to ensure that misfueled engines/products do not exhibit safety concerns. EPA provides little support to a manufacturer's ability to defend its products against safety related claims caused by misfueling.

**Organization:** Association of International Automobile Manufacturers (AIAM)

**Document Number:** EPA-HQ-OAR-2010-0448-0079, pp. 16-17

**Comment:** To ensure that vehicles meet applicable safety standards in-use, the National Traffic and Motor Vehicle Safety Act authorizes the National Highway Traffic Safety Administration (NHTSA) to require manufacturers to recall vehicles in order to remedy problems that may present safety risks for consumers. Using improper fuels can lead to drivability, performance, and materials compatibility problems that can raise safety concerns. For instance, improper fuels can cause corrosion or deterioration of fuel system components and resulting performance problems (such as faulty fuel injectors) or fuel leakage that could cause fires. Such conditions could present potential safety risks for consumers and could result in NHTSA requiring auto manufacturers to conduct safety-related recalls. EPA's proposed rule contains no discussion of this potential liability issue, and offers no protection to manufacturers in the event that the use of E15 causes materials compatibility or other problems resulting in safety recalls.

*Response:*

See Preamble section IV.E.2.c regarding recalls for safety and other issues outside of EPA's jurisdiction. We note that today's rule is designed to minimize the potential for misfueling and the problems that misfueling could cause.

*What Commenters Said:*

**Organization:** American Petroleum Institute (API)

**Document Number:** EPA-HQ-OAR-2010-0448-0081, p. 15

**Comment:** EPA's approach did not consider the potential safety risks to the ultimate consumer if the retail station equipment is not compatible with E15.

*Response:*

The E15 partial waiver decisions allow, but do not require, businesses to sell E15 for use in MY2001 and newer light-duty motor vehicles. There are a number of additional steps

that businesses must take to bring E15 to market, including compliance with other federal, state and/or local requirements, which address, among other things, the compatibility of retail station equipment with E15.

## 2.7 Legal and Other Issues

### 2.7.1 Legal/Statutory Authority

*What Commenters Said:*

**Organizations:** Alliance of Automobile Manufacturers (Alliance); Association of International Automobile Manufacturers (AIAM); Outdoor Power Equipment Institute (OPEI)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0072, p. 9; EPA-HQ-OAR-2010-0448-0079, pp. 4-7; EPA-HQ-OAR-2010-0448-0053, pp. 8-9

**Comment:** The CAA does not authorize or allow EPA to issue a partial waiver for E15. In the 2007 amendments to the Energy Independence and Security Act (EISA), Congress strengthened fuel waiver provisions in Section 211(f)(4) of the CAA, which prohibits EPA from approving a fuel waiver unless the Agency determined that those fuels would not cause "any" failures (from on-road or nonroad products) to meet their applicable emission standards over their useful lives in operation. Contrary to Congressional intent, EPA's partial waiver decision and ineffective misfueling control will likely result in damaged products, emission failures, and increased air pollution because of the high rates of misfueling of E15 fuels into sensitive nonroad products. One commenter (AIAM) notes that in past cases where EPA has issued conditional waivers to ensure that the requirements of Section 211(f)(4) were met, the conditions were clearly defined and that in this case, EPA acknowledges the significant risk of misfueling and proposes controls that lack any proven record of effectiveness for preventing intentional and/or unintentional misfueling. Even assuming EPA had the legal authority to grant a "partial waiver," EPA could only rely on misfueling controls that were tested, proven, and documented to be so effective and robust that there will not be any significant misfueling or resulting emission-related failures. At this stage, there are no controls that would meet this legal standard. Since EPA recognizes and acknowledges that allowing the introduction into commerce of E15 will cause or contribute to the failure of emission control devices or systems in some engines, the Agency cannot grant the waiver under the plain language of Section 211(f)(4).

**Organization:** Outdoor Power Equipment Institute (OPEI)

**Document Number:** EPA-HQ-OAR-2010-0448-0053, pp. 9-10

**Comment:** EPA must demonstrate how it would rely on and enforce misfueling controls at individual gas stations to prevent misfueling by consumers. The Agency must substantiate and explain: 1) how it will assess whether misfueling is occurring and at what rate of non-compliance; 2) how EPA is taking actions to prevent misfueling to ensure compliance with Section 211(f)(4); and 3) how the misfueling conditions will be enforced on an ongoing basis. So far EPA has failed to explain how a "self-policing" label would be effective or capable of being enforced. In similar circumstances, the D.C. Circuit has held EPA's actions to be arbitrary and capricious when the Agency has failed to articulate how it will enforce an ineffective "self-policing" requirement to ensure statutory compliance. (See *New York v. EPA*, 413 F.3d 3, 35 (D.C. Cir. 2005)).

**Organization:** Association of International Automobile Manufacturers (AIAM)

**Document Number:** EPA-HQ-OAR-2010-0448-0079, p. 10

**Comment:** EPA is legally obligated under Section 211(f)(4) to adopt misfueling mitigation efforts beyond labeling given the high environmental and monetary costs associated with misfueling.

**Organization:** Pennsylvania Department of Environmental Protection (PA DEP)

**Document Number:** EPA-HQ-OAR-2010-0448-0058, p. 2

**Comment:** EPA's proposed rulemaking does not adequately support the waiver in accordance with Section 211(f)(4) of the CAA because it does not go far enough to deter misfueling or to prevent the fuel from causing or contributing to a failure of a highway or nonroad engine, motor vehicle, or equipment to meet emission standards over its useful life. Intentional or unintentional misfueling on the part of motorists could result in damage to vehicle emission control systems that could lead to higher ambient concentrations of ozone and fine particulate matter and their precursor emissions. Increased tailpipe emissions would occur at precisely the time that states would be obligated to meet more stringent National Ambient Air Quality Standards (NAAQS) for ozone and fine particulate matter, compounding the challenges facing states to attain and maintain the standards.

**Organization:** Alliance of Automobile Manufacturers (Alliance)

**Document Number:** EPA-HQ-OAR-2010-0448-0072, pp. 10-11

**Comment:** The Administrative Procedure Act prohibits agency actions that are "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law" (5 USC 706(2)(A)). Commenter cites to case law (*Motor Vehicle Manufacturers Association v. State Farm*; 1983) and asserts that EPA's grant of a partial E15 waiver is arbitrary and capricious in light of the evidence regarding potential emission control system damage. EPA cannot grant a waiver for a fuel or fuel additive if the Agency does not determine that the fuel will not cause or contribute to emission control device or system failures. In the NPRM, EPA acknowledges that E15 will cause harm and that some misfueling will occur despite the proposed labeling scheme, but has nevertheless granted a partial waiver for E15. In addition, the decision is unsupported by any concrete evidence. The fact that more recent vehicles contain more advanced emission control systems than earlier vehicles does not constitute evidence that such vehicles can accommodate the use of E15. EPA has not considered a forward-looking E15 waiver and has disregarded evidence indicating that problems will arise when vehicles not designed to use E15 are run on that fuel.

**Organization:** Historic Vehicles Association (HVA)

**Document Number:** EPA-HQ-OAR-2010-0448-0076, p. 1

**Comment:** New information and data were submitted and relied upon by the EPA after the comment period closed, without opportunity for public comment or review, thereby violating the Administrative Procedures Act. In addition, the research data relied upon in granting the partial waiver contained serious scientific and methodological flaws including a statistically insignificant sample size of older vehicles. Only ten vehicles were used, and they were only tested for a maximum of 11,000 miles, which is inadequate to determine full useful life.

**Organization:** Alliance of Automobile Manufacturers (Alliance)

**Document Number:** EPA-HQ-OAR-2010-0448-0072, pp. 16-17

**Comment:** In section VI.C.3 of the NPRM, EPA states that it expects E15 to cause NO<sub>x</sub> emissions to increase but that this is acceptable because vehicles will still be able to comply with

their emission standards, given the magnitude of the vehicle compliance margins. EPA needs to recognize that compliance margins are not uniform across manufacturers (and can vary between test groups for a particular manufacturer) and needs to evaluate the emissions variation around the standard (which would allow for an estimate of the number of vehicles that may fail the standard). EPA's reasoning and non-existent emissions analysis are unacceptable and unfair to automakers. The waiver represents an impermissible retroactive change in the emission standards and contributes to the failure of emission control systems (even if the fuel does not directly cause outright failures). This result is contrary to the meaning of Section 211(f)(4). Automakers are being asked to pay for the emissions impact of E15 because they have been so successful in reducing vehicle emissions.

*Response:*

Commenters raise legal concerns that are almost entirely if not wholly addressed to EPA's legal obligations under CAA section 211(f)(4) in acting on Growth Energy's waiver request. Commenters reiterate their preferred interpretation of CAA section 211(f)(4) and again assert that EPA cannot issue a partial waiver under this provision. They also argue that EPA did not properly take into account increases in NO<sub>x</sub> emissions when issuing a decision on the waiver, and that the conditions included in the waiver do not meet the legal requirements of CAA section 211(f)(4). In addition, commenters seem to suggest that our authority under CAA section 211(c) is modified by CAA section 211(f)(4) and EPA's actions under CAA section 211(f)(4) by asserting that CAA section 211(f)(4) imposes additional requirements on the Agency when it acts under CAA section 211(c). For example, commenters assert that when EPA issues a conditional partial waiver under CAA section 211(f)(4), EPA is obligated, by CAA section 211(f)(4), to issue a rule under CAA section 211(c) that prevents misfueling and contains requirements that will ensure that the new fuel or fuel additive does not cause emission-related failures under CAA section 211(f)(4).

To the extent that commenters' assertions address EPA's authority under CAA section 211(f)(4), or EPA's E15 October Waiver Decision,<sup>16</sup> we are not addressing those comments here. We are not revisiting the partial waiver decisions in this rulemaking. EPA's E15 partial waiver decisions, under CAA section 211(f)(4), and this misfueling mitigation measures rulemaking, under CAA section 211(c), are separate EPA actions and we are treating them as separate actions. We acknowledge the interrelatedness of these separate actions, but that interaction does not make comments on EPA's authority and prior actions under CAA section 211(f)(4) relevant to this separate action under CAA section 211(c). As such EPA is not obligated to and is not addressing these comments on its partial waiver decisions in the context of this rulemaking. Please see the partial waiver decisions for a discussion of EPA's CAA section 211(f)(4) authority. 75 FR 68094 (November 4, 2010) and 76 FR 4662 (January 26, 2011).

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<sup>16</sup>As of the close of the comment period for the proposed rule (January 3, 2011), EPA had only issued its October Waiver Decision. The January Waiver Decision was subsequently issued on January 21, 2011. This is why comments submitted during the public comment period on this proposed rule regarding the E15 partial waiver only discuss the October Waiver Decision. Since both decisions have now been published, we will refer to either one or both of the decisions, as appropriate.

To the extent that commenters' assert that CAA section 211(f)(4) somehow modifies EPA's authority or discretion under CAA section 211(c), EPA disagrees and we note that commenters provided no legal argument supporting that assertion. We again emphasize that the prior E15 partial waiver decisions and this misfueling mitigation measures rulemaking are actions taken under separate statutory provisions in the Clean Air Act. The E15 partial waiver decisions were issued under CAA section 211(f)(4) while the authority for the misfueling mitigation measures rulemaking lies in CAA section 211(c). As discussed in section IV.G of the Preamble, it is important to clarify that the purpose of this rule is to mitigate misfueling with E15 that lawfully has been introduced into commerce under the terms of the partial waiver. The partial waiver conditions, and implementation of the partial waiver conditions, address a closely related but different issue - when and by whom E15 blends can be introduced into commerce under the partial waiver decisions. This rule only addresses misfueling mitigation measures and is issued under EPA's authority under CAA section 211(c). In this rulemaking, EPA did not propose and is not taking any action under CAA section 211(f)(4) with respect to the partial waivers that were previously issued. For example, in this rulemaking EPA is not modifying any of the conditions of the partial waivers, or making any decisions as to whether they have been met. Decisions related to compliance with the conditions on the partial waivers will be made separate and apart from this rulemaking. It is therefore inappropriate to conflate these two provisions, and the actions taken under them, in the manner attempted by the commenters.

Section 211(c) establishes EPA's authority and discretion in this rulemaking, not CAA section 211(f)(4). The degree of discretion provided the Agency under CAA section 211(c) and the requirements for issuance of a rule under CAA section 211(c) are not modified or changed by CAA section 211(f)(4) or EPA's prior actions under that provision. To the extent commenters raise objections in terms of a failure to satisfy requirements under CAA section 211(f)(4), EPA rejects their arguments as an unfounded interpretation of CAA section 211(c). Issues concerning EPA's authority and actions under CAA section 211(f)(4) are not relevant to this separate rulemaking action under CAA section 211(c). As discussed elsewhere, EPA has justified this rule as a reasonable exercise of discretion under CAA section 211(c). To the extent commenters' objections do not address EPA's justification for this rule under CAA section 211(c), and instead address EPA's actions under CAA section 211(f)(4), they are not relevant to this rulemaking.

In some cases, commenters' objections include concerns about the adequacy or effectiveness of the misfueling mitigation measures proposed in this rulemaking. In the Preamble and the response to comments EPA has addressed the substantive concerns raised about the proposed misfueling mitigation measures. However, additional objections beyond these substantive concerns, based on claims concerning CAA section 211(f)(4) or EPA's action under CAA section 211(f)(4), are rejected for the reasons discussed above.

## **2.7.2 E15 Waiver**

*What Commenters Said:*

**Organization:** Growth Energy

**Document Number:** EPA-HQ-OAR-2010-0448-0083, p. 1

**Comment:** Commenter believes, for the reasons set forth in their comment letter, that their March 9, 2009 application for a waiver for E15 pursuant to section 211(f)(4) of the Clean Air Act (CAA) and associated submittals to EPA regarding the Waiver Application, including their Comments on Notice of Clean Air Act Waiver Application to Increase the Allowable Ethanol Content of Gasoline to Fifteen Percent (July 17, 2009), that are hereby incorporated in these comments by reference, that EPA should approve use of E15 for all light-duty motor vehicles, light-duty trucks, and medium-duty passenger vehicles.

**Organizations:** Renewable Fuels Association (RFA); National Corn Growers Association

**Document Numbers:** EPA-HQ-OAR-2010-0448-0088, pp. 1-2; EPA-HQ-OAR-2010-0448-0074, p. 3

**Comment:** EPA missed a significant opportunity by only issuing a partial approval of E15 on October 13, 2010. None of the data EPA has evaluated to date has suggested any significant materials compatibility, drivability, or emissions issues associated with the use of E15. DOE's completed testing programs have affirmed the efficacy of E15 in automotive engines. In addition, the engineering assessment completed for RFA by Ricardo, Inc., "Technical Assessment of the Feasibility of Introducing E15 Blended Fuel to U.S. Vehicle Fleet, 1994 to 2000 Model years," demonstrated that E15 is equally safe in older vehicles as well. Limiting E15 use to 2007 and newer vehicles only creates confusion for retailers and consumers alike. RFA firmly believes that E15 is safe and effective in all light duty vehicles and strongly encourages EPA to move swiftly to amend the approval to reflect the evidence. Another commenter agrees with RFA, adding that Ricardo found that moving from 10% ethanol in gasoline to 15% will mean little, if any, change in the performance of older cars and light trucks, those manufactured between 1994 and 2000. This study, completed for RFA, which analyzed the vehicles manufactured by six companies and which represent 25% (62.8 million vehicles) of light duty vehicles on the road today, concluded "that the adoption and use of E15 in the motor vehicle fleet from the studied model years should not adversely affect these vehicles or cause them to perform in a suboptimal manner when compared with their performance using the E10 blend that is currently available."

**Organization:** American Coalition for Ethanol (ACE)

**Document Number:** EPA-HQ-OAR-2010-0448-0087, pp. 1-2

**Comment:** EPA should approve E15 for all automobiles and light trucks since there has not been any evidence submitted or testing completed that provides compelling evidence of any emissions or operability problems associated with the use of an additional five percent ethanol in vehicle engines. The overwhelming majority of engines in the nation are currently running on a 10% ethanol blend, which has been widely used for many years, including as a test fuel in many petroleum dispensing equipment and vehicle applications. Commenter provides additional discussion to support their assertion, noting that nearly all of the comments submitted to encourage EPA to deny the EPA waiver were unscientific anecdotes or "studies" that detailed what those opponents believe might happen were an E15 waiver approved.

**Organizations:** Alliance of Automobile Manufacturers (Alliance); American Petroleum Institute (API); Chevron ; Historic Vehicles Association (HVA); Marathon Petroleum Company; Pennsylvania Department of Environmental Protection (PA DEP); Specialty Equipment Market Association (SEMA)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0072, pp. 10-11; EPA-HQ-OAR-2010-0448-0081, pp. Cvr-1, 1-2; EPA-HQ-OAR-2010-0448-0073, pp. 1-2; EPA-HQ-OAR-2010-0448-0076, p. 1; EPA-HQ-OAR-2010-0448-0056, pp. 1-2; EPA-HQ-OAR-2010-0448-0058, p. 3; EPA-HQ-OAR-2010-0448-0094, pp. 1-3

**Comment:** EPA's decision to grant the waiver was premature due to insufficient substantiation. Ongoing vehicle and infrastructure research must be completed before E15 should be allowed into the marketplace so that all potential risks can be accurately assessed and adequately addressed. EPA's October 2010 E15 partial waiver decision is largely based on limited catalyst durability testing sponsored by DOE and does not comprehend other testing, including the broader, still ongoing Coordinating Research Council (CRC) auto/oil research program. API provides additional discussion regarding the tests being conducted by CRC (i.e., for engine durability, on-board diagnostics, fuel systems durability, and evaporative emission control system durability) and asserts that EPA's proposal should not be finalized until at a minimum, the CRC research is complete. This commenter notes that despite their disagreement with the partial waiver and the introduction of E15, given that the waiver has already been granted, it is now necessary to ensure that E15 is prevented from being used in non-approved vehicles and small engines/equipment in order to avoid damage to them. Chevron specifically notes that they will not authorize E15 to be sold under their trademarked brands until there is: 1) further testing that proves the risk of damage is low enough to outweigh the need to comply with RFS1; 2) an improved ability to advise their branded dealer network of an effective deterrent to misfueling; 3) no discouragement of the use of E15 in waived vehicles by automobile manufacturers; and 4) an improved understanding regarding the extent to which current dispensing and storage systems and components are compatible with E15 or require replacement. HVA specifically notes that available data do not indicate that cars, other types of vehicles, or nonroad engines burning fuel with an ethanol content over 10% would meet emissions standards over the useful life and as such, EPA did not adequately comply with the waiver provisions of the Clean Air Act, section 211(f)(4). PA DEP noted that the studies upon which EPA relies are based on lab data not real world information and that EPA needs to perform tests on emission control system components when they are installed in a vehicle operating on E15.

*Response:*

These comments do not pertain to this rule, but rather pertain to the E15 partial waivers. In acting on the E15 waiver requests, EPA determined that available information was sufficient to demonstrate that E15 meets the Clean Air Act section 211(f)(4) test for allowing E15 to be introduced into commerce for MY2001 and new light-duty motor vehicles and not for other motor vehicles and nonroad vehicles, engines, and equipment. The technical rationale and review of relevant studies for these determinations are discussed in detail in the partial waiver decisions (*see* 75 FR 68094 (November 11, 2010) and 76 FR 4662 (January 26, 2011)).

*What Commenters Said:*

**Organization:** National Marine Manufacturers Association (NMMA); Outdoor Power Equipment Institute (OPEI)

**Document Number:** EPA-HQ-OAR-2010-0448-0095, pp. 1-2; EPA-HQ-OAR-2010-0448-0053, pp. 2-5

**Comment:** EPA should not proceed with trying to bifurcate the fuel distribution system through a legally flawed and impractical "partial waiver" approach. This approach will substantially increase public confusion and lead to persistent misfueling and consequent engine performance failures, emissions control failures, and consumer safety concerns. OPEI adds that EPA's novel approach is based on the dubious assumption that 300,000 gasoline retailers can somehow (through a "self-policing" warning label) prevent misfueling of E15, even though there will likely be a significant price incentive to purchase these less expensive fuels. EPA has failed to document or estimate the rate of misfueling that would occur under its "partial waiver" and the resulting environmental and economic consequences on consumers, owners, and operators, as well as on engine manufacturers that could become unfairly subject to warranty claims for damaged products. EPA has also failed to address how consumers would have access to fuels containing no more than 10% ethanol.

**Organizations:** Alliance of Automobile Manufacturers (Alliance); Association of International Automobile Manufacturers (AIAM); Chevron; Engine Manufacturers Association (EMA); Marathon Petroleum Company; Mercury Marine; National Marine Manufacturers Association (NMMA); National Petrochemical and Refiners Association (NPRA)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0072, pp. 3-5; EPA-HQ-OAR-2010-0448-0079, pp. 4-7; EPA-HQ-OAR-2010-0448-0073 pp. 1-2; EPA-HQ-OAR-2010-0448-0082, p. 11; EPA-HQ-OAR-2010-0448-0056, pp. 1-2; EPA-HQ-OAR-2010-0448-0057, p. 2; EPA-HQ-OAR-2010-0448-0095, p. 4; EPA-HQ-OAR-2010-0448-0067, pp. 1-2

**Comment:** Misfueling is bound to occur simply because EPA chose to bifurcate the approved E15 market, and the new fuel is incompatible with most vehicles in the fleet. EPA has freely admitted that E15 is incompatible with most gasoline-powered engines in use by consumers today. Yet it is inevitable that if E15 is made available at retail, many consumers will misfuel – putting the wrong gasoline into the wrong engine. Misfueling may occur intentionally, due to price differential or a quality perception, or unintentionally, due to confusion or inattention. Alliance notes that while it is true that previous introductions of new fuels (e.g., unleaded, reformulated, low sulfur, etc.) also faced bifurcated markets and misfueling potential, there is a critical distinction because in the prior cases, the new fuels were required only for new vehicles, which were a small fraction of the market and "backward compatible" for older vehicle use. In other words, all vehicles (old and new) could use the new fuel without adverse consequences, whereas the opposite is true for E15. Alliance, NPRA, NMMA, AIAM, and Mercury Marine assert that such misfueling cannot be avoided simply with a dispenser label and that consumers rely upon their government to ensure that the products offered are safe for the intended use. Commenters provide additional discussion on this issue and note that EPA's partial waiver decision ignores this responsibility, allowing a product to be placed into the stream of commerce based on EPA's assurances that the label is ample warning when prior history proves that a label alone is not enough. EPA should postpone the introduction of E15 until uniform labeling requirements as well as a more comprehensive and robust misfueling prevention strategy can be developed and implemented.

*Response:*

EPA detailed its legal basis for partially granting a partial waiver request using its authority under the Clean Air Act in the October Waiver Decision (*see* 75 FR 68094 (November 4, 2010)). EPA discusses the effectiveness of today's final misfueling

mitigation approach in Preamble section III.F and the labeling requirements in section III.B. EPA also addresses the issue of consumers having access to fuels containing no more than 10 vol% ethanol in section III.F.2.d of the Preamble. See also section 2.7.1 of this document for further discussion.

*What Commenters Said:*

**Organizations:** Association of International Automobile Manufacturers (AIAM); Engine Manufacturers Association (EMA); Historic Vehicles Association (HVA); National Marine Manufacturers Association (NMMA)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0079, pp. 2-6; EPA-HQ-OAR-2010-0448-0082, pp. 1-3; EPA-HQ-OAR-2010-0448-0076, p. 1; EPA-HQ-OAR-2010-0448-0095, pp. 1-3

**Comment:** The fuel waiver process under Section 211(f)(4) never contemplated a partial approach. EPA's decision to grant a "partial waiver" allowing the introduction of E15 for use in some vehicles, while specifically prohibiting its use in other vehicles and products, creates a problematic bifurcated fuel program whereby EPA must ensure against misfueling in order to comply with the CAA. The misfueling mitigation program as currently proposed will not effectively prevent unintentional and intentional misfueling, and the introduction of E15 into commerce will therefore not satisfy the strictures of Clean Air Act Section 211(f)(4). NMMA adds that petitioners clearly failed to meet the requisite statutory burdens outlined under section 211(f)(4) to justify a decision by EPA to grant a waiver for E15. EMA notes that the misfueling regulations proposed in the NPRM fail to impose the restrictions and enforcement initiatives necessary to support the bifurcated fuel system created by EPA's decision and as such, misfueling will occur and EPA will not be able to fulfill its obligations under the CAA. EPA must withdraw the NPRM, rescind its approval of the E15 partial waiver, and initiate a comprehensive rulemaking process that provides fuel and fuel consuming product certainty, satisfaction of the RFS2 requirements, and adequate lead-time.

*Response:*

See section 2.7.1 of this document for a discussion of the Clean Air Act Section 211(f)(4). EPA discusses the effectiveness of today's final misfueling mitigation approach in Preamble section III.F.

*What Commenters Said:*

**Organization:** National Petrochemical and Refiners Association (NPRA)

**Document Number:** EPA-HQ-OAR-2010-0448-0067, pp. 12-13

**Comment:** The Agency approved E15 partially and conditionally. The fourth condition was the requirement for fuel and fuel additive manufacturers to each submit a plan to EPA, for EPA's approval, prior to the introduction of E15 into commerce (75 FR 68150). This requirement is reasonable in advance of the rule, but should be removed when the E15 misfueling mitigation rule is promulgated because it would be unnecessary and could be inconsistent with the E15 misfueling mitigation final rule. For example, a condition includes language for the retail pump label and participation in the retail survey that could be revised in the E15 misfueling mitigation final rule.

*Response:*

EPA does not concur with this comment. Please see the Preamble section IV.G for more information concerning how misfueling mitigation plans submitted to EPA under the waiver conditions relate to the provisions of today's final rule.

### **2.7.3 Federal Preemption**

*What Commenters Said:*

**Organizations:** Engine Manufacturers Association (EMA); Outdoor Power Equipment Institute (OPEI)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0082, p. 9; EPA-HQ-OAR-2010-0448-0053, pp. 18-19

**Comment:** Manufacturers must be able to produce, distribute, and sell "50 state" products which are designed to run on a uniform and stable fuel supply. Minnesota has already adopted legislation that could require (in 2013) all on-road motor vehicles (regardless of model year) to be fueled by E20. The Minnesota law does not include any of the warning labels, any product transfer, or any of the compliance surveys in the proposed federal regulation. However, in its misfueling proposal, EPA states that "the Agency is not aware of any state rules or laws that would be pre-empted by today's rule if adopted" (75 FR 68049). OPEI specifically notes that EPA reaches this conclusion by apparently misapplying a narrow interpretation of the scope of pre-emption established under Section 211(c)(4)(A) of the CAA, which pre-empts states from prescribing or enforcing controls or prohibitions for fuel components or characteristics if EPA has prescribed a control or prohibition applicable to such characteristic or component. This commenter adds that EPA's Preamble discussion creates the misperception that states can circumvent the spirit and intention of Section 211(c)(4)(A) by characterizing their conflicting ethanol mandates or requirements for a purpose other than "motor vehicle emission control." In the final rule, EPA should clarify that state law cannot conflict with or undermine any of the federal control requirements and should specifically prohibit states from undermining the effectiveness of the EPA warning label through requiring conflicting or distracting ethanol labels.

**Organization:** Engine Manufacturers Association (EMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0082, p. 9

**Comment:** It is imperative that national requirements for both fuel properties and fuel pump labeling preempt states or other localities from implementing different requirements for fuels and fuel pump labels. In addition, EPA must resolve both jurisdiction and content control on a federal level with the FTC. Even the best misfueling control plan will fail if the message conveyed to consumers is not consistent between stations, pumps, and states. EPA's interest in preventing misfueling transcends either the FTC or state's interests with respect to the importance of creating a consistent, understandable, and clear labeling program.

**Organizations:** Alliance of Automobile Manufacturers (Alliance); National Marine Manufacturers Association (NMMA)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0072, p. 13; EPA-HQ-OAR-2010-0448-0095, pp. 11-12

**Comment:** A consistent, nationwide labeling scheme is required to prevent widespread misfueling. The single national federal label design scheme should be mandatory, with no

flexibility for alternate designs. Alliance notes that the federal government should encourage states to withdraw any conflicting state-mandated labels or force them to do so. NMMA specifically states that they agree with EPA's interpretation of the CAA that any state is preempted from enforcing a rule allowing more than 15% ethanol to be used in gasoline, or allowing the use of E15 in any vehicle or engine in which EPA has prohibited the use of such fuel to achieve additional emission reductions. NMMA also agrees that any state fuel labeling programs related to E15 would be preempted by Clean Air Act section 211(c)(1)(A).

**Organizations:** Alliance of Automobile Manufacturers (Alliance); Association of International Automobile Manufacturers (AIAM); ECHO, Inc.; Environmental Working Group

**Document Numbers:** EPA-HQ-OAR-2010-0448-0072, p. 5, 13; EPA-HQ-OAR-2010-0448-0079, p. 8; EPA-HQ-OAR-2010-0448-0033, p. 5; EPA-HQ-OAR-2010-0448-0071.1, p. 2

**Comment:** A single, consistent, and integrated federal approach to labeling and misfueling avoidance is necessary and this approach should pre-empt individual state ethanol initiatives that might conflict with or decrease the effectiveness of the federal effort. Alliance adds that EPA has chosen to use Section 211(c) of the CAA so it may preempt state regulation of these fuels, and there is no reason why this rule should not also preempt state labeling in this area.

*Response:*

As explained in the Preamble section III.B, today's rule establishes national labeling requirements so that consumers can readily recognize and heed information about what vehicles can, and what vehicles, engines and equipment cannot, fuel with E15. We have worked with FTC staff to design E15 labels that work with existing and potential FTC labels for ethanol blends. While today's rule allows fuel marketers to develop and seek approval of alternative labels, we have made clear that such labels may differ from the required E15 label in only limited respects so that general consistency of E15 labels is maintained. Today's rule also establishes other national misfueling mitigation measures to further reduce the potential for misfueling and the emission consequences that could result.

The Clean Air Act expressly addresses the extent to which EPA fuel regulations preempt state fuel regulations, as explained at proposal and summarized in section III.H of the Preamble of today's final rule. CAA section 211(c)(4)(A) of the CAA prohibits states and political subdivisions from prescribing or attempting "to enforce, for purposes of motor vehicle emission control, any control or prohibition, respecting any characteristic or component of a fuel or fuel additive in a motor vehicle or motor vehicle engine" if EPA has prescribed a control or prohibition applicable to such characteristic or component of the fuel or fuel additive under section 211(c)(1). This prohibition does not apply to controls that are identical to prohibitions or controls adopted by EPA. CAA section 211(c)(4)(A)(ii). Also, this prohibition applies to all states except California. CAA section 211(c)(4)(B). Today's action is based on the authority in section 211(c)(1), as well as under sections 208 and 114 of the Act. As such, today's action leads to express preemption under section 211(c)(4)(A) of nonidentical actions by states other than California that prescribe or enforce controls or prohibitions respecting ethanol content in gasoline in order to control motor vehicle emissions,. Because section 211(c)(4)(A) applies only to controls or prohibitions respecting any characteristics or components of

fuels or fuel additives for use in motor vehicles or motor vehicle engines, i.e., on road or highway vehicles<sup>17</sup>, a state control or prohibition respecting ethanol content in fuel or fuel additives would be preempted only if it is “for purposes of motor vehicle emission control<sup>18</sup>.” Further, under section 211(c)(4)(C) states, other than California, may prescribe and enforce nonidentical measures if they seek and obtain EPA approval of SIP revisions containing such control measures. As a general matter, EPA believes that questions regarding preemption of specific state fuel controls and determination should be addressed in the context of a specific SIP rulemaking. Through this procedure, the specific circumstances involved can be considered.

Aside from the express preemption in section 211(c)(4)(A), courts may consider whether a state control for fuels or fuel additives is implicitly preempted under the supremacy clause of the U.S. constitution. Courts have determined that a state law is preempted by federal law where the state requirement actually conflicts with federal law by preventing compliance with the federal requirement, or by standing as an obstacle to accomplishment of congressional objectives. A court could thus consider whether a state standard respecting ethanol content that is not subject to the express exemption provisions of section 211(c)(4)(A) nevertheless is preempted because it meets the criteria for conflict preemption.

With respect to state laws concerning E20, we note that E20 is not substantially similar to the fuel used to determine vehicle and engine compliance with emission standards and so may not be sold unless and until it receives a waiver under CAA section 211(f). The partial waivers EPA recently issued are for gasoline-ethanol blends containing more than 10 vol% ethanol and up to 15 vol% ethanol, not more than 15 vol% ethanol. Also, E20 needs to be registered under the CAA before it can be sold. CAA section 211(a) authorizes EPA to designate fuels and fuel additives and requires manufacturers of such fuels and fuel additives to register them with EPA prior to introduction into commerce. EPA has designated motor vehicle gasoline and diesel fuels and their additives in the regulations at 40 CFR Part 79. At this time, EPA has yet to register any such fuels or fuel additives that contain more than 10% ethanol.

## 2.7.4 Energy Policy

*What Commenters Said:*

**Organization:** Engine Manufacturers Association (EMA)

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<sup>17</sup> Section 211(c)(4)(A) does not apply to state controls or prohibitions respecting characteristics or components of fuel or fuel additives used by nonroad engines or nonroad vehicles. See for example 69 FR 39072 (June 29, 2004). We have also explained, however, “that a state control that regulates both highway fuel and nonroad fuel is preempted to the extent that the state control respects a characteristic or component of highway fuel regulated,” under section 211(c)(1) by EPA. 69 FR 39073.

<sup>18</sup> See *Oxygenated Fuels Ass’n v. Pataki*, 158 F. Supp.2d 248 (N.D.N.Y. 2001) (State law addressing groundwater pollution by MTBE “is not a control or prohibition respecting any characteristic or component of a motor vehicle fuel or fuel additive for purposes of motor vehicle emission control,” under section 211(c)(4)); *In re MTBE Prod. Liab. Litig.*, 175 F.Supp.2d. 593, 612 (S.D.N.Y. 2001) (State lawsuits were for purposes of protecting groundwater supply from MTBE contamination and not “for purposes of motor vehicle emissions control”). See also *Oxygenated Fuels Ass’n, Inc. v. Davis*, 331 F.3d 665 (9<sup>th</sup> Cir. 2003).

**Document Number:** EPA-HQ-OAR-2010-0448-0082, pp. 4-6

**Comment:** There are various components of the current energy policy underlying the proposed regulation. Congress and EPA have passed and adopted a slew of fuel-focused legislation, regulations, and standards with the stated goal of reducing our dependence on petroleum-based fuels, which include EPA's RFS, Section 211(f)(4) of the CAA, the Energy Independence and Security Act of 2007 (EISA), EPA's RFS2, and the E15 Waiver Decision. In the context of this comment, commenter provides additional discussion of each of these components, stating among other points that: 1) for RFS, the fixed volume renewable fuel requirements exacerbated blend limits as other EPA fuel efficiency programs result in projected blend walls for E15, E20, etc. over the life of the RFS program; 2) the waiver authority under Section 211(f)(4) was intended to be used only as a full approval or denial of a particular fuel (not a partial waiver); and 3) the production requirements under RFS2 (as a direct response to EISA) were not linked to overall petroleum fuel usage and therefore created discord between the RFS2 requirements and EPA's other programs. Commenter also provides additional discussion on why this latest effort is quite different from the unleaded gasoline and ULSD fuel programs - namely, those programs were adopted by EPA as the long term fuel available, with the intent that it would ultimately fully replace another existing fuel (not the case with E15).

**Organization:** Engine Manufacturers Association (EMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0082, pp. 3-4, 15

**Comment:** EPA should not proceed with the proposed regulation because it is based on the false premise that two gasoline blends can and will coexist in the marketplace: E0-E10 and E15. However, E15 is only a stop gap measure aimed at delaying the RFS2-derived blend wall for a relatively short period of time. EPA could possibly receive a waiver request for E20 even before the proposed rule is implemented. This piecemeal approach to legislation is inefficient and costly, and as such the proposed rule should be revised in order to present a comprehensive solution. If higher blends continue to be approved one at a time, the confusion in the marketplace will grow and it will be difficult for consumers to know which fuel is appropriate. Commenter provides additional discussion on this issue and asserts that until EPA proposes regulations that provide a logical implementation of the wide range of fuels and products compatible with such fuels, EPA's rulemakings will fail to fulfill the Agency's obligations under the Energy Independence and Security Act of 2007.

**Organization:** Engine Manufacturers Association (EMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0082, p. 6

**Comment:** The Energy Independence and Security Act (EISA) and RFS2 regulations call for significant increases in renewable fuel content, which were anticipated to be addressed through the implementation of E85. However, a combination of the renewable fuel content requirements, the lack of infrastructure for E85, and the general rejection of E85 by consumers is expected to result in an inability to comply with both EISA and RFS2 (E10 maximum for conventional gasoline) and the RFS2 renewable fuel volume requirements (commonly referred to as the "blend wall"). EPA's partial approval of the E15 request is expected to have a limited effect on the blend wall problem, resulting in a slight delay but no solution. This ongoing problem is expected to require further EPA action regarding both fuel waivers and related misfueling control proposals.

*Response:*

EPA acknowledges commenters' observations about current federal energy policy and fuel requirements and the implications for fuel supply and use. The Energy Policy Act of 2005 and the Energy Independence and Security Act of 2007 (EISA) added the federal RFS program to the Clean Air Act and specified volume mandates intended to significantly increase the amount of renewable fuels in the nation's transportation fuel supply and reduce our reliance on petroleum-based fuels. Under those laws, EPA has several implementation responsibilities, including acting on waiver requests by businesses for fuels that businesses might choose to use to meet RFS requirements. We responded to the E15 waiver request by granting partial waivers based on our determination that available test data and other information demonstrated that the CAA section 211(f)(4) test for fuel waivers had been met for MY2001 and newer light-duty motor vehicles. We also placed conditions on those waivers to mitigate potential misfueling of vehicles, engines and equipment not covered by the waivers. We believe we have authority to grant partial waivers with such conditions under section 211(f)(4) and we discussed our rationale in the October Waiver Decision (*see* 75 FR 68094 (November 4, 2010)). The purpose of today's rule is to further mitigate misfueling of E15 in vehicles, engines, and equipment not covered by the partial waiver decisions. EPA also believes that the ULSD program provides a useful model for the development of today's misfueling mitigation program; please see the Preamble section III.F.1 for more discussion. We plan to work with stakeholders as E15 enters the market to monitor developments and identify any issues that may develop. Experience with the transition to E15 may also help inform and guide future fuel transitions.

*What Commenters Said:*

**Organization:** National Association of Convenience Stores (NACS) and Society of Independent Gasoline Marketers of America (SIGMA)

**Document Number:** EPA-HQ-OAR-2010-0448-0055, p. 8

**Comment:** In the 112th Congress, EPA should aggressively advocate for legislation such as HR 5778, the Renewable Fuels Marketing Act. This bill would have: 1) insulated retailers compliant with an EPA labeling regime from liability for violations caused by consumer misfueling; 2) directed EPA to issue guidelines to determine whether retail petroleum equipment is compatible with (and thus, may be used to safely and lawfully sell) motor fuels, providing retailers a path to have existing equipment recertified to sell E15; and 3) expedited the certification of new devices as compatible with new fuels, increasing the inventory of certified compatible equipment. Enacting a similar piece of legislation would encourage retailers to sell E15, expediting its introduction into commerce.

*Response:*

Response to legislative proposals is beyond the scope of this rulemaking. As discussed in Preamble section IV.E, we believe the approach taken to liability for violations at the retail level in other EPA fuel programs is appropriate for the E15 misfueling mitigation program being promulgated today. EPA also expects to issue guidance soon on determining whether underground storage tanks are compatible with E15.

## 2.8 E15 Emissions and Anti-backsliding

*What Commenters Said:*

**Organization:** National Association of Clean Air Agencies (NACAA)

**Document Number:** EPA-HQ-OAR-2010-0448-0077, p. 2

**Comment:** In the near term, EPA should reduce sulfur levels by 5-10 ppm for gasoline blendstocks used for E15 to offset any NO<sub>x</sub> increase. This can be readily accomplished by virtually all U.S. refiners with slight adjustments to desulfurization residence times, operating pressures, and catalyst density.

**Organization:** American Lung Association (ALA)

**Document Number:** EPA-HQ-OAR-2010-0448-0097, p. 1

**Comment:** The states and cities are challenged now to provide protection to public health under the current national air quality standards for ozone, and additional emissions from mid-level ethanol would likely worsen that problem. Therefore, until sufficient evidence exists to show that mid-level ethanol would not add emissions, the use of E15 should not be approved in heavy duty gasoline engines and vehicles, motorcycles, nonroad engines, vehicles and equipment. For the same reasons, use of E15 should be prohibited for MY2001-2006 motor vehicles.

**Organization:** National Association of Clean Air Agencies (NACAA)

**Document Number:** EPA-HQ-OAR-2010-0448-0077, p. 4

**Comment:** NO<sub>x</sub> emissions are known to increase with increasing ethanol concentration in gasoline. In its analysis, EPA acknowledges that NO<sub>x</sub> emissions could increase 14% compared to baseline fuel use, based on the midpoint of the CRC study of E10 and E20. A core assumption made by EPA is that there is a 50% compliance margin for NO<sub>x</sub> emissions control systems used in MY2007 and later vehicles, and that such a compliance margin is sufficient to offset any risk of higher NO<sub>x</sub> emissions associated with E15. However, the EPA analysis is based on the drivability and emissions test data for 19 vehicles. Such a small data set is an insufficient basis on which to make such a critical regulatory judgment. EPA's decision to forego any NO<sub>x</sub> mitigation as part of the implementation of the E15 waiver is therefore flawed, inconsistent with known and submitted data by numerous auto manufacturers and in direct contradiction with underlying criteria specified in the CAA and the National Environmental Policy Act (NEPA). For example, EPA failed to consider changing the gasoline feedstock through the use of lower sulfur gasoline, which can offset expected NO<sub>x</sub> increases. This offsetting strategy is at the heart of the NO<sub>x</sub> mitigation reflected in California's Phase 3 gasoline regulation. EPA should therefore strongly consider similar changes to federal gasoline specifications to achieve full direct mitigation of the NO<sub>x</sub> increase associated with additional low-level ethanol blend use. Commenter adds that higher NO<sub>x</sub> and HC tailpipe emissions may occur in use due to the possible accelerated deterioration of catalysts resulting from E15 use. These effects have been documented by several auto manufacturers, which have found lower thermal degradation margins in three-way catalyst systems due to the higher combustion temperature and higher exhaust gas temperature associated with E15 compared to E10. Although in its analysis EPA suggests that such changes may not affect the certification status of in-use vehicles, actual in-use emissions may still increase compared to vehicles operating on E10. EPA's decision should

ensure that no backsliding occurs from in-use emission levels, regardless of the certification status of in-use vehicles.

*Response:*

EPA is considering changes to fuel standards in a future rulemaking designed to allow for more efficient emissions controls and fulfill the anti-backsliding requirements that were incorporated into the Clean Air Act by the Energy Independence and Security Act of 2007 (Clean Air Act sections 211(q) and (v)) to address potential emissions effects from increased national renewable fuel use. Please see Preamble section IV.H for more discussion.

*What Commenters Said:*

**Organization:** New York State Department of Environmental Conservation (NY DEC)

**Document Number:** EPA-HQ-OAR-2010-0448-0069, p. 2

**Comment:** Commenter recommends five longer term strategies that EPA should pursue in an effort to avoid emissions backsliding: 1) Adjust certification testing requirements for tailpipe and evaporative emission standards using E15 rather than E10; 2) Require gasoline blendstock adjustment to ensure no, or minor, change in the full distillation curve; 3) Update EPA guidance to original equipment manufacturers regarding the sensitivity of OBD systems to 0.04-pounds-per-square-inch (psi) increases in fuel vapor pressure. (In California, this sensitivity is even greater, as OBD failures are triggered based on 0.02-psi changes.); 4) Plan additional testing beyond that already underway at DOE (EPA should address potential material compatibility concerns and conduct long-term degradation studies to identify any problems with the prolonged use of E15 -- real world aging of catalysts, rather than accelerated bench testing, will be important in this regard); and 5) Provide states with clear guidance on quantifying emissions from E15, including updates to the Complex Model as well as other models such as Nonroad 2008, NMIM 2008 and MOVES.

*Response:*

See Preamble section IV.H for a discussion of EPA actions regarding potential emission increases due to E15.

*What Commenters Said:*

**Organization:** Alliance of Automobile Manufacturers (Alliance)

**Document Number:** EPA-HQ-OAR-2010-0448-0072, p. 17

**Comment:** EPA has declined to estimate the overall impact of E15 on the vehicle emissions inventory, preferring instead to defer an analysis until it conducts the anti-backsliding study required under CAA Section 211(v). With this decision, EPA is shirking its duty because by the time this study is conducted, E15 is likely to be entrenched in the marketplace just when the nation is gearing up to meet a new, tighter ambient air quality standard for ozone.

*Our response:*

As discussed in Preamble section III.G, there are several regulatory and practical issues that will affect the timing and pace of the introduction of E15 into the marketplace. Thus, any predictions about when or if E15 would be the primary fuel in the marketplace are not certain. In our view, E15 is likely to enter the market in a few areas and gradually expand to other areas over time. As explained above, EPA is addressing the emissions impact of renewable fuels as part of its anti-backsliding analysis and related rulemaking. We believe those efforts can timely address emissions issues associated with E15's introduction into the fuel marketplace.

*What Commenters Said:*

**Organizations:** Environmental Working Group; Mid-American Regional Council (MARC); Air Quality Forum (AQF); National Association of Clean Air Agencies (NACAA)

**Document Numbers:** EPA-HQ-OAR-2010-0448-0071, pp. 1-2; EPA-HQ-OAR-2010-0448-0075, pp. 1-2; EPA-HQ-OAR-2010-0448-0077, pp. 1-2, 4-5

**Comment:** Allowing the use of E15 will result in emissions increases, which will compromise the ability of state and local air agencies to achieve and sustain clean air and public health goals. Use of E15 will lead to increased emissions and other adverse effects with regard to fuel properties (e.g., vapor pressure, distillation characteristics). NACAA, notes, as an example, that the use of E15 results in the increase in oxygen content of gasoline from 2.7% (for E10) to 5.5%, and adds that such a fuel mixture change when used in MY2007 and later vehicles covered by EPA's recent waiver decision (as well as other model year vehicles) can affect emission control system efficiency and durability, warranty status, and the operation of OBD systems and also lead to drivability impacts and increased tailpipe and evaporative emissions of NO<sub>x</sub> and HC. AQF acknowledges the importance of alternative energy, but asserts that the increase in NO<sub>x</sub> emissions from E15 may overshadow the decrease in VOC emissions and create the potential for backsliding even if existing RVP regulations remain in place. EPA has not fully addressed or mitigated these types of issues in its recent waiver decision and the impacts may be further compounded, and left unaddressed, by future decisions the Agency will make regarding additional waivers for E15. This commenter provides significant additional discussion on these issues, including specific recommendations.

**Organization:** Pennsylvania Department of Environmental Protection (PA DEP)

**Document Number:** EPA-HQ-OAR-2010-0448-0058, p. 5

**Comment:** The adverse impact of E15 misfueling on air quality may exceed EPA's estimates. EPA needs to further study the effect of using E15 on ambient concentrations of air pollutants. Combined standards for HC+NO<sub>x</sub> have been imposed to allow greater compliance flexibility for manufacturers, but it is difficult to estimate the increases and decreases in NO<sub>x</sub> and HC, respectively. Increased emissions of NO<sub>x</sub> may overpower the positive effect on decreased emission of HC when combusting E15 instead of E10. Although EPA notes that the impact of E15 on the combined HC+NO<sub>x</sub> standard would be small, the availability of E15 and the real potential for motorists misfueling and harming their emissions control equipment may hinder the ability to attain and maintain the NAAQS to a greater extent than assumed by EPA. Commenter provides additional discussion on this issue and asserts that EPA should make a serious effort to determine what percentage of control systems will be damaged from misfueling with E15 and the final effect on air quality.

*Response:*

EPA agrees that E15 may lead to higher emissions in some vehicles, engines, and equipment. EPA carefully considered the impact that E15 would have on the emission controls of all vehicles, engines, and equipment in the partial waiver decisions. EPA determined that MY2001 and newer light-duty motor vehicles would not experience adverse effects on emissions controls that would cause or contribute to vehicles failing to meet emissions standards over their full useful lives. However, EPA determined that E15 would adversely affect the emissions of nonroad vehicles, engines, and equipment as well as MY2000 and older motor vehicles (including all heavy-duty gasoline-powered motor vehicles) and denied the waiver. Additionally, EPA is prohibiting in today's rule the use of gasoline-ethanol blended fuels containing greater than 10 vol% ethanol content in vehicles, engines, and equipment not covered by the partial waiver decisions. EPA believes that the rule will help mitigate misfueling and thus minimize those adverse emissions effects. Furthermore, as discussed in section IV.H of the Preamble, EPA is undertaking analyses and regulatory action to address potential adverse air quality impacts resulting from the increased renewable fuel use mandated in the Energy Independence and Security Act of 2007.