

The Administrator signed the following rule on June 23, 2011 and we are submitting it for publication in the *Federal Register*. While we have taken steps to ensure the accuracy of this Internet version of the rule, it is not the official version of the rule for purposes of compliance. Please refer to the official version in a forthcoming *Federal Register* publication or on GPO's Web Site. You can access the *Federal Register* at: [www.gpoaccess.gov/fr/index.html](http://www.gpoaccess.gov/fr/index.html).

## **ENVIRONMENTAL PROTECTION AGENCY**

### **40 CFR Part 80**

**[EPA-HQ-OAR-2010-0448; FRL-XXXX-X]**

**RIN 2060-AQ17**

## **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**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Final Rule.

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**SUMMARY:** In two recent actions under the Clean Air Act (CAA), EPA granted partial waivers that allow gasoline containing greater than 10 volume percent (vol%) ethanol up to 15 vol% ethanol (E15) to be introduced into commerce for use in model year (MY) 2001 and newer light-duty motor vehicles, subject to certain conditions. In today's action, EPA is establishing several measures to mitigate misfueling of other vehicles, engines and equipment with E15 and

the potential emissions consequences of misfueling. Specifically, the rule prohibits the use of gasoline containing more than 10 vol% ethanol in vehicles, engines and equipment not covered by the partial waiver decisions. The final rule also requires all E15 gasoline fuel dispensers to have a specific label when a retail station or wholesale-purchaser consumer chooses to sell E15. In addition, the rule requires that product transfer documents (PTDs) specifying ethanol content and Reid Vapor Pressure (RVP) accompany the transfer of gasoline blended with ethanol through the fuel distribution system, and a survey of retail stations to ensure compliance with E15 labeling, ethanol content and other requirements. The rule also modifies the Reformulated Gasoline (RFG) program to allow fuel manufacturers to certify batches of E15. Finally, today's action denies a petition for rulemaking to require retail stations to offer for sale gasoline containing 10 vol% ethanol or less.

**DATES:** This final rule is effective on [\[insert date\]](#), 30 days after publication in the Federal Register.

**ADDRESSES:** EPA has established a docket for this action under Docket ID No. EPA-HQ-OAR-2010-0448. All documents in the docket are listed on the [www.regulations.gov](http://www.regulations.gov) web site. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through [www.regulations.gov](http://www.regulations.gov) or in hard copy at the Air and Radiation Docket and Information Center, EPA/DC, EPA West, Room 3334, 1301 Constitution Ave., NW, Washington, DC. The Public

Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744, and the telephone number for the Air Docket is (202) 566–1742.

**FOR FURTHER INFORMATION CONTACT:** Robert K. Anderson, Office of Transpiration and Air Quality, Compliance and Innovative Strategies Division, Environmental Protection Agency, 1310 L St., N.W., Washington, D.C.; telephone number: 202-343-9817; fax number: 202-343-2800; e-mail address: *anderson.robert@epa.gov*.

**SUPPLEMENTARY INFORMATION:**

**Does this Action Apply to Me?**

Entities potentially affected by this action include those involved with the production, importation, distribution, marketing, or retailing of diesel fuel and production of gasoline.

Categories and entities affected by this action include:

Category	NAICS <sup>1</sup>	SIC <sup>2</sup>	Examples of Potentially Regulated Entities
	Codes	Codes	

Industry	324110	2911	Petroleum Refineries
Industry	325193	2869	Ethyl alcohol manufacturing
Industry	424710	5171	Petroleum bulk stations and terminals
Industry	424720	5172	Petroleum and petroleum products merchant wholesalers
Industry	454319	5989	Other fuel dealers
Industry	447190	5541	Gasoline service stations Marine service stations Truck stops

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be affected by this action; however, other types of entities not listed in the table could also be affected. To determine whether your entity is affected by this action, you should examine the applicability criteria of Parts 79 and 80 of title 40 of the Code of Federal Regulations. If you have any question regarding applicability of this action to a particular entity, consult the person in the preceding **FOR FURTHER INFORMATION CONTACT** section.

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A. Legal Authority

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## I. Executive Summary

In today's final rule, EPA is establishing several measures to mitigate the potential for E15<sup>1</sup> to be used to fuel vehicles, engines and equipment for which E15 has not been approved for

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<sup>1</sup> For purposes of this preamble, E15 refers to gasoline-ethanol blended fuels that contain greater than 10 vol% and no more than 15 vol% ethanol content.



introduction into commerce. These regulations are being issued in conjunction with EPA's two recent decisions to grant partial waivers for E15 under section 211(f)(4) of the Clean Air Act (CAA or the Act). The partial waivers allow the introduction into commerce of E15 for use in model year (MY) 2001 and newer light-duty motor vehicles (cars, light-duty trucks and medium-duty passenger vehicles). The E15 partial waivers impose a number of conditions designed to help ensure that E15 is introduced into commerce for use only in MY2001 and newer light-duty motor vehicles and in flexible-fueled vehicles, and not for use in any other vehicles, engines or equipment. Some of the regulatory provisions in this action parallel those waiver conditions and are expected to be a more efficient way to minimize in-use emission increases that might result from misfueling with E15. The misfueling mitigation measures adopted today ensure that fuel providers have a strong incentive to properly blend and label E15 and consumers have a strong incentive to avoid misfueling. By effectively addressing the potential for misfueling, the measures should also have the benefit of facilitating the successful introduction of E15 into commerce.

#### **A. Proposed Rule**

EPA proposed four regulatory provisions to address concerns about potential misfueling: (1) a prohibition against the use of gasoline containing more than 10 vol% ethanol in vehicles, engines and equipment not covered by the partial waiver decisions, specifically MY2000 and older motor vehicles, heavy-duty gasoline engines and vehicles, on and off-highway motorcycles,<sup>2</sup> and nonroad engines, vehicles, and equipment;<sup>3</sup> (2) labeling requirements for fuel

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<sup>2</sup> Off-highway motorcycles are considered nonroad vehicles but for purposes of this preamble on and off-highway motorcycles are referred to collectively as "motorcycles."

pumps that dispense E15 to alert consumers to the appropriate and lawful use of the fuel; (3) the addition to PTDs of information regarding the ethanol content of, or the level of ethanol that may be added to, gasoline being sold to retail stations or wholesale purchaser-consumers so that E15 may be properly blended and labeled; and (4) an ongoing implementation survey requirement to ensure that E15 is in fact being properly blended and labeled (75 FR 68044, Nov. 4, 2010). EPA explained that it has used such strategies to implement several fuels programs over the past 30 years, and that the proposed measures should effectively mitigate misfueling and the associated emissions impacts while enabling the use of E15 in appropriate motor vehicles. The E15 misfueling mitigation waiver conditions and a substantial consumer education and outreach effort are also directed at achieving this result. The Agency asked for comment on its proposed requirements and on several other options, including whether additional misfueling mitigation measures might be appropriate.

EPA received over 80 comments from fuel providers, manufacturers of vehicles, engines and gasoline-powered equipment, boat owners, States, and environmental groups. While a number of comments raised continuing concerns with EPA's decision to grant the partial waivers, all acknowledged the importance of an effective misfueling mitigation program and provided thoughtful suggestions about how the Agency's proposed regulations might be improved or supplemented.

## **B. Final Mitigation Measures**

After carefully considering the public comments, we are finalizing the four proposed misfueling mitigation measures with a number of changes designed to enhance their

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<sup>3</sup> For purposes of this preamble, nonroad engines, vehicles, and equipment are referred to as "nonroad products."

effectiveness and more carefully tailor them to their purpose. Specifically, we are adopting the prohibition on misfueling. The comments we received were generally supportive of the prohibition in view of EPA's decision to deny the E15 waiver request for MY2000 and older light-duty motor vehicles, heavy-duty gasoline engines and vehicles, motorcycles and nonroad products because of the emissions increases that could result if E15 (or higher gasoline-ethanol blends) were used, particularly over time, in those vehicles, engines and products. With adoption of the misfueling prohibition, gasoline and ethanol producers, distributors, retailers and consumers have a legal obligation not to make, distribute, sell or use gasoline containing more than 10 vol% ethanol for or in vehicles, engines and equipment not covered by the partial waiver decisions.

To provide consumers with information at the pump to avoid misfueling, we are adopting an E15 pump label that reflects many commenters' suggestions and our consultation with consumer labeling experts at the Federal Trade Commission (FTC).<sup>4</sup> Before EPA issued its partial waiver decisions, FTC had proposed labels for gasoline-ethanol blends containing more than 10 vol% ethanol to address issues within its jurisdiction. Commenters on our proposed E15 label urged us to work with FTC to develop a coordinated labeling program to avoid multiple, potentially conflicting labels. Commenters also recommended that we seek advice from labeling experts. In developing today's final labeling requirements, we consulted with FTC consumer labeling experts and other staff about effective label design and potential coordination with FTC labels.

EPA's final E15 label incorporates public and FTC staff suggestions for more simply and effectively communicating the information consumers need to avoid misfueling with E15. The

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<sup>4</sup> The FTC has experience designing labels to help consumers make informed decisions at the point-of-sale. *See, e.g.*, 16 CFR Part 305 (EnergyGuide and Light Bulb labels); 16 CFR Parts 306 and 309 (Automotive Fuel labels); and 16 CFR Part 423 (Clothing Care labels).

label also adopts FTC's color scheme for alternative fuel labels and other aspects of the design of FTC's proposed gasoline-ethanol blend labels, such as size, shape, and font, so that the two agencies' labels could work together as a coordinated labeling scheme for gasoline-ethanol blends containing more than 10 vol% ethanol. We believe that the final E15 label provides consumers with the key information they need about the appropriate use of E15.

Today's rule also includes PTD and implementation survey requirements that have been revised and refined in response to public comments to better accomplish their purpose. We are requiring that PTDs provide more pertinent information, and we are providing more flexibility in how that information is conveyed to help ensure that fuel producers, distributors and retailers have the information they need to properly blend, track and label E15. For surveys of whether E15 is being properly blended and labeled, we are providing options that allow the businesses involved to match the geographic scope of an ongoing survey to their business plans and to share the cost of surveys among themselves as they see fit. We are also requiring that surveys collect RVP information for fuel samples labeled as E15 to help ensure implementation of the waiver condition that E15 be limited to 9.0 psi RVP in the summertime. In the aggregate, these measures will provide strong incentives for fuel providers to properly blend and label E15 and for consumers to avoid misfueling.

Relatedly, we are adopting our proposed interpretation that CAA section 211(h)(4) provides a 1.0 psi RVP waiver and related compliance provision only to gasoline-ethanol blended fuels containing between nine and 10 vol% ethanol, in light of the terms and legislative history of the relevant statutory provisions.

### **C. Other Mitigation Measures**

EPA received a number of comments expressing concern that the proposed misfueling mitigation measures would not adequately mitigate misfueling. Several of the comments suggested that the Agency issue one or more additional measures in this final rule, although only a few commenters provided specific recommendations. A later section of this notice reviews those comments and EPA's analysis of several other measures. Overall, we concluded that the misfueling mitigation measures required by today's rule should be effective, and that requiring additional measures is not necessary or appropriate at this time.

As explained in the proposed rule, EPA drew on its experience with the recent transition to ultra-low sulfur diesel (ULSD) fuel in developing the E15 misfueling mitigation proposal. Several commenters contended that the transition to unleaded gasoline that occurred several decades ago provided more applicable lessons, including the need for additional mitigation measures. After considering those comments, and as fully discussed later in this notice, EPA continues to believe that the misfueling mitigation measures adopted today are reasonable, appropriate and sufficient to address E15 misfueling concerns. We expect that the E15 label will provide consumers with the key information they need to make appropriate fuel choices, and that the prohibition against misfueling will provide additional incentives for all parties to minimize misfueling. The PTD and survey requirements will provide fuel blenders, distributors and retailers with the information they need to properly blend, track and label E15 and confirmation that E15 has been properly made and sold. In addition to these required measures, retailers and other fuel providers may employ any other strategies they believe would further reduce the risk of misfueling under their particular circumstances. For example, retailers that serve a significant population of boat or small equipment owners can evaluate whether it is appropriate under their

circumstances to post signs that specifically address misfueling of those products. We encourage consideration of additional measures as may be helpful in a fuel provider's specific circumstances. By taking additional, tailored steps, retailers and other fuel providers can provide examples of other misfueling mitigation measures that may also be effective in reducing the risk of misfueling.

In deciding what mitigation measures to require at this time, we also considered what we do, and do not, know about the introduction of E15 into the marketplace. The partial waivers that EPA has granted to E15 do not require that E15 be made or sold. The waivers merely allow fuel or fuel additive manufacturers to introduce E15 into commerce if they meet the waivers' conditions. Other federal, state and local requirements must also be addressed before E15 may be sold. While EPA is working to address issues within its jurisdiction, it is ultimately up to businesses to decide whether, when and how to market E15. In light of the various decisions that need to be made by various parties, we expect that the transition to E15, like the transition to E10, will occur over several years and begin in some parts of the country before becoming broadly available. In the process, business decisions will be made about how to market E15 (e.g., the price of E15 and its use for a particular grade of gasoline).

As the transition to E15 occurs, we plan to work with industry, state, environmental and consumer stakeholders to track developments and evaluate the effectiveness of the mitigation measures required by today's rule. We are already in the process of working with the ethanol industry and other stakeholders to help establish a public education and outreach campaign to assist fuel producers, distributors, retailers and consumers in understanding how E15 may be made, distributed, sold and used. Our recent experience with the transition to ULSD fuel shows that a stakeholder-led campaign can work synergistically with labeling requirements and provide

another means of providing important information to everyone involved in fuel production, distribution and use. Establishing a similar campaign for E15 can also provide a forum for identifying and resolving any issues that may develop as E15 moves into the marketplace.

#### **D. Emissions Impacts of the Rule**

These misfueling mitigation regulations are issued under CAA section 211(c) to mitigate and minimize the emission increases that would occur if E15 (or a higher gasoline-ethanol blend) is used in vehicles, engines, and products for which the E15 waiver was denied, specifically, MY2000 and older motor vehicles and all heavy-duty gasoline engines and vehicles, motorcycles and nonroad products. As described below in Section IV.F and in the E15 partial waiver decisions, our assessment of the potential emission consequences of E15 use indicates that the emission-related components of MY2001 and newer light-duty motor vehicles are durable for use on gasoline-ethanol blends up to E15. This conclusion is based on the results of the Department of Energy (DOE) Catalyst Study and other relevant test programs, as well as the Agency's engineering assessment of advances in motor vehicle technology and materials that have taken place in response to a series of important exhaust and evaporative emissions requirements since 2000 and in-use experience with E10.

Unlike for MY2001 and newer motor vehicles, there is very little, if any, test data with respect to the effect of E15 use in MY2000 and older light-duty motor vehicles and all heavy-duty gasoline engines and vehicles, motorcycles, and nonroad products. In addition, our engineering assessment for these vehicles, engines, and products identifies a number of emission-related concerns with the use of E15 (or a higher gasoline-ethanol blend). For motor

vehicles, these concerns include the potential for catalyst deterioration or catalyst failure as well as material compatibility issues that could lead to extremely elevated exhaust and evaporative emissions. For motorcycles and nonroad products, the misfueling concerns include the potential for elevated exhaust and evaporative emissions, as well as the potential for emissions impacts related to engine failure from overheating. It is not possible to precisely quantify the frequency at which these vehicles, engines, and products might experience problems with the use of E15. However, we believe that emission-related problems could potentially occur with enough frequency that the avoided emissions increases from reduced or prevented misfueling would more than outweigh the relatively low cost imposed by the required misfueling mitigation regulations. The potential emission increases from misfueling warrant today's action, even if a very low percentage of vehicles, engines, and products experience problems.

#### **E. Related Regulatory Changes**

In addition to misfueling mitigation measures, today's action also finalizes slight modifications to the RFG and anti-dumping (conventional) gasoline fuels programs to open the way for refiners and importers to produce and certify gasoline containing up to 15 vol% ethanol. For gasoline to be sold in the U.S., it must comply with the RFG and anti-dumping standards. To comply with the RFG and anti-dumping standards, the emissions performance of gasoline is calculated using a model, called the Complex Model, which predicts the emissions of regulated pollutants based on the measured values of certain fuel properties. The equations in the model were limited to an oxygen content of no more than 4.0% by weight in gasoline, which is the maximum possible amount of oxygen in E10. EPA has modified the Complex Model to allow



fuel manufacturers to certify batches of E15 and made a related change to certain volatile organic compound (VOC) standards, in response to comments.

## **F. Liability Issues**

In today's notice, EPA also addresses issues that many commenters raised concerning liability or responsibility for potential consequences of the use of, or transition to, E15. According to a number of commenters, fuel providers are unlikely to sell E15 until liability issues are resolved. EPA is not in a position to resolve all of the liability issues raised by commenters, but we do address those within our jurisdiction and clarify the responsibilities of various parties, including fuel producers, distributors, retailers, product manufacturers and consumers, for compliance with misfueling prohibitions and vehicle and engine warranty and other requirements under the Clean Air Act. In general, we believe the long-standing approach of EPA's fuels programs and warranty regulations to assigning respective responsibilities for compliance with our regulations is also appropriate for E15. We believe that the required label and other misfueling mitigation measures will minimize consumer use of E15 in vehicles, engines and products not covered by the partial waivers and any liability issues that might arise from or be attributed to misfueling with E15. A public outreach campaign is expected to reinforce the misfueling mitigation measures. Also, to the extent fuel providers determine that it is appropriate to further reduce the risk or potential of consumer misfueling, they may take additional misfueling mitigation measures that they believe could be useful in showing they did not encourage or otherwise cause the misfueling.

With regard to other transition issues within EPA's jurisdiction, we are continuing to

make progress in developing guidance for determining whether existing underground storage tank systems are compatible for storing E15. We also plan to work with stakeholders to monitor and facilitate efforts to address other transition issues involving state, local and other requirements.

#### **G. Petition for Rulemaking to Require the Continued Availability of E10 and/or E0**

On March 23, 2011, EPA received a petition for rulemaking that EPA promulgate a rule under its Clean Air Act section 211(c) authority to ensure the continued availability of gasoline containing 10 vol% or less ethanol (“≤E10”) at retail stations for use in vehicles, engines, and equipment not covered by the E15 partial waivers. EPA also received a number of comments on the proposed rule similarly requesting that EPA ensure that ≤E10 be made available. For the reasons discussed in section III.F, the Agency is not requiring the availability of E10 (or E0) in this rulemaking and is also denying the rulemaking petition. In considering the future availability of ≤E10, it is important to remember that EPA’s partial waiver decisions allow, but do not require, E15 to be sold. It is up to businesses to decide whether and how to produce and sell E15 for MY2001 and newer light-duty motor vehicles. EPA recognizes that the availability of appropriate fuels is important for mitigating misfueling, but we cannot forecast now how E15 will be distributed and marketed over the next several years, and how this might impact the availability of ≤E10. Until E15 enters the market and further developments take place, requiring the continued availability of E10 (or E0) would be premature and potentially unnecessary. 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 problems can be addressed on a timely

basis.

## **II. Background**

### **A. Statutory Authority**

CAA section 211(f)(1) makes it unlawful for any manufacturer of any fuel or fuel additive to first introduce into commerce, or to increase the concentration in use of, any fuel or fuel additive for use in motor vehicles manufactured after model year 1974 unless it is substantially similar to any fuel or fuel additive utilized in the certification of any model year 1975, or subsequent model year, vehicle or engine under section 206 of the Act.

Section 211(f)(4) of the Act provides that upon application by any fuel or fuel additive manufacturer, the Administrator may waive the prohibition of section 211(f)(1). A waiver may be granted if the Administrator determines that the applicant has established that the fuel or fuel additive, and the emission products of such fuel or fuel additive, will not cause or contribute to a failure of any emission control device or system (over the useful life of the motor vehicle, motor vehicle engine, nonroad engine or nonroad vehicle in which such device or system is used) to achieve compliance with the emission standards to which the vehicle or engine has been certified. In other words, the Administrator may grant a waiver for an otherwise prohibited fuel or fuel additive if the applicant can demonstrate that the fuel or fuel additive will not cause or contribute to engines, vehicles or equipment failing to meet their emissions standards over their useful life.

EPA previously issued a “substantially similar” interpretive rule for unleaded gasoline

which allows oxygen content up to 2.7% by weight for certain ethers and alcohols.<sup>5</sup> E10 contains approximately 3.5% oxygen by weight, which means E10 is not “substantially similar” to certification fuel under the current interpretation. As explained at 44 FR 20777 (April 6, 1979), E10 received a waiver of the substantially similar prohibition by operation of law because EPA did not grant or deny a waiver request for E10 within 180 days of receiving that request. At the time of the E10 waiver request, CAA section 211(f)(4) provided for waivers to be granted by operation of law, but that aspect of section 211(f)(4) was later removed by the Energy Independence and Security Act of 2007.

Section 211(c)(1) of the Act allows the Administrator, by regulation, to “control or prohibit the manufacture, introduction into commerce, offering for sale, or sale of any fuel or fuel additive for use in a motor vehicle, motor vehicle engine, or nonroad engine or nonroad vehicle (A) if, in the judgment of the Administrator, any fuel or fuel additive or any emission product of such fuel or fuel additive causes, or contributes, to air pollution or water pollution (including any degradation in the quality of groundwater) that may reasonably be anticipated to endanger the public health or welfare, or (B) if emission products of such fuel or fuel additive will impair to a significant degree the performance of any emission control device or system which is in general use, or which the Administrator finds has been developed to a point where in a reasonable time it would be in general use were such regulation to be promulgated.” The regulations adopted today are pursuant to this authority, as well as the recordkeeping and information collection authority under CAA sections 208 and 114.

## **B. E15 Partial Waivers**

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<sup>5</sup> 56 FR 5352 (February 11, 1991).

In 2009, Growth Energy and 54 ethanol manufacturers submitted an application under section 211(f)(4) of the CAA for a waiver for gasoline-ethanol blends of up to 15 vol% ethanol.<sup>6</sup> On April 21, 2009, EPA published notice of receipt of the application and requested public comment on all aspects of the application to assist the Administrator in determining whether the statutory basis for granting the waiver request had been met (74 FR 18228).

On October 13, 2010, EPA took two actions on the waiver request based on the information available at that time (“October Waiver Decision”).<sup>7</sup> First, it partially approved Growth Energy’s waiver request to allow the introduction of E15 into commerce for use in MY2007 and newer light-duty motor vehicles, subject to several conditions. The October Waiver Decision was based on a determination that E15 will not cause or contribute to a failure of MY2007 and newer light-duty motor vehicles to achieve compliance with the emissions standards to which they were certified under section 206 of the CAA over their useful lives. Second, the Agency denied the waiver request for MY2000 and older light-duty motor vehicles, heavy-duty gasoline engines and vehicles, highway and off-highway motorcycles, and other nonroad engines, vehicles, and equipment. The Agency also deferred making a decision on the waiver request for MY2001–2006 light-duty motor vehicles to await the results of additional testing being conducted by the Department of Energy (DOE). On January 21, 2011, EPA partially approved Growth Energy’s waiver request to allow the introduction of E15 into commerce for use in MY2001-2006 light-duty motor vehicles after receiving and analyzing the completed DOE test data (“January Waiver Decision”).<sup>8</sup>

EPA issued the partial waiver decisions with several conditions. The conditions apply to the parties upstream of the point of the addition of ethanol who are subject to the partial waiver

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<sup>6</sup> Since E15 has greater than 2.7 weight percent oxygen content, E15 needs a waiver under CAA section 211(f)(4).

<sup>7</sup> 75 FR 68094 (November 4, 2010).

<sup>8</sup> 76 FR 4662 (January 26, 2011).

(gasoline refiners/importers, ethanol producers/importers, and ethanol blenders that introduce E15 into commerce), and are designed to ensure that when E15 is introduced into commerce, it will only be used in the appropriate light-duty motor vehicles. Some of the conditions call for the ethanol blenders, fuel manufacturers (gasoline refiners/importers), and fuel additive manufacturers (ethanol producers/importers) to take various actions to control the distribution and use of their product so that E15 is only used in approved motor vehicles. The partial waiver decisions impose different conditions on the different parties. Gasoline refiners/importers, ethanol producers/importers, and ethanol blenders that introduce E15 into commerce are all responsible for making sure that appropriate labeling occurs on fuel pumps to mitigate potential misfueling. These parties are also responsible for conducting fuel pump labeling surveys to ensure that the correct gasoline-ethanol blends are loaded into the appropriate tanks at retail stations and that fuel pumps are properly labeled. Gasoline refiners/importers, ethanol producers/importers, and ethanol blenders must also use PTDs to properly document information regarding the ethanol blends to help ensure proper blending and distribution.

### **C. The Proposed Misfueling Mitigation Measures Rule**

On October 13, 2010, EPA issued a proposed rule to mitigate misfueling and maximize the likelihood that E15 is used only in vehicles for which its sale is approved. As we explained, the proposed rule was developed to help ensure that E15 is introduced into commerce for use only in MY2001 and newer light-duty motor vehicles and in flexible-fueled vehicles, and not for use in any other vehicles, engines or equipment.<sup>9</sup> Some of the proposed regulatory provisions parallel the partial E15 waiver decision conditions and were expected to be an effective and

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<sup>9</sup> 75 FR 68044 (November 4, 2010).

efficient way to further reduce the potential for in-use emissions increases that could result from misfueling with E15.

EPA held one public hearing regarding the proposed rule on November 16, 2010, in Chicago, IL. The public comment period for the proposal ended on January 3, 2011, and approximately 80 public comments were submitted. Today's final rule contains a brief summary of the major comments received, and our responses, on several topics, including the proposed misfueling mitigation measures, changes to the Complex Model, and other issues discussed in the proposal. Responses to comments not addressed here can be found in a separate document entitled "E15 Misfueling Mitigation Measures Rule Response to Public Comments" which is available in the public docket for this rule.

#### **D. Reasons for the Actions in this Rulemaking**

In granting partial waivers for E15, EPA imposed various conditions on fuel or fuel additive manufacturers that use the waivers, including conditions designed to minimize the potential for misfueling. Under CAA section 211(f)(4), EPA can place conditions on fuel or fuel manufacturers but cannot place conditions directly on other parties in the fuel distribution system. Consequently, EPA placed the partial waiver conditions on ethanol blenders, fuel manufacturers, and ethanol producers, the parties subject to the prohibition in section 211(f)(1), and thus the parties that benefit from the partial waiver of that prohibition if they choose to make and distribute E15, but not on retail stations. Since most retail stations are independently owned and operated, the ethanol blenders, fuel manufacturers, and ethanol producers that decide to introduce E15 into commerce might need to develop and enforce business arrangements with a

potentially large number of retail stations in order to meet the partial waiver conditions.

EPA believes that the provisions adopted in today's final rulemaking (i.e. misfueling prohibition, fuel pump labeling, PTDs, and ongoing implementation surveys) are a direct and efficient way to further reduce the potential for misfueling and the emission increases that would result from misfueling. Under CAA section 211(c), EPA has the authority to adopt appropriate controls or prohibitions on the distribution and sale of fuels and fuel additives to avoid emissions increases. EPA's use of this authority in today's rule will do that with respect to E15 that is introduced into commerce in accordance with the partial waivers. It provides EPA with appropriate tools for regulatory oversight of the ethanol blenders, fuel manufacturers, ethanol producers and others introducing E15 into commerce. It adopts provisions that create additional, strong incentives to properly blend and label E15 and avoid misfueling. The new provisions, collectively and in tandem with the partial waiver conditions, will maximize the likelihood that E15 is used only in motor vehicles covered by the partial waivers and minimize the potential for emissions increases that might otherwise occur. The specific provisions are discussed in detail in Section III, and the relationship between these provisions and the conditions in the partial waivers is described in Section IV.G. By making misfueling mitigation more efficient and effective, these measures should also have the benefit of facilitating the successful introduction of E15 into commerce.

### **III. Misfueling Mitigation Program**

As explained above, CAA section 211(c) authorizes EPA to control or prohibit the distribution of a fuel or fuel additive when it will significantly impair emission control systems



or when the emission products from that fuel or fuel additive will cause or contribute to air pollution that we reasonably anticipate may endanger public health or welfare. As described in detail below, EPA is exercising this authority to establish a prohibition on the use of gasoline containing more than 10 vol% ethanol in vehicles, engines and equipment not covered by the partial waiver decisions (i.e., MY2000 and older light-duty motor vehicles, and in all heavy-duty gasoline engines and vehicles, motorcycles and nonroad products) in order to prevent or minimize emission increases that could otherwise occur. We are also requiring gasoline retail stations and wholesale purchaser-consumer facilities that sell E15 to properly label their E15 pumps. To effectuate these prohibitions, and to more generally limit the use of E15 to MY2001 and newer light-duty motor vehicles, we are also requiring that relevant information be conveyed by PTDs, and that a survey designed to demonstrate compliance with labeling, ethanol content and related requirements be conducted.

As we described in our proposed rule, there are four important components of an effective E15 misfueling mitigation strategy. First, a prohibition on misfueling establishes a legal barrier against production, distribution, sale or use of gasoline containing more than 10 vol% ethanol in vehicles, engines and equipment not covered by the partial waiver decisions because of the potential consequences for emissions standards compliance violations by those vehicles, engines and equipment. The prohibition is broadly applicable, including to consumers. Second, effective labeling is needed to provide consumers with the information they need to avoid misfueling, including information about the prohibition on misfueling and the potential consequences of misfueling. To be effective, labeling must be done at the point of sale where the consumer is choosing which fuel to use. Third, retail stations, wholesale purchaser-consumers and fuel blenders need assurance regarding the ethanol content and RVP of the fuel

(or blendstock) that they purchase so they can properly blend, store and label E15 and other fuels. The use of proper documentation in the form of PTDs has proven to be an effective means of ensuring that retail stations and other fuel providers know what fuel they are purchasing. Fourth, appropriate labeling and fuel sampling surveys are necessary to ensure implementation of E15 content, RVP and labeling requirements that are in turn important to mitigating misfueling and the emissions consequences of misfueling. Today's rule adopts provisions covering all of these areas. The Agency has used this general strategy to implement several fuels programs, including the unleaded gasoline program, the RFG program, and the ULSD program. The fourth component of an effective misfueling mitigation strategy is public outreach and consumer education. Our experience has shown that consumers need to be engaged through a variety of media to ensure that accurate information is timely conveyed to the owners and operators of vehicles, engines and equipment.

EPA proposed establishing a misfueling prohibition and E15 labeling, PTD and survey requirements, and sought comments on those and any additional mitigation measures that might be needed to minimize misfueling with E15. The following sections of this final rule describe each of the proposed measures, the comments we received about that measure, our response to those comments, and the final decisions we made in light of the comments and other available information. We also discuss several suggestions that some commenters made for other possible mitigation measures, and our conclusion that no additional measures should be required at this time.

## **A. Misfueling Prohibition**

We proposed to prohibit the use of gasoline containing more than 10 vol% ethanol in vehicles, engines and equipment not covered by the partial waiver decisions, specifically MY2000 and older motor vehicles, heavy-duty gasoline engines and vehicles, on and off-highway motorcycles, and nonroad engines, vehicles, and equipment.<sup>10</sup> The prohibition is similar in nature to the prohibition on producers of fuels and fuel additives under section 211(f)(1). However, the prohibition in section 211(f)(1) only applies to these upstream parties. The proposed prohibition would also apply at the retail level as well as to upstream fuel providers and consumers, so that all parties involved in fueling gasoline-powered products would have a legal obligation to avoid misfueling the vehicles, engines and equipment not covered by the partial waivers.

Most public commenters that addressed this provision supported it in view of EPA's decision to deny a waiver for introduction of E15 into commerce for use in MY2000 and older motor vehicles, heavy-duty gasoline engines and vehicles, motorcycles, and nonroad products. EPA based its denial on the lack of test data on the effect of E15 on emissions from these products and the Agency's engineering judgment that E15 would likely result in significant exceedances of emission standards by these products.

Several commenters disputed the need for a misfueling prohibition because, in their view, E15 would not have adverse emissions consequences for the vehicles, engines and equipment not covered by the partial waivers. In making this argument, the commenters were essentially taking issue with EPA's decision to deny the E15 waiver for these products. However, the commenters did not provide, and EPA is not aware of, any new information or analysis that would support a finding that E15 may be used by the vehicles, engines and equipment not covered by the partial

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<sup>10</sup> Flexible fuel vehicles (FFVs) are designed to meet EPA's emissions standards on any blend of gasoline and ethanol up to 85% ethanol. FFVs are not subject to either the waiver denial or the misfueling prohibition adopted in this rule.

waivers without significant adverse consequences for their emission control performance. We are therefore finalizing the misfueling prohibition as proposed.

## **B. Fuel Pump Labeling Requirements**

### **1. Proposed Approach**

We proposed that gasoline pumps dispensing E15 be labeled and that this label be applied to any pump dispensing gasoline containing greater than 10 vol% ethanol but not more than 15 vol% ethanol. We also solicited comment on whether separate labels should be required for other gasoline-ethanol blends to avoid potential consumer confusion.

Specifically, we proposed that the language on the E15 label have four components: (1) an ethanol content information component; (2) a legal approval component; (3) a technical warning component; and (4) a legal warning component. We explained that together these four components highlight the critical information that we considered necessary to inform consumers about the legal and appropriate use of E15 and the potential consequences of illegal and inappropriate uses.

The ethanol content information component of the label informs consumers of the maximum ethanol content the fuel may contain. We proposed that this component of the label read: “This fuel contains 15% ethanol maximum.”

The legal approval component of the label includes information that informs consumers of the types and model years of vehicles for which E15 may be used. At the time of the proposal, EPA had granted a partial waiver of E15 allowing its sale for use only in MY2007 and

newer light-duty motor vehicles. Based on that partial waiver, the Agency proposed that the legal approval portion of the label read as follows:

Use only in:

2007 and newer gasoline cars

2007 and newer light-duty trucks

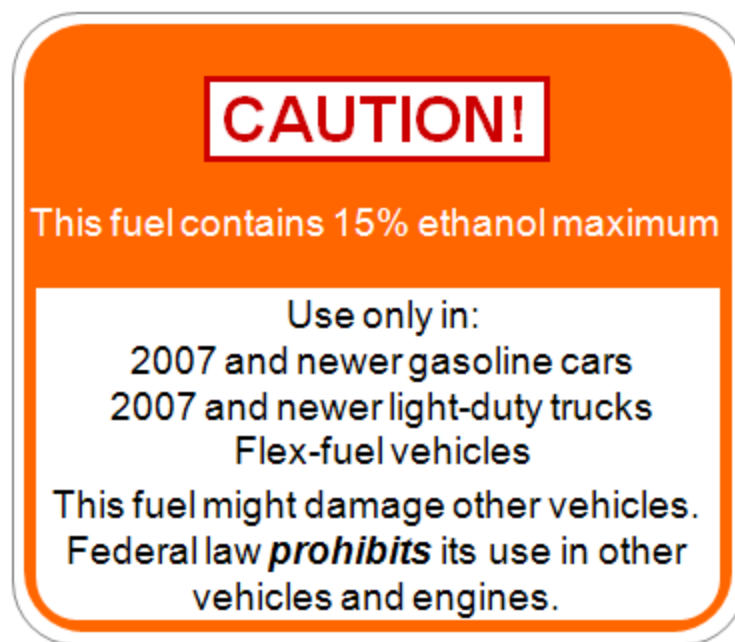
Flex-fuel vehicles.

As noted above, EPA later issued a second partial waiver decision that allowed E15 to be introduced into commerce for MY2001-2006 light-duty motor vehicles. Taken together, the two partial waivers allow E15 to be sold for use in MY2001 and newer light-duty motor vehicles, as well as in vehicles designed and certified to run on gasoline and gasoline-ethanol blends as high as E85 (“flex-fuel vehicles”). EPA noted in the proposed rule that if we granted a partial waiver for MY2001-2006 light-duty motor vehicles, we would modify this component of the final label accordingly.

The technical warning component of the label alerts consumers that use of E15 in other engines, vehicles, and equipment might cause damage to these products. This warning reflects the results of EPA’s analysis of available test and other data and its engineering assessment concerning the potential impact of E15 on emission controls and other aspects of vehicle design, materials and operation that can affect emissions. EPA proposed the following language: “This fuel might damage other vehicles or engines.” We also proposed that the word “Caution” be placed at the top of the label, and solicited comment on other words that could be used to alert consumers, and specifically asked for comment on the alternative word “Attention.”

The legal warning component of the label informs consumers that using E15 in a vehicle or engine for which E15 is not allowed violates the Agency's prohibition against misfueling. Based on the language currently used on the low-sulfur diesel (LSD) label (see 40 CFR §80.570), the Agency proposed that the E15 label read as follows: "Federal law prohibits its use in other vehicles and engines."

Putting the four components together in a manner intended to attract consumers' attention, the Agency proposed the following E15 label:



## 2. Consideration of Comments

We solicited comments on the above label, where it should be placed and whether labeling should be required for three other levels of gasoline-ethanol blends: (1) E10; (2) blends containing between 15 and 85 vol% ethanol; and (3) E85. We also sought advice from the

FTC's labeling experts and discussed with FTC staff the issue of labeling additional gasoline-ethanol blends, which FTC was considering for other purposes. We shared with FTC staff the suggestions made in public comments on the proposed E15 label, and they provided us with information about effective label design, recommendations for addressing some of the issues raised in the comments, and assistance in designing the final label. We also considered the appropriateness of coordinating EPA labels and FTC labels.

Most of the public comments on the proposed E15 label made specific recommendations for improvement with respect to wording and/or design. Overall, there was a wide spectrum of suggestions reflecting the different perspectives of ethanol producers, oil refiners, gasoline retailers, and manufacturers and users of vehicles, engines and equipment. Commenters generally agreed with the need for labels, but differed about how best to alert consumers and provide them with information for avoiding misfueling, without discouraging or chilling appropriate use of E15 in MY2001 and newer light-duty motor vehicles. One commenter also recommended that EPA allow fuel providers to develop and submit for approval an alternative label, a flexibility afforded by the Agency's ULSD program. Specific suggestions fell into the following categories which are discussed in more detail below:

- Choice of word for warning
- Description of vehicles that can use E15
- Prohibition statement
- Statement about E15 causing damage
- Addressing non-English speakers
- Portable gasoline containers
- Color, shape, and placement of labels

- Separate labels for different levels of ethanol

a. Choice of Word for Warning Component

Commenters were divided between those who believed that use of “CAUTION!” on the proposed label would deter appropriate use of E15, and those who believed that it would not be effective at preventing misfueling. Two commenters stated that any kind of a warning word may result in skepticism and concern about E15 use in MY2001 and newer light-duty motor vehicles, and suggested that no warning word be used. They argued that the proposed label would not promote the successful introduction of this new fuel into the marketplace. Other commenters expressed concern that the proposed label was not strong enough and recommended that “WARNING” or “STOP” be used. In these commenters’ opinion, the label on its own must provide for adequate informed consent to prevent misfueling and consumer lawsuits concerning possible damage from misfueling.

The purpose of today’s rule is to mitigate potential misfueling and the emissions increases that could occur as a result of misfueling. We are therefore exercising our authority to address the emission consequences of misfueling. The Agency recognizes, however, that while the label needs to effectively communicate to consumers about misfueling, it should avoid deterring E15’s use in motor vehicles for which its sale and use is allowed. We discussed this issue with FTC’s consumer labeling experts who advised that the word “ATTENTION” would more likely attract consumer notice without the risk of discouraging appropriate use of the fuel.

After considering the comments and FTC’s advice, we are finalizing use of “ATTENTION” instead of “CAUTION.” Use of “ATTENTION” strikes the right balance



between alerting consumers about the improper use of E15 and scaring them away from appropriate use of E15. FTC staff also suggested that “ATTENTION” be placed at an angle in the upper left corner of the label to help draw consumers’ eyes to it (see Section III.A.2. for further details), and we are adopting that placement. We believe that “ATTENTION” so placed, and in combination with other label information alerting consumers to the potential for damage from misfueling (discussed below), will effectively communicate that care must be taken in fueling with E15 without unduly discouraging its proper use.

#### b. Description of Motor Vehicles that Can Use E15

Many commenters suggested rewording the label’s references to the motor vehicles that can use E15 to clarify and/or streamline those references. Several also suggested that the label state that E15 is “*Approved* for use in 2001 and newer vehicles” (emphasis added). Two commenters noted that use of E15 in flex-fuel vehicles is independent of model year and that flex-fuel vehicles should be listed first. Some commenters expressed concern that sport utility vehicles (SUVs) and minivans were not explicitly mentioned in the label even though both vehicle types fall within the definitions of light-duty vehicles, light-duty trucks, or medium-duty passenger vehicles and are covered by the partial waivers. They suggested that there be a consumer-friendly reference for these vehicles.

We agree with commenters that the language can and should be clarified and streamlined in a way more readily understood by consumers. The partial waivers allow E15 to be sold for use in MY2001 and newer “light-duty motor vehicles,” meaning cars, light-duty trucks and medium-duty passenger vehicles. Light-duty trucks and medium-duty passenger vehicles are

regulatory terms that encompass a range of vehicles including minivans and all but the largest pick-up trucks (greater than 8,500 pounds gross vehicle weight rating) and some SUVs (greater than 10,000 pounds gross vehicle weight rating). FTC staff generally advised that the E15 label be as concise as possible since consumers are much less apt to read detailed labels, particularly in the context of routine activities like buying gasoline. With that in mind, we are finalizing the phrase “2001 and newer passenger vehicles” as the reference to the types of gasoline-fueled motor vehicles that may use E15. The common denominator of virtually all of the relevant vehicle types is that they are used to transport people. “Passenger vehicle” is a common term and should be more effective in conveying the types of gasoline-fueled motor vehicles for which E15 can be sold and used. Since all flex-fuel vehicles are made to use gasoline-ethanol blends up to E85, all may use E15.

We are leaving the reference to passenger vehicles first in the list of the types of motor vehicles that can use E15. In most of the country, gasoline-fueled vehicles are much more common than flex-fuel vehicles, and under the partial waiver decisions E15 is approved for use in only MY2001 and newer passenger vehicles. The reference to passenger vehicles and the model year limitation is thus more relevant and important to more consumers, and so should precede the reference to flex-fuel vehicles.

We are not adopting the suggestions to include the phrases “approved for use in” or “model year” in referring to the vehicle types that may use E15. EPA’s partial waiver decisions are not approvals for use of E15 in the general sense that term is used; they are waivers allowing E15 to be introduced into commerce for use in certain motor vehicles. The Agency’s role in the waiver proceeding is limited to determining whether E15 meets the criteria for a waiver under CAA section 211(f)(4) and in this rulemaking under section 211(c) to minimizing the potential

for any misfueling that might occur. As for prefacing the reference to 2001 and newer passenger vehicles with “model year,” any potential benefit of adding that phrase is outweighed by the risk that the additional wording may decrease the effectiveness of the label. Consumers are likely to understand the reference to 2001 as indicating model year, and we are mindful that labels with more words are less apt to be read.

Therefore, today’s final rule will require the following language on the label:

“Use only in

- 2001 and newer passenger vehicles
- Flex-fuel vehicles ”

#### c. Statements About Prohibition and Damage

Commenters were generally supportive of the proposed statements on prohibition and damage, but suggested variations in the wording and order of the statements to clarify their scope and meaning. Most commenters stated that it is essential to include a statement that “this fuel may damage” other vehicles, engines and equipment for consumers to have the information they need to avoid misfueling. However, several commenters objected to including any damage statement because they believe available information does not support that E15 may cause damage. In contrast, one commenter argued that the proposed damage statement should communicate that, in the commenter’s view, significant physical injuries may result from using E15 in lawn mowers, chain saws, and other equipment.

A number of commenters noted that the proposal’s reference to other “vehicles and

engines” would not necessarily convey the various kinds of gasoline-powered equipment that should not use E15. Specifically, one commenter pointed out that “engine” is not a term that consumers use to describe lawn and garden equipment, boats and other nonroad equipment. Two commenters suggested using graphic symbols or icons to depict some of the common types of nonroad vehicles and equipment for which E15 use would be prohibited. One commenter provided sample icons of a boat, motorcycle, chainsaw, lawnmower and snowmobile, each depicted in a circle with a slash or X across the image to convey to consumers that E15 should not be used in those products. Along the same lines, one commenter suggested including on the label a list of the various kinds of vehicles, engines and equipment that should not use E15.

Other commenters provided further suggestions for improving the wording of the damage and prohibition statements. Three commenters suggested that the label clarify that “Federal law prohibits use in *all* other vehicles and *nonroad engines and equipment*.” Another stated that the label should be consistent with other EPA labels and should state: “Federal law prohibits use in *all other model year* vehicles and engines.” (Suggested additional words in italics.)

In addition to the prohibition and damage statements, some commenters suggested adding to the label statements that fuel economy would be adversely affected and that consumers should consult manufacturers’ fuel recommendations. These commenters pointed out that ethanol has somewhat lower energy content than gasoline and, when ethanol is cheaper than gasoline, E15 might be priced lower than E10 or E0. These commenters argued that without an understanding of the relationship between energy content and fuel price, many consumers might intentionally misfuel vehicles, engines, and equipment not covered by the partial waivers if E15 appeared to be a better bargain than E10 or E0.

After considering all of the comments, we continue to believe that a damage statement is

necessary and appropriate for the E15 label. As explained in the October Waiver Decision, EPA denied the E15 waiver request with respect to MY2000 and older light-duty motor vehicles and all heavy-duty engines, motorcycles and nonroad equipment because (1) available data is insufficient to show that E15 would not cause or contribute to a failure by these products to meet emission standards, and (2) our engineering judgment is that E15 may adversely affect the emissions control performance of these products, particularly over time. The waiver decisions also considered materials compatibility, operability, and maintenance issues related to E15 and their potential impact on emissions. A statement that E15 use in those products “may cause damage” is consistent with and supported by EPA’s technical analysis for its decision to deny the waiver request for introduction of E15 into commerce for use in these products. Including the damage statement is also critical to the effectiveness of the E15 label, since consumers are more likely to comply with the label’s direction if they understand that harm might otherwise occur.

We do agree with commenters’ suggestion that a reference to “equipment” is needed on the label. The label as proposed used the word “engines” to refer to engines in all nonroad equipment. After considering the comments, we agree that most consumers think in terms of the types of equipment they own or operate, not the engines that power the equipment. However, given the extremely broad range of equipment that uses gasoline engines, we believe it would be infeasible and counterproductive to attempt to include even a partial list of the types of products that should not use E15. As noted above, labels generally need to be brief and succinct to be effective. Also, a partial list would run the risk of implying that types of equipment not included on the list are suitable for E15 use. We are therefore choosing the phrase “gasoline-powered equipment” to refer to the many types of equipment that have gasoline engines. We are also including a reference to boats since many consumers may not consider boats to be either

“vehicles” or “equipment.” Moreover, representatives of boat manufacturers and users expressed particular concerns about the potential for, and consequences of, misfueling boat engines.

We are otherwise combining and revising the wording of the prohibition and damage language on the label to reduce the number of words and increase the directness, and therefore the effectiveness, of the message, in a manner suggested by FTC staff.

We are not adopting some commenters’ suggestions that the label provide a warning that injury might occur if misfueling results in product malfunction. In considering all the information before the Agency (i.e. test data and other information provided by the waiver applicants and in public comments submitted on the waiver and on the proposed rule), we determined that the information does not provide a clear enough basis for including a separate warning about risk of injury in addition to the warning about the potential for damage.

We disagree with the suggestion to include a statement that fuel economy would be adversely affected by use of E15. While ethanol has a lower energy content than gasoline,<sup>11</sup> the effect of E15 (or E10) on the fuel economy of a particular model or vehicle depends on a number of factors (e.g., fuel formulation, engine calibration, manner of vehicle operation, etc.) that cannot be easily communicated on a label. To the extent the appropriate information were added to the label, consumers may be less likely to read the label at all. In light of the trade-off between providing more, somewhat complex information and decreasing the likelihood that the label will be read and heeded, we believe that the damage statement will be more effective in

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<sup>11</sup> Ethanol has approximately 33 percent less volumetric energy content than conventional gasoline (*see CITE RFS2 RIA*). A recent study by the Department of Energy involving 16 light-duty vehicles from model years 1999 to 2007 found that, when compared to E0, the average reduction in fuel economy was 3.7 percent for E10, 5.3 percent for E15, and 7.7 percent for E20 (*see National Renewable Energy Laboratory, Oak Ridge National Laboratory, Effects of Intermediate Ethanol Blends on Legacy Vehicles and Small Non-Road Engines, Report 1 – Updated* (February 2009)).

mitigating misfueling on its own than in combination with fuel economy information. The costs associated with potential damage of the engine or replacement of catalysts (see section IV.A for a description of the costs associated with these repairs) are significant and likely to provide sufficient incentive not to misfuel with E15. Fuel providers may use supplemental labels, signs or other forms of communication to inform their costumers of the potential fuel economy impacts of the various types of gasoline and gasoline-ethanol blends that they sell.

We also disagree with the suggestion to include a statement that consumers should consult the manufacturer's fuel recommendation. Mention of manufacturers' fuel recommendations may confuse consumers, since E15 only recently received partial waivers allowing its sale for use in certain vehicles. It is not yet available in the marketplace, and thus would not be specifically referenced in any existing manual or manufacturer's specifications.

Today's final rule will therefore require the following damage and prohibition message at the bottom of the label:

“Don't use in other vehicles, boats, or gasoline powered equipment. It may cause damage and is *prohibited* by federal law.”

We carefully considered the suggestion to add graphic icons to the label to help convey what products can, or cannot, use E15, and have decided not to require icons for several reasons. First, the icons suggested for the on-highway vehicles that can, or cannot use, E15 rely on text to convey much of their message. Those icons also depict a passenger car, which is only one of several vehicle types that can use E15 if from the specified model years. In addition, the other icons portray only some of the nonroad vehicles and equipment that cannot use E15, raising the

issue noted above concerning partial lists: depicting some equipment but not other equipment may lead consumers to think E15 can be used in the types of equipment not depicted. Use of multiple icons would also make the label more dense and complicated.

In light of these considerations, we are not including icons in the final label. However, fuel providers may post supplemental labels or signs that they believe would be useful for informing their customers. We are also adopting the suggestion made by one commenter to allow fuel providers to submit to EPA for approval an alternative label. There are a number of circumstances that may make it appropriate for a retailer to make small changes in the shape or size of the label and/or include additional information. (It should be noted that the addition of information, including icons, would require enlarging the label so that all of the information on the label may be easily read). To the extent a fuel provider believes icons would be helpful to its customers, it may post them on its own signs and/or develop and submit an alternative E15 label including appropriate icons for EPA consideration and approval.

#### d. Addressing Non-English Speakers

Two commenters expressed concern that the label needs to accommodate non-English speakers, and pointed out that a relatively high percentage of commercial landscapers that purchase fuel for lawn, garden, and forestry products may not be able to read or comprehend an English-narrative label. They suggested that the final label should contain generic symbols or icons to clearly and strongly convey the necessary warnings.

We have addressed the use of icons above, but have also considered whether labels in other languages should be used. We appreciate the importance of conveying the necessary



information to those who do not speak or read English. However, we are not requiring multi-lingual labels at this time because we do not have enough information to determine under what circumstances one or more additional languages should be added to the label. The commenters suggesting that labels accommodate non-English speakers did not provide information that would allow us to make these determinations. Also, a label in two or more languages would necessarily be longer and may detract from the effectiveness of the label as a whole. We will continue to consider whether bi- or multi-lingual signs would be appropriate, and will work with stakeholders to address this issue through public outreach and education as E15 enters the market. As noted above, retailers may also post additional labels or signs, including in other languages. Further, today's rule provides the option of seeking EPA approval of an alternative label that could incorporate languages in addition to English. Under the regulations, retailers could submit translated versions of the final label to EPA for approval. Retailers thus have the flexibility to use signs and/or labels conveying information in any language they believe is appropriate for their customers.

#### e. Portable Fuel Containers

Some commenters expressed concern that the label by itself would not be effective at preventing misfueling of boats and other nonroad vehicles and equipment. The commenters pointed out that nonroad products are generally fueled from portable containers, which are in turn fueled at the same time and location that motor vehicles are fueled. The commenters stated that any fuel dispensing nozzle used to fill a motor vehicle could also be used to fill the portable container. One commenter urged that the labels for pumps dispensing fuels greater than E10

should also warn against those fuels being dispensed into portable containers.

We considered this suggestion but have decided that prohibiting the dispensing of E15 into portable containers is not necessary or appropriate. The prohibition established by today's rule extends to misfueling of E15 into nonroad products, including by use of portable containers, so a separate ban on E15 use in portable containers is not needed to effectuate the prohibition. Banning use of such containers for E15 would also prevent their legitimate use, including in emergencies, for motor vehicles that may fuel with E15. The outreach campaign being developed can help consumers understand that use of E15 in portable containers is limited to fueling the types of motor vehicles that may use E15.

#### f. Color, Size, Shape, Font, and Placement of the Label

There was general agreement among commenters that labels for gasoline-ethanol blends should be uniform in color, size, and shape for easy identification. Commenters were divided, however, on what the color and shape should be, with some commenters focused on what combination would stand out and/or be more legible, and others emphasizing coordination with other labels. Several different color schemes, including FTC's for its proposed gasoline-ethanol blend labels, were suggested. Shapes other than squares were also urged, with octagonal and triangular shapes specifically recommended since they are already associated with stop and hazard signs, respectively.

One commenter recommended that rather than requiring a one-size-fits-all label, EPA should allow gasoline marketers to determine the color scheme and appropriate size of the E15 label. Another commenter specifically cited experience with EPA's ULSD regulations, which

did not specify the color and size of the labels required for that program. This commenter pointed out that while retailers initially welcomed the opportunity to design their own labels, ultimately the lack of consistency in label design resulted in confusion and uncertainty with respect to compliance and enforcement. The commenter recommended that EPA should adopt specific label size, color, dimension and design requirements similar to those specified for dispenser labels under FTC regulations.

With respect to placement of the label, commenters generally suggested that labels should be placed directly above, below or next to the E15 pump nozzle or the button a consumer would use to select E15 from among several fuel choices. One commenter recommended that for pumps that use one hose to dispense several grades of gasoline the label should be on the button for selecting the grade for which E15 is used. For pumps with multiple hoses, this commenter suggested the label could appear in the same location as the octane ratings for the other hoses (or above/below the octane rating).

We agree with commenters that the E15 label design should generally be uniform for easy identification and utility. Significant variations in label design could thwart the goal of associating the label with E15 and making the label readily recognized and understood. At the same time, we recognize that slight modifications in size or shape may be useful or appropriate for a retailer's particular circumstances. For example, some slight changes in shape may be necessary to allow the label to be placed where consumers will see it when they are selecting what fuel to buy. The flexibility afforded by today's regulations will give retailers the option to develop an alternative label that works with their pumps. However, alternative labels must include the four required components of the E15 label, must be as legible as the required label, and must be similar enough in design that their use would not confuse consumers or undermine

the utility of relatively consistent labeling of E15.

We have decided to use FTC's proposed color scheme and general design so that the two agencies' labels could work together as a coordinated labeling scheme for gasoline-ethanol blends. FTC recently deferred making a decision on the ethanol labeling portion of their proposed fuel rating rule because more time was needed to address the issue.<sup>12</sup> FTC's proposal was based in part on existing FTC rules for labeling alternative fuels (see 16 CFR Parts 306 and 309). Those rules specify the color scheme that the FTC used for its proposed labels for gasoline-ethanol blends. The FTC's alternative fuel labels provide a generally consistent color scheme for alternative fuels so consumers may readily recognize pumps and other dispensers that deliver those fuels. In view of the existing FTC rules for alternative fuel labeling and FTC's further consideration of gasoline-ethanol blend labeling, we are adopting the proposed FTC color scheme so that E15 labels may become part of a broader, coordinated scheme for labeling alternative fuels in general and gasoline-ethanol blends in particular. Consumers are more likely to understand the import of both agencies' labels if they see relatively consistent labels across the relevant types of fuel. In addition, FTC's proposed labels uses colors, fonts, shape and other design aspects that make its labels noticeable, easily understood, and consistent with labeling conventions. An E15 label similar in appearance should thus be similarly effective. We also note that we varied the font size of different parts of the E15 label in light of FTC consumer labeling staff advice that use of larger fonts for the most important information would help draw consumers' attention and make it more likely they would read the label.

We agree with the comments that the label should be placed where consumers will see it when they are selecting which fuel to buy. We recognize, however, that pump designs vary

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<sup>12</sup>FTC press release "FTC Issues Final Amendments to Its Fuel Rating Rule, Including New Octane Rating Method" available at <http://www.ftc.gov/opa/2011/03/fuellabel.shtm> [accessed March 21, 2011].

widely and evolve over time. In particular, pumps that use one hose to dispense several grades of gasoline raise the issue of where to place the label so that it is associated with the selector button for E15 fuel. Given the wide variety of pumps, we are not specifying the exact placement of the label on every type of pump, but we are requiring that retailers place the E15 label where consumers will see it when they are making their fuel selection. In the case of pumps with one nozzle dispensing several grades of gasoline, the regulations direct the retailer to place the label above the selector button dispensing E15 or otherwise place it so that it is clear which button is dispensing E15. Using the flexibility afforded by the regulations for alternative labels, some retailers may want to put a variation of the E15 label on the selector button itself.

We note also that in response to our request for comment on whether the designation of “E15” be placed at the top of the label, many commenters agreed that this should be done. Today’s rule will require that “E15” be so placed.

#### g. Separate Labels for Different Levels of Ethanol

Most commenters stated that there is no need to label E0 or E10. These commenters noted that since the purpose of the rule is to minimize misfueling with E15, EPA labeling should be limited to fuels containing more than 10 vol% ethanol. Several other commenters recommended labels for E0 and every level of gasoline-ethanol blend (including E10) to provide a comprehensive system for identifying the amount ethanol in the gasoline being sold.

We have concluded that it is not useful or necessary to label E0 or E10. Both fuels are prevalent in the market now, and both may be used by virtually all vehicles, engines and nonroad equipment. Requiring labels for E0 and E10 might help consumers understand the spectrum of

gasoline-ethanol blends that are available, but they are not needed to help minimize misfueling. “E0” and “E10” labels may also cause some confusion. Many pumps dispensing E10 are already labeled under state law, and adding a new label would be duplicative and may lead some consumers to think that E10 is a new type of gasoline. We believe that labeling only E15 pumps will help make clear to consumers that E15 is indeed a new and different blend, and that attention needs to be paid to avoid misfueling with it. Thus, today’s rule will not require labels for E0 and E10.

Commenters were divided on whether additional labels were needed for E85, for blends between E15 and E85, and for blender-pumps (pumps that dispense a range of gasoline-ethanol blends). One commenter stated that no additional labels were necessary and that requiring an additional label for these fuels would likely be counterproductive to the consumer education underway in states where mid-level gasoline-ethanol blends and E85 are already available. Some commenters believed that such labels were necessary, with some favoring labels that indicate a range of ethanol levels and other urging that labels specify the precise, or close to the precise, level of ethanol being dispensed (e.g., E20, E30, E40 and so on).

As mentioned above, FTC is considering labels for mid-level gasoline-ethanol blends. FTC already requires labels for E85 and other alternative fuels. There are currently about 2,300 E85 pumps and 215 blender pumps dispensing mid- and high-level gasoline-ethanol blends. These pumps typically have labels or other signage that clearly identifies mid- and high-level gasoline-ethanol blends as such, indicates which nozzle or selector button dispenses those higher blends, and communicates that the blends are for flex-fuel vehicles only. Most alternative fuel labels subject to current FTC regulations must also use the color scheme that we have adopted for the E15 label.

In light of these circumstances, we believe that it is sufficient and appropriate for EPA to require labels only for E15 pumps at this time. There are relatively few pumps dispensing mid- and high-levels of gasoline-ethanol blends, and their current labels and signage are generally designed to attract attention and make clear that the fuel they dispense is for flex-fuel vehicles only. The E15 label we are requiring will provide appropriate information for E15, and should not lead to misfueling with higher gasoline-ethanol blends. In our view, an owner of a MY2000 car, for example, is not likely to read the E15 label, learn that it is inappropriate for his or her motor vehicle, move to an E30 or E85 pump, and buy that fuel instead. Also, as discussed below, the labels that EPA could require in this rulemaking for higher gasoline-ethanol blends could cause consumer confusion. FTC is continuing to consider labeling for mid-level gasoline-ethanol blends, and we anticipate that the two agencies will continue to consult about ethanol labeling. (For example, EPA and FTC staff are working to prevent duplicative labeling.) As we work with our stakeholders to help the public understand the appropriate use of E15, we will share information and insights with FTC for their consideration.<sup>13</sup>

Since the misfueling prohibition established by today's rule applies to gasoline-ethanol blends greater than E10, and not just E15, EPA considered whether to require a label for higher blends in order to provide information about the prohibition. We concluded, however, that such labels would more likely confuse consumers than help them avoid misfueling. The prohibition established in this rule reflects and is based largely on the same information and engineering assessment supporting EPA's decision to deny a waiver for E15 to be introduced into commerce

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<sup>13</sup> We considered requiring EPA labels for higher gasoline-ethanol blends that combined the information on EPA's label and FTC's proposed labels. However, FTC's proposed labels contain a more general damage statement as well as direction to check the owner's manual. For the reasons discussed above, we do not believe it is appropriate to include the reference to owners' manuals on EPA's E15 label. Also, it is not clear that EPA could require labels for the particular ranges of blends for which FTC proposed labels (e.g., 30-40%, 10-70%). Since we do not have data to show differences in emission consequences for those particular ranges for all types of vehicles, engines or equipment, we do not believe it would be appropriate for EPA to require labels for those particular ranges. In any event, we do not want to presume the conclusion of FTC's consideration of ethanol labeling.

for use in MY2000 and older light-duty vehicles, heavy-duty engines, motorcycles and nonroad products. In this rulemaking, we are not addressing the emissions impact of blends above E15 on MY2001 and newer light-duty vehicles. Therefore, the misfueling prohibition that we are promulgating in this rule applies only to the vehicles, engines and nonroad products not covered by the E15 partial waivers. In this context, any EPA labels for blends greater than E15 would accordingly carry a misfueling prohibition statement that would reference only MY2000 and older light-duty vehicles, heavy-duty engines, motorcycles and nonroad products, and not MY2001 and newer light-duty vehicles. However, such labels might leave the mistaken impression that blends greater than E15 are currently lawful for gasoline-fueled MY2001 and newer light-duty motor vehicles, when they are not. Under CAA section 211(f)(1), those higher blends may be introduced into commerce only for sale for flex-fuel vehicles. As discussed above, the current labels on pumps dispensing higher gasoline-ethanol blends typically provide that information. Given the scope of this rulemaking, we have concluded that adopting EPA labels in this rulemaking for higher gasoline-ethanol blends could be confusing and counterproductive.

In sum, we expect the E15 label will serve EPA's purpose in providing consumers with the information they need to avoid misfueling with E15, and that it is not appropriate to adopt labeling requirements for blends above E15 in this rulemaking.

### 3. Final Fuel Pump Labeling Requirements

Today's final rule requires the wording and general color and design aspects of the label described above. In addition, we are allowing retailers the flexibility to submit alternative labels



to EPA for approval. Such alternatives may potentially include the addition of icons and other languages, and small changes in shape and size (except to the extent a larger size is necessary to accommodate more information), but must include the four required components of the E15 label.

We are not requiring labels for other gasoline-ethanol blends. Thus, only the E15 label is required for pumps dispensing that fuel.

Placement of the label will depend on the type of pump that is used. In the case of pumps with one nozzle dispensing several grades of gasoline, the regulations direct the retailer to place the label above the selector button dispensing E15 or otherwise place it so that it is clear which button is dispensing E15. In the case of pumps with a nozzle for each grade, the regulation directs the retailer to place the label where consumers will see it when they are making their fuel selection.

The final E15 label is as follows:



## **C. PTD Requirements**

EPA proposed several additions to existing PTD requirements to provide the information needed for fuel providers to properly blend and label E15 fuel. EPA has previously established similar requirements for PTDs for RFG and blendstocks to help ensure downstream compliance with national RFG standards. As we explained in the proposed rule, the potential introduction of E15 into the marketplace makes it important to include additional information on the PTDs that accompany the transfer of gasoline and gasoline blendstocks used for oxygenate blending, both for RFG and conventional gasoline. We also noted that the type of additional information needed differs for businesses upstream versus downstream of the point of ethanol addition. Most commenters agreed that PTD changes are necessary to minimize misfueling and to help ensure downstream compliance with our fuels regulations as E15 enters the market.

### **1. PTD Requirements Downstream of the Point of Ethanol Addition**

EPA proposed to include on PTDs language indicating the amount of ethanol in the blend and the summertime RVP standards applicable to the blend so that downstream marketers can properly label E15 fuel and avoid commingling fuels that could result in RVP and other violations.<sup>14</sup> EPA proposed that the following statements be included on PTDs for pure gasoline (E0) and the various gasoline-ethanol blends downstream of the point where ethanol blending takes place:

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<sup>14</sup> As was indicated in the proposed regulations, the RVP language would be required for PTDs only for the summertime RVP season.

For E0: “E0: Contains no ethanol. The RVP does not exceed [Fill in appropriate value]”

For E10: “E10: Contains between 9 and 10 volume percent ethanol. The RVP does not exceed [Fill in appropriate value]”

For E15: “E15: Contains up to 15 volume percent ethanol. The RVP does not exceed [Fill in appropriate value]”

For EXX: “EXX—Contains up to XX% ethanol.

“EXX” refers to fuels blends above E15, up to and including E85 and fuel blends below 9 volume percent ethanol. The maximum potential ethanol content of the fuel would be required to be specified on the PTD in the place of “XX”.

Most comments were generally supportive of the language as proposed. One commenter recommended that the language on PTDs for gasoline-ethanol blends should be simplified and standardized, and should read: “Contains at least ## volume percent ethanol and up to ## volume percent ethanol. RVP does not exceed ## psi.” EPA agrees that standardizing the language for gasoline-ethanol blends is simpler and easier to understand, and is finalizing changes to the required PTD language for gasoline-ethanol blends to reflect this. For E0, we are finalizing the language to read as proposed (i.e., “E0: Contains no ethanol”), since the standardized language suggested by commenters contains more information than necessary for gasoline containing no ethanol.

Another commenter argued that the language “The RVP does not exceed [Fill in appropriate value]” is unnecessary, as the petroleum industry has a long history of distributing gasoline with the correct RVP to the correct area, and E15 will not change this situation. In contrast, another commenter stated that the proposed requirements to include ethanol content and

maximum RVP on the PTD downstream of the point of blending would be beneficial, because it would alleviate the need for additional downstream testing. After considering the public comments, EPA concludes that, downstream of the point where ethanol blending takes place, information on the maximum ethanol concentration and RVP of gasoline and gasoline-ethanol blends is needed to help ensure that shipments of E15 and other fuel are delivered into the appropriate storage tanks at retail and fleet fueling facilities and not improperly commingled. The introduction of E15 into the marketplace will increase the complexity of blending, distributing and selling fuel. The required additions to PTDs will help fuel providers comply with E15 labeling requirements, the summertime RVP requirements for E0, E10 and E15, and the prohibition against misfueling with E15 (including gasoline-ethanol blends greater than 10 vol% ethanol and up to 15 vol% ethanol). Therefore, EPA is finalizing the requirement that information on the maximum ethanol concentration and RVP of gasoline and gasoline-ethanol blends be included on PTDs downstream of the point of ethanol addition.

EPA also requested comment on whether additional language on E10 PTDs is needed to inform parties that a blend containing between 9 and 10 vol% ethanol which benefits from the 1.0 psi RVP waiver under CAA section 211(h) may not be commingled with E0 or a gasoline-ethanol blend that contains less than 9 or more than 10 vol% ethanol. We received comments advocating that EPA require that PTDs for gasoline-ethanol blends higher than 10 vol% ethanol state that those volumes are not eligible for the 1.0 psi RVP waiver. One commenter also suggested that, to avoid downstream commingling of E10 and other fuels not eligible for the 1.0 psi RVP waiver, EPA should incorporate additional language into the E10 PTDs stating: “This blend is subject to the 1.0 psi RVP waiver. Do not blend with gasoline containing anything other than between 9 and 10 vol % ethanol.” EPA has decided to include the suggested language to

provide clarity and avert potential instances of improper commingling of fuels eligible for the 1.0 psi RVP waiver and those that are not. Thus, we are finalizing a requirement that for gasoline-ethanol blends containing between 9 and 10 vol% ethanol, the PTD must state: “The 1.0 psi RVP waiver applies to this gasoline. Do not mix with gasoline containing anything other than between 9 and 10 vol% ethanol.”

## 2. PTD Requirements Up to and Including the Point of Ethanol Addition

EPA proposed that PTDs for gasoline or gasoline blendstock used for oxygenate blending (BOBs) in the manufacture of gasoline-ethanol blends that are subject to summertime RVP controls include the maximum RVP of the BOB to avoid improper blending of E15 or commingling with E15 and other fuels. We also proposed that such PTDs in non-RFG areas indicate what ethanol concentration is suitable to be blended with the BOB to facilitate ethanol blender compliance with applicable EPA summertime RVP requirements.

Specifically, we proposed that the following statements be included on the PTDs for BOBs in non-RFG areas:

“Suitable for blending with ethanol at a concentration up to 15 volume % ethanol” or, in the case of a BOB designed to take advantage of the 1 psi allowance for E10 in 40 CFR 80.27(d)(2):

“Designed for the special RVP provisions for ethanol blends that contain between 9 and 10 volume % ethanol”

“The RVP of this blendstock/base gasoline for oxygenate blending does not exceed [Fill in appropriate value]”

Comments were generally supportive of the proposed language, although EPA received a comment stating that the requirement to include the RVP of a BOB on the PTD is not useful because regulated parties are already prohibited from releasing a finished product onto the market that exceeds the regional and/or seasonal RVP requirements. The commenter argued that the proposed requirement overcomplicates an approach that has worked well in the past and that PTD requirements for BOBs should be flexible and need only contain the type and level of oxygenate with which the BOB should be blended, with additional language included at the discretion of the regulated party. However, while the current approach to compliance with the relevant RVP requirements may work under current conditions, in light of the increasing complexity that will come with the entry of E15 into the market, EPA believes that, upstream of the point where E10 and E15 are manufactured, the maximum RVP is needed on the PTDs for BOBs to facilitate ethanol blender compliance with the applicable EPA summertime RVP requirements.

In order to help ensure that the proposed blendstock commingling restrictions are observed, we requested comment on whether the following language should be added to the PTD for a BOB designed to take advantage of the 1.0 psi 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.” Some commenters argued that the proposed changes to the PTD language do not sufficiently address the consequences of blending additional levels of ethanol in gasoline beyond 10 vol% and that language similar to what EPA proposed should be added to the final regulations. One commenter stated that the final rule must ensure that PTDs make it clear that any gasoline-ethanol blends above E10 do not receive the 1.0 psi RVP waiver. The commenter

suggested that EPA require the following language on PTDs for fuel for which the waiver does not apply: “Adding ethanol to this product will result in a blend higher than E10 which will not qualify for the one pound waiver.” After considering these comments, EPA has decided to require the additional suggested language on PTDs for BOBs designed to take advantage of the 1.0 psi RVP allowance. This PTD language will serve to remind blenders that gasoline-ethanol blends containing more than 10 vol % ethanol do not receive the 1 psi RVP waiver. Furthermore, the PTD language clarifies the proper amount of ethanol with which the associated fuel may be blended. EPA believes that this additional PTD language will help prevent downstream violations of the RVP requirements for E15 and other fuels.

In conclusion, for PTDs for gasoline or BOBs up to and including the point of ethanol addition, we are requiring the following language: “Suitable for blending with ethanol at a concentration up to 15 vol % ethanol” or, in the case of a BOB designed to take advantage of the 1.0 psi allowance for E10 in 40 CFR 80.27(d)(2):

“Suitable for the special RVP provisions for ethanol blends that contain between 9 and 10 vol % ethanol.”

“The RVP of this blendstock/gasoline for oxygenate blending does not exceed [Fill in appropriate value] psi.”

“The use of this gasoline to manufacture a gasoline-ethanol blend containing anything other than between 9 and 10 vol % ethanol may cause a summertime RVP violation.”

### 3. General PTD Requirements

We proposed several general PTD requirements so that the specific information discussed above is useful to the various parties involved in fuel production, distribution and marketing. Specifically, we proposed that on each occasion when any person transfers custody and/or ownership of any gasoline or gasoline BOB, the transferor would be required to provide the transferee with an appropriate PTD identifying the gasoline/blendstock and its characteristics (as defined below), as well as such general information as the names and addresses of the transferor and transferee, the volume of product being transferred, the location of the product on the date of transfer, and other specific information. We proposed that all parties be required to retain PTDs for a period of not less than five years and provide them to EPA upon request.

We also proposed that PTDs be required to be used by all parties in the fuel distribution chain down to the point where the product is sold, dispensed, or otherwise made available to the ultimate consumer. We proposed that PTDs would be required to travel in some manner (paper or electronically) with the volume of blendstock or fuel being transferred. Additionally, we proposed that product codes could be used to convey the information required as long as the codes are clearly understood by each transferee, but that the full proposed text would need to be included on the PTD for transfers to truck carriers, retailers, or wholesale purchaser consumers.

We received comments indicating that space is limited on the physical PTDs, and that EPA should allow for the use of abbreviations and the printing of text on the back of the PTD, provided a clear reference to the back is made on the front. While EPA does require certain language to be included on PTDs, we generally do not specify the form that the PTD must take. We agree that printing on the back of a PTD is appropriate, provided all the required language is included on the PTD and a clear reference to the printing on the back is made on the front of the PTD. Therefore, EPA is allowing parties to print required language on the back of the PTD,



provided there is a clear reference on the front. The commenter also suggests the use of “%” in place of “percent” and “vol” in the place of “volume.” EPA agrees that the use of these particular abbreviations is reasonable as they are generally understood by industry, and is allowing for the use of “%” in place of “percent” and “vol” in the place of “volume.”

Finally, we received comments stating that, if product codes can be used on PTDs as proposed by EPA, EPA should also require a product code key on the PTD, as the use of product codes in the current distribution chain has created confusion. EPA believes that the limitations proposed for the use of product codes are sufficient to prevent confusion, as those parties who might be confused by the use of product codes will not receive PTDs that contain them. Specifically, the proposed requirement stipulated that product codes may not be included on PTDs for transfers to truck carriers, retailers, or wholesale purchaser consumers, since these parties are more likely to be unfamiliar with the meaning of product codes. Therefore, EPA is allowing for the use of product codes on the PTD provided the codes are clearly understood by each transferee, and is requiring that the full proposed text be included on the PTD for transfers to truck carriers, retailers, or wholesale purchaser consumers. Although EPA is not requiring a product code key on PTDs, parties are encouraged to include them whenever it would be useful to others in understanding product codes downstream in the distribution chain.

The final rule makes the PTD requirements applicable beginning November 1, 2011, to allow sufficient time for all the relevant parties in the fuel distribution chain to comply. Businesses wishing to begin marketing E15 prior to that date may do so by explaining in the plan required by the E15 partial waiver conditions how the PTD requirements of the partial waivers will be addressed. (As discussed in a later section of this notice, businesses that introduce E15 into commerce do so under the E15 partial waivers and must comply with the partial waiver

conditions. Today's rule will facilitate compliance with some conditions, but do not supplant them.) Under the waivers, plans must be submitted to EPA to address the waivers' misfueling mitigation conditions, which include PTD and survey requirements. Prior to the effective date for compliance with the PTD requirements of today's rule, such a plan should describe how PTDs for gasoline, blendstocks or gasoline-ethanol blends would be utilized by the various parties involved in marketing E15 before the compliance date for today's PTD regulations. Such a plan could follow the PTD approach finalized in today's rule to help ensure that appropriate labeling of pumps will occur and that compliant fuel will be dispensed. In this way, a plan for the introduction of E15 may be implemented prior to the compliance date for PTDs as specified in today's rule.

#### **D. Ongoing Implementation Survey**

Consistent with the misfueling mitigation conditions of the E15 partial waivers, EPA proposed that the parties involved in making, distributing and selling E15 be responsible for conducting an ongoing survey of the implementation of the labeling, ethanol content and RVP requirements for E15.<sup>15</sup> As we explained, the purpose of the survey program is to help ensure that fuel pump labeling requirements are being met at retail stations or wholesale purchaser-consumer facilities, that the appropriate level of ethanol content is being properly blended and documented in fuel shipments, and that the RVP limitation of the E15 partial waivers is being met. The survey would also deter violations of the ethanol content, labeling and RVP requirements.

EPA proposed to provide responsible parties with the flexibility to conduct surveys that

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<sup>15</sup> See 75 FR 68054-68056.

reflected the geographical scope of their plans for E15 distribution and sale. Survey Option 1 would allow an individual or group of gasoline producer(s)/importer(s), ethanol producer(s)/importer(s), and/or oxygenate blender(s) to conduct a local or regional survey if their E15 business plans are limited in geographical scope. Survey Option 2 would allow responsible parties to conduct a nationwide survey, which would likely become the most efficient option as businesses decide to sell E15 in more parts of the country. EPA explained that the flexibility afforded by these two options would be appropriate given the likelihood that E15 will gradually expand into the marketplace. Based on the history of the transition to E10, we expect that sale of E15 will initially begin in a relatively small number of retail stations in a few geographic areas. In that case, it may make sense for responsible parties to comply with survey requirements via Survey Option 1 to limit costs. If E15 expands beyond a few areas, Survey Option 2 may become more cost-effective. The parties involved in selling E15 can thus decide which survey option makes the most sense for their circumstances.

## 1. Proposed Approaches and Consideration of Comments

### a. General Survey Comments

In the NPRM, we proposed that ethanol producers/importers, gasoline producers/importers, and oxygenate blenders involved in introducing E15 into the market be responsible for carrying out the proposed survey provisions. Several commenters stated that it would make little sense to include ethanol or gasoline producers/importers as required participants in the survey given their lack of direct control over relevant regulated activities (e.g.

proper labeling at a retail station or blending too much ethanol into gasoline). These commenters also stated that the proposal would unnecessarily and inappropriately shift EPA's compliance and enforcement obligations onto industry, and that EPA should fund and conduct the survey itself. Some commenters specifically argued that the sole responsibility of complying with survey requirements should be on ethanol blenders and marketers that choose to blend and market E15. Some commenters also stated that unlike the RFG and ULSD survey programs, which allow responsible parties to reduce compliance costs and/or help establish alternative affirmative defenses to fuel standard violations, the E15 survey program provides no benefits to the responsible parties and may add an additional level of complexity that would hinder the introduction of E15 into commerce.

When EPA granted the partial waivers allowing E15 to be introduced into commerce for MY2001 and newer light-duty motor vehicles, it placed a survey requirement on the fuel and fuel additive manufacturers (i.e. gasoline manufacturers/importers, ethanol producers/importers, and oxygenate blenders) that introduce E15 into commerce as a waiver condition in order to mitigate misfueling. Since fuel and fuel additive manufacturers are the parties that are subject to the CAA section 211(f)(4) prohibition that was partially waived for E15, they are the parties that, under the partial waivers of the prohibition, bear the obligation to introduce E15 in a manner that avoids misfueling if they choose to make use of the waivers. For a similar reason, to minimize the misfueling that might result from the introduction of E15 into commerce for use by some vehicles but not other vehicles, EPA proposed that these parties be subject to the survey requirements under the misfueling mitigation regulations. This aspect of the proposal also ensures that compliance with the survey requirements of the rule (at 40 CFR 80.1502) would help satisfy the survey conditions of the partial waiver decision.

After considering the public comments, we have concluded that it is appropriate for the parties involved in making and selling E15 to be responsible for conducting surveys that assess implementation of the E15 partial waiver conditions related to misfueling mitigation. The partial waivers allow businesses to introduce E15 into commerce for use in MY2001 and newer motor vehicles. To the extent businesses desire to avail themselves of the opportunity to make and sell E15, they should also bear the cost of monitoring compliance with misfueling mitigation adopted in today's action. EPA has required regulated parties to conduct surveys in the RFG and ULSD programs if they choose to take advantage of regulatory provisions that provide greater compliance flexibility made possible by the surveys. For E15, EPA has granted partial waivers that make it necessary for those who take advantage of the waivers to take certain steps to mitigate misfueling and limit RVP and thereby avoid the emission increases and standard exceedances that would otherwise result. Although the case for surveys in the RFG, ULSD and E15 contexts is not entirely the same, the common, compelling thread is that when regulated parties seek opportunities that may heighten the risk of emission increases, they should be responsible for taking steps to offset or minimize that risk. In all three cases, surveys are an effective means of reducing risk – and at relatively low cost. Moreover, complying with survey requirements will help responsible parties satisfy waiver conditions and introduce E15 into commerce, and will also help establish an affirmative defense to violations found downstream for upstream parties. For these reasons, EPA is finalizing the list of responsible parties as proposed.<sup>16</sup>

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<sup>16</sup> Under the final rule, any oxygenate blender that blends a gasoline that contains greater than 10 vol% and less than or equal to 15 vol% ethanol is responsible for satisfying the survey program requirements along with the gasoline and ethanol producers/importers that manufacture, introduce into commerce, sell or offer for sale E15, or base gasoline, BOB, or ethanol that is intended for use in the manufacture of E15. To help blenders be aware of those gasoline and ethanol producers/importers, today's regulations provide that a gasoline producer/importer intends a

EPA also received comments that it should make survey plans and results available to the public. EPA will make plans and results available in the same manner as it has made plans and data from both the RFG and ULSD survey programs available to the public. For example, EPA has provided the Clean Diesel Fuel Alliance (CDFA) with quarterly summary data of the performance of the ULSD survey program for publication on the public CDFA website. EPA is committed to providing timely data to the public and will disseminate E15 survey data through avenues similar to those utilized in previous survey programs.

Some commenters suggested that EPA should require that surveys include visual monitoring of pumps in order to observe and record customer behavior to determine the rate of actual misfueling. Other commenters suggested that EPA should conduct its own survey to monitor actual misfueling rates at retail stations. EPA does not believe that it is necessary to require that surveys include visual monitoring at this time. As the transition to E15 occurs, we plan to work with industry, state, environmental and consumer stakeholders to track developments and evaluate the effectiveness of the required misfueling mitigation measures, including the prohibition against misfueling with E15. Also, as noted previously, we are working with ethanol and other stakeholders to help establish a public education and outreach campaign to assist fuel producers, distributors, retailers and consumers in understanding how E15 may be made, distributed, sold and used. That effort can help identify and resolve misfueling issues that may develop as E15 moves into the marketplace.

EPA proposed to include the testing of fuel samples for RVP to ensure that E15 being

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base gasoline or a BOB for use in manufacturing E15 if a producer/importer amends its registration to include E15 under 40 CFR 79 or designates that their base gasoline or BOB may be suitable for the addition of up to 15 vol% ethanol in the PTDs accompanying the fuel or blendstock (see discussion of PTD requirements in Section III.B.). In addition, under the regulations, any ethanol producer/importer that sends ethanol into the marketplace is assumed to intend that the ethanol may be used to manufacture E15 unless the ethanol producer/importer demonstrates (e.g., through contracts) that its ethanol is not for use in the manufacture of E15.

sold at retail stations was in compliance with the RVP condition of the E15 waiver and that an E10 fuel that used the 1.0 psi RVP waiver under CAA section 211(h) was not commingled with E15, which must have a lower RVP in the summertime. EPA received a number of comments both in favor of and opposed to including RVP testing. Those who were opposed argued that determining RVP levels of E15 and other fuels was unrelated to misfueling, that existing RVP controls have proven effective over time, and that it was up to EPA to enforce RVP requirements with the aid of states without imposing additional costs on industry.

EPA continues to believe that it is necessary and appropriate for the surveys to measure the RVP of fuel samples from pumps labeled as dispensing E15. For E15 to be lawfully sold under the partial waivers, it must have the proper ethanol content, not exceed 9.0 psi RVP in the summertime, and be dispensed from properly labeled pumps. It is thus appropriate for the surveys to measure the RVP of fuel labeled as E15 in order to determine whether E15 is being properly blended and sold under the partial waivers. However, EPA believes that the comments opposing RVP sampling for fuels being dispensed from pumps not labeled for E15 have merit. Since a fuel with an ethanol content above 10 vol% up to 15 vol% that is dispensed from a pump lacking the E15 label is not covered by the partial waivers, its sale violates the misfueling prohibition established in today's rule, regardless of its RVP. Therefore, requiring that surveys sample the RVP of such a fuel is not necessary to determine that its sale is unlawful. We also believe that the current controls on summertime RVP established in 40 CFR 80.27 adequately ensure that E0 and E10 meet the applicable RVP standards. We are therefore limiting the requirement to measure RVP to fuels being sold and labeled as E15.

One commenter asked that the survey be fair and balanced and not place any undue burdens on small petroleum marketers and retailers. EPA is committed to not placing undue

burdens on small businesses. Retailers do not have any obligations to conduct a survey; however, they are responsible for complying with E15 labeling requirements if they choose to sell E15, and they are subject to the prohibition against misfueling with E15. EPA believes that by allowing two survey options, it is providing marketers and other small businesses flexibility to determine which survey method is most practical if they choose to sell E15.

b. Survey Option 1

EPA received many comments about Survey Option 1. Some commenters argued that Survey Option 1 would not provide the Agency with accurate information to the degree that a nationwide survey would, because a geographically limited survey would not necessarily detect E15 sent beyond the areas covered by the survey. Some commenters urged that we eliminate Option 1 altogether. These commenters pointed out that the national ULSD and RFG survey programs have been effective and that there was no reason to deviate from such an approach for E15.

The Agency continues to believe that Survey Option 1 is appropriate to provide for parties that choose to manufacture, market, or sell E15. Unlike the ULSD and RFG programs, which regulated the content of fuels that were already distributed and sold, E15 will likely enter the market first in a few areas of country and then gradually expand to other areas over time. Under these circumstances, it is appropriate to provide businesses that decide to sell E15 in a limited area with the option of developing a relatively localized survey. EPA believes that Survey Option 1 can provide the same rigor as a nationwide survey for the areas potentially affected by business decisions to sell E15 in a limited area. Survey Option 1, as finalized today,



includes survey requirements (e.g. sampling and testing methods) similar to those applicable to the national survey. Also, to be approved, surveys under Survey Option 1 will have to take a robust approach to surveying affected areas considering the fuel distribution network for those areas. EPA provides a similar opportunity to conduct localized or individual surveys under the RFG and ULSD survey programs, and we believe that it is appropriate to provide parties making, marketing and selling E15 the opportunity to choose which approach is most economical and effective in ensuring proper ethanol content and labeling downstream. We are also clarifying the language at § 80.1502(a) to reflect that a survey program conducted under Survey Option 1 must adhere to requirements for robustness similar to those applicable to a national survey.

Other commenters argued that Survey Option 1 is overly broad and not practical. These commenters stated that as written the proposed regulations implied that all gasoline refiners/importers and ethanol producers/importers would have to survey each area their products could enter even though they would have no idea whether their products are being used to blend E15. In response to these comments, it is important to clarify that the obligation to conduct a survey applies only to those parties that decide to make, distribute or sell E15 or their gasoline or ethanol for use in E15. Any party that chooses not to manufacture, market, and/or sell E15 does not need to comply with the rule's survey requirements. Any party that chooses to market ethanol, gasoline, or gasoline blend stock as appropriate for use in E15 is subject to the survey requirement. If a party wants to use Survey Option 1, the party will need to limit where its fuel or fuel additive is sold and distributed. If a party does not want to limit the distribution of its product, then Option 1 would likely not be appropriate for that party. The choice is up to each party considering how the party decides to market their fuel or fuel additive – with or without any limitation on its eventual use downstream. There are many benefits associated with deciding

to market a fuel or fuel additive without limitation, but a companion responsibility is to then develop a survey program that is appropriate to the distribution of the product.

One commenter suggested that a survey of five percent of the stations that sold a responsible party's fuel in a prior year be deemed sufficiently representative. This commenter suggested that for the first year of sampling under Option 1, the responsible party should conduct a survey that represents the higher of either: (1) five percent of the responsible party's estimate of the number of stations that will sell the responsible party's E15 during the first survey year; or (2) five percent of the stations where the responsible party sold fuels containing ethanol the prior year. This commenter pointed out that five percent was approximately the number of stations EPA proposed be surveyed annually under Survey Option 2.

EPA does not agree with this approach to determining the minimum number of stations to be sampled. The Agency chose the number of samples required under Survey Option 2 using an appropriate statistical approach based on the previous performance of the similar ULSD survey program. The number of samples required under that program, and proposed for Survey Option 2, can fluctuate year to year since the number of samples is based in part on noncompliance rates; therefore, more than five percent of retail stations may need to be sampled in a particular survey year. Furthermore, the number of samples for a survey conducted under Survey Option 1 can vary considerably depending on the size and scope of the individual survey plan. Since survey plans should use statistical means to determine the appropriate number of samples needed to comply with the general survey requirements being adopted, the Agency believes it would be inappropriate to specify a minimum number of samples or percentage of stations to be sampled. The Agency believes that the proposed approach to determining sample size provides appropriate flexibility to responsible parties. Therefore, EPA is finalizing Survey Option 1 as proposed.

### c. Survey Option 2

EPA received many comments about most aspects of proposed Survey Option 2, the nationwide ethanol content and E15 labeling survey. Several commenters stated that the proposed requirements that a fuel sample be shipped on the same day it is collected, and that the sample be analyzed for ethanol content within 24 hours, are unnecessary to ensure program integrity, are not practically feasible, and create unnecessary additional costs. We believe that these comments have merit. We chose 24 hours to be consistent with the fuel sample transport and analysis deadlines required in the ULSD and RFG survey programs. However, commenters noted that the independent survey association that has conducted the ULSD and RFG survey programs for the past 15 years has shown that it is not practical to find a shipping carrier that will consistently meet the required 24-hour schedule. One commenter suggested that EPA allow the use of ground shipment service, which takes in general 1-5 days to be received at the lab. This commenter also pointed out that for testing samples, due to the volume of samples that will need to be analyzed, 72 hours would be a best case scenario, with 10-12 business days being more realistic.

EPA believes that it should impose practical, cost-effective requirements regarding the shipping and testing of fuel samples collected as part of the surveys. Therefore, EPA will require that samples be shipped from the retail station to the laboratory for analysis within five days. Additionally, EPA is requiring that samples be analyzed and reported to EPA for both oxygen content and RVP, if applicable, within 10 days of receipt at the laboratory. These changes will reduce the costs of conducting the survey. However, EPA is not changing ULSD and RFG

survey requirements at this time since we did not propose to make changes to those survey programs in the NPRM. EPA may adjust the time allotted for shipment and analysis of fuel samples for these programs in an upcoming rulemaking.

EPA also received comments suggesting that surveys begin only after E15 has achieved a certain level of market penetration considering data from the previous year. One commenter specifically suggested that the survey year begin on July 1 instead of January 1 of the year E15 is introduced into commerce. EPA does not believe that it is appropriate for surveys to begin only after E15 has been on the market. The purpose of the survey is to help ensure that E15 is being properly blended and labeled so that misfueling is minimized. That purpose needs to be served from the time E15 first enters the market. Also, we do not believe it is feasible to determine whether an area has exceeded any level of market penetration without accurate survey data upon which to base that determination. Additionally, the misfueling waiver conditions require that a survey plan be approved by EPA and that implementation of the plan begin before E15 may be introduced into commerce. EPA believes that it is best to keep the final survey requirements consistent with the misfueling conditions outlined in its partial waiver decisions.

EPA does not agree that changing the start date of the survey from January 1 to July 1 would be beneficial since, if E15 actually enters the market earlier in the year, the later start date would delay delivery of information needed on a more real-time basis to minimize labeling and other problems that could lead to misfueling. The survey programs for the other fuel programs have been conducted with a January 1 start date and for a normal calendar year, and there is no reason to believe that an E15 survey could not also be conducted on the same schedule. Furthermore, the existing and proposed survey programs break surveys down into four quarterly surveys that ensure that EPA is receiving more real-time information on a regular basis that is

not tied to any particular start date. Therefore, EPA is finalizing the survey timing requirements as proposed.

EPA proposed that a nationwide ethanol content and E15 labeling survey conducted under Survey Option 2 have a minimum of 7,500 samples annually and that the next year's survey sample size be determined by the equation found at 40 CFR 80.1502 based on the previous year's non-compliance rates. EPA also sought comment on whether it should allow a smaller number of samples in the first years of the nationwide survey in order to reduce burden. EPA received comments that suggested that EPA should require fewer or more samples than proposed. For example, one commenter suggested that EPA sample 20 percent of the retail stations nationwide. Another commenter suggested a reduction in the number of samples in the first year since E15 will not likely be sold at many retail stations the first year it is introduced into commerce.

The sample size methodology and minimum sample size EPA proposed were based on statistical principles and past survey experience with similar programs. Reducing the sample size even in the first year would compromise the statistical rigor, and therefore the effectiveness, of the program. If, as expected, E15 is initially marketed and sold in a limited geographic area, responsible parties that wish to market and sell E15 could take advantage of Survey Option 1 to reduce the required number of samples. On the other hand, increasing the minimum number of samples does not provide much more information given the large number of samples already required and the substantial increase in costs that a larger number of samples would entail, which would pose an unnecessary burden on responsible parties. However, as part of the survey plan approval process, EPA will consider whether a higher minimum sample size may be methodologically necessary under some circumstances to maintain the rigor of a nationwide

survey program. In the regulations issued today, EPA is finalizing the sample size methodology and minimum sample size of 7,500 samples per year as proposed.

One commenter questioned whether proof that a surveyor had been paid must be sent to EPA by the proposed deadline since EPA could bring an enforcement action under the Clean Air Act if the survey was not conducted according to the approved plan. The Agency believes that the requirements that the survey plan be contracted and paid for in advance are important to ensuring that the required surveys will occur.<sup>17</sup> EPA has made this a requirement of both the RFG and ULSD survey programs, and the cost of providing proof of payment to the Agency is minimal.

EPA is making changes to the survey provision governing revoking approval of a survey plan to more closely conform to the method provided for in the ULSD regulations<sup>18</sup> of ensuring that survey plans serve their intended purpose and that this goal is fulfilled until the expiration of the plan.<sup>19</sup> Given the importance of a robust survey for effective implementation of ethanol content, labeling and related requirements, if experience with an approved survey plan proves that it is inadequate in practice, EPA may revoke it. Before deciding whether to revoke a plan, EPA will generally work with the submitter to make changes necessary to remedy the plan's flaws. If satisfactory amendments cannot be achieved, EPA may decide to revoke its approval of the survey plan. In the event a survey plan is revoked, distribution of the E15 authorized for introduction into commerce under the E15 partial waivers based, in part, on the survey plan would have to cease until such time as a replacement survey is approved.

To ensure that the E15 survey provisions create incentives similar to those created by the ULSD program for developing and implementing effective survey plans, the regulations being

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<sup>17</sup> Contracting and paying for a survey also mark commencement of a survey for related regulatory purposes.

<sup>18</sup> See 40 C.F.R. §§ 80.613(e)(10)(v) and 80.613(e)(12).

<sup>19</sup> These provisions apply to surveys approved under options 1 or 2.

promulgated today include a provision for voiding a survey plan *ab initio* under appropriate circumstances. If EPA determines that approval of a survey plan was based on false, misleading or incomplete information, or if there is a failure to fulfill or cause to be fulfilled any requirements of the survey, EPA may void *ab initio* the approved survey plan. EPA's years of experience in approving applications that authorize distribution of motor vehicles, nonroad vehicles and engines, and fuels based on compliance with applicable Agency regulations confirm the importance of basing approval determinations on information that is true, clearly stated and comprehensive, and on ensuring implementation of the terms of the application. Given the importance of E15 surveys to effective implementation of E15 misfueling mitigation measures, providing that survey plans may be voided *ab initio* under appropriate circumstances will help ensure that plans are properly developed, supported and implemented. E15 distributed based on a plan whose approval was secured with false, misleading or incomplete information, or a plan whose requirements are not fulfilled, was not distributed in compliance with the conditions of the waiver.

In considering whether it is appropriate to void a survey plan *ab initio*, EPA will review the information that was submitted in support of the plan. EPA will regard information that is not true to be false information; information that, while true, may lead a reasonable person to an incorrect conclusion to be misleading information;<sup>20</sup> and information that is missing elements necessary for a full understanding of the information that was presented to be incomplete information. Survey plans with these kinds of information flaws are inherently unreliable, and effectively prevent EPA from conducting a meaningful review of the survey plan and from

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<sup>20</sup> For example, a plan implemented by a survey association that is misleadingly described in the plan as independent of and free from obligation to ethanol blenders and producers, gasoline refiners and ethanol and gasoline importers or their employees, but which is in fact not independent of or free from such obligation, yields survey results that are inherently unreliable. Such a plan may be voided *ab initio*.

basing its decision to approve the plan on complete and accurate information. Thus, when EPA discovers that its approval of a survey plan was based on false, misleading or incomplete information, EPA may decide to treat its approval as never having been granted. In addition, as discussed above, EPA is requiring proof of a valid contract for conducting the survey and payment for the survey to be provided to EPA to help ensure that the survey is implemented. If, despite the fact that EPA receives this proof, the requirements of a survey plan are not fulfilled, EPA may treat the survey plan as never having been granted by voiding it *ab initio*. Distribution of E15 under any survey plan that is voided *ab initio* would have to cease until such time as a replacement survey is approved, and E15 that was distributed based on that plan will be deemed to have been distributed in violation of 40 C.F.R. § 80.1504(a)(2).

## 2. Final Survey Requirements

In today's rule, EPA is finalizing both survey options. After carefully considering all of the comments received pertaining to the survey requirements, EPA is finalizing Survey Option 1 as proposed. In addition, EPA is finalizing most elements of Survey Option 2 as proposed. However, Survey Option 2 as finalized does not require RVP testing of fuel samples from pumps not labeled for E15, and provides more time for the shipping and testing of samples. Finally, EPA is revising provisions to permit both revoking and voiding *ab initio* approval of survey plans in appropriate circumstances.

## **E. Program Outreach**



In the NPRM we pointed out that a public education and outreach program for E15 will be important to help mitigate misfueling that could result in increased emissions and vehicle or engine damage. We also noted that the industry-lead outreach campaign for the ULSD program helped successfully transition the nation to ULSD while mitigating most misfueling.

Almost all commenters agreed that an effective outreach program would be essential to mitigate E15 misfueling, and some cited the ULSD outreach effort as an example of how EPA and affected stakeholders could work together to aid in the transition to E15 and minimize misfueling. Recommendations included a dedicated website, use of EPA's online Green Vehicle Guide, use of other media, pamphlets at retail outlets, and consumer interaction via keypad entry at the pump. There were also comments that EPA should establish and lead the outreach program.

EPA agrees that public outreach and consumer education are key to effectively mitigating misfueling. However, we believe that industry needs to take the lead in such efforts. Our recent experience with the transition to ULSD shows that a stakeholder-led outreach campaign can work synergistically with labeling requirements and provide another means of providing important information to everyone involved in fuel production, distribution and use. The ULSD outreach program also shows that industry is better situated to coordinate with the parties involved in the production, transport, and marketing of E15. More importantly, businesses interact with consumers (via advertising, a web site, pamphlets, etc.) about the fuels they sell, and those that decide to sell E15 will need to make decisions about how to promote E15 in a manner that also minimizes misfueling. As noted previously, the introduction of E15 into the market is likely to start in a limited number of areas and grow over time. In these circumstances it is even more appropriate that the parties who choose to market this product take the lead in

outreach and consumer education in the areas the product is introduced.

In light of these considerations, EPA believes that primary responsibility for public outreach and education about E15 appropriately rests with the businesses that decide to make and sell E15. As we did for the ULSD program, we intend to actively assist in the development and implementation of an outreach and education campaign for E15 when it enters the market. We are already in the process of working with ethanol and other stakeholders to help establish such a campaign. As that process moves forward, we will help ensure that a broad range of stakeholders are kept informed so they may become involved as they see fit.

#### **F. Other Misfueling Mitigation Measures**

In the proposed rule, we explained our expectation that the misfueling mitigation provisions we were proposing would adequately address misfueling mitigation concerns. We based our expectation on the relatively recent transition to ULSD when similar measures were employed to help minimize misfueling of new vehicles and engines that were designed and built to achieve stringent emission standards when operated on ULSD. However, we also recognized that there could be other means for addressing misfueling, as suggested by API in its misfueling mitigation measures scoping study.<sup>21</sup> In the NPRM, we discussed several suggestions covered in API's study and sought comment on those and any other measures that industry or other stakeholders considered necessary or helpful to mitigate misfueling with E15.

We received many comments recommending that EPA implement or study one or more mitigation measures in addition to those we proposed. This section contains a brief summary of

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<sup>21</sup> "Evaluation of Measures to Mitigate Misfueling of Mid- to High- Ethanol Blend Fuels at Fuel Dispensing Facilities," American Petroleum Institute, EPA Docket # EPA-HQ-OAR-2010-0448.

major comments and our responses to those comments. It begins with a discussion of the general issue of whether the proposed misfueling mitigation measures are sufficient to mitigate misfueling, and then considers several specific measures suggested by commenters for inclusion in today's final rule. Responses to comments not addressed in this section can be found in the "E15 Misfueling Mitigation Measures Response to Public Comments."

#### 1. Need for More Mitigation Measures

Many commenters expressed strong concern that the proposed suite of misfueling mitigation measures would not be sufficient to minimize potential misfueling with E15. They took issue with EPA's comparison of the potential for misfueling with E15 to the potential for misfueling under EPA's ULSD program, and contended that the more instructive comparison is to the transition to unleaded fuel, where EPA required additional mitigation measures.

The commenters generally argued that the transition to ULSD did not provide the best or most appropriate point of reference for designing a misfueling mitigation program for several reasons. First, EPA regulations required that ULSD replace low sulfur diesel (LSD) fuel over several years, whereas, according to the commenters, E0, E10, and E15 will coexist in the marketplace for an indefinite period, increasing the likelihood of misfueling. Second, the commenters noted that the potential harm from LSD was to newer engines equipped with advanced emissions control devices, while the potential harm from E15 is to older vehicles and engines. For ULSD, they noted there was opportunity for vehicle manufacturers to educate new diesel vehicle consumers at the time of purchase about the risks of misfueling, with this information reinforced in the owner's manual and on the vehicles themselves. For E15, the

commenters explained, there is no similar opportunity for consumer education. While the commenters acknowledged that vehicle turnover will decrease the number of MY2000 and older light-duty motor vehicles in the U.S. vehicle fleet, they stated that the rate of vehicle turnover is decreasing as vehicle quality and durability have improved and will take decades to complete. Representatives of boat manufacturers and owners also noted that many larger boats have longer useful lives than passenger vehicles. A third reason for concern, according to commenters, is that E15 may be priced less than E10 or E0, adding a cost incentive for misfueling.

Many of these commenters contended that the transition to unleaded gasoline was at least as relevant to the design of E15 misfueling mitigation measures as the transition to ULSD. (Similar to the transition to ULSD, the transition to unleaded gasoline occurred as a result of new emission standards that required new emission control equipment that would be irreversibly damaged by lead in gasoline.) The commenters noted that the measures established to reduce misfueling of new motor vehicles with leaded gasoline included physical constraints – specifically, vehicle fuel inlets and gasoline nozzles designed so that new vehicles requiring unleaded gasoline could only accept nozzles dispensing unleaded gasoline. The commenters pointed out that even these constraints did not prevent all misfueling, particularly when leaded gasoline was priced less than unleaded gasoline.

After carefully considering these comments, EPA continues to believe that the comparison to the ULSD program is valid and provides an appropriate basis for designing the E15 misfueling mitigation program. LSD and ULSD were available in the market at the same time for several years, just as E15 is expected to be available along with E10 and/or E0 for a number of years. In the case of both ULSD and E15, the potential for engine damage and associated repair costs exists if misfueling occurs. EPA believes that consumers have a strong

interest in avoiding repair and replacement costs, whether their vehicles or gasoline-powered equipment are new or old. Owners may expect to get less use from their older vehicles and equipment, but that does not mean that they will put their possessions at risk, absent a strong price incentive (discussed below). An essential element of a misfueling mitigation program is alerting consumers to that risk. For ULSD, pump labeling was important for notifying consumers of newer vehicles and engines of the need to use ULSD and the consequences of misfueling. The E15 label will serve the same purpose for owners of older motor vehicles and other products for which E15 is not allowed. For ULSD, industry established the Clean Diesel Fuel Alliance to educate diesel product consumers about the importance of avoiding misfueling with LSD. EPA is working with E15 stakeholders to help establish a similar public education effort for E15. Overall, the transition to USLD posed misfueling issues similar to those that will be raised by E15's entry into the market, making the misfueling mitigation measures employed in the ULSD program appropriate models for mitigating misfueling with E15.

Commenters did not provide sufficient evidence or rationale to persuade us that use of physical constraints to prevent misfueling with leaded gasoline means that similar, physical measures are necessary for E15. A key difference between E15 and leaded gasoline is that misfueling with E15 could result in driveability and operability issues with older motor vehicles and nonroad equipment, while unleaded gasoline did not affect the driveability of vehicles designed to run on leaded gasoline. The E15 label will inform consumers that misfueling with E15 may cause damage, and a public education effort can reinforce that message. Also, consumers today have more and easier access to more information about how to maintain their vehicles for best performance and durability.

Another factor that contributed to misfueling with leaded gasoline was the perception that

the higher octane of leaded gasoline, typically 89 anti-knock index (AKI) versus 87 AKI for most unleaded gasoline, made leaded gasoline a better fuel. An even stronger factor was price. Leaded gasoline was typically five or more cents per gallon cheaper than unleaded gasoline, at a time when gasoline was less than a dollar per gallon. With the perception of no harm from misfueling and the loss of higher octane, some consumers saw no reason to spend the extra money on unleaded gasoline. Such is not the case for E15. Depending on the availability of ethanol, which can vary by season, E15 could be priced somewhat more or less than E0/E10 with a comparable octane. Considering the extent that recent gasoline prices have fluctuated, it does not seem likely that consumers would risk damaging their vehicles or equipment for small incremental savings. Public outreach can also help remind consumers of the cost consequences of misfueling.

At the same time, we agree that if E15 is priced less than E10 or E0, the risk of misfueling may increase if consumers believe that they can save more money by purchasing E15 and do not consider or believe the savings are more than they would pay to repair or replace their vehicles or equipment sooner than might otherwise occur. However, it is too early to know how E15 will be marketed, including how it will be priced. EPA will work with stakeholders to monitor the transition to E15 and the effectiveness of the mitigation measures being required by today's rule. In the meantime, it is worth noting that the prohibition against misfueling with E15 is applicable to both fuel providers and users. As discussed later in this notice, retailers can avoid liability for consumer misfueling if they properly label E15 pumps and can show that they did not encourage or otherwise cause misfueling. In general, fuel providers are encouraged to consider whether their particular circumstances would make it useful to take additional, tailored steps to avoid consumer misfueling.

In sum, as with the ULSD program, we believe that the misfueling measures being finalized today for E15 will work together so that fuel providers have a strong incentive to properly blend and label E15 and consumers have a strong incentive to avoid misfueling. An industry-led public outreach campaign can reinforce how and why it is important to avoid misfueling.

In evaluating the need for additional mitigation measures, we also considered the fact that there is currently significant uncertainty about where, when and how E15 will enter the market. While the partial waiver decisions removed one legal barrier to introducing E15 into commerce, other steps must be taken to address additional federal, state and local requirements, including registering the fuel as required by the Clean Air Act and determining the compatibility of fuel storage and dispensing equipment under various federal, state and local regulations. Ultimately, businesses must decide whether and how to introduce E15 into the market. We expect that the transition to E15, like the transition to E10, will take time and begin in some parts of the country before becoming broadly available. In the process, business decisions will be made about how to market E15 (e.g., price of E15, its use for a particular grade of gasoline, types of pumps used to dispense it) that will bear on what, if any, additional measures may be useful to mitigate misfueling, including the specific suggestions assessed below. In light of these various considerations, we have concluded that it is neither necessary nor appropriate to require additional misfueling mitigation measures as part of today's final rule.

As the transition to E15 occurs, we plan to work with industry, state, environmental and consumer stakeholders to track developments and evaluate the effectiveness of the required misfueling mitigation measures. As noted previously, we are working with ethanol and other stakeholders to help establish a public education and outreach campaign to assist fuel producers,

distributors, retailers and consumers in understanding how E15 may be made, distributed, sold and used. That effort can also help identify and resolve misfueling issues that may develop as E15 moves into the marketplace. In the meantime, if fuel providers believe additional measures will further reduce the risk of misfueling under their particular circumstances, they may take such actions. For example, retailers that serve a significant population of boat or small equipment owners may decide it is appropriate under their specific circumstances to post signs that specifically address misfueling of those products. By taking additional tailored steps, retailers and other fuel providers can provide examples of other measures that may prove effective in further reducing the risk of misfueling.

## 2. Specific Suggestions for Additional Mitigation Measures

We examined the feasibility and utility of several specific misfueling mitigation measures suggested by public commenters for adoption in the final rule. As described below, each of the suggestions presents implementation, feasibility or cost issues. There is also little empirical data about the relative effectiveness of these measures. Given the uncertainties about the transition to E15 and the need for and effectiveness of the suggested measures, we have concluded that it is not appropriate to require them at this time, although fuel providers are encouraged to develop and deploy these and other measures as they deem appropriate for their circumstances.

### a. Distinctive Hand Warmers for E15 Dispensers

As discussed in the NPRM, the American Petroleum Institute (API) study considered the



use of different colored “hand warmers” or “nozzle grips” (the flexible plastic sheath that covers the part of the pump nozzle that is gripped when dispensing gasoline) to distinguish E15 fuel dispensers from other fuel dispensers. A number of commenters recommended the adoption of such hand warmers, suggesting that EPA require E15 hand warmers to be a uniform and unique color and/or texture nationwide to indicate to consumers that E15 is different than other gasoline and not appropriate for all motor vehicles. Some commenters also suggested complementary signs to highlight the distinctive hand warmer.

We carefully considered the workability and utility of this measure. Hand warmers are low cost and are replaced periodically, so this option could be relatively inexpensive and easy to implement. However, this option could be challenging to implement for a number of other reasons. First, there is no industry standard color scheme for hand warmers. An assigned color for E15 hand warmers could conflict with, or be confusing in the context of, retail stations’ existing color schemes. To address this issue, we considered whether to require E15 hand warmers with a noticeably different texture or bearing the text “E15.” However, there is currently no available data for determining whether or to what degree such differences would be effective in drawing consumers’ attention more than the required label itself.

We also identified another implementation challenge concerning pumps that use a single nozzle to dispense multiple grades of gasoline. Many existing pumps use a single nozzle to dispense multiple grades of gasoline, such as regular grade (e.g., 87 octane), premium grade (e.g., 92 octane), and a mid-grade (e.g., 89 octane). Consumers push a button to select the grade of gasoline desired and then use the single nozzle to dispense the fuel selected. It is likely that E15 may be marketed as one, but not all, grades of gasoline, especially in the near term. Requiring an E15 hand warmer on the nozzle of these pumps could be misleading or confusing

to consumers if the dispenser supplies not only E15 but also E10 or E0.

In light of these issues and the lack of information about the effectiveness of uniquely colored or textured hand warmers, we have concluded that it is not appropriate to require this measure in today's final rule. At the same time, we think distinctive hand warmers might prove useful in many circumstances, and we encourage retailers to consider whether their use might provide customers with a useful visual or textual cue given their stations' pump types, color schemes or other relevant attributes.

#### b. Keypad/Touch Screen Information/Confirmation

Some commenters stated that EPA should require all fuel pumps dispensing E15 to require affirmative confirmation from consumers that they wish to purchase E15. The commenters suggested this could be accomplished through a mandatory electronic keypad approval (tied to fuel grade selection), in which the consumer would need to confirm the use of E15 prior to purchase. Some commenters argued that the sale of E15 should be prohibited from pumps that do not have an electronic keypad. Commenters favoring this measure did not provide specific information about how affirmative confirmation using electronic keypads or touch screens could be implemented.

EPA agrees that requiring affirmative confirmation from consumers before they fuel with E15 could help consumers avoid misfueling with E15. However, based on the limited information provided by commenters, it does not appear that this measure could be implemented using available technology or software. The electronic keypad used for credit/debit card transactions do not generally interface with the fuel selector such that the pump can be locked if

the consumer makes an inappropriate selection. Providing an interactive process for selecting E15 would likely require substantial upgrades to the point-of-sale system of the dispensers. We have therefore decided that available information does not support requiring this measure at this time. However, retailers may develop and implement keypad-based methods for providing consumers with further information or opportunities to make appropriate fuel choices.

#### c. Radio Frequency Identification (RFID)

Some commenters suggested the use of RFID technology as another misfueling mitigation measure. RFID technology is already used in fuel dispenser activation and purchasing systems. For example, one oil company uses RFID technology in a tag or card that provides a "contactless" payment system that provides members with a quick way to pay for purchases at participating stations. The tag has a built-in chip and radio frequency antenna that allows it to communicate with readers at gasoline dispensers.

For this option to be useful in mitigating misfueling with E15, MY2001 and newer motor vehicles would need to be retrofitted with an RFID device that allows E15 to be dispensed into the motor vehicle. Some commenters indicated that the device installation is relatively simple (for example, a consumer could have a device installed during an oil change). One commenter estimated the cost of an RFID ring tag to be \$50-75 and installation of the tag around the fuel inlet to be \$12.50. Retrofitting of fuel dispensers with a companion RFID device would raise larger cost and implementation issues. One commenter indicated a cost of \$500 for installing an RFID reader per fuel dispenser nozzle and \$10,000 to \$20,000 to install a central controller per facility per dispenser to upgrade software for security purposes.

Based on the information provided, this measure, while potentially effective, raises a number of significant issues. First, it would require the owners of MY2001 and newer light-duty motor vehicles, which can lawfully use E15, to spend time and money to install devices so that owners of vehicles and equipment that cannot lawfully use E15 cannot dispense E15 into those vehicles or equipment. Second, it is not clear whether or how consumers could be persuaded or required to install the RFID technology. Third, the cost to retail stations would likely be considerable. Particularly given the uncertainties about the transition to E15, it seems highly unlikely the benefits of this measure would outweigh its costs. In light of these issues, we determined that adoption of this measure would be inappropriate.

d. Requiring the Continued Availability of E10 and/or E0

Several commenters urged EPA to require the continued availability of E10 and/or E0, arguing that EPA should adopt regulatory requirements now to ensure that owners of older motor vehicles and other gasoline-powered engines, vehicles, and nonroad equipment not covered by the E15 partial waiver decisions can find the fuel they need. In addition, on March 23, 2011, EPA received a petition for rulemaking requesting that EPA promulgate a rule under Clean Air Act section 211(c) to ensure the continued availability of gasoline containing 10 vol% or less ethanol (“≤E10”) at retail stations for use in vehicles, engines, and nonroad equipment not covered by the E15 partial waivers.<sup>22,23</sup> Both the commenters and the petitioners noted that E10

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<sup>22</sup> “Petition for Rulemaking Under the Clean Air Act to Require the Continued Availability of Gasoline Blends of Less Than or Equal to 10% Ethanol,” Alexander David Menotti, Kelley Drye & Warren LLP on behalf of American Motorcyclist Association (AMA), et al., EPA Docket # EPA-HQ-OAR-2010-0448.

<sup>23</sup> On May 27, 2011, EPA received comments opposing the petition from the National Association of Convenience Stores and the Society of Independent Gasoline Marketers of America. These comments are summarized in the Response to Comments document located in the public docket.

has, over time, largely displaced E0 in the marketplace, and in some areas of the country, it is already difficult to locate E0. They expressed concern that E15 could similarly displace E10, particularly if economic factors and the Renewable Fuel Standard result in broad adoption of E15. They argued that unless E10 remains available, owners of vehicles and gasoline-powered engines, vehicles, and nonroad equipment for which E15 is not allowed may have no choice but to misfuel with E15. Petitioners also contend that EPA's proposed misfueling mitigation measures will not be effective unless EPA ensures that  $\leq$ E10 remains available alongside E15. Petitioners point out that EPA required availability of unleaded gasoline and USLD to protect emission control systems, and they ask EPA to similarly require the availability of E10 to protect the performance of emission control systems of vehicles, engines, and nonroad equipment not covered by the E15 partial waiver decisions.

For the reasons discussed below, the Agency is not requiring the availability of E10 (or E0) in this rulemaking and is also denying the rulemaking petition. Based on the information currently available to the Agency, we find that it is neither necessary nor appropriate to issue such regulations at this time or to initiate a rulemaking process to adopt them. While EPA appreciates that the availability of appropriate fuels is important to mitigating misfueling, it is premature for EPA to try to forecast now how E15 will be distributed and marketed over the next several years, and how this might impact the availability of  $\leq$ E10. In considering the future availability of  $\leq$ E10, it is important to remember that EPA's partial waiver decisions allow, but do not require, E15 to be sold. Instead, the partial waivers remove a statutory prohibition on introducing E15 into commerce, subject to misfueling mitigation and other conditions. It is now up to businesses to decide whether and how to produce and sell E15 for MY2001 and newer light-duty motor vehicles. Further, before E15 can be legally sold and made broadly available

for these vehicles, a number of additional steps must be taken by fuel producers, distributors, and marketers as well as federal, state and local government agencies. These steps include registering E15 as a motor vehicle fuel under the Clean Air Act, addressing the compatibility of E15 with fuel storage and dispensing equipment, and potential changes to state and/or local requirements. In light of these additional steps, EPA expects that any significant market shift to E15 will take several years or more, and that the decisions fuel providers will make about the continued availability of  $\leq$ E10 will largely determine if any availability requirement is needed. Since  $\leq$ E10 is widely available now, the appropriate response to any future  $\leq$ E10 availability issues will best be determined by evaluating the distribution and market circumstances of E15 and  $\leq$ E10 fuels as E15 enters the market. EPA will work with stakeholders to monitor those circumstances and timely address any  $\leq$ E10 availability issues that are based on those specific circumstances.

Commenters and petitioners did not provide data that suggest that  $\leq$ E10 will be unavailable in either the short- or long-term, nor did they provide quantitative analysis or evidence to support claims that E15 will be less expensive than E10. This is significant since, as explained above, it is not EPA that determines whether, how, or where E15 will be distributed and sold, or how this will impact availability of  $\leq$ E10. It is the fuel industries involved that will determine the role that E15 plays in the fuel distribution system and how this will affect availability of  $\leq$ E10. Without commenters and petitioners providing data to support their assertions, EPA can only consider available information, which shows that it is far from a foregone conclusion that E15 will result in a scarcity of  $\leq$ E10 in the next several years or more. Under the E15 partial waivers and the misfueling prohibition in today's rule, E15 may be used only in MY 2001 and newer light-duty motor vehicles and FFVs. Gasoline containing no more than 10 vol% ethanol will continue to be needed for fueling MY2000 and older light-duty motor

vehicles and all heavy-duty gasoline vehicles and engines, motorcycles and nonroad equipment. EPA estimates there are over 240 million such vehicles, engines, and nonroad equipment in existence today, and even as some products are retired, new heavy-duty gasoline-powered vehicles and engines, motorcycles, and nonroad equipment will be purchased. In view of the continuing demand for  $\leq$ E10, EPA expects that many retailers will continue to make  $\leq$ E10 available. Also, as noted above, retail stations that decide to sell E15 will need to address the compatibility of fuel dispensers and underground storage tank systems with E15, which could affect the pace of E15's entry into the marketplace. According to some commenters, gasoline producers may need to change fuel formulations to accommodate the use of E15, which could further impact the availability and cost of E15 relative to  $\leq$ E10. In short, many factors affect the timing and extent of the availability of E15 and any impact on the continued availability of  $\leq$ E10. At this time, EPA cannot forecast how decisions will be made by the various industries involved and is not in a position to evaluate either the detailed scope of any future issues concerning availability of  $\leq$ E10 or the appropriate regulatory response.

Commenters and petitioners stated that EPA has the legal authority under Clean Air Act section 211(c) to require the availability of  $\leq$ E10. Under section 211(c), EPA may 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. However, to require  $\leq$ E10 availability, EPA would need to conduct a number of analyses, including of the costs, small business impacts, and environmental and other benefits of such a requirement. CAA section 211(c), the Regulatory Flexibility Act, and various Executive Orders pertaining to rulemaking call for

analysis of various factors before proposing and adopting regulations such as a fuel availability requirement under section 211(c). Petitioners requested that EPA require that  $\leq$ E10 be made available at any retail gasoline station that offers gasoline containing greater than 10 vol% ethanol. However, petitioners provided no quantitative or qualitative data necessary to analyze the important issues that are relevant for establishing this kind of requirement. For example, petitioners did not show that the requirement is necessary to avoid misfueling based on an analysis of a reasonable projection of the future volumes and marketing patterns of E15 and  $\leq$ E10 fuels in the future. Petitioners also provided no information on how the costs of such a requirement would compare to the benefits, under the same volume and marketing projections. Without such information, the Agency cannot justify placing potentially costly requirements on small businesses (e.g., the thousands of independently owned and operated gasoline retail stations) or require that the fuel distribution system maintains storage capacity for  $\leq$ E10 (e.g., potentially requiring that terminals provide additional tanks to store more blendstocks). Indeed, given the many uncertainties that exist concerning the future availability of E15, E10 and E0, it would be difficult, if not impossible, to conduct the required analyses in a meaningful way at this time.

EPA raises these points not to discount the important issues raised by the petitioners and commenters, but to indicate the kind of analysis that would be needed to evaluate either the suggested regulatory approach or other less comprehensive regulatory requirements, and to highlight the premature nature of taking regulatory action at this time.<sup>24</sup> Until E15 enters the market and further developments take place, much of the information needed to conduct those analyses will be unavailable or difficult to obtain. Better, well-informed decisions can be made

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<sup>24</sup> In addition, EPA notes that there would be serious notice and comment concerns if EPA attempted to adopt any regulatory requirement on availability in this final rule.



by monitoring developments concerning the availability of E15 and  $\leq$ E10 and formulating any EPA response in light of specific developments as they occur over time.<sup>25</sup>

Contrary to petitioners' assertions, the circumstances that led EPA to ensure the availability of unleaded and ULSD fuels are substantially different from those of any transition from E10 to E15. In the case of both the lead phase-down and the ULSD programs, a new fuel was needed to protect the advanced emission controls of new vehicles and engines. The predominant fuels on the market at the time (i.e., leaded gasoline and 500 ppm sulfur diesel fuel) would have damaged those controls, so it was important for EPA to ensure the availability of new fuels that would allow the advanced emission controls to work properly.<sup>26</sup> Here, commenters and petitioners are asking for regulatory assurance that the currently predominant fuel on the market remains available. Because we expect, for the reasons discussed above, that E10 will remain the predominant fuel for some time, and is likely to remain available for a long period of time in response to market demand for the fuel, we do not believe it is appropriate to require the availability of  $\leq$ E10 at this time.

The petitioners also incorrectly assert that the E15 misfueling measures finalized in today's action will supersede the waiver conditions. In fact, as discussed in section IV.G, today's requirements are not a substitute for the waiver conditions, although they should help responsible parties satisfy some of the conditions. Fuel and fuel additive manufacturers must still satisfy all waiver conditions before E15 may be introduced into commerce. This includes

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<sup>25</sup> Given EPA's many statutory responsibilities, we also conclude that it does not make sense to use EPA's limited resources to attempt to develop information or make projections now where much more reliable information will become available over time, nor is it appropriate to undertake a rulemaking now that imposes specific requirements that could well be unnecessary in light of future developments.

<sup>26</sup> For lead phase-down, EPA required the availability of unleaded gasoline to replace leaded gasoline because use of unleaded gasoline was necessary to the proper operation of the catalytic converters equipped on new motor vehicles. With the ULSD program, refiners were required to produce ULSD because it was needed for proper operation of the advanced emission control technologies with which MY2007 and newer diesel engines would be equipped. There was no availability requirement for ULSD, but the rule was designed in such a way to ensure an adequate supply and distribution of ULSD for the new heavy-duty vehicles that would need it.

submitting plans that detail how a fuel or fuel additive manufacturer will ensure that misfueling does not occur. To the extent E10 becomes scarce and would not be reasonably available to consumers, plans submitted under the waiver may be an avenue for addressing the issue. In the future EPA would evaluate that approach as well as any potential regulatory approach under section 211(c).

As discussed above (see section III.F.1), EPA believes that the misfueling mitigation measures included in today's action will appropriately and effectively reduce the potential for misfueling. Those measures include a misfueling prohibition and an E15 label that communicates that prohibition, along with the potential for damage to vehicles and engines not covered by the partial waivers, to consumers. With those measures in place, retailers, distributors, and consumers are expected to obey the law and find fuel that is compatible with their vehicles, engines, and equipment.

For the reasons discussed above, EPA is denying the petition for rulemaking to require that gasoline-ethanol blends containing 10 vol% or less ethanol be made available in the marketplace. 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.

#### **G. Modification of the Complex Model Regulations and VOC Adjustment Rule**

To measure compliance with the RFG and anti-dumping standards, the emissions performance of gasoline is calculated using a model, called the Complex Model, which predicts the emissions level of each regulated pollutant based on the measured values of certain gasoline

properties. Currently, the amount of oxygen that can be used as input to the Complex Model is limited to no more than 4.0 percent by weight (wt%) in gasoline in which the oxygenate is ethanol. This level is equivalent to the maximum amount of oxygen in gasoline containing 10 percent by volume (vol%) ethanol, or E10.<sup>27</sup>

The emissions level as computed by the Complex Model is compared to the baseline emissions for each pollutant, and the percent reduction is then calculated. The RFG standards for VOC, NO<sub>x</sub>, and toxics are stated in terms of percent reductions from the baseline, whereas the antidumping regulations applicable to conventional gasoline generally require no greater emissions than baseline levels. Under the Clean Air Act, baseline emissions must be based on 1990 vehicle technology, not current fleets, nor off-road equipment. For gasoline to be sold in the U.S., it must comply with either the RFG or antidumping standards, as appropriate. Refiners are required to certify that their fuel meets the standards by using the Complex Model. For the RFG areas of Chicago and Milwaukee, RFG that contains 10 vol% ethanol is given an adjustment of the VOC performance standard, resulting in a slightly less stringent requirement.

## 1. Proposed Approach and Consideration of Comments

Because the Act specifies that the emissions performance for RFG is to be measured against a baseline that represents 1990 vehicle technology, we were not able to use current emissions test data on motor vehicles using E15 gasoline as a basis for evaluating appropriate changes to the oxygen input parameter of the Complex Model VOC equation. Instead, we relied on a study conducted in 1994 by Guerrieri *et al.* (Guerrieri/Caffrey study) that examined the

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<sup>27</sup> Because the percent by weight of oxygen in the fuel varies depending on the density of the fuel, the limit in the Complex Model is currently 4.0 wt% to reflect the maximum amount of oxygen associated with E10. In most fuels, however, this quantity is equivalent to 3.5 to 3.7 wt% oxygen.

exhaust emissions from 1990 vehicles using gasoline with ethanol levels varying from 0 to 40 vol%.<sup>28</sup> Based on the study findings, we are reasonably confident that the average VOC emissions for ethanol blends greater than E10 up to and including E15 will be no worse than for E10, for 1990 technology motor vehicles.

This outcome is consistent with our engineering judgment. The study's data showed that on average exhaust hydrocarbon emissions increased from E10 to E12, but then decreased beyond E12. While the study does not provide sufficient data to determine the precise VOC emission effect between E10 and E15, the linear regression results presented in the study indicate a decreasing trend in hydrocarbon emissions with increased ethanol in gasoline. In the NPRM, we therefore proposed to modify the regulations to allow gasoline fuels containing greater than 4.0 wt% oxygen and up to 5.8 wt% oxygen to be certified with the VOC emissions effects modeled the same as if the fuel contained 4.0 wt% oxygen.<sup>29</sup>

Most comments received supported the proposed change to the Complex Model regulations. Some commenters were concerned permeation effects, the representation of NO<sub>x</sub> and toxic emissions by the Complex Model, and whether the Complex Model should be modified to allow increased oxygen levels from all renewable fuels. Two comments also suggested that the VOC adjustment that applies in Chicago and Milwaukee for RFG containing nine to ten percent ethanol should be modified to allow RFG that contains up to 15% ethanol to have the same VOC standard as E10. We discuss these comments in further detail below.

#### a. VOC Emissions from Permeation

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<sup>28</sup> Guerrieri, D., Caffrey, P., and Rao, V., "Investigation into the Vehicle Exhaust Emissions of High Percentage Ethanol Blends," SAE Technical Paper 950777, 1995, doi:10.4271/950777.

<sup>29</sup> The level of 5.8 wt% oxygen is the potential maximum oxygen level associated with E15 due to lighter than average gasoline components. The typical weight of oxygen in E15 is around 5.2%.

One commenter pointed out that with respect to the effect of increased ethanol levels on VOC emissions, the Guerrieri/Caffrey study examined only exhaust VOC emissions. Evaporative VOC emissions were not investigated. The commenter pointed out that permeation emissions are a concern with ethanol, and that the Complex Model should reflect such emissions. The commenter stated, “At a minimum, EPA must conduct permeation testing on relevant fuel system materials to determine how permeation rates vary with ethanol content (i.e. does the rate change between E10 and E15). EPA should then modify the Complex Model to reflect the change in permeation related evaporative emissions from the zero percent ethanol baseline.”

We acknowledge that 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>30</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 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.

#### b. Representation of NO<sub>x</sub> and Toxic Emissions in the Complex Model

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<sup>30</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.

One commenter expressed concern that the Guerrieri/Caffrey study showed that NO<sub>x</sub> emissions on the six vehicles tested increased with increasing levels of ethanol. The commenter suggested that we therefore should modify the equations of the Complex Model to account for such increases in NO<sub>x</sub>.

The NO<sub>x</sub> emission 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 80.41(e)(2)(i) for RFG; and 40 CFR 80.101(c)(3)(i) for CG). This is the case for all refiners as of January 1, 2011 (see 40 CFR 80.41(e)(2)(ii) for RFG; and 40 CFR 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 in modifying the Complex Model regulations to account for additional NO<sub>x</sub> emissions that may be associated with E15.

The same commenter also raised concern over our approach to air toxics. Specifically, in the NPRM, we stated that we would not need to modify the air toxics standard of 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 40 CFR 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 or are expected to produce RFG. Thus, there is no need to revise the toxics performance standard of the Complex Model.

The commenter recommended that EPA revise the toxics standards of the Complex Model to account for E15, and maintained that even if there are currently no small refiners producing RFG, EPA cannot preclude the possibility that they may do so in the future. However, to make the relevant change to the Complex Model would be a major undertaking and 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.

c. Adequacy of the Guerrieri/Caffrey Study to Justify Modification of the Complex Model Regulations

One commenter stated that the Guerrieri/Caffrey study that we used to document the effects of increased levels of ethanol on exhaust VOC emissions is inadequate. The commenter contended that the Guerrieri/Caffrey study used six vehicles, whereas the original study used to develop the Complex Model was based on 19 vehicles. In addition, the commenter points out that the gasoline for the Guerrieri/Caffrey study is not representative of the gasoline that is now

sold, since neither the low sulfur gasoline rule nor the MSAT2 rule was in effect at that time.

With regards to the gasoline used in the Guerrieri/Caffrey study not being representative, 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.

Notwithstanding the relatively few vehicles tested, the Guerrieri/Caffrey study provides data that 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.

#### d. Representation of Other Renewable Fuels and Fuel Additives in the Complex Model

We proposed modifying the Complex Model only for the increased level of oxygen associated with E15. Two commenters suggested that the modification not be limited only to ethanol but to all renewable fuels and fuel additives that supply oxygen up to the new 5.8 wt% level. 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 wt% to 5.8 wt% 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 up to 5.8 wt%) only to ethanol for purposes of modifications to the Complex Model regulations. We will therefore modify the regulations to allow the Complex Model to be run for fuels containing oxygen levels up to 5.8 wt% from any oxygenate. However, it should be noted that this change to the Complex Model regulations has no effect on any other restrictions applicable to such fuels. For example, this modification to the Complex Model regulations does not relieve any party from the substantially similar prohibition in section 211(f)(4) of the Clean Air Act or the need, in appropriate circumstances, to receive a waiver of this prohibition.

e. Modification of the VOC Adjustment for RFG in Chicago and Milwaukee

Two commenters pointed out that the regulations for RFG (40 CFR 80.41) currently allow for an adjustment of the VOC performance standard for RFG containing between nine and 10 vol% ethanol in the Chicago and Milwaukee RFG areas. For RFG sold in these areas, the adjustment allows for a slightly lower emission reduction of VOCs as computed by the Complex Model. The amount of this adjustment is equivalent to a decrease in the RVP by approximately 0.3 psi. Since we proposed to allow the Complex Model to accommodate ethanol in RFG up to 15 vol%, one commenter argued that we should also allow such blends to be eligible for the VOC adjustment. The other commenter stated that unlike the 1.0 psi waiver for conventional gasoline, the VOC adjustment for RFG is not a statutory requirement and that “the policy rationale behind the adjusted standard for E-10 applies equally to E-15.” The commenter also stated that not extending the VOC adjustment in Chicago and Milwaukee to E15 would present

additional logistical and financial challenges including the creation and storage of a lower RVP blendstock for splash-blending E15.

The VOC adjustment rule was promulgated in 2001 when RFG had an oxygen content requirement. E10 was typically used in the Chicago and Milwaukee RFG areas, generally resulting in a higher oxygen content in these areas than in other RFG areas. EPA's reasons for adopting the VOC adjustment rule can be found at 66 FR 37164 (July 17, 2001). In essence, at that time, EPA determined that, for purposes of ozone, the higher oxygen levels in E10 led to greater reductions in CO which offset to some extent VOC emissions. EPA reduced the VOC performance standard for E10 consistent with this offset.

Today's rulemaking is limited to consideration of issues associated with the entry of E15 into commerce. EPA is not in a position to reevaluate, and is not reevaluating, whether the VOC adjustment provision for E10 continues to be appropriate. The only issue before EPA in this rulemaking is whether the existing adjusted VOC performance standard for the Chicago and Milwaukee RFG areas should be extended to E15. In addition, it should be noted that section 1504 of the Energy Policy Act of 2005 (EPAct) requires that EPA remove the VOC performance standards for VOC-Control Region 2 that are currently in 40 CFR 80.41, and instead apply the standards in 40 CFR 80.41 for VOC-Control Region 1 for all RFG areas. When EPA implements this EPAct provision, it will consolidate the northern and southern VOC performance standards for RFG, adopting the southern VOC performance standards for all RFG areas. At that point the adjusted VOC performance standard would no longer apply in the Chicago and Milwaukee RFG areas. EPA intends to address this EPAct provision in a future rulemaking. However, EPA is not in a position to make these broad changes to the VOC performance standards in this rulemaking, and is limiting this action to issues associated with the introduction of E15 into commerce.

In that context, EPA believes it is appropriate to extend the current adjusted VOC performance standard to E15. If the adjusted VOC standard is extended and E15 is introduced into these RFG areas, it will likely replace E10. EPA expects that the base blend of gasoline would not change whether it is used to produce E10 or E15 RFG. By replacing E10, E15 RFG would directionally lead to greater reductions in VOC emissions in-use, as E15 produces a slightly lower increase in RVP than E10. In addition, E15 would likely lead to greater reductions in CO compared to E10, because of the increased oxygen content. Extending the adjusted VOC performance standard to E15 would therefore likely lead to somewhat greater reductions in VOCs and CO than would occur if the adjusted VOC standard is not extended to E15. This increase in emissions reductions is consistent with the provisions of Clean Air Act §211(k)(1)(A), and starts to move at least directionally in a manner consistent with the EPA Act provision. As such, it is appropriate at this time to make the narrow revision of extending the adjusted VOC standard to E15.

## 2. Final Approach Concerning the Complex Model and the VOC Adjustment Rule

For the reasons discussed above, EPA is revising the Complex Model regulations generally as proposed. The equations in the Complex Model relating to NO<sub>x</sub> and toxics will not be changed. The Complex Model regulations will be modified to specify use in the model equations of a 4.0 wt% oxygen content for fuels with actual oxygen content greater than 4.0 wt% and up to 5.8 wt%. Thus, the VOC emissions performance for these fuels shall be evaluated as if the oxygen content were 4.0 wt% oxygen. Today's rule also modifies 40 CFR 80.41 so that the VOC adjustment in effect for Chicago and Milwaukee will apply to RFG with ethanol content

between nine and 15 vol%.

## **H. Federalism Issues**

In the NPRM, we discussed the potential federalism issues that the proposed rule might raise. We noted that the proposed mitigation measures were based on the authority in CAA section 211(c) as well as the recordkeeping and information collection authorities of the Act. In that context, we specifically discussed section 211(c)(4)(A), which 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). We explained that this prohibition does not apply to controls that are identical to prohibitions or controls adopted by EPA (section 211(c)(4)(A)(ii)) or to California (section 211(c)(4)(B)). We also noted that a state may adopt non-identical fuel control measures upon a showing of necessity under section 211(c)(4)(C).

In light of these CAA provisions, we indicated that we were not aware of any state rules or laws that would be preempted by the proposed rule if adopted. We explained that, to our knowledge, states have not controlled ethanol volumes in gasoline for purposes of motor vehicle emissions control. We also stated that the proposed rule, if adopted, would not require states to change their existing labels.

We received a comment from a state agency agreeing with our explanation of the scope and effect of the federal preemption provisions of CAA section 211(c) and noting the importance

of state regulation of fuel as allowed under the Act. Several commenters, however, expressed concern about the potential for state fuel regulations to create a patchwork of requirements, and urged EPA to clarify that state laws cannot conflict with or undermine any of EPA's control measures. In particular, these commenters stated that EPA should specifically prohibit states from undermining the effectiveness of the EPA warning label through requiring conflicting or distracting ethanol labels.

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 the express preemption of certain state actions that prescribe or enforce controls or prohibitions respecting ethanol content in gasoline, under section 211(c)(4)(A). Thus, 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, 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." Further, states, other than California, may prescribe and enforce non-identical measures if they seek and obtain EPA approval of State Implementation Plan revisions containing such control measures, under section 211(c)(4)(C).

Additionally, aside from the express preemption in section 211(c)(4)(A), a state control for fuels or fuel additives may be implicitly preempted under the supremacy clause of the U.S. Constitution 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 the federal objectives. A state standard respecting ethanol content that is not subject to the express exemption provisions of section 211(c)(4)(A) nevertheless may be preempted because it meets the criteria for conflict preemption.

In light of the relevant statutory and constitutional provisions, EPA believes that questions regarding preemption of specific state fuel regulations should be addressed on a case-specific basis. Generally speaking, state requirements related to ethanol can co-exist with the misfueling mitigation provisions of today's rule, including, for example, the requirement for the specified E15 pump label, where the state requirements are not "for purposes of motor vehicle emission control" and do not conflict or undermine the effectiveness of the federal misfueling mitigation measures.

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

##### **A. Cost of Compliance**

We calculated the proposed cost of compliance based on the periodic capital costs of labeling fuel dispensers, the onetime costs of the PTD requirements, and the annual cost of the survey requirements. The cost of the proposed labeling requirements was estimated at \$1.04 million per year on an annualized basis. This estimate was conservative (tends to overestimate costs) as it was based on a label being placed on all pumps at all stations. Since we are requiring only labels at E15 pumps and we did not receive information indicating that our cost estimate for labeling was low, we are using the same estimate for the cost of the labeling requirement for the final rule.

Our estimate for the cost of the proposed PTD requirements in the NPRM was \$0.56 million per year. We did not receive comments to the contrary. We have revised this estimate to \$0.45 million per year. The revised estimate is based on a one-time cost of \$4.1 million to

regulated parties to modify the formatting of their existing PTDs to accommodate the new information which will be required as a result of the rule. After the one-time modification of PTD formatting is complete, we believe that there would be no significant additional costs associated with communicating the additional information required by today's rule to downstream parties in the distribution system (either in electronic or paper form). By amortizing the one-time reformatting costs over a period of 15 years at a 7% cost of capital, we arrive at an annualized cost of \$450,000 for the PTD requirements.

We estimated the cost to implement the proposed survey provisions for conventional gasoline at \$2 million per year and the cost of adding the proposed survey requirements to the existing RFG survey at \$50,000 per year. We also estimated that the cost of RVP testing of the samples would be \$200,000 per year. One commenter stated that EPA underestimated survey costs because the proposed requirement for same-day shipping would increase costs by as much as \$1 million per year. For the final rule, we have removed the requirement for expedited shipping, so the basis for the commenter's concern is no longer applicable. Since in the final rule we are requiring RVP testing only of samples labeled as E15, we estimate that no more than \$100,000 will be necessary to complete such testing. Thus, the total cost of the final survey requirements is estimated to be \$2.15 million per year.

The total estimated cost of all the requirements is \$3.64 million per year, slightly lower than the \$3.75 million we estimated in the NPRM. We stated in the NPRM that the misfueling mitigation measures would reduce the potential for misfueling and consequent emission increases and repairs to nonroad products and MY2000 and older motor vehicles. We also stated that while there are no data to estimate the frequency at which emission increases and repairs or other potential complications might occur with misfueling in the absence of today's rule, even if

these consequences were avoided for only a tiny fraction of vehicles and equipment not covered by the partial waivers (as opposed to actions taken independently by industry in response to conditions on the partial waiver), the savings would still far exceed the costs of compliance. In reaching this view, we considered the avoided costs of repairing or replacing catalysts, although the costs of other repairs and emission increases might also be avoided. We expected that emissions-related consequences would occur with enough frequency that the benefits of the proposed rule's requirements would clearly outweigh the relatively low costs. See 75 FR 68044, 68058, 081 (Nov. 4, 2010). During the public comment period for the proposed rule, additional information that might be useful to estimating costs or benefits was not submitted and did not otherwise become available. As a result, we continue to expect that the benefits of today's final rule will significantly outweigh the rule's low costs.

One commenter stated that our analysis failed to consider the cost for controlling the additional emissions from E15 at service stations, as well as the potential impacts to ground water and the associated costs of upgrading underground storage tank systems and the dispensers that deliver the fuel to the motor vehicle. The commenter argued that EPA must consider and include the costs associated with installing equipment to protect ground water and the air from releases and emissions due to any incompatibility of USTs and Stage I vapor recovery equipment with E15. Specifically, the commenter stated that dispensing E15 using Stage I and Stage II vapor recovery equipment at retail gasoline stations could result in increased emissions, and noted that currently no Stage I or Stage II equipment are listed as approved for fuels beyond E10. Also, the commenter stated that EPA had not considered the potential impacts to ground water presumably from leakage of underground storage tanks in the event of E15 incompatibility. The commenter, citing the results of the DOE's National Renewable Energy Laboratory (NREL)



report of November 12, 2010, stated that there are significant operational or material incompatibilities between legacy equipment and E15. The commenter asserted that the cost to replace a dispenser or an underground storage tank that may leak and release product to the ground water should also be included.

It is important to recognize that the cost impacts we are evaluating for the final rule are the costs associated with implementing the regulatory requirements established by the rule. These regulatory requirements will apply only to the extent fuel providers decide to make and sell E15. Neither the partial waivers nor today's rule require that E15 be made or sold. Therefore, while some retail stations may need to make upgrades in order to sell E15, the cost of making any upgrades is not attributable to any regulatory requirement adopted in this rule. If equipment upgrades are made as needed to dispense E15, it will be because retailers decide to sell E15, not because of a requirement to do so. We have therefore estimated the costs of implementing the requirements adopted by this rule for labeling, PTDs and surveys. While the commenter provided no information on costs of potential equipment upgrades, we recognize that there may be additional costs like those noted by the commenter associated with distributing and selling E15. However, those costs are not relevant to an evaluation of the costs of the requirements adopted in this rulemaking.

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

EPA proposed that CAA section 211(h)(4) should be interpreted “as limiting the 1.0 psi waiver [that the section provides] to gasoline-ethanol blends that contain 10 vol% ethanol, including limiting the provision concerning ‘deemed to be in full compliance’ to the same 10

vol% gasoline-ethanol blends.” 75 FR 68061. We explained that EPA implements CAA section 211(h)(4) through 40 CFR §80.27(d), which provides that gasoline-ethanol blends that contain at least 9 vol% ethanol and not more than 10 vol% ethanol qualify for the 1.0 psi waiver of the applicable RVP standard. We requested comment on whether section 211(h) could be interpreted such that E15 would also be eligible for the RVP provisions in section 211(h)(4). 75 FR 68081.

We received several comments arguing that section 211(h)(4) should be read to apply to E15 and urging the Agency to amend the relevant regulations to reflect this reading. Commenters argued that reading section 211(h)(4) to extend the 1 psi waiver to E15 is consistent with EPA’s fuel volatility rulemakings and the provision’s legislative history and intent. Commenters pointed to the Agency’s 1987 RVP rulemaking for support, noting that the Agency allowed blends containing gasoline and a minimum of 10% ethanol to exceed the RVP limits by 1 psi (see 52 FR 31305 (August 19, 1987)) and that Congress codified this approach in section 211(h)(4). The commenters argued that a later EPA rulemaking allowing a range of gasoline-ethanol blends (i.e. gasoline ethanol blends that contain at least 9 vol% and no more than 10 vol% ethanol) instead of simply requiring exactly 10 vol% ethanol was an indication of EPA’s discretion in interpreting section 211(h)(4). They also argued that EPA could reasonably interpret section 211(h)(4) as applying to E15. One commenter further argued that E15 meets the terms of the 1 psi waiver for 10 vol% blends because it contains gasoline and the minimum 10 vol% ethanol. Another commenter contended that section 211(h)(4) could be interpreted to provide authority for extending the 1 psi waiver to low to mid-level gasoline-ethanol blends that have received a waiver under section 211(f)(4). Finally, commenters mentioned that E15 would have a similar (if not slightly lower) RVP to E10 and would not exceed applicable RVP limits if

the 1 psi waiver is applied. One commenter suggested further that the deemed to comply provision found in section 211(h)(4) of the Act does not tie the compliance of gasoline-ethanol blends directly to ethanol content. The commenter argued that the primary limitation on applying the 1 psi waiver would likely be actions that increase RVP not hard percentage limits on ethanol content, and since E15 would have similar if not lower RVP than E10, then E15 should receive the 1 psi waiver.

We also received several comments supporting our proposed interpretation. In today's rule, we are confirming our view that section 211(h)(4) limits the 1 psi waiver to fuel blends containing gasoline and 9-10 vol% ethanol, including limiting the provision concerning "deemed to be in full compliance" to the same 9-10 vol% gasoline-ethanol blends.

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. RVP is the most common measure of gasoline volatility under ambient conditions. In 1989, EPA began reducing gasoline volatility by limiting its RVP. We provided an interim RVP level that was 1 psi higher "for gasoline-ethanol blends commonly known as gasohol." 54 FR 11868, 11879 (March 22, 1989). In 1990, we promulgated additional RVP regulations that continued to provide a 1.0 psi RVP allowance for E10 so as not to 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, 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 than the RVP standard otherwise established in section 211(h). This is referred to as the 1 psi waiver. “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).” 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 be in full compliance” or the “deemed to comply” provision.

Following 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.

In the Energy Policy Act of 2005 (EPAAct), 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) for air quality reasons. “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 [sold] in the area during the high ozone season.” Section 211(h)(5).

The legislative history of the 1 psi waiver provision shows that it is for fuel blends containing gasoline and 10 percent ethanol. 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. Congress also intended for this provision to remove the possibility that ethanol blends would be used to circumvent the gasoline volatility

restrictions. In 1987, prior to adoption of the 1990 Amendments, Congress considered a legislative provision that was identical in relevant part to section 211(h)(4). The legislative history of this provision shows that Congress based the 1 psi waiver on technical data indicating that blending gasoline with ethanol so that it contains 9-10 vol% ethanol results in an approximate 1 psi RVP increase. 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 psi waiver only applies to gasoline blends containing 9-10 vol% ethanol.

In the 1991 rulemaking EPA also interpreted the deemed to comply provision in section 211(h)(4) as establishing an alternative compliance mechanism closely tied to the 1 psi waiver. It was interpreted as a conditional defense against liability for those parties who blend ethanol into gasoline to achieve 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% by volume. This is consistent with the text and legislative history of section 211(h)(4) and (h)(5).

As noted above, in 1987 Congress considered a bill containing language identical in relevant part to 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 psi waiver for ethanol blends, but conditioned this waiver on the final blend being tested for RVP. The deemed to comply provision was Congress' response to concerns that this was an impractical and overly burdensome way to implement a 1 psi waiver for 10% gasohol. The Senate bill describes the deemed to comply provision as an alternative enforcement arrangement that simplified compliance with the 1 psi waiver. Thus, the deemed to comply provision is tied to the 1 psi waiver, and is designed to provide blenders the practical benefits of the 1 psi RVP waiver. It is

not intended as a separate authorization for a relaxed RVP limit independent of the provision for a 1 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 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 psi waiver for 9-10% blends of ethanol. Its reference to section 211(f)(4) is an indication that Congress was well aware of the existing section 211(f)(4) waiver conditions for 10 % ethanol by volume. It refers to the ethanol blend not exceeding its section 211(f)(4) waiver conditions, and does not explicitly refer to 10% ethanol, but the condition of “not exceed[ing]” 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. Such a broad reading would make the 1 psi waiver for 9-10% blends meaningless. 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 psi waiver provision are each given consistent meaning by limiting the deemed to comply provision to a subset of lawful ethanol blends. The text of these provisions and their 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 1 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). This 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 that the relaxed RVP limit in section 211(h)(4) could increase emissions that contribute to air pollution, and provides States with an appropriate solution. When a State notifies EPA that the RVP limit under section 211(h)(4) is contributing to 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 emissions increases stemming from the relaxed RVP provisions in section 211(h)(4), not a partial solution. If the deemed to comply provision is read as applying to ethanol blends above or below 9-10% ethanol, however, this provision would provide no relief for emissions from various ethanol blends different from 9-10% ethanol, including E15. There is no indication Congress intended such a partial and inconsistent solution. Both the text and legislative history of this provision 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 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 in a way that harmonizes them and provides significance and a balanced meaning to each of them. EPA believes that this is reasonably done by viewing the 1 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 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 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.

Some commenters argued that section 211(h) should be interpreted such that E15 is eligible for the 1 psi waiver in section 211(h)(4), and that under section 211(h)(4) the 1 psi waiver applies to fuels that contain a minimum of 10% ethanol, while section 211(f)(4) sets the maximum ethanol content under the deemed to comply provision. None of the commenters discussed section 211(h)(5) or explained how their respective interpretations would interact with

section 211(h)(5). For the reasons discussed above, EPA does not agree with the commenters' arguments. For a full discussion of the comments and EPA's response, see the Response to Comments document, which is in the docket for this rulemaking.

### **C. RVP and E15 Underground Storage Tank Transition**

In the NPRM, we pointed out the potential problems that could occur if a higher RVP E10 fuel (i.e., E10 fuel that took advantage of the statutory 1.0 psi RVP waiver) is commingled in underground storage tanks with a lower RVP E15 fuel (i.e., E15 fuel that met the summertime conventional gasoline RVP standard without the 1.0 psi RVP increase, since the statutory 1.0 psi RVP waiver is not applicable to E15, and that also complied with the condition of the partial waivers limiting the summertime volatility of E15 to 9 psi). Commingling of these fuels would typically be an issue when a retail station decides to transition from selling E10 to E15, or E15 to E10, during the summertime ozone season. In these circumstances, if the retail station does not completely remove all E10 from a tank before E15 is added to the tank (or E15 before E10 is added), the gasoline fuel remaining in the dispensing station tank would likely violate the applicable RVP standards as well as the 9 psi RVP condition of the E15 partial waivers. For example, if a quantity of E10 at 10.0 psi RVP is blended with a quantity of E15 at 9.0 psi RVP, the resulting blend would have an ethanol content somewhere above 10 vol% (but below 15 vol%). The resulting blend would also have an RVP above 9.0 psi. Since the blend is above 10 vol% ethanol, it would not qualify for the 1.0 psi waiver. It would also be subject to the 9 psi RVP condition of the partial waivers, since the waivers cover any gasoline-ethanol blend above 10 vol% ethanol up to 15 vol% ethanol. In this way, commingling would likely result in fuel that

does not comply with applicable RVP limits or the RVP condition of the partial waivers.

As mentioned in the NPRM, section 211(t) of the Clean Air Act, adopted in the Energy Policy Act of 2005, allows retail stations to blend compliant reformulated gasoline batches of non-ethanol blended and ethanol-blended gasoline in storage tanks twice a year as long as the duration of the blending period is no longer than 10 consecutive calendar days. However, the authority granted to the Agency for the transition of fuels in underground storage tanks was specifically limited to the case of reformulated gasoline, and this provision does not authorize a change in the RVP standards for blending down of E10 and E15 over time in non-reformulated gasoline areas. We sought comment on the issue of tank transition between E10 and E15 fuels and ways that the Agency could address this issue so that tank transition might be more easily accomplished.

A related issue is whether to specifically disallow the commingling of E10 and E15 or of blendstocks produced specifically for blending E10 and E15. In the NPRM we proposed a specific regulation that would prohibit combining “any base gasoline or conventional blendstock for oxygenate blending intended for blending with E10 that took advantage of the 1 psi waiver applicable for 9-10 volume percent gasoline-ethanol blends with any gasoline or conventional blendstock for oxygenate blending intended for blending with E15, unless the resultant combination is designated, in its entirety, as an E10 blendstock for oxygenate blending”. Additionally, we proposed to prohibit combining “any gasoline-ethanol blend containing E10 that took advantage of the 1 psi waiver applicable to 9-10 volume percent gasoline-ethanol blends, with any gasoline containing E0 or any gasoline blend containing E15”. (75 FR 68089, November 4, 2010). Such a prohibition would aid in preventing mixing that would result in gasoline in dispensing tanks that does not comply with the RVP standards due to tank transitions

as described above.

Regarding tank transition in reformulated gasoline areas and a possible commingling prohibition, one commenter stated that it opposed a specific commingling prohibition because existing rules already prohibit application of the 1 psi RVP waiver to other than E10 and any tank transition from E10 to E15 would likely happen only once. The commenter further stated that if such a prohibition is necessary, it should apply only in summer months. Other commenters also opposed a commingling prohibition and generally stated that such a prohibition would create unnecessary difficulties in introducing E15 into commerce.

As explained above, the 1.0 psi RVP waiver for conventional gasoline applies only to E10 blends, and it is already a violation of RVP standards to have an RVP higher than the standards for fuels not qualifying for the 1.0 psi RVP exemption, such as E15. Furthermore, it is correct that any prohibition against commingling, like the current RVP limitations, would apply only during the summertime ozone season. We also recognize that current regulatory requirements make it a violation to have higher RVP than allowed when commingling E10 and E15 in retail tanks. However, we believe that specific commingling regulations can provide additional, useful directions and incentive not to blend E10 and E15 in a way that would produce summertime conventional gasoline that violates the applicable RVP standard (and the 9 psi RVP limitation of the partial waivers). The prohibition against combining gasoline or blendstocks for E10 and E15 production prior to blending makes it clear that such blending will result in a blendstock that will in turn result in an unlawful gasoline (unless it is only used to make E10). In addition, the prohibition against commingling of E15 with E10 blends, which would likely occur in a dispensing tank, will help prevent unintended commingling of the two blends in dispensing tanks. Regarding summertime transitions, the additional prohibition makes it clear that

commingling these types of fuel without one or the other fuel being completely drawn down in the tank is, in fact, prohibited. We are therefore adopting the commingling prohibitions as proposed. The PTDs described elsewhere in today's final rule will help ensure that parties in the distribution chain are adequately aware of the fuel they are distributing and loading into underground dispensing tanks and will clearly aid parties in avoiding violations.

Comments were received supporting the idea that relief should be granted to retail stations transitioning between E10 and E15. However, the only specific suggestion received was to apply the statutory 1 psi RVP waiver to E15. As discussed above, EPA interprets the relevant provisions of the Clean Air Act as authorizing the 1 psi RVP waiver only for gasoline-ethanol blends containing 9-10 vol% ethanol. In addition, we note that over the past several years most dispensing facilities with underground tanks have transitioned from E0 to E10 without significant difficulties. Transitioning tanks between E0 and E10 presents the same practical challenges as transitioning between E10 and E15 in terms of RVP compliance issues. Transitions between E0 and E10 have typically been accomplished by making the transition during the wintertime when the RVP compliance issue is not relevant, or during the summertime by drawing down the tank to effectively empty the tank prior to introducing the new fuel. These strategies should also be effective for transitioning to E15. For all of these reasons, we are not adopting any specific regulatory program for providing relief to retail stations in transitioning from E10 to E15.

#### **D. Credit for RFG Downstream Oxygenate Blending**

As stated in the NPRM, refiners (or importers) of reformulated blendstock for oxygenate

blending (RBOB) are permitted to take credit for downstream oxygenate blending when complying with RFG standards if certain conditions are met. 40 CFR 80.69. To do so, the refiner's or importer's RBOB must be accompanied by a PTD that specifies the type and amount of oxygenate that must be added. In addition, the refiner or importer must have direct oversight of the addition of the oxygenate or, in the alternative, a survey of all RFG areas supplied by the refiner(s) or importer(s) must be performed to show that the requisite amount of oxygenate is added as specified by the PTD. In either case, EPA requested comment regarding how credit for RFG downstream oxygenate blending should be dealt with in light of the potential introduction of E15 into the RFG marketplace.

One commenter noted that PTDs and surveys should be sufficient to ensure that the requisite amount of oxygenate is added downstream so that the refiner can claim credit for the oxygenate addition when producing RBOB for RFG production.

As pointed out above, the regulations at 40 CFR 80.69 already allow credit for RFG downstream oxygenate blending through either direct oversight or an oxygenate survey for RFG areas utilizing a specific amount and type of oxygenate for blending purposes. Both of these approaches can accommodate blending of E15 if such blending were to be utilized in adding oxygenate downstream to produce RFG. Importantly, when utilizing either of these approaches, the refiner or importer must specify in the PTD for the RBOB the type and amount of oxygenate that must be added, such that the oxygenate addition will produce RFG that meets applicable standards (such as benzene and VOC) that “formed the basis for the refiner's or importer's compliance determination for these parameters.”<sup>31</sup> This would mean, for example, that if a refiner or importer wants to take credit for downstream blending of E15, they must either directly supervise the addition of E15 to their RBOB or conduct an appropriate survey to show that E15

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<sup>31</sup> 40 CFR 80.69(a)(10).

has been added as directed in the PTD. Therefore, considering existing requirements such as direct oversight, surveys, and PTDs, we conclude that no regulatory change is needed regarding credit for RFG downstream oxygenate blending.

## **E. Compliance, Enforcement and Warranty**

We proposed liability and penalty provisions for the proposed misfueling mitigation measures similar to the liability and penalty provisions found in other EPA fuels regulations. Many commenters raised issues concerning liability for violations of the proposed misfueling mitigation measures and other potential consequences of the use of, or transition to, E15. According to a number of commenters, fuel providers are unlikely to sell E15 until a variety of different liability issues are resolved. Although EPA is not in a position to address all of the liability issues raised by commenters, in this section we address those within our jurisdiction and clarify the responsibilities of various parties, including fuel producers, distributors, retailers, product manufacturers and consumers, for compliance with Agency misfueling prohibitions and CAA vehicle and engine warranty and other requirements under the Act.

In general, we believe the long-standing approach of EPA's fuels programs and vehicle, engine, and equipment emissions warranty regulations to assigning respective responsibilities for compliance with our regulations is also appropriate for E15. We expect the required label and other misfueling mitigation measures, as reinforced by a public outreach campaign, will minimize consumer use of E15 in vehicles, engines, and products not covered by the partial waiver decisions. The misfueling mitigation program should in turn minimize any liability that might arise under the CAA or our regulations regarding misfueling with E15.

With regard to other transition issues within EPA's jurisdiction, we are continuing to make progress in developing guidance for determining whether existing underground storage tank systems are compatible for storing E15. We also plan to work with stakeholders to monitor and facilitate efforts to address other transition issues involving state, local and other requirements.

#### 1. Proposed Approach

In the NPRM, we proposed specific prohibited acts for general misfueling mitigation purposes related to the distribution, sale, and use of gasoline containing greater than 10 vol% ethanol. We also proposed related liability and penalty provisions for noncompliance with the proposed prohibited acts. These proposed liability and penalty provisions included presumptive liability for parties in the fuel distribution system (consistent with presumptive liability provisions of other EPA fuels programs), affirmative defenses for liable parties, and penalties for violations.

With respect to prohibited acts, we proposed that all fuel providers (producers, manufacturers, distributors, wholesale purchaser-consumers, and retailers) would be prohibited from selling, introducing into commerce, or causing or allowing the sale or introduction into commerce of gasoline containing greater than 10 vol% ethanol into MY2000 and older light-duty motor vehicles, any heavy-duty gasoline vehicle, any motorcycle and all types of nonroad equipment. In addition, we proposed that fuel distributors who transport or store gasoline-ethanol blends, gasoline or blendstock for ethanol blending would be prohibited from increasing the ethanol content to exceed the value noted on the PTD. We also proposed that retailers and



wholesale purchaser-consumers would be prohibited from dispensing E15 unless they comply with the dispenser labeling requirements. The final labeling and other misfueling mitigation requirements are discussed in section III.A. of this notice.

The liability and penalty provisions discussed in the proposal are similar to the liability and penalty provisions found in other EPA fuel regulations. Specifically, EPA fuels programs generally include a liability scheme for violations of prohibited acts that involves a rebuttable presumption of liability in specified circumstances. Under this approach, liability is imposed on the party in the fuel distribution system that controls the facility where the violation occurred and those parties, typically upstream in the fuel distribution system from the initially listed party, whose prohibited activities could have caused the nonconformity to exist.<sup>32</sup> We emphasized in the proposal that any person who commits a prohibited act, or causes another person to commit a prohibited act, would also be liable for a violation, so most parties in the chain of distribution would be subject to the rebuttable presumption of liability for committing prohibited actions or causing violations by other parties.<sup>33</sup>

The presumptive liability approach for violations of prohibited acts in our fuels programs also includes affirmative defenses to prohibited acts. Generally, affirmative defenses require a demonstration of all of the following: (1) the fuel provider did not commit or cause the violation; (2) the fuel provider has PTDs indicating the fuel was in compliance at its facility; and (3) except for retailers and wholesale purchaser-consumers, the fuel provider conducted a quality assurance program. In the proposal, we stated that if a consumer was liable for introducing gasoline with an ethanol content greater than 10 vol% into a vehicle, engine, or product not covered by the E15

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<sup>32</sup> As noted in the preamble to the proposed rule, an additional type of liability, vicarious liability, is imposed on branded refiners under EPA's fuels programs.

<sup>33</sup> As noted previously in this preamble, consumers are among the parties subject to the prohibition on misfueling with E15.

partial waivers, then a self-service retailer would typically not be held liable for the consumer misfueling if the retailer's dispensers were labeled appropriately and did not condone or facilitate the misfueling.

While the NPRM proposed general misfueling mitigation provisions, it did not specifically address emissions warranties for vehicles, engines, and equipment or the effect of E15 use on the warranties. However, warranties are addressed by other EPA regulations and the effect of E15 use on the warranties is no different than the effect of other legal fuels on the warranties. EPA regulations require emission-related parts to be warranted that they are free from defects in materials and workmanship which cause failure to meet emissions standards and that at the time of sale the vehicles are designed, built, and equipped in compliance with EPA's regulations. (*See* CAA section 207(a).) There is also a performance warranty that applies in certain cases for the short testing conducted by state inspection and maintenance programs. (*See* CAA section 207(b).) The emissions warranty for light-duty motor vehicles is typically two years or 24,000 miles, except for the warranty for emission control computers and catalytic converters, which is eight years or 80,000 miles. Other vehicles and equipment may have warranties of a different duration, or warranties measured in hours of operation. Warranties may be made conditional on the use of a specified fuel as long as it is available, and the condition is appropriately noted in the owner's manual. (*See e.g.* 40 C.F.R. §§ 85.2104, 1068.115). Despite the condition, however, manufacturers may not deny a warranty based on the use of a different fuel if that fuel did not cause the problem for which the warranty claim is made.

## 2. Consideration of Comments

a. Prohibited Acts and Liability Provisions

Commenters suggested that the proposed regulations do not, but should, prohibit intentional misfueling of vehicles with E15. We believe that the proposed regulations did include this prohibition. Specifically, the proposed regulations would prohibit consumer misfueling, whether intentional or not, and we are retaining that provision in today's final rule. Thus, today's final rule prohibits *any* person from introducing or causing the introduction of gasoline containing greater than 10 vol% ethanol into vehicles, engines, and products not covered by the E15 partial waivers, and prohibits causing or allowing the introduction of gasoline containing greater than 10 vol% ethanol into such vehicles, engines, and products.

Concerning retailers' liability, some commenters suggested that where a retailer complies with the E15 labeling requirements, the retailer should be completely immune from liability in the event that misfueling by consumers occurs. Other commenters suggested that proper labeling should shield retailers from liability absent evidence that the retailer encouraged or facilitated the misfueling. In contrast, still other commenters suggested that retailers be required to actively assess if misfueling is in fact occurring at self-serve pumps. We do not believe that retailers should be provided with blanket immunity based on labeling alone. The obligation of a retailer is to not misfuel and to not cause misfueling. Misfueling may occur in or as a result of varied circumstances, making a bright line provision – such as the suggested blanket immunity if dispensers are properly labeled – problematic. For example, proper labeling by a retailer that is located at a marina and that sells fuel almost exclusively for use in boats may not be enough to avoid liability for misfueling of boats with E15. The variety of circumstances in which fueling occurs also do not warrant a blanket requirement of some specific degree of active oversight by

the retailer. We therefore believe that it is appropriate to continue to apply the liability provisions of the misfueling mitigation regulations generally as proposed. The provisions finalized today are substantially the same as the liability provisions of other regulations governing the sale and use of fuels governed by the Act, and we believe that those provisions are effective. Like those regulations, today's final regulations specify which regulated parties can be held liable for infractions of the requirements, and allows assertion of defenses to such liability if a party meets specified conditions. For retailers, as well as other regulated parties, one of those conditions is that the prohibited act was not committed or caused by the party.

Commenters suggested that EPA specify in the regulations that a retailer did not "cause" misfueling at properly labeled pumps if the retailer did not condone or facilitate the misfueling. EPA does not believe that adding such a specification to the regulation is merited, for the reasons discussed above. If a misfueling violation does occur, we will assess all of the circumstances pertaining to the violation to assess whether a defense of lack of causation is valid, and if not, the severity of the violation. EPA will take into consideration all actions taken by the retailer to avoid misfueling. For the reasons discussed in Section III of this notice, today's rule requires that several specific misfueling mitigation measures be implemented and does not require that additional measures be employed at this time. However, retailers may choose to employ a variety of other measures, such as obtaining confirmation that the consumer desires to dispense E15 or equipping pumps that dispense only E15 with a distinctly colored nozzle hand warmer, as they consider appropriate for their circumstances. A party does not need to employ such measures in order to establish an affirmative defense to a presumption of liability, but EPA will consider any additional measures that a party has taken in assessing all of the circumstances that pertain to a violation.

Similarly, commenters also suggested that where a branded supplier of E15 complies with the labeling and other provisions, and has implemented a program notifying its retailers of the requirements of the law, it should be immune from liability if misfueling does occur. Based on EPA's experience with other fuels programs, EPA does not believe that merely notifying retailers about the requirements should immunize branded suppliers from liability for violations at retailers. As a result, EPA is not changing those defenses in the rule promulgated today. However, for a misfueling violation by a consumer at a branded retailer, EPA will consider all of the circumstances pertaining to the violation to assess whether a branded refiner's defense of lack of causation is valid, and if not, the severity of the violation.

#### b. Emissions Warranty Issues for Vehicles, Engines, and Equipment

Commenters expressed concern that motor vehicle manufacturers might void the emissions warranty of motor vehicles based on use of E15 and/ or that warranty claims will increase in number as a result of E15 use. Based on the test data and analysis on which the E15 partial waivers were based, EPA believes that voiding a warranty claim will occur infrequently if at all for MY2001 and newer light-duty vehicles (i.e., those for which the E15 partial waivers allow E15 to be sold for use) fueled with E15. For light-duty and other motor vehicles not covered by the partial waivers, EPA notes that to avoid honoring an emissions warranty, a manufacturer must not only condition the warranty on use of a fuel other than E15, it must also must show that use of E15 was relevant to the reason that the motor vehicle failed emissions testing. EPA regulations for nonroad equipment impose similar conditions on voiding warranties for nonroad equipment. In light of the misfueling prohibition and labeling requirements adopted

in today's rule, we expect that consumers will have both the information and incentive they need to avoid misfueling with E15 and any damage to emission controls that misfueling could cause.

Commenters also stated that imposing a burden on manufacturers to show that E15 was the cause of a failure is unfair, and that manufacturers will be required to report more defects to EPA. Manufacturers currently make such determinations under the warranty provisions, as well as the defect reporting provisions (see 40 CFR §§ 85.1901 *et. seq.*, 1068.501). As with other emissions warranty related circumstances, manufacturers are in the best position to investigate and determine the cause of defects and emissions failures of their vehicles or equipment, and they are best equipped to make determinations regarding whether a warranty should be honored. We are interested in learning about any defects, or investigations of defects that are required to be reported, including those involving defects that may be related to use of E15, including misfueling with E15. However, we note that EPA will only order a recall based on a determination that a substantial number of vehicles would fail to meet their emissions standards when the motor vehicle is properly maintained and used (see *e.g.* 40 CFR § 85.1802(a)).

#### c. Other Issues Outside of CAA Jurisdiction

Commenters expressed concern that consumers will make monetary claims against E15 retailers for damage to their vehicles or equipment related to E15 use. They asked that EPA indemnify retailers against such claims. As noted above, EPA does not believe that such damage will occur when E15 is properly used. In addition, the provisions adopted today provide a strong incentive for all parties, including consumers, to avoid misfueling. We also plan to work with stakeholders on an outreach effort, which should further limit misfueling incidences. However,

we have no authority to, and do not intend to, address issues of liability that might be raised in litigation between private parties. EPA is only addressing issues relevant to its exercise of authority under the Clean Air Act. It is also worth noting that fuel providers are not required to make or offer E15 and do so of their own choosing.

Commenters expressed concern that E15 misfueling could result in personal injury to consumers, leading to safety recalls by other federal agencies, among other things. They also suggested that EPA should address materials compatibility and safety issues regarding E15 and dispensing equipment and storage tanks. Other agencies act under their own authorities, and EPA is not in a position to address in this rule actions that may or may not be taken by other agencies in the future. As noted previously, EPA is developing final guidance for determining the compatibility of existing underground storage tanks with E15. The issues of materials compatibility and safety issues regarding dispensing equipment are addressed by state and/or local requirements.

### 3. Final Requirements

With respect to compliance and enforcement associated with prohibited acts to mitigate misfueling, today's final rule includes liability requirements that are consistent with the liability requirements of other EPA fuels programs – retailers and other parties are presumptively liable for consumer misfueling and other violations, but parties are not liable if they can show they did not cause the misfueling. Consumers are also liable for misfueling their own vehicles, engines or products.

Regarding vehicle, engine, and equipment emissions warranties, under EPA warranty

regulations, manufacturers may condition an emissions warranty on the use of a specific fuel but they may not deny a warranty on the use of a different fuel if that fuel did not cause problems.

## **F. Technical Basis for the Rule**

These misfueling mitigation regulations are issued under CAA section 211(c) in order to prevent or minimize the emission increases that would occur if E15 is used in vehicles, engines, and products for which the waiver has been denied, specifically, MY2000 and older motor vehicles and all heavy-duty gasoline engines and vehicles, motorcycles and nonroad products. As described in the NPRM and E15 partial waiver decisions, our assessment of the potential emission consequences of E15 use indicates that the emission-related components of MY2001 and newer light-duty motor vehicles are durable for use on gasoline-ethanol blends up to E15. This conclusion is based on the results of DOE's Catalyst Study and other relevant test programs, as well as the Agency's engineering assessment of advances in motor vehicle technology (primarily control of the air-to-fuel ratio matched with advancements in catalyst formulations) and materials that have taken place in response to a series of important exhaust and evaporative emission requirements since MY2000 and in-use experience with E10. These requirements include the National Low Emission Vehicle and Tier 2 motor vehicle emission standards, Supplemental Federal Test Procedure compliance requirements, in-use durability requirements (required by the Compliance Assurance Program of 2000), enhanced evaporative emission standards, and E10 evaporative durability requirements.

Unlike for MY2001 and newer motor vehicles, there is very little, if any, test data with respect to the effect of E15 use in MY2000 and older light-duty motor vehicles and all heavy-duty



gasoline engines and vehicles, motorcycles, and nonroad products. In addition, our engineering assessment for these vehicles, engines, and products identifies a number of emission-related concerns with the use of E15. For motor vehicles and heavy-duty gasoline engines and vehicles, these concerns include the potential for catalyst deterioration or catalyst failure, as well as materials compatibility issues that could lead to extremely elevated exhaust and evaporative emissions. For motorcycles and nonroad products, the misfueling concerns include the potential for elevated exhaust and evaporative emissions, as well as the potential for emissions impacts related to engine failure from overheating. As motorcycles and nonroad products have not been regulated as long as motor vehicles, and have much more diverse applications, they have not benefitted from the same advancements in technology as motor vehicles and could experience combustion and materials compatibility problems leading to increased emissions if operated on E15.

Based on these concerns, we proposed to prohibit the use of gasoline-ethanol blends greater than 10 vol% in MY2000 and older motor vehicles, and all heavy-duty gasoline engines and vehicles, motorcycles, and nonroad products and invited comment on the prohibition's applicability to those vehicles, engines, and products. While some commenters stated that we should approve E15 for all motor vehicles, those comments pertain to the waiver decisions. We received no comments on our emissions-related technical justification for the proposed misfueling mitigation measures under CAA section 211(c).

It is worth noting that while the labeling requirements covered in Section III apply to E15, the prohibitions discussed in this section apply to all gasoline-ethanol blends greater than 10 vol% (e.g., 20 vol% ethanol). This is consistent with our engineering assessment discussed in the NPRM which was based, in part, on enrichment of the air-to-fuel ratio. Ethanol enriches the

air-to-fuel ratio which leads to increased exhaust gas temperatures and therefore potentially incremental deterioration of emission control hardware and performance over time. This enleanment stems from the fact that ethanol contains oxygen and consequently requires a lower air-to-fuel ratio to achieve the stoichiometric (ideal) mixture for combustion. Vehicles, engines, and equipment designed to operate on gasoline will therefore run leaner when operating on gasoline-ethanol blends. Older motor vehicles, heavy-duty gasoline engines and vehicles, motorcycles, and especially nonroad products cannot fully compensate for the change in the stoichiometric air-to-fuel ratio as ethanol concentration increases. Over time, this enleanment caused by ethanol may lead to thermal degradation of the emissions control hardware and ultimately catalyst failure. Higher ethanol concentration will exacerbate the enleanment effect in these vehicles, engines, and equipment and therefore increase the potential of thermal degradation and risk of catalyst failure. In addition to enleanment, ethanol can cause materials compatibility issues which may lead to other component failure and ultimately exhaust and/or evaporative emission increases. Materials compatibility with ethanol is time, condition (e.g., temperature, pressure), and concentration dependent. Therefore, for older motor vehicles, heavy-duty gasoline engines and vehicles, motorcycles, and nonroad products, the potential for materials compatibility issues increases with higher ethanol concentration. We received no comments that the misfueling prohibition should be narrowed to E15.

It is not possible to precisely quantify the frequency at which these vehicles, engines, and products might experience problems with the use of E15. However, we believe that emission-related problems could potentially occur with enough frequency that the resulting emissions increases that would be avoided by avoiding misfueling would outweigh the relatively low cost imposed by the required misfueling mitigation regulations. The potential emission increases

from misfueling warrant today's action, even if a very low percentage of vehicles, engines, and products experiences problems. As discussed above, the savings that would be achieved by avoiding misfueling also far outweigh the costs of this rule. Therefore, we are finalizing the misfueling mitigation measures we proposed with some refinements to make them more effective and/or less burdensome.

### **G. The Effect of the Rule on the Misfueling Mitigation Conditions of the Partial Waivers**

In the NPRM, the Agency noted that some of the proposed misfueling safeguards parallel the conditions of the partial waiver decisions, and were expected to be a more efficient way to help ensure that the conditions of the waiver were met.<sup>34</sup> One commenter suggested that if the proposed misfueling mitigation measures were adopted, EPA should remove or alter the misfueling mitigation conditions of the partial waivers to avoid placing requirements on industry that would be duplicative and unnecessary. Specifically, the commenter stated that fuel and fuel additive manufacturers should not have to submit plans to EPA that explain how a fuel or fuel additive manufacturer would meet the misfueling mitigation conditions of the partial waivers.

In response to the commenter's suggestion, 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 waiver. The waiver conditions, and implementation of the waiver

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<sup>34</sup> 75 FR 68044, 68046 (November 4, 2010). The partial waiver decisions require that fuel and fuel additive manufacturers (i.e. gasoline producers/importers, ethanol producers/importers, and oxygenate blenders) submit to EPA a plan prior to introduction of E15 into commerce that demonstrates how the fuel or fuel additive manufacturer will implement reasonable measures to ensure that misfueling does not occur in vehicles and engines not approved for use of E15. Reasonable measures to ensure against misfueling include, but are not limited to, fuel pump labeling, proper documentation of ethanol content on PTDs, and the implementation of an ongoing survey program, in addition to any other reasonable measures EPA determines are appropriate. *See* 75 FR 68149-68150.

conditions, address a closely related but different issue – when, how and by whom E15 can be introduced into commerce under the partial waiver decisions. This rule only addresses the issue of mitigating misfueling in the event E15 is lawfully introduced into commerce under the partial waivers, and is issued under EPA’s authority under section 211(c). In this rulemaking EPA did not propose and is not taking any action under section 211(f) 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 waivers, or making any decisions as to whether they have been met. Decisions related to compliance with the conditions on the waivers will be made separate and apart from this rulemaking.

EPA recognizes that one result of today’s rule is that it will likely be easier for parties to show compliance with the misfueling mitigation conditions of the partial waivers. However, today’s rule does not replace or supplant the waiver conditions themselves. The partial waivers allow E15 to be lawfully introduced into commerce for use in MY2001 and newer light-duty motor vehicles if certain conditions are met. Fuel and fuel additive manufacturers that desire to make and sell E15 must do so in compliance with the waivers’ conditions, which include submission of a misfueling mitigation plan that provides, among other things, for E15 pump labels, PTDs indicating ethanol content and an ongoing survey of implementation of E15 content and labeling requirements. Today’s rule will likely simplify compliance with many aspects of the required plan. For example, a fuel or fuel additive manufacturer may decide to reference the labeling and PTD requirements of the rule as part of its plan to meet the counterpart conditions of the waivers. EPA also expects that parties will be able to submit a single survey plan that will meet both the waiver condition as well as the separate regulatory requirements related to the survey adopted in this rule. Since the partial waivers and the rule require that survey plans be

submitted to EPA for approval, EPA expects that compliance with the survey requirements of the waiver conditions and the rule will be accomplished with a single submission and approval process, covering both this rule and the waiver condition.

EPA believes that the misfueling mitigation plans submitted under the partial waivers will be especially useful when E15 is first introduced into the market. For instance, many downstream parties may not be aware of the new requirements that apply to E15 (e.g., E15 pump labeling) early in any transition to E15. The first plans under the partial waivers may thus usefully address how the fuel or fuel additive manufacturer will work with downstream parties to ensure that the misfueling mitigations measures adopted today are properly implemented. Similarly, it may be appropriate for an ethanol manufacturer registered under 40 CFR Part 79 to sell ethanol for use in manufacturing E15 to address in its plan how parties that might use its product to make E15 will be informed of the misfueling mitigation requirements to which those parties would become subject under this rule (e.g., labeling, PTDs) if they make E15. Such parties would include, for example, businesses that blend ethanol into gasoline to produce E15.

## **H. E15 Emissions and Anti-backsliding**

In the NPRM and in the partial waiver decisions, EPA discussed the relationship between the ethanol content of a gasoline-ethanol blended fuel and NO<sub>x</sub> emissions. EPA concluded that, in general, as ethanol concentrations in gasoline increase, so do NO<sub>x</sub> emissions. The Agency received several comments that argued that potential NO<sub>x</sub> emission increases from E15 use would add to the formation of ground-level ozone and potentially adversely affect public health. Additionally, some commenters noted that such NO<sub>x</sub> increases would add to the challenge some

states and cities face in meeting the current national air quality standards for ozone and that EPA should take action to ameliorate potential adverse emissions effects from E15 use. Although such action is outside of the scope of today's rulemaking, the Agency has been performing analysis needed to support the anti-backsliding analysis required under the Energy Independence and Security Act of 2007. We are now in the process of assessing possible control measures to offset the potential increases in ozone and particulate matter that are expected to result from the increased use of renewable fuels required by the Energy Independence and Security Act of 2007 and in response to the May 21, 2010, Presidential Memorandum Regarding Fuel Efficiency Standards. (NO<sub>x</sub> emissions contribute to the formation of both pollutants.) We will incorporate the results of our analysis under this assessment in a proposal on new motor vehicle and fuel control measures.

## **V. Statutory and Executive Order Reviews**

### **A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review**

Under Executive Order 12866 (58 FR 51735, October 4, 1993), this action is a "significant regulatory action." This action may raise novel legal or policy issues. Accordingly, EPA submitted this action to the Office of Management and Budget (OMB) for review under Executive Orders 12866 and 13563 (76 FR 3821, January 21, 2011) and any changes made in response to OMB recommendations have been documented in the docket for this action.

## **B. Paperwork Reduction Act**

This rule contains new information requirements which will be submitted for approval to the Office of Management and Budget (OMB) under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. These information collection requirements are not enforceable until OMB approves them.

This final rule contains information collection provisions that permit a party to apply for approval of an alternative or additional E15 label. We anticipate that this provision will be utilized by some refiners for their branded retailers, as well as by some individual retailers and wholesale purchaser-consumers.

A party may elect to satisfy the survey requirements of this rule individually rather than through using a nationwide survey option (i.e., they may elect “Survey Option 1” as described above in section III.C). In such circumstances, the individual information collection requirements associated with “Survey Option 1” will apply. Parties that may be subject to survey information collection requirements include gasoline refiners, gasoline and ethanol importers, gasoline and ethanol blenders (including terminals and carriers), and ethanol producers.

Under the terms of the E15 partial waiver, fuel and fuel additive manufacturers must submit a written plan to EPA for approval.<sup>35</sup> The plan must include provisions designed to prevent misfueling. The plan must be submitted by all fuel and fuel additive manufacturers, regardless of whether a party elects “Survey Option 1” (individual) or “Survey Option 2” (nationwide). Parties that may be subject to this information collection item may include gasoline refiners, gasoline and ethanol importers, gasoline and ethanol blenders (including

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<sup>35</sup> 75 FR 68094, 68149-68150 (November 4, 2010).

terminals and carriers), and ethanol producers.

This rule contains provisions related to product transfer documents (PTDs). Parties upstream of the retail station or wholesale purchaser-consumer will be required to develop and program new codes and statements for PTDs. These codes will reflect the ethanol content, as well as the Reid Vapor pressure (RVP), as described in section III.B. Parties subject to this one time burden include gasoline refiners, gasoline and ethanol importers, and gasoline and ethanol blenders (including terminals and carriers).

In addition to the one time burden of establishing/programming codes and statements for PTDs, parties will be required to apply the new codes and statements to PTDs as part of the normal course of business. Typically, refiners and wholesale purchaser-consumers who are not acting as blenders merely accept PTDs given to them by upstream parties. The following parties may have the burden of applying codes and statements: gasoline refiners, gasoline and ethanol importers, gasoline and ethanol blenders (including terminals and carriers).

EPA estimates that there will be a total of 6,211 respondents, submitting a total of 44,010,211 responses annually. We estimate an annual total of 37,350 hours for all respondents and responses. The total annual cost of this information collection request is estimated at \$4,102,524.

We estimate that the average annual burden per respondent is six (6) hours and that the average annual cost per respondent is \$661. We estimate an average of .000849 hours per response. (It should be noted that the reason for this short average time per response is that nearly all of the responses will take approximately one second and represent the time it takes to apply an automated code or statement to a PTD.)

Burden means the total time, effort, or financial resources expended by persons to



generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations are listed in 40 CFR part 9 and 48 CFR chapter 15.

### **C. Regulatory Flexibility Act**

The Regulatory Flexibility Act (RFA) generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of today's rule on small entities, small entity is defined as: (1) A small business as defined by the Small Business Administration's (SBA) regulations at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3)

a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of today's final rule on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. The small entities directly regulated by this final rule are petroleum refiners and importers, ethanol producers, ethanol blenders, gasoline terminals, gasoline stations with convenience stores, and other gasoline stations. While there are small entities in each of these market sectors as discussed in Section III.F., the cost impact on any particular entity is expected to be a tiny fraction of annual revenues.

#### **D. Unfunded Mandates Reform Act**

This rule does not contain a Federal mandate that may result in expenditures of \$100 million or more for State, local, and Tribal governments, in the aggregate, or the private sector in any one year. The total annual cost is expected to be \$3.64 million. Thus, this rule is not subject to the requirements of sections 202 or 205 of UMRA.

This rule is also not subject to the requirements of section 203 of UMRA because it contains no regulatory requirements that might significantly or uniquely affect small governments. This action primarily affects the private sector, specifically petroleum refiners and importers, ethanol producers, ethanol blenders, gasoline terminals, gasoline stations with convenience stores, and other gasoline stations.

#### **E. Executive Order 13132 (Federalism)**

This action does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. Any preemption of State or local controls under section 211(c)(4)(A), based on issuance of this rule under section 211(c)(1), would only apply to State or local controls adopted for purposes of motor vehicle emissions control. This rule will be implemented at the Federal level and impose compliance costs only on petroleum refiners and importers, gasoline stations with convenience stores, and other gasoline stations. Thus, Executive Order 13132 does not apply to this action.

In the spirit of Executive Order 13132, and consistent with EPA policy to promote communications between EPA and State and local governments, EPA specifically solicited comment on the proposed action from State and local officials. The Agency did not receive any comments from states or local governments that cited a concern over state preemption or federalism.

#### **F. Executive Order 13175**

This action does not have tribal implications, as specified in Executive Order 13175 (65 FR 67249, November 9, 2000). This rule will be implemented at the Federal level and impose compliance costs only on petroleum refiners, importers, oxygenate blenders, gasoline stations with convenience stores, and other gasoline stations. Thus, Executive Order 13175 does not apply to this action.

## **G. Executive Order 13045: Protection of Children from Environmental Health**

### **Risks and Safety Risks**

EPA interprets EO 13045 (62 FR 19885, April 23, 1997) as applying only to those regulatory actions that concern health or safety risks, such that the analysis required under section 5–501 of the EO has the potential to influence the regulation. This action is not subject to EO 13045 because it does not establish an environmental standard intended to mitigate health or safety risks.

## **H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use**

This action is not a “significant energy action” as defined in Executive Order 13211 (66 FR 28355 (May 22, 2001)), because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. This final rule has a labeling requirement, a prohibition against the use of gasoline containing more than 10 vol% ethanol in vehicles, engines and equipment not covered by the partial waiver decisions, a PTD requirement; and a survey requirement.

There is no cost for the prohibition. The cost of the label is estimated at \$5 per year per service station. This is a tiny fraction of the station’s annual sales, and is not expected to significantly affect energy distribution. The cost of the PTD requirement is estimated at \$0.45 million per year. This cost is a one-time cost to reformat PTDs amortized over 15 years; any

additional costs are expected to be insignificant. The total cost of the survey requirements is estimated to be \$2.15 million per year. The projected total cost of the final provisions is \$3.64 million per year (see section IV for a more detailed discussion of these estimated costs). These costs are not expected to increase the cost of energy production or distribution in excess of one percent. Therefore, this final action is not expected to have a significant adverse energy effect.

### **I. National Technology Transfer and Advancement Act**

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (“NTTAA”), Public Law 104–113, 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards.

This action does not involve technical standards. Therefore, EPA did not consider the use of any voluntary consensus standards.

### **J. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations**

Executive Order (EO) 12898 (59 FR 7629 (Feb. 16, 1994)) establishes Federal executive

policy on environmental justice. Its main provision directs Federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations in the United States.

EPA has determined that this final rule will not have disproportionately high and adverse human health or environmental effects on minority or low-income populations because it increases the level of environmental protection for all affected populations without having any disproportionately high and adverse human health or environmental effects on any population, including any minority or low-income population. This action would affect all gasoline stations that choose to sell E15 and therefore will not affect any particular area disproportionately.

#### **K. Congressional Review Act**

The Congressional Review Act, 5 U.S.C. 801 et seq., as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the Federal Register. A Major rule cannot take effect until 60 days after it is published in the Federal Register. This action is not a “major rule” as defined by 5 U.S.C. 804(2). This rule will be effective **insert date 30 days after publication in the Federal**

[Register](#)].

## **VI. Legal Authority and Judicial Review**

### **A. Legal Authority**

As explained above, we are finalizing the misfueling mitigation measures pursuant to our authority under CAA section 211(c)(1). This section gives EPA authority to “control or prohibit the manufacture, introduction into commerce, offering for sale, or sale” of any fuel or fuel additive (A) whose emission products, in the judgment of the Administrator, cause or contribute to air pollution “which may be reasonably anticipated to endanger public health or welfare” or (B) whose emission products “will impair to a significant degree the performance of any emission control device or system which is in general use, or which the Administrator finds has been developed to a point where in a reasonable time it would be in general use” were the fuel control or prohibition adopted. In Section VII<sup>36</sup> of the proposed rule, we explained how under section 211(c)(1), EPA may adopt a fuel control if at least one of the two criteria above is met. We are also explained that we were proposing the misfueling mitigation measures based on both of these criteria. We stated that under section 211(c)(1)(B), we believed that E15 would significantly impair the emission control systems used in MY2000 and older light-duty motor vehicles, heavy-duty gasoline engines and vehicles, highway and off-highway motorcycles, and all nonroad products. This led to our conclusion that under section 211(c)(1)(A), the likely result would be increased HC, CO and NO<sub>x</sub> emissions when these particular engines, vehicles and

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<sup>36</sup> Section VII. “What is our legal authority for proposing these misfueling mitigation measures?” 75 FR 68044, 68081 (November 4, 2010).

nonroad products use E15.

EPA received no comments on our analysis in Section VII during the public comment period. Therefore, EPA is finalizing these misfueling mitigation measures under our authority in section 211(c)(1). We fully incorporate by reference our analysis in Section VII of the proposed rule as our basis for doing so since our rationale is the same for this final action.

## **B. Judicial Review**

Under section 307(b)(1) of the Clean Air Act (CAA), judicial review of these final rules is available only by filing a petition for review in the United States Court of Appeals for the District of Columbia Circuit by **[INSERT DATE 60 DAYS FROM DATE OF PUBLICATION]**. Under section 307(b)(2) of the CAA, the requirements established by these final rules may not be challenged separately in any civil or criminal proceedings brought by EPA to enforce these requirements.

Section 307(d)(7)(B) of the CAA further provides that “[o]nly an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment (including any public hearing) may be raised during judicial review.” This section also provides a mechanism for us to convene a proceeding for reconsideration, “[i]f the person raising an objection can demonstrate to the EPA that it was impracticable to raise such objection within [the period for public comment] or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of the rule.” Any person seeking to make such a demonstration to us should submit a Petition for Reconsideration to the Office of the Administrator, U.S. EPA, Room 3000, Ariel Rios Building, 1200 Pennsylvania Ave., NW, Washington, DC 20460, with a



copy to both the person(s) listed in the preceding **FOR FURTHER INFORMATION**  
**CONTACT** section, and the Associate General Counsel for the Air and Radiation Law Office,  
Office of General Counsel (Mail Code 2344A), U.S. EPA, 1200 Pennsylvania Ave., NW,  
Washington, DC 20460.

## List of Subjects in 40 CFR Part 80

Environmental protection, Air pollution control, Fuel additives, Diesel, Gasoline, Imports, Incorporation by reference, Labeling, Motor vehicle pollution, Penalties, Reporting and recordkeeping requirements.

Date: June 14, 2011.

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Lisa P. Jackson

Administrator

For the reasons set forth in the preamble, 40 CFR part 80 is proposed to be amended as follows:

### **PART 80—REGULATION OF FUEL AND FUEL ADDITIVES**

1. The authority citation for part 80 continues to read as follows:

**Authority:** 42 U.S.C. 7414, 7542, 7545, and 7601(a).

2. Section 80.40(c)(1) is amended to read as follows:

#### **§ 80.40 Fuel Certification Procedures.**

\* \* \* \* \*

(c)(1) Adjusted VOC gasoline for purposes of the general requirements in 80.65(d)(2)(ii), and the certification procedures in this section is gasoline that contains 10 to 15 volume percent ethanol, or RBOB intended for blending with 10 to 15 volume percent ethanol, that is intended for use in the areas described at

80.70(f) and (i), and is designated by the refiner as adjusted VOC gasoline subject to less stringent VOC standards in 80.41(e) and (f). In order for adjusted VOC gasoline to qualify for the regulatory treatment specified in 80.41(e) and (f), reformulated gasoline must contain denatured, anhydrous ethanol. The concentration of the ethanol, excluding the required denaturing agent, must be at least 9 percent and no more than 15 percent (by volume) of the gasoline. The ethanol content of the gasoline shall be determined by use of one of the testing methodologies specified in 80.46(g).

\* \* \* \* \*

3. Section 80.45 is amended by adding a new paragraph (c)(1)(iii)(C) and by modifying paragraphs (f)(1)(i) and (f)(1)(ii):

**§ 80.45           Complex emissions model.**

\* \* \* \* \*

(c) \* \* \*

(1) \* \* \*

(iii) \* \* \*

(C) During Phase II, fuels with an oxygen concentration greater than 4.0 weight percent and not more than 5.8 weight percent shall be evaluated with the OXY fuel parameter set equal to 4.0 percent by weight when calculating VOCE using the equations described in paragraphs (c)(1)(i) and (c)(1)(ii) of this section.

\* \* \* \* \*

(f) \* \* \*

(1) \* \* \*

(i) For reformulated gasolines:

Fuel property	Acceptable range
Oxygen	0.0-5.8 weight percent.
Sulfur	0.0-500.0 parts per million by weight.
RVP	6.4-10.0 pounds per square inch.
E200	30.0-70.0 percent evaporated.
E300	70.0-100.0 percent evaporated.
Aromatics	0.0-50.0 volume percent.
Olefins	0.0-25.0 volume percent.
Benzene	0.0-2.0 volume percent.

(ii) For conventional gasoline:

Fuel property	Acceptable range
Oxygen	0.0-5.8 weight percent.
Sulfur	0.0-1000.0 parts per million by weight.
RVP	6.4-11.0 pounds per square inch.
E200	30.0-70.0 evaporated percent.
E300	70.0-100.0 evaporated percent.
Aromatics	0.0-55.0 volume percent.
Olefins	0.0-30.0 volume percent.
Benzene	0.0-4.9 volume percent.

\* \* \* \* \*

4. A new subpart N is added to read as follows:

#### **Subpart N--Additional Requirements for Gasoline-Ethanol Blends**

Sec.

80.1500 Definitions.

80.1501 What are the labeling requirements that apply to retailers and wholesale purchaser-consumers of gasoline-ethanol blends that contain greater than 10.0 volume percent ethanol and not more than 15.0 volume percent ethanol?

- 80.1502      What are the survey requirements for gasoline-ethanol blends?
- 80.1503      What are the product transfer document requirements for gasoline-ethanol blends, gasolines, and conventional blendstocks for oxygenate blending subject to this subpart?
- 80.1504      What acts are prohibited under this subpart?
- 80.1505      Who is liable for violations of this subpart?
- 80.1506      What penalties apply under this subpart?
- 80.1507      What are the defenses for acts prohibited under this subpart?
- 80.1508      What evidence may be used to determine compliance with the requirements of this subpart and liability for violations of this subpart?

**Subpart N– Additional Provisions for Gasoline-Ethanol Blends**

**§ 80.1500      Definitions.**

The definitions in § 80.2 apply to this subpart. For purposes of this subpart only:

- (a)      Blendstock for oxygenate blending means gasoline blendstock which could become gasoline solely upon the addition of an oxygenate.

- (b) Conventional blendstock for oxygenate blending means gasoline blendstock which could become conventional gasoline solely upon the addition of an oxygenate.
- (c) Carrier has the same meaning as defined in § 80.2(t).
- (d) Conventional gasoline has the same meaning as defined in § 80.2(ff)
- (e) E0 means a gasoline that contains no ethanol.
- (f) E10 means a gasoline-ethanol blend that contains at least 9.0 and no more than 10.0 volume percent ethanol.
- (g) E15 means a gasoline-ethanol blend that contains greater than 10.0 volume percent ethanol and not more than 15.0 volume percent ethanol.
- (h) EX means a gasoline–ethanol blend that contains less than 9 volume percent ethanol where X equals the maximum volume percent ethanol in the gasoline-ethanol blend.
- (i) EXX means a gasoline–ethanol blend above E15 where XX equals the maximum volume percent ethanol in the gasoline-ethanol blend.
- (j) Ethanol blender has the same meaning as defined in § 80.2(v).
- (k) Ethanol importer means a person who brings ethanol into the United States (including from the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Northern Mariana Islands) for use in motor vehicles and nonroad engines.
- (l) Ethanol producer means any person who owns, leases, operates, controls, or supervises a facility that produces ethanol for use in motor vehicles or nonroad engines.

- (m) Flex-fuel vehicle has the same meaning as flexible-fuel vehicle as defined in § 86.1803-01.
- (n) Fuel dispenser means the apparatus used to dispense fuel into motor vehicles or nonroad vehicles, engines or equipment, or into a portable fuel container as defined at § 59.680.
- (o) Gasoline has the same meaning as defined in § 80.2(c).
- (p) Gasoline importer means an importer as defined in § 80.2(r) that imports gasoline or gasoline blending stocks that could become gasoline solely upon the addition of oxygenates.
- (q) Gasoline refiner means a refiner as defined as in § 80.2(i) that produces gasoline or gasoline blending stocks that could become gasoline solely upon the addition of oxygenates.
- (r) Oxygenate blender has the same meaning as defined in § 80.2(mm).
- (s) Oxygenate blending facility has the same meaning as defined in § 80.2(ll).
- (t) Regulatory control periods has the same meaning as defined in § 80.27(a)(2)(ii) or in any State Implementation Plan (SIP) approved or promulgated under §§ 110 or 172 of the Clean Air Act.
- (u) Retail outlet has the same meaning as defined § 80.2(j).
- (v) Retailer has the same meaning as defined in § 80.2(k).
- (w) Survey series means the four quarterly surveys that comprise a survey program.
- (x) Sampling strata means the three types of areas sampled during a survey which include the following:
  - (1) Densely populated areas;

(2) Transportation corridors; and

(3) Rural areas.

(y) Wholesale purchaser-consumer has the same meaning as defined in § 80.2(o).

**§ 80.1501      What are the labeling requirements that apply to retailers and wholesale purchaser-consumers of gasoline-ethanol blends that contain greater than 10.0 volume percent ethanol and not more than 15.0 volume percent ethanol?**

(a) Any retailer or wholesale purchaser-consumer who sells, dispenses, or offers for sale or dispensing, gasoline-ethanol blends that contain greater than 10.0 volume percent ethanol and not more than 15.0 volume percent ethanol shall affix the following conspicuous and legible label to the fuel dispenser:

**ATTENTION**

**E15**

**Up to 15% ethanol**

**Use only in**

- **2001 and newer passenger vehicles**
- **Flex-fuel vehicles**

Don't use in other vehicles, boats, or gasoline-powered equipment. It may cause damage and is **prohibited** by Federal law.

(b) Labels under this section shall meet the following requirements for appearance



and placement:

- (1) Dimensions. The label shall measure 3 and 5/8 inches wide by 3 and 1/8 inches high.
- (2) Placement. The label shall be placed on the upper two-thirds of each fuel dispenser where the consumer will see the label when selecting a fuel to purchase. For dispensers with one nozzle, the label shall be placed above the button or other control used for selecting E15, or in any other manner which clearly indicates which control is used to select E15. For dispensers with multiple nozzles, the label shall be placed in the location that is most likely to be seen by the consumer at the time of selection of E15.
- (3) Text. The text shall be justified and the fonts and backgrounds shall be as described in paragraphs (b)(3)(i) through (vi) and (b)(4)(i) through (iv).
  - (i) The word “ATTENTION” shall be in 20-point, orange, Helvetica Neue LT 77 Bold Condensed font, and shall be placed in the top 1.25 inches of the label as further described in (b)(4)(iii) below.
  - (ii) The word “E15” shall be in 42-point, orange, Helvetica Black font, and shall be placed in the top 1.25 inches of the label.
  - (iii) The ethanol content: “Up to 15% ethanol” shall be in 14-point, center-justified, orange, Helvetica Black font in the top 1.25 inches of the label, below the word E15.
  - (iv) The words “Use only in” shall be in 20-point, left-justified, black, Helvetica Bold font in the top 1.25 inches of the label.
  - (v) The words, and symbols “▪ 2001 and newer passenger vehicles ▪ Flex-fuel

vehicles” shall be in 14-point, left-justified, black, Helvetica Bold font.

- (vi) The remaining two sentences shall be in 12-point, left-justified, Helvetica Bold font, except that the word “prohibited” in the second sentence shall be in 12-point, black, Helvetica Black Italics font.
- (4) Color. (i) The background of the top 1.25 inches of the label shall be black.
- (ii) The background of the bottom 1.75 inches of the label shall be orange.
- (iii) The label shall have on the upper left side of the label a diagonal orange stripe that is .3125 inches tall. The stripe shall be placed as far down and across the label as is necessary so as to create a black triangle of the upper left corner of the label whose vertical side is contiguous to the vertical edge of the label and is .4375 inches long, and whose horizontal side is contiguous to the horizontal edge of the label and is 1.0 inches long. The word “ATTENTION” shall be centered to the upper edge of this stripe.
- (5) Alternative labels to those specified in this section may be used if approved by EPA in advance. Such labels must contain all of the informational elements specified in subsection (a) of this section, and must use colors and other design elements similar in substance and appearance to the label required by this section. Such labels may differ in size and shape from the label required by this section only to a small degree, except to the extent a larger label is necessary to accommodate additional information or translation of label information.
- (i) If you use U.S. Mail, send a request for approval of an alternative label to: U.S. EPA, Attn: E15 Alternative Label Request, 6406J, 1200 Pennsylvania Avenue, NW., Washington, DC 20460.

- (ii) If you use an overnight or courier service, send a request for approval of an alternative label to: U.S. EPA, Attn: E15 Alternative Label Request, 6406J, 1310 L Street, NW., 6th Floor, Washington, DC 20005. (202) 343-9038.

**§ 80.1502 What are the survey requirements related to gasoline-ethanol blends?**

Any gasoline refiner, gasoline importer, ethanol blender, ethanol producer, or ethanol importer who manufactures, introduces into commerce, sells or offers for sale E15, gasoline, blendstock for oxygenate blending, ethanol, or gasoline-ethanol blend that is intended for use in or as E15 shall comply with the survey program requirements in either paragraph (a) or paragraph (b) of this section. These same parties are also subject to paragraphs (c), (d) and (e) of this section regardless of whether they choose the survey program requirements in paragraph (a) or paragraph (b) of this section. In the case of ethanol producers and ethanol importers, the ethanol that is produced or imported shall be deemed as intended for use in E15 unless an ethanol producer or an ethanol importer demonstrates that it was not intended for such use.

- (a) Survey option 1. In order to satisfy the survey program requirements, any gasoline refiner, gasoline importer, ethanol blender, ethanol producer, or ethanol importer who manufactures, introduces into commerce, sells or offers for sale E15, gasoline, blendstock for oxygenate blending, ethanol, or gasoline-ethanol blend intended for use in or as E15 shall properly conduct a program of compliance surveys in accordance with a survey program plan which has been approved by EPA in 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 at any time during the year. Such approval shall be based upon the survey program plan meeting the following criteria:

- (1) The survey program shall consist of at least quarterly surveys which shall occur during the following time periods in every year during which the gasoline refiner, gasoline importer, ethanol blender, ethanol producer, or ethanol importer introduces E15 into commerce:
  - (i) One survey during the period January 1 through March 31;
  - (ii) One survey during the period April 1 through June 30;
  - (iii) One survey during the period July 1 through September 30; and
  - (iv) One survey during the period October 1 through December 31.
- (2) The survey program plan shall meet all of the requirements of paragraph (b),) except paragraphs (b)(4)(ii) and (b)(4)(v) of this section. The survey program plan shall specify the sampling strata, clusters and area, and number of samples to be included. Notwithstanding paragraph (b)(2), in order to comply with this paragraph the survey plan need not be conducted by a consortium.
- (b) Survey option 2.
  - (1) To comply with the requirements under this paragraph (b), any gasoline refiner, gasoline importer, ethanol blender, ethanol producer, or ethanol importer who manufactures, introduces into commerce, sells or offers for sale E15, gasoline, blendstock for oxygenate blending, ethanol, or gasoline-ethanol blend intended for use in or as E15 must participate in a consortium which arranges to have an independent survey association conduct a statistically valid

program of compliance surveys pursuant to a survey program plan which has been approved by EPA, in accordance with the requirements of paragraphs (b)(2) through (b)(4) and (b)(6) of this section.

- (2) The consortium survey program under this paragraph (b) must be:
  - (i) Planned and conducted by a survey association that is independent of the ethanol blenders, ethanol producers, ethanol importers, gasoline refiners, and/or gasoline importers that arrange to have the survey conducted. In order to be considered independent:
    - (A) Representatives of the survey association shall not be an employee of any ethanol blender, ethanol producer, ethanol importer, gasoline refiner, or gasoline importer;
    - (B) The survey association shall be free from any obligation to or interest in any ethanol blender, ethanol producer, ethanol importer, gasoline refiner, or gasoline importer; and
    - (C) The ethanol blenders, ethanol producers, ethanol importers, gasoline refiners, and/or gasoline importers that arrange to have the survey conducted shall be free from any obligation to or interest in the survey association.
  - (ii) Conducted at retail outlets that sell gasoline; and
  - (iii) Represent all gasoline dispensed nationwide.
- (3) Independent Survey Association Requirements. The consortium described in paragraph (b)(1) of this section shall require the independent survey association conducting the surveys to:

- (i) Submit to EPA for approval each calendar year a proposed survey program plan in accordance with the requirements of paragraph (b)(4) of this section.
- (ii) Obtain samples of gasoline offered for sale at gasoline retail outlets in accordance with the survey program plan approved under this paragraph (b), or immediately notify EPA of any refusal of retail outlets to allow samples to be taken.
- (iii) Test, or arrange to be tested, the samples required under paragraph (b)(3)(ii) of this section for Reid vapor pressure (RVP), and oxygenate content as follows:
  - (A) Samples collected at retail outlets shall be shipped the same day the samples are collected via ground service to the laboratory and analyzed for oxygenate content. Samples collected at a dispenser labeled E15 in any manner, or at a tank serving such a dispenser, shall also be analyzed for RVP. Such analysis shall be completed within 10 days after receipt of the sample in the laboratory. Nothing in this section shall be interpreted to require RVP testing of a sample from any dispenser or tank serving it unless the dispenser is labeled E15 in any manner.
  - (B) Any laboratory to be used by the independent survey association for oxygenate or RVP testing shall be approved by EPA and its test method for determining oxygenate content shall be a method permitted under § 80.46(g), and its test method for determining RVP shall be the method permitted under § 80.46(b).
- (iv) In the case of any test that yields a result that does not match the label affixed to the product (e.g., a sample greater than 15.0 volume percent ethanol dispensed from a fuel dispenser labeled as “E15” or a sample containing greater than 10.0 volume percent ethanol and not more than 15.0 volume percent ethanol

dispensed from a fuel dispenser not labeled as “E15”), or the RVP standard of §80.27(a)(2), the independent survey association shall, within 24 hours after the laboratory receives the sample, send notification of the test result as follows:

- (A) In the case of a sample collected at a retail outlet at which the brand name of a gasoline refiner or gasoline importer is displayed, to the gasoline refiner or gasoline importer, and EPA. This initial notification to a gasoline refiner or gasoline importer shall include specific information concerning the name and address of the retail outlet, contact information, the brand, and the ethanol content, and the RVP if required, of the sample.
- (B) In the case of a sample collected at other retail outlets, to the retailer and EPA, and such notice shall contain the same information as in paragraph (b)(3)(iv)(A) of this section.
- (C) The independent survey association shall provide notice to the identified contact person or persons for each party in writing (which includes e-mail or facsimile) and, if requested by the identified contact person, by telephone.
- (v) Confirm that each fuel dispenser sampled is labeled as required in § 80.1501 by confirming that:
  - (A) The label meets the appearance and content requirements of § 80.1501.
  - (B) The label is located on the fuel dispenser according to the requirements in § 80.1501.
- (vi) In the case of a fuel dispenser that is improperly labeled, or whose fuel does not meet the RVP standards of §80.27(a)(2) the survey association shall provide notice as provided in paragraphs (b)(2)(iv)(A) through (C) of this section.

- (vii) Provide to EPA quarterly and annual summary survey reports which include the information specified in paragraph (b)(5) of this section.
- (viii) Maintain all records relating to the surveys conducted under this paragraph (b) for a period of at least five (5) years.
- (ix) Permit any representative of EPA to monitor at any time the conducting of the surveys, including sample collection, transportation, storage, and analysis.
- (4) Survey Plan Design Requirements. The proposed survey program plan required under paragraph (b)(3)(i) of this section shall, at a minimum, include the following:
  - (i) Number of Surveys. The survey program plan shall include four quarterly surveys each calendar year. The four quarterly surveys collectively are called the survey series as defined in § 80.1500.
  - (ii) Sampling Areas. The survey program plan shall include sampling in all sampling strata, as defined in § 80.1500, during each survey. These sampling strata shall be further divided into discrete sampling areas or clusters. Each survey shall include sampling in at least 40 sampling areas in each stratum which are randomly selected.
  - (iii) No advance notice of surveys. The survey plan shall include procedures to keep the identification of the sampling areas that are included in any survey plan confidential from any regulated party prior to the beginning of a survey in an area. However, this information shall not be kept confidential from EPA.
  - (iv) Retail outlet selection.
    - (A) The retail outlets to be sampled in a sampling area shall be selected from among



all retail outlets in the sampling area that sell gasoline, with the probability of selection proportionate to the volume of gasoline sold at the retail outlets; the sample should also include retail outlets with different brand names as well as those retail outlets that are unbranded.

- (B) In the case of any retail outlet from which a sample of gasoline was collected during a survey and determined to have an ethanol content that does not match the fuel dispenser label (e.g. a sample greater than 15.0 volume percent ethanol dispensed from a fuel dispenser labeled as “E15” or a sample with greater than 10.0 volume percent ethanol and not more than 15.0 volume percent ethanol dispensed from a fuel dispenser not labeled as “E15”) or determined to have a dispenser containing fuel whose RVP does not comply with §80.27(a)(2), that retail outlet shall be included in the subsequent survey.
- (C) One sample of each product dispensed as gasoline shall be collected at each retail outlet, and separate samples shall be taken that represent the gasoline contained in each gasoline storage tank unless collection of separate samples is not practicable.
- (v) Number of samples.
- (A) The minimum number of samples to be included in the survey plan for each calendar year shall be calculated as follows:

$$n = \left\lceil \left[ (Z_{\alpha} + Z_{\beta})^2 \right] / (4 * [\arcsin(\sqrt{\phi_1}) - \arcsin(\sqrt{\phi_0})]^2) \right\rceil * St_n * F_a * F_b * Su_n$$

Where:

$n$  = minimum number of samples in a year-long survey series.

However, in no case shall  $n$  be smaller than 7,500.

$Z_{\alpha}$  = upper percentile point from the normal distribution to achieve a one-tailed 95% confidence level (5%  $\alpha$ -level). Thus,  $Z_{\alpha}$  equals 1.645.

$Z_{\beta}$  = upper percentile point to achieve 95% power. Thus,  $Z_{\beta}$  equals 1.645.

$\phi_1$  = the maximum proportion of non-compliant stations for a region to be deemed compliant. In this test, the parameter needs to be 5% or greater, i.e., 5% or more of the stations, within a stratum such that the region is considered non-compliant. For this survey,  $\phi_1$  will be 5%.

$\phi_o$  = the underlying proportion of non-compliant stations in a sample. For the first survey plan,  $\phi_o$  will be 2.3%. For subsequent survey plans,  $\phi_o$  will be the average of the proportion of stations found to be non-compliant over the previous four surveys.

$St_n$  = number of sampling strata. For purposes of this survey program,  $St_n$  equals 3.

$F_a$  = adjustment factor for the number of extra samples required to compensate for collected samples that cannot be included in the survey, based on the number of additional samples required during the previous four surveys. However, in no case shall the value of  $F_a$  be smaller than 1.1.

$F_b$  = adjustment factor for the number of samples required to resample

each retail outlet with test results exceeding the labeled amount (e.g. a sample greater than 15.0 volume percent ethanol dispensed from a fuel dispenser labeled as “E15”, a sample with greater than 10.0 volume percent ethanol and not more than 15.0 volume percent ethanol dispensed from a fuel dispenser not labeled as “E15”), or a sample dispensed from a fuel dispenser labeled as “E15” with greater than the applicable seasonal and geographic RVP pursuant to § 80.27, based on the rate of resampling required during the previous four surveys. However, in no case shall the value of  $F_b$  be smaller than 1.1.

$Su_n$  = number of surveys per year. For purposes of this survey program,  $Su_n$  equals 4.

- (B) The number of samples determined pursuant to paragraph (b)(4)(v)(A) of this section, after being incremented as necessary to allocate whole numbers of samples to each cluster, shall be distributed approximately equally for the quarterly surveys conducted during the calendar year.
- (5) Summary survey reports. The quarterly and annual summary survey reports required under paragraph (b)(3)(vii) of this section shall include the following information:
  - (i) An identification of the parties that are participating in the survey.
  - (ii) The identification of each sampling area included in a survey and the dates that the samples were collected in that area.
  - (iii) For each retail outlet sampled:

- (A) The identification of the retail outlet;
  - (B) The gasoline refiner or gasoline importer brand name displayed, if any;
  - (C) The fuel dispenser labeling (e.g., “E15”);
  - (D) The sample test result for oxygenate content, and RVP result, if any;
  - (E) The test method used to determine oxygenate content under § 80.46(g); and
  - (F) The test method used to determine RVP under § 80.46(b).
- (iv) Ethanol level summary statistics by brand and unbranded for each sampling area, strata, and survey series. These summary statistics shall:
- (A) Include the number of samples, the average, median and range of ethanol content, expressed in volume percent.
  - (B) [Reserved]
- (v) The quarterly reports required under this paragraph (b)(5) are due 60 days following the end of the quarter. The annual reports required under this paragraph (b)(5) are due 60 days following the end of the calendar year.
- (vi) The reports required under this paragraph (b)(5) shall be submitted to EPA in an electronic spreadsheet.
- (c) Procedures for obtaining approval of survey plan and providing required notices.
- The first year in which a survey program is conducted may consist of only a portion of a calendar year ending on December 31 (i.e. in the initial year, a survey program may begin on a date after January 1, but would still end on December 31). Subsequent survey programs shall be conducted on a calendar year basis.
- The procedure for obtaining EPA approval of a survey program plan under paragraph (b) or paragraph (c) is as follows:

- (1) For the first year in which a survey will be conducted, a survey program plan that complies with the requirements of paragraph (a) or paragraph (b) must be submitted to EPA no later than 60 days prior to the date on which the survey program is to begin.
- (2) For subsequent years in which a survey will be conducted, a survey program plan that complies with the requirements of paragraph (a) or paragraph (b) must be submitted to EPA no later than November 1 of the year preceding the calendar year in which the survey will be conducted.
- (3) The survey program plan must be signed by a responsible officer of the consortium which arranges to have an independent surveyor conduct the survey program.
- (4) The survey program plan must be sent to the following address: Director, Compliance and Innovative Strategies Division, U.S. Environmental Protection Agency, 1200 Pennsylvania Ave., N.W. Mail Code 6506J, Washington, D.C. 20460.
- (5) EPA will send a letter to the party submitting the survey program plan that indicates whether EPA approves or disapproves the survey plan.
- (6) The approving official for a survey plan under this section is the Director of the Compliance and Innovative Strategies Division, Office of Transportation and Air Quality.
- (7) Any notifications or reports required to be submitted to EPA under this section must be directed to the official designated in paragraph (b)(6)(iv) of this section.
- (d) Independent surveyor contract.

- (1) For the first year in which a survey program will be conducted, no later than 30 days preceding the start of the survey, the contract with the independent surveyor shall be in effect, and an amount of money necessary to carry out the entire survey plan shall be paid to the independent surveyor or placed into an escrow account with instructions to the escrow agent to pay the money to the independent surveyor during the course of the conduct of the survey plan.
- (2) For subsequent years in which a survey program will be conducted, no later than December 1 of the year preceding the year in which the survey will be conducted, the contract with the independent surveyor shall be in effect, and an amount of money necessary to carry out the entire survey plan shall be paid to the independent surveyor or placed into an escrow account with instructions to the escrow agent to pay the money to the independent surveyor during the course of the conduct of the survey plan.
- (3) For the first year in which a survey program will be conducted, no later than 15 days preceding the start of the survey EPA must receive a copy of the contract with the independent surveyor and proof that the money necessary to carry out the survey plan has either been paid to the independent surveyor or placed into an escrow account; if the money has been placed into an escrow account, a copy of the escrow agreement must to be sent to the official designated in paragraph (b)(6)(iv) of this section.
- (4) For subsequent years in which a survey program will be conducted, no later than December 15 of the year preceding the year in which the survey will be conducted, EPA must receive a copy of the contract with the independent

surveyor and proof that the money necessary to carry out the survey plan has either been paid to the independent surveyor or placed into an escrow account; if placed into an escrow account, a copy of the escrow agreement must be sent to the official designated in paragraph (b)(6)(iv) of this section.

- (e) Consequences of failure to fulfill requirements. A failure to fulfill or cause to be fulfilled any of the requirements of this section is a prohibited act under Clean Air Act section 211(c) and § 80.1504.
- (1) EPA may revoke its approval of a survey plan under this section for cause, including, but not limited to, an EPA determination that the approved survey plan has proved to be inadequate in practice.
- (2) EPA may void ab initio its approval of a survey plan if EPA's approval was based on false information, misleading information, or incomplete information, or if there was a failure to fulfill, or cause to be fulfilled, any of the requirements of the survey plan.

**§ 80.1503      What are the product transfer document requirements for gasoline-ethanol blends, gasolines, and conventional blendstocks for oxygenate blending subject to this subpart?**

- (a) Product transfer documentation for conventional blendstock for oxygenate blending, or gasoline transferred upstream of an ethanol blending facility.
- (1) In addition to any other product transfer document requirements under 40 CFR part 80, on each occasion after October 31, 2011, when any person transfers custody or title to any conventional blendstock for oxygenate blending which

could become conventional gasoline solely upon the addition of ethanol, or gasoline upstream of an oxygenate blending facility, as defined in § 80.2(l), the transferor shall provide to the transferee product transfer documents which include the following information:

- (i) The name and address of the transferor;
- (ii) The name and address of the transferee;
- (iii) The volume of conventional blendstock for oxygenate blending or gasoline being transferred;
- (iv) The location of the conventional blendstock for oxygenate blending or gasoline at the time of the transfer;
- (v) The date of the transfer;
- (vi) For gasoline during the regulatory control periods defined in § 80.27(a)(2)(ii) or any SIP approved or promulgated under §§ 110 or 172 of the Clean Air Act:
  - (A) The maximum RVP, as determined by a method permitted under § 80.46(c), stated in the following format: “The RVP of this gasoline does not exceed [fill in appropriate value]”; and
  - (B) For gasoline designed for the special provisions for gasoline-ethanol blends in § 80.27(d)(2), information about the ethanol content and RVP in paragraphs (1) through (3), with insertions as indicated:
    - (1) “Suitable for the special RVP provisions for ethanol blends that contain between 9 and 10 vol % ethanol.”
    - (2) “The RVP of this blendstock/gasoline for oxygenate blending does not exceed [Fill in appropriate value] psi.



- (3) The use of this gasoline to manufacture a gasoline-ethanol blend containing anything other than between 9 and 10 volume percent ethanol may cause a summertime RVP violation.
- (C) For gasoline not described in paragraph (a)(vi)(B) of this section, information regarding the suitable ethanol content, stated in the following format: “Suitable for blending with ethanol at a concentration of no more than 15 vol % ethanol.”
- (2) The requirements in paragraph (a)(1) do not apply to reformulated gasoline blendstock for oxygenate blending, as defined in § 80.2(kk), which are subject to the product transfer document requirements of § 80.69 and § 80.77.
- (b) Product transfer documentation for gasoline transferred downstream of an oxygenate blending facility.
- (1) In addition to any other product transfer document requirements under 40 CFR part 80, on each occasion after October 31, 2011, when any person transfers custody or title to any gasoline-ethanol blend downstream of an oxygenate blending facility, as defined in § 80.2(ll), except for transfers to the ultimate consumer, the transferor shall provide to the transferee product transfer documents which include the following information:
  - (i) The name and address of the transferor;
  - (ii) The name and address of the transferee;
  - (iii) The volume of gasoline being transferred;
  - (iv) The location of the gasoline at the time of the transfer;
  - (v) The date of the transfer; and
  - (vi) One of the statements detailed in paragraph (b)(1)(vi)(A) through (E) which

accurately describes the gasoline-ethanol blend. The information regarding the ethanol content of the fuel is required year-round. The information regarding the RVP of the fuel is only required for gasoline during the regulatory control periods.

- (A) For gasoline containing no ethanol (E0), the following statement; “E0: Contains no ethanol. The RVP does not exceed [fill in appropriate value] psi.”
  - (B) For gasoline containing less than 9.0 volume percent ethanol, the following statement: “EX – Contains up to X% ethanol. The RVP does not exceed [fill in appropriate value] psi.” The term X refers to the maximum volume percent ethanol present in the gasoline.
  - (C) For gasoline containing between 9.0 and 10.0 volume percent ethanol (E10), the following statement: “E10: Contains between 9 and 10 vol % ethanol. The RVP does not exceed [fill in appropriate value] psi. The 1.0 psi RVP waiver applies to this gasoline. Do not mix with gasoline containing anything other than between 9 and 10 vol % ethanol.”
  - (D) For gasoline containing greater than 10.0 volume percent and not more than 15.0 volume percent ethanol (E15), the following statement: “E15: Contains up to 15 vol % ethanol. The RVP does not exceed [fill in appropriate value] psi;” or
  - (E) For all other gasoline that contains ethanol, the following statement: “EXX- Contains no more than XX% ethanol,” where XX equals the volume % ethanol.
- (2) Except for transfers to truck carriers, retailers, or wholesale purchaser-consumers, product codes may be used to convey the information required under paragraph (b)(1) of this section if such codes are clearly understood by each transferee.

- (c) The records required by this section must be kept by the transferor and transferee for five (5) years from the date they were created or received by each party in the distribution system.
- (d) On request by EPA, the records required by this section must be made available to the Administrator or the Administrator's authorized representative. For records that are electronically generated or maintained, the equipment or software necessary to read the records shall be made available, or, if requested by EPA, electronic records shall be converted to paper documents.

**§ 80.1504 What acts are prohibited under this subpart?**

No person shall ---

- (a)(1) Sell, introduce, cause or permit the sale or introduction of gasoline containing greater than 10.0 volume percent ethanol (i.e., greater than E10) into any model year 2000 or older light-duty gasoline motor vehicle, any heavy-duty gasoline motor vehicle or engine, any highway or off-highway motorcycle, or any gasoline-powered nonroad engines, vehicles or equipment.
- (2) Manufacture or introduce into commerce E15 in any calendar year for use in an area prior to commencement of a survey approved under 80.1502 for that area.
- (3) Notwithstanding paragraphs (a)(1) and (a)(2) of this section, no person shall be prohibited from manufacturing, selling, introducing, or causing or allowing the sale or introduction of gasoline containing greater than 10.0 volume percent ethanol into any flex-fuel vehicle.
- (b) Sell, offer for sale, dispense, or otherwise make available at a retail or wholesale

purchaser-consumer facility E15 that is not correctly labeled in accordance with § 80.1501;

- (c) Fail to fully or timely implement, or cause a failure to fully or timely implement, an approved survey required under §80.1502;
- (d) Fail to generate, use, transfer and maintain product transfer documents that accurately reflect the type of product, ethanol content, maximum RVP, and other information required under § 80.1503;
- (e) Improperly blend, or cause the improper blending of, ethanol into conventional blendstock for oxygenate blending, gasoline or gasoline already containing ethanol, in a manner inconsistent with the information on the product transfer document under § 80.1503(a)(1)(vi) or § 80.1503(b)(1)(vi);
- (f) For gasoline during the regulatory control periods, combine any gasoline or conventional blendstock for oxygenate blending intended for blending with E10 that qualifies for the 1 psi allowance under the special regulatory treatment as provided by § 80.27(d) applicable to 9-10 volume percent gasoline-ethanol blends with any gasoline or conventional blendstock for oxygenate blending intended for blending with E15, unless the resultant combination is designated, in its entirety, as an E10 blendstock for oxygenate blending.
- (g) For gasoline during the regulatory control periods, combine any gasoline-ethanol blend containing E10 that qualifies for the 1 psi allowance under the special regulatory treatment as provided by § 80.27(d) applicable to 9-10 volume percent gasoline-ethanol blends, with any gasoline containing E0 or any gasoline blend containing E15.

- (h) Fail to meet any other requirement of this subpart.
- (i) Cause another person to commit an act in violation of paragraphs (a) through (h) of this section.

**§ 80.1505      Who is liable for violations of this subpart?**

- (a) Persons liable. Any person who violates § 80.1504(a) through (i) is liable for the violation. In addition, when the gasoline contained in any storage tank at any facility owned, leased, operated, controlled or supervised by any gasoline refiner, gasoline importer, oxygenate blender, carrier, distributor, reseller, retailer, or wholesale purchaser-consumer is found in violation of the prohibitions described in §80.1504(a), and (c) through (i), the following persons shall be deemed in violation:
  - (1) Each gasoline refiner, gasoline importer, oxygenate blender, carrier, distributor, reseller, retailer, or wholesale purchaser-consumer who owns, leases, operates, controls or supervises the facility where the violation is found.
  - (2) Each gasoline refiner or gasoline importer whose corporate, trade, or brand name, or whose marketing subsidiary's corporate, trade, or brand name, appears at the facility where the violation is found.
  - (3) Each gasoline refiner, gasoline importer, oxygenate blender, distributor, and reseller who manufactured, imported, sold, offered for sale, dispensed, supplied, offered for supply, stored, transported, or caused the transportation of any gasoline which is in the storage tank containing gasoline found to be in violation.
  - (4) Each carrier who dispensed, supplied, stored, or transported any gasoline which is

in the storage tank containing gasoline found to be in violation, provided that EPA demonstrates, by reasonably specific showings using direct or circumstantial evidence, that the carrier caused the violation.

- (b) For label violations under § 80.1504(b), only the wholesale purchaser-consumer or retailer and the branded gasoline refiner or branded gasoline importer, if any, shall be liable.
- (c) Each partner to a joint venture, or each owner of a facility owned by two or more owners, is jointly and severally liable for any violation of this subpart that occurs at the joint venture facility or a facility that is owned by the joint owners, or a facility that is committed by the joint venture operation or any of the joint owners of the facility.
- (d) Any parent corporation is liable for any violations of this subpart that are committed by any of its solely-owned subsidiaries.

**§ 80.1506      What penalties apply under this subpart?**

- (a) Any person under § 80.1505 who is liable for a violation under § 80.1504 is subject to an administrative or civil penalty, as specified in sections 205 and 211(d) of the Clean Air Act, for every day of each such violation and the amount of economic benefit or savings resulting from the violation.
- (b) (1) Any violation of any requirement that pertains to the ethanol content of gasoline shall constitute a separate day of violation for each and every day such gasoline giving rise to such violations remains any place in the gasoline distribution system, beginning on the day that the gasoline that violates such

requirement is produced or imported and distributed and/or offered for sale, and ending on the last day that any such gasoline is offered for sale or is dispensed to any ultimate consumer for use in any motor vehicle, unless the violation is corrected by altering the properties and characteristics of the gasoline giving rise to the violations and any mixture of gasolines that contains any of the gasoline giving rise to the violations such that the gasoline or mixture of gasolines has the properties and characteristics that would have existed if the gasoline giving rise to the violations had been produced or imported in compliance with all requirements that pertain to the ethanol content of gasoline..

- (2) For the purposes of this paragraph (b), the length of time the gasoline in question remained in the gasoline distribution system shall be deemed to be 25 days; unless the respective party or EPA demonstrates by reasonably specific showings, using direct or circumstantial evidence, that the gasoline giving rise to the violations remained any place in the gasoline distribution system for fewer than or more than 25 days.
- (c) Any violation of any affirmative requirement or prohibition not included in paragraph (b) of this section shall constitute a separate day of violation for each and every day such affirmative requirement is not properly accomplished, and/or for each and every day the prohibited activity continues. For those violations that may be ongoing each and every day the prohibited activity continues shall constitute a separate day of violation.

**§ 80.1507      What are the defenses for acts prohibited under this subpart?**

- (a) Defenses for prohibited activities.
- (1) In any case in which a gasoline refiner, gasoline importer, oxygenate blender, carrier, distributor, reseller, retailer, or wholesale purchaser-consumer would be in violation under § 80.1504(a), and (c) through (i) it shall be deemed not in violation if it can demonstrate:
  - (i) That the regulated party or its employee or agent did not commit, cause, or contribute to another person's causing the violation;
  - (ii) That product transfer documents account for all of the gasoline in the storage tank found in violation and indicate that the gasoline met relevant requirements; and
  - (iii) (A) That it has conducted a quality assurance program, including a sampling and testing program, as described in paragraph (b) of this section;
- (B) A carrier may rely on the sampling and testing program carried out by another party, including the party that owns the gasoline in question, provided that the sampling and testing program is carried out properly.
- (2) (i) Where a violation is found at a facility which is operating under the corporate, trade or brand name of a refiner, that refiner must show, in addition to the defense elements required by paragraph (a)(1) of this section, that the violation was caused by:
  - (A) An act in violation of law (other than the Act or this part), or an act of sabotage or vandalism;
  - (B) The action of any reseller, distributor, oxygenate blender, carrier, or a retailer or wholesale purchaser-consumer supplied by any of these persons, in violation of a



contractual undertaking imposed by the gasoline refiner designed to prevent such action, and despite periodic sampling and testing by the gasoline refiner to ensure compliance with such contractual obligation; or

- (C) The action of any carrier or other distributor not subject to a contract with the gasoline refiner but engaged by the gasoline refiner for transportation of gasoline, despite specification or inspection of procedures and equipment by the gasoline refiner which are reasonably calculated to prevent such action.
- (ii) In this paragraph (a), to show that the violation “was caused” by any of the specified actions the party must demonstrate by reasonably specific showings using direct or circumstantial evidence, that the violation was caused or must have been caused by another.
- (3) For label violations under § 80.1504(b), the branded gasoline refiner or branded gasoline importer shall not be deemed liable if the requirements of paragraph (b)(4) of this section are met.
- (b) Quality assurance program. In order to demonstrate an acceptable quality assurance program for gasoline at all points in the gasoline distribution network, other than at retail outlets and wholesale purchaser-consumer facilities, a party must present evidence of the following in addition to other regular appropriate quality assurance procedures and practices.
  - (1) A periodic sampling and testing program to determine if the gasoline contains applicable maximum and/or minimum volume percent of ethanol.
  - (2) That on each occasion when gasoline is found in noncompliance with one of the requirements referred to in paragraph (b)(1) of this section:

- (i) The party immediately ceases selling, offering for sale, dispensing, supplying, offering for supply, storing, transporting, or causing the transportation of the violating product; and
  - (ii) The party promptly remedies the violation (such as by removing the violating product or adding more complying product until the applicable requirements are achieved).
- (3) An oversight program conducted by a carrier under paragraph (b)(1) of this section need not include periodic sampling and testing of gasoline in a tank truck operated by a common carrier, but in lieu of such tank truck sampling and testing the common carrier shall demonstrate evidence of an oversight program for monitoring compliance with the requirements of §80.1504 relating to the transport or storage of gasoline by tank truck, such as appropriate guidance to drivers on compliance with applicable requirements and the periodic review of records normally received in the ordinary course of business concerning gasoline quality and delivery.
- (4) The periodic sampling and testing program specified in paragraph (b)(1) of this section shall be deemed to have been in effect during the relevant time period for any party, including branded gasoline refiners and branded gasoline importers, if:
- (i) An EPA approved survey program under § 80.1502 was in effect and was implemented fully and properly;
  - (ii) Any retailer at which a violation was discovered allowed survey inspectors to take samples and inspect labels; and
  - (iii) For truck loading terminals and truck distributors that perform oxygenate

blending, additional quality assurance procedures and practices were in place, such as regular checks to reconcile volumes of ethanol in inventory and regular checks of equipment for proper ethanol blend rates.

**§ 80.1508      What evidence may be used to determine compliance with the requirements of this subpart and liability for violations of this subpart?**

- (a) Compliance with the requirements of this subpart pertaining to the ethanol content of gasoline shall be determined based on the ethanol level of the gasoline, measured using the methodologies specified in § 80.46(g). Any evidence or information, including the exclusive use of such evidence or information, may be used to establish the ethanol content of gasoline if the evidence or information is relevant to whether the ethanol content of gasoline would have been in compliance with the requirements of this subpart if the appropriate sampling and testing methodology had been correctly performed. Such evidence may be obtained from any source or location and may include, but is not limited to, test results using methods other than those specified in § 80.46(g), business records, and commercial documents.
- (b) Determinations of compliance with the requirements of this subpart other than those pertaining to the ethanol content of gasoline, and determinations of liability for any violation of this subpart, may be based on information obtained from any source or location. Such information may include, but is not limited to, business records and commercial documents.