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RFG/Anti-Dumping Questions and Answers September 26, 1994

Fuels and Energy Division
Office of Mobile Sources
U.S. Environmental Protection Agency

RFG/Anti-Dumping Questions and Answers, September 26, 1994

The following are responses to most of the questions received by the Environmental Protection Agency (EPA) through September 12, 1994, concerning the manner in which the EPA intends to implement and assure compliance with the reformulated gasoline and anti-dumping regulations at 40 CFR Part 80. This document was prepared by EPA's Office of Air and Radiation, Office of Mobile Sources, and Office of Enforcement and Compliance Assurance, Office of Regulatory Enforcement, Air Enforcement Division.

Regulated parties may use this document to aid in achieving compliance with the reformulated gasoline (RFG) and anti-dumping regulations. However, this document does not in any way alter the requirements of these regulations. While the answers provided in this document represent the Agency's interpretation and general plans for implementation of the regulations at this time, some of the responses may change as additional information becomes available or as the Agency further considers certain issues.

This guidance document does not establish or change legal rights or obligations. It does not establish binding rules or requirements and is not fully determinative of the issues addressed. Agency decisions in any particular case will be made applying the law and regulations on the basis of specific facts and actual action.

While we have attempted to include answers to all questions received by September 12, 1994, the necessity for policy decisions and/or resource constraints may have prevented the inclusion of certain questions. Questions not answered in this document will be answered in a subsequent document. Questions that merely require a justification of the regulations, or that have previously been answered or discussed either in a previous Question and Answer document or the Preamble to the regulations have been omitted.

Topics Covered

SAMPLING AND TESTING

Note: The following is a update for question 1 from the Sampling and Testing section the August 29, 1994 Question and Answer document, to correct a cross reference in the first paragraph of the answer.

1. **Question:** We believe that computer controlled sequential blending of oxygenates at the rack is at least as accurate as computer controlled in line blending. Is sequential blending of oxygenates at the rack considered sufficiently equivalent to computer in line blending to allow the sampling and testing rates under § 80.69(a)(7)(i)(B) for in line blending?

Answer: For purposes of § 80.69, computer controlled sequential blending is considered to be a form of computer controlled in line blending, and qualifies for the sampling and testing rates applicable to computer controlled oxygenate blending under §§ 80.69(a)(7)(i)(B)(2) and (e)(2)(ii)(A). The fact that the blend is carried out with the help of computer technology provides an additional level of oversight over non-computer controlled splash blending. This extra margin of confidence is the reason for the reduced sampling frequency where computer controlled in line blending is used.

The only concern with sequential blending is whether or not the resulting splash blend will be homogeneous. This can also be a concern for in line blending if the pumping rates of the blendstocks are not consistent throughout the entire blend. For example, if oxygenate is added last in a sequential blend, or if the oxygenate addition of an in line blend finishes at a rate greater than the target ratio, then portions of the tank compartment will most likely be non-homogeneous.

In either case, sampling can be compromised by the possibility of an unmixed blend. To avoid this problem it is recommended that oxygenate be added to the truck before RBOB during sequential blending in order to facilitate complete blending of the oxygenate.

RFG GENERAL REQUIREMENTS

1. **Question:** We are concerned that our terminal which will contain RFG beginning December 1 will suffer a loss of business during that month, because distributors will obtain less expensive conventional gasoline for delivery to retail outlets located in the RFG covered area which is our normal market. Would this approach by distributors be appropriate? If a terminal stocks conventional gasoline for use outside RFG covered areas after December 1, 1994, would the terminal be liable if distributors deliver this gasoline to retail outlets in an RFG covered area during December, 1994?

Answer: Section 80.65(a) requires in part that beginning December 1, 1994 all gasoline transported, stored, or sold at any location other than at the retail level must meet the RFG requirements. Section 80.65(b) requires that gasoline sold or dispensed in a covered area must

be certified as reformulated. These requirements thus apply to any terminal or distributor that supplies gasoline to an RFG covered area beginning December 1, 1994. Any distributor who delivers conventional gasoline to a retail outlet located in an RFG covered area beginning December 1, 1994 will be in violation of the §§ 80.65(a) and (b) requirements. A terminal operator dispensing conventional gasoline to such a distributor also will be in violation of these sections if the operator knows or reasonably should know the distributor will deliver the gasoline to a retail outlet located in an RFG covered area beginning December 1, 1994. Question VII-B-10 from the July 1, 1994 Question and Answer document discusses this type of scenario and the steps the terminal should take.

EPA intends to enforce these requirements through audits of the delivery records of terminals and distributors, and through inspections of gasoline quality at retail stations in RFG covered areas beginning January 1, 1995.

As a result, a terminal that meets the RFG requirements beginning on December 1, 1994, as required by §§ 80.65(a) and (b), will not be at risk that any other terminal may legally supply conventional gasoline to that terminal's customers for delivery into an RFG covered area during or after December, 1994.

REGISTRATION/RECORDKEEPING/REPORTING

1. **Question:** Will the EPA accept a mathematical conversion of the oxygen content (weight percent) for each oxygenate to a volume percentage of oxygenate for reporting purposes? Alternately, does EPA expect each refiner or importer to report volume percent as determined by laboratory GC analysis? Close agreement between the two alternatives would clearly be expected; however, minor differences might exist due to conversion factors, etc. Please clarify.

Answer: EPA will accept mathematical conversions from weight percent oxygen from an oxygenate to volume percent oxygenate using the following formula. Refiners, importers and oxygenate blenders must use the method described in §80.46(g) (GC-OFID) to determine the weight percent oxygen from each oxygenate.

$$V_o = \frac{141.5 * W_o}{\rho_o * O_o * (°API + 131.5)}$$

Where: V_o = volume percent oxygenate
W_o = weight percent oxygen in blend from oxygenate
ρ_o = density of oxygenate (g/ml)
O_o = molar weight fraction oxygen in oxygenate

The following densities and weight fractions of oxygen should be used for these calculations:

Oxygenate	Density at 60 °F (gm/ml)	Weight fraction oxygen
ethanol	0.7939	0.3473
ethyl t-butyl ether (ETBE)	0.7452	0.1566
ethyl t-amyl ether (ETAE)	0.7657*	0.1376
methanol	0.7963	0.4993
methyl t-butyl ether (MTBE)	0.7460	0.1815
t-amyl methyl ether (TAME)	0.7752	0.1566
diisopropyl ether (DIPE)	0.7300	0.1566
t-butyl alcohol	0.7922	0.2158
n-propanol	0.8080	0.2662

* This density is at 20 °C.

2. **Question:** If a party registers a facility as a refinery, oxygenate blending facility or import facility and then does not produce or import gasoline at that facility during an averaging period, must the party report to EPA?

Answer: Refiners, importers, and oxygenate blenders are required to report to EPA only during averaging periods when the party produces or imports some volume of gasoline, even if the party has previously registered with EPA.

3. **Question:** What does EPA consider "shipment volume" for the volume reported to the EPA? Would shipment be considered the point at which the product leaves the blend tank where it is certified and is fungibly mixed in sales tanks; could it be the point where the product is placed on a pipeline, barge or sold over the rack; could it be the point of tender as defined in the audit requirements; or at the point where a transfer of custody or ownership took place?

Answer: For purposes of reporting, under § 80.75(a)(2)(iii), the "volume of the batch" is the volume that leaves the blend tank where it is certified and is subsequently fungibly mixed somewhere else.

PRODUCT TRANSFER DOCUMENTATION

1. **Question:** At a recent seminar hosted by SIGMA, EPA officials indicated that transfer documentation would be satisfactory if initiated by the transferee as long as both parties agreed to this system. Please confirm this understanding?

Answer: Your understanding is correct. However, while EPA would not object to a cooperative agreement between the transferor and the transferee, the transferor remains liable if the transferee does not have all the required PTD information for each batch.

2. **Question:** Is EPA documentation necessary to settle inventory over/short accounts where the volume of gasoline involved is de minimis? If so, what are the parties documenting?

Answer: PTD information is only required when there is a transfer of title or custody of any gasoline (with the exception of gasoline sold or dispensed at a retail outlet or wholesale purchaser-consumer for use in motor vehicles). As a result, PTD information is not required where no product custody exists, and no transfer of title occurs, provided that the volume of gasoline is de minimis in relation to the volume of gasoline involved in the parties' overall transactions.

3. **Question:** In the July 1, 1994 Questions and Answers document, a statement was made that product codes would satisfy the product transfer documentation requirements if each downstream party is given the information necessary to know the meaning of the product codes. Please explain how this should be done.

Answer: EPA believes that parties normally are able to meet the product transfer requirements by including the required information in the documents that the parties currently use to memorialize the transfer of title or custody of the gasoline. Therefore, as indicated in the July 1, 1994 "Reformulated Gasoline and Anti-Dumping Questions and Answers" document (Section VI.I., Question 2), product codes that are currently used by parties may be used to fulfill the product transfer documentation requirements, provided that: 1) they include all of the information required by the regulations; 2) they are standardized throughout the distribution system in which they are used; and 3) downstream parties (transferees) are given sufficient information to know the full meaning of the codes. EPA does not require or prescribe any specific means for giving downstream parties sufficient information to know the meaning of the product codes. However, the transferor remains liable if in a given case a transferee has not received adequate information to understand the product codes.

4. **Question:** Would it be acceptable to provide all required product transfer document information on the bill-of-lading, including the transferee's name, except for the transferee's address, provided that the address is included on a follow-up invoice?

Answer: As long as all product transfer documentation information is provided to the transferee, either prior to, during or immediately following the transfer of title or custody of the gasoline, the PTD requirements are met. As a result, it would be acceptable to provide all PTD information, including the transferee's name, on a truck bill-of-lading, with the transferee's address included on a follow-up invoice.

PROHIBITIONS

1. **Question:** In light of the prohibition at § 80.78(a)(8) against mixing VOC-controlled RFG produced using ethanol with any other VOC-controlled RFG during the period January 1 through September 15 each year, how can a retail station change from ethanol-based RFG (that is not VOC-controlled) to MTBE-based RFG (that is VOC-controlled) in advance of the high ozone season, and back to ethanol-based RFG at the conclusion of the high ozone season?

Answer: In the case of the transition at the conclusion of the high ozone season from MTBE-based RFG to ethanol-based RFG, the prohibition at § 80.78(a)(8) would not apply because by its terms this prohibition is limited only to the period through September 15. As a result, beginning on September 16 each year ethanol-based RFG may be delivered to a retail station storage tank that contains MTBE-based RFG. In addition, the ethanol-based RFG that would be delivered subsequent to September 15 probably would not be VOC-controlled. Because the § 80.78(a)(8) prohibition only applies to mixtures of two VOC-controlled RFGs, the post-September 15 mixing would not violate the prohibition for this additional reason.

In the case of the transition in advance of the high ozone season, from ethanol-based RFG to MTBE-based RFG, the § 80.78(a)(8) prohibition would not be violated if MTBE-based RFG is added to a retail station storage tank through normal gasoline deliveries even if the tank contains ethanol-based RFG, provided that these deliveries occur in advance of June 1 of each year and the storage tank is completely transitioned to MTBE-based RFG (i.e., the tank contains no ethanol) beginning on June 1. This process for changing the service of a storage tank does not violate § 80.78(a)(8) because the ethanol-based RFG in the storage tank is not VOC-controlled, and this prohibition only applies to mixtures of two RFGs that are both VOC-controlled.

During the high ozone season for the retail station, June 1 through September 15 each year, the gasoline in the storage tank must be VOC-controlled, and as a result the prohibition at § 80.78(a)(8) would apply and the gasoline in the retail station's storage tank may not have a mixture of ethanol and any other oxygenate.

This answer does not alter the option available to parties for blending the gasoline in storage tanks to meet the RFG standard in advance of the onset of the RFG program, on January 1, 1995 at the retail level and December 1, 1994 at upstream facilities, that is discussed in question IX-A-1 of the
July 1, 1994 Question and Answer Document.

REMEDIES

1. **Question:** If a party identifies RFG that is out of spec for a downstream standard, and the party wants to bring the gasoline back into spec by blending it with other RFG or with blendstock, must the party be registered with EPA as a refiner, and must the party meet all the requirements that apply to refinery operations for this blending activity?

Answer: If RFG at a location downstream of the refinery or import facility level is found to violate a downstream standard, a violation of the RFG requirements has occurred for which various parties will be liable, and for which penalties may be assessed by EPA. Section 205 (b) of the Clean Air Act instructs that penalties for violations of the motor vehicle fuels requirements (including the RFG requirements) should take into account "action taken to remedy the violation...." As a result, penalty amounts for violations of the RFG requirements will depend, in part, on actions taken by liable parties to remedy violations. Thus, while remedial actions do not eliminate a violation, such actions normally do reduce the amount of any monetary penalty that must be paid.

In answer to Question 1 in the Remedies section (Section VII-E) of the July 1, 1994 RFG Question and Answer document, EPA described a number of remedial actions that parties may take to correct such a violation of a downstream standard. One of the remedies included in this July 1, 1994 answer was blending with additional RFG, which the party should document as specified in that answer. A party that carries out such remedial blending with RFG does not have to be a registered refiner, and need not meet the RFG refiner requirements, such as for independent sampling and testing and attest engagements. Separate refiner accounting for this type of remedial blending is not necessary because both the off-spec RFG and the blending RFG have already been included in the compliance calculations of a refiner or importer.

A party may take remedial action for a violation by blending with blendstock (a non-gasoline petroleum product), but only if the party is registered with EPA as a refiner, and meets all the refiner requirements. This is necessary because the blendstock used will constitute new RFG volume which must be accounted for. As a result, parties should register with EPA as a refiner in advance if they believe they may wish to conduct remedial blending with blendstock. If no blendstock blending occurs, there is no requirement to submit reports to EPA or meet any other refiner requirement. If the need for blendstock blending does occur, however, the party is in a position to do so.

If a party who has not registered with EPA as a refiner discovers a downstream standard violation, and the party believes blendstock blending is the most appropriate remedial action, the party should contact EPA. It may be possible in such a case for EPA to issue a refiner registration to the party in an expedited manner. The party should not ship any RFG produced through blendstock blending, however, until all refiner requirements have been met and the party has received a refiner registration number from EPA.

TRANSITION ISSUES

Note: The following is a update for question IX-A-4 from the July 1, 1994 Question and Answer document, to add additional guidance to the portion of the answer dealing with storage tank change of service.

IX-A-4. **Question:** The RFG regulations prohibit the mixing of various types of gasoline. For example, RFG may not be mixed with conventional gasoline. How can a party change the service of a gasoline storage tank, given the fact that often it is very difficult to drain tanks completely dry?

Answer: Section 80.78(a) requires the segregation of several categories of gasoline. These categories are:

RFG may not be mixed with conventional gasoline and sold as RFG.[1]

RFG blendstock for oxygenate blending (RBOB) may not be mixed with RFG or conventional gasoline, and RBOB's that have different oxygen requirements must be segregated from each other.

During the period January 1 through September 15 each year VOC-controlled RFG that is produced using ethanol must be segregated from VOC-controlled RFG that is produced using any other oxygenate, including at the retail level.

Oxygenated fuels program RFG (OPRG) must be segregated from non-OPRG designated RFG.

Upstream of the retail or wholesale purchaser-consumer level, RFG produced under the simple model may not be mixed with RFG produced under the complex model.

Before January 1, 1998 each refinery's or importer's complex model RFG must be segregated from every other refinery's or importer's complex model RFG, unless the refineries or importers have identical baselines. This segregation requirement does apply at the retail level.

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[1] This answer does not alter the option available to parties for blending the gasoline in storage tanks to meet the RFG standard in advance of the onset of the RFG program, on January 1, 1995 at the retail level and December 1, 1994 at upstream facilities, that is discussed in question IX-A-1 of the July 1, 1994 Question and Answer Document.

These segregation requirements preclude the mixing of any amount of the gasolines that must be segregated.[2] Thus, if the type of gasoline stored in a tank is changed (a change in the tank's service), and the old gasoline type and the new gasoline type must be segregated, the new gasoline may not be added unless the tank is completely free of any amount of the old gasoline type.

EPA recognizes that when many gasoline storage tanks are pumped as low as possible, a residual volume of gasoline, called the tank "heel," remains, and that it is very difficult (but not impossible) to eliminate this heel. As a result, and in order to facilitate the orderly conduct of business by regulated parties, in the limited situation related to changing the service of a gasoline storage tank:

First, the party must be changing the tank service for a legitimate business reason.

Second, the party must draw down the gasoline volume in the tank as low as is physically possible through normal pumping operations before adding the new gasoline.

Third, the party must fill the tank as full as possible with the new gasoline, taking into account the volume of gasoline that is reasonably available. For example, if the storage tank having a service change is at a terminal supplied with gasoline by a pipeline, the tank should be filled with the maximum volume of gasoline available as a result of the pipeline tender received. For another example, if the storage tank having a service change is at a retail station, the tank should be filled with the largest volume of gasoline that normally is delivered to that tank using a single delivery truck. In any case where the following step involving sampling and testing is not satisfied as a result of these reasonably available volumes, however, additional gasoline volume must be added to the tank until the sampling and testing step is satisfied.

Fourth, the party must collect a representative sample from the filled tank, and analyze this sample for all the properties specified for RFG using the regulatory test methods. This analysis must show that the gasoline meets each downstream standard that applies to the new gasoline type.

Fifth, the party must retain documents that demonstrate these steps in the tank service change process.

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[2] RFG may be mixed with conventional gasoline, so long as the mixture is classified in the product transfer documents as conventional gasoline and is used only outside any RFG covered area.