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# Regulatory Announcement

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## **Refiner and Importer Quality Assurance Requirements for Downstream Oxygenate Blending and Requirements for Pipeline Interface**

*The U.S. Environmental Protection Agency (EPA) has published a Direct Final Rule that addresses: (1) requirements for parties that handle pipeline interface; and (2) downstream quality assurance requirements for refiners of reformulated gasoline blendstock for oxygenate blending (RBOB).*

### **Overview**

With respect to parties that handle pipeline interface, the Direct Final Rule largely codifies existing guidance for compliance with reformulated gasoline (RFG) and anti-dumping regulations. It also establishes gasoline sulfur standards for transmix processors and blenders that are consistent with the sulfur standards for other entities—such as pipelines and terminals—that are downstream of refineries in the gasoline distribution system. Further, the Direct Final Rule clarifies the requirements for transmix processors under the Mobile Source Air Toxics program.

With respect to refiners and importers of RBOB, this Direct Final Rule amends the RFG regulations to allow for the option of an alternative

method for fulfilling a regulatory requirement to conduct quality assurance sampling and testing at downstream oxygenate blending facilities. This alternative consists of a comprehensive program of quality assurance sampling and testing that would cover all terminals that blend oxygenate with RBOB in a specified RFG-covered area. The program would be carried out by an independent surveyor funded by industry. The program would be conducted pursuant to a survey plan, approved by EPA on an annual basis that is calculated to achieve the same objectives as the current regulatory quality assurance requirement.

The clean air benefits of the RFG, antidumping, and gasoline sulfur programs will continue to be realized. The goal of these programs is to reduce motor vehicle emissions of the pollutants that contribute to ozone, or smog, and toxic pollutants, such as benzene. The RFG, antidumping, and gasoline sulfur programs control gasoline properties to reduce emissions of these pollutants.

The clean air benefits of these three programs are significant. Smog threatens millions of Americans each year with respiratory problems, and is particularly dangerous to children, who are increasingly at risk to asthma attacks. The reformulated gasoline program alone reduces smog-forming pollutants by 105,000 tons and toxic pollutants by 24,000 tons annually. This is equivalent to eliminating the pollution from 16 million cars every year.

Although we do not anticipate any adverse comments on this direct final rule, we are also concurrently publishing a Notice of Proposed Rulemaking in order to be able to address any comments we may receive without withdrawing this direct final rule in its entirety.

## **Transmix**

Refined petroleum products that are transported by pipeline normally are pumped sequentially, as a continuous flow through the pipeline. As a result, some amount of mixing of adjacent product types normally occurs. The product in a pipeline between two adjacent volumes of petroleum product consists of a mixture of the two adjacent volumes and is called “interface.” Generally, interface mixture is blended into the two adjoining products that created the interface. Transmix is an interface consisting of two adjacent dissimilar petroleum products, such as gasoline and distillate fuel, which cannot be blended into either of the two adjacent products without causing either of them to violate commercial standards.

Since transmix cannot be blended into either of the two adjacent products transported by the pipeline, it is diverted by the pipeline into a separate storage tank. Transmix is generally transported via tank truck, pipeline or barge to a facility designed to separate the transmix into its fuel components. For example, where the transmix consists of gasoline and distillate fuel, the transmix may be transported to a “transmix processing” facility where the gasoline portion is separated from the distillate fuel. At locations where it is either relatively expensive or inconvenient to transport transmix to a transmix processing facility for separation, the transmix is sometimes blended into gasoline in very small amounts, typically around 0.25 volume percent of the gasoline.

The RFG and anti-dumping requirements apply at any facility where gasoline is produced. Gasoline most commonly is produced by processing crude oil at refineries, but it is also produced by other processes, such as combining blendstocks or adding blendstocks to finished gasoline. Gasoline is also produced when transmix is blended into gasoline, or when transmix is separated into gasoline and distillate fuel. Transmix blending is similar to adding blendstock to gasoline where the addition of the transmix, like blendstock, may change the properties of the gasoline. Similarly, the process of separating gasoline and distillate fuel may result in gasoline with different properties than the gasoline originally certified by the refinery.

Transmix processors and transmix blenders are refiners under the RFG/anti-dumping regulations, but EPA has historically provided transmix processors and transmix blenders with flexibility in complying with the refiner requirements. Parties have been processing and blending transmix in accordance with EPA guidance (*See Reformulated Gasoline and Anti-dumping Questions and Answers* (November 12, 1996)). This Direct Final Rule would incorporate most of the existing guidance, and would also include modifications reflecting EPA experience. Our experience since the guidance was issued indicates that the approach taken in the guidance is mostly appropriate, but that some revisions are warranted.

Lastly, in the preamble to the gasoline sulfur regulations, EPA indicated that the Agency would establish requirements for transmix processors in a future rulemaking (65 FR 6800, February 10, 2000). Therefore, as part of this rulemaking, EPA is including requirements for transmix processors and transmix blenders under the gasoline sulfur regulations at 40 CFR Part 80, subpart H.

## **Alternative Quality Assurance at Downstream Blending Facilities**

The RFG regulations currently require RFG to contain a minimum of 2.0 weight percent oxygen (40 CFR § 80.41). To fulfill this requirement, oxygenate is either added at the refinery before the gasoline is certified by the refiner as meeting RFG requirements, or it is added downstream from the refinery at an oxygenate blending facility. As discussed in more detail below, refiners often wish to require that more than the minimum amount of oxygenate be added downstream in order to include the additional oxygenate in their emissions performance compliance calculations. Although the Energy policy Act mandated the removal of the oxygen requirement for RFG, we believe many refiners and importers may wish to continue to include oxygenate added downstream in their emissions compliance calculations. Under the current regulations, refiners must conduct a program of quality assurance (QA) testing at the downstream oxygenate blending facility in order to include the oxygenate in their compliance calculations. This Direct Final Rule provides an alternative QA requirement for these refiners and importers.

Under the current regulations, when oxygenate is to be added to produce RFG at a downstream oxygenate blending facility, refiners produce a product called reformulated gasoline blendstock for oxygenate blending, or RBOB. RBOB is certified by the refiner, or by an importer who imports RBOB, as complying with all of the RFG requirements except the minimum 2.0 weight percent oxygen requirement. The oxygenate blender is responsible for complying with the oxygen requirement when the oxygenate is added to the RBOB to produce RFG at the oxygenate blending facility.

Various oxygenates may be used to fulfill the oxygen requirement. Some oxygenates, such as ethanol, have a propensity to attract water. As a result, these oxygenates cannot be added at the refinery, particularly where the finished gasoline will be traveling through a pipeline on its way to terminals and retail gasoline stations. Thus, RFG containing ethanol is typically produced by blending the ethanol with RBOB at a blending facility downstream from the refinery that produced the RBOB.

Refiners and importers of RBOB are required to calculate compliance with the RFG emissions performance standards for volatile organic compounds (VOC), nitrogen oxides (NOx) and toxics by sampling and testing a hand-blended mixture of the RBOB and the type and amount of oxygenate that the refiner or importer of the RBOB designates must be

added downstream. If the refiner or importer does not meet certain contractual and quality assurance requirements, the refiner or importer must assume for purposes of its handblend that 4.0 volume percent ethanol will be added to the RBOB downstream.

The states of New York and Connecticut passed laws banning the use of the oxygenate methyl tertiary butyl ether (MTBE) in gasoline sold in these states. As a result, many refiners and importers that historically produced or imported RFG containing MTBE for the NY/CT RFG area currently produce or import RBOB for ethanol blending. Refiners in that area have indicated that, due to the complex gasoline marketplace in New York and Connecticut, it is extremely difficult, if not impossible, to track RBOB from the refinery where it is produced to the terminal where it is blended with ethanol in order to fulfill the downstream QA sampling and testing requirement. As a result, under the current regulations, refiners in the NY/CT RFG area are effectively precluded from producing an RBOB which requires a specific type and amount of oxygenate, such as 10 volume percent ethanol, and instead must produce a generic any-oxygenate RBOB, which does not require the refiner to conduct downstream QA testing at the ethanol blender facility.

This rulemaking provides RBOB refiners and importers the option to comply with an alternative QA requirement which consists of a program of sampling and testing designed to provide oversight of all terminals that blend ethanol with RBOB for use in a specified RFG covered area. Under this option, a refiner or importer must either arrange to have an independent surveyor conduct a program of compliance surveys, or participate in the funding of an organization which arranges to have an independent surveyor conduct a program of compliance surveys. In either event, compliance surveys must be carried out by an independent surveyor pursuant to a survey plan calculated to achieve the same QA objectives as the current regulatory requirement. A detailed survey plan must be submitted to EPA for approval by September 1<sup>st</sup> of the year preceding the annual averaging period in which the alternative QA sampling and testing program would be implemented. The survey plan must include a methodology for determining when the survey samples will be collected, the location of the retail outlets where the samples will be collected, the number of samples to be included in the survey, and any other elements that EPA determines are necessary to achieve the same level of quality assurance as the current QA requirement.

We believe that use of this QA compliance alternative will result in oversight sampling and testing that is equivalent to the current regulatory QA requirement, and may, in fact, result in significantly superior QA oversight, since the sampling and testing will be conducted by an independent surveyor in accordance with a comprehensive plan approved by EPA, rather than by individual refiners and importers. This rule will not have any adverse environmental impact, and will provide refiners and importers with additional flexibility in complying with the regulations. As a result, while this rulemaking was initiated in response to the compliance issues raised by refiners in the New York / Connecticut area, we believe it is appropriate to provide this compliance alternative to refiners and importers supplying any RFG covered area. The rule, therefore, provides this QA compliance alternative to any RBOB refiner or importer in any RFG area who either arranges to have an independent surveyor conduct a program of compliance surveys, or who participates in the funding of an organization that arranges to have an independent surveyor conduct a program of compliance surveys, in accordance with the provisions in this Direct Final Rule.

Compliance with this QA alternative is optional. Refiners and importers may choose to comply with the existing QA requirement and not participate in the survey program. Refiners and importers who supply more than one RFG area may choose to participate in the survey program for one RFG area and comply with the existing QA requirement for another RFG area.

## **Health and Environmental Impacts**

The clean air benefits of these programs will continue to be realized. There will be no adverse health or environmental impacts as a result of this rulemaking.

## **Flexibility to Industry**

EPA believes the flexibilities provided for transmix operations by this Direct Final Rule are appropriate, given the unique roles that transmix processors and transmix blenders fill in the petroleum products distribution system. Although these parties are refiners under EPA's regulations, almost all of the gasoline and distillate fuel they produce is derived from fuel which has already been produced and certified by an upstream refinery or importer. Thus, this Direct Final Rule allows transmix processors the flexibility to exclude conventional gasoline that they recover directly

from transmix from their antidumping compliance calculations, since the conventional gasoline has already been accounted for in the compliance calculations of an upstream producer. Similarly, this Direct Final Rule allows transmix processors to only have to meet the downstream sulfur standards (as opposed to the more stringent refinery standards) for gasoline they recover directly from transmix, since the gasoline has already been accounted for in the compliance calculations of an upstream refinery. However, transmix processors must comply with all refiner standards at each of their transmix processing facilities for any blendstocks they add to gasoline. Lastly, this Direct Final Rule allows transmix blenders to blend transmix into gasoline without restriction on location or rate, provided the distillation endpoint of the transmix-blended gasoline does not exceed 437 degrees Fahrenheit, and that the gasoline meets all applicable downstream standards.

This Direct Final Rule also provides significant additional flexibility to refiners supplying RBOB to be blended with ethanol, especially at distant locations. The survey plan described above will allow refiners greater flexibility in making RFG by adding the most cost-effective amount of oxygenate to their reformulated blendstocks for oxygenate blending.

## **For Further Information**

You can access the Direct Final Rule and concurrent Notice of Proposed Rulemaking from EPA's Office of Transportation and Air Quality Web site at:

[www.epa.gov/otaq/rfg\\_regs.htm](http://www.epa.gov/otaq/rfg_regs.htm)

For further information about the Direct Final Rule, contact Chris McKenna at (202) 343-9037 (E-mail: [mckenna.chris@epa.gov](mailto:mckenna.chris@epa.gov)) regarding the transmix portion of the rule and Marilyn Bennett at (202) 343-9624 (E-mail: [bennett.marilyn@epa.gov](mailto:bennett.marilyn@epa.gov)) regarding the alternative quality assurance procedure.