

Questions and Answers Regarding EPA's Tier 3 Gasoline Sulfur Regulations

40 CFR Part 80 Subparts D, E, H, and O

Questions and Answers on EPA's Tier 3 Gasoline Sulfur Regulations

40 CFR Part 80 Subparts D, E, H, and O

Introduction

This document is intended for the use of the EPA, applicable state and local regulatory agency staff, and regulated entities under the Tier 3 Motor Vehicle Emissions and Fuel Standards. See 81 Fed. Reg. 23414, April 28, 2014. This document explains the intended meaning of certain regulatory provisions that the EPA has received questions on since promulgation of Tier 3. This document is intended solely as guidance and is neither a substitute for applicable legal requirements nor a regulation. This message does not impose legally binding requirements on the EPA, state regulators, or the regulated industry. As new issues emerge on Tier 3 regulatory provisions, this document will be updated and posted to the following website: <https://www.epa.gov/fuels-registration-reporting-and-compliance-help/epa-webinar-slides-tier-3-gasoline-sulfur>

Table of Contents

1. [General](#)
2. [Registration](#)
3. [Reporting](#)
4. [Compliance](#)
5. [Sampling, Testing and Certification](#)
6. [Product Transfer Documents \(PTDs\)](#)
7. [Recordkeeping](#)
8. [Small Refiners and Refineries](#)
9. [Sulfur Credits](#)

1. General

1. What are the Tier 3 sulfur standards?

Gasoline is expected to:

- Contain no more than 10 parts per million (ppm) sulfur on an annual average basis.
- Continue to contain no more than 80 ppm sulfur maximum, on a per-gallon basis.

Oxygenates (including denatured fuel ethanol) blended into gasoline are expected to:

- Contain no more than 10 ppm sulfur on a per-gallon basis.
- Be composed solely of carbon, hydrogen, nitrogen, oxygen and sulfur.

Denatured fuel ethanol is also expected to:

- Contain no more than three volume percent of all denaturants.
- Use denaturants that are previously certified gasoline, gasoline blendstocks or natural gas liquids.

2. Who are the regulated parties under the Tier 3 gasoline sulfur standards?

The parties regulated under Tier 3 include but are not limited to gasoline refiners and importers, oxygenate producers and blenders, certified ethanol denaturant producers and importers, and gasoline additive manufacturers.

3. What are the requirements for gasoline additive manufacturers?

Gasoline additive manufacturers are expected to meet the following requirements:

- Additive should not increase gasoline sulfur by more than three parts per million (ppm) on a per-gallon basis when used at the maximum recommended treatment rate.
- Additive manufacturer is expected to maintain records on additive production quality control procedures demonstrating that their additive sulfur content is consistent with a three ppm sulfur contribution at the maximum treatment rate.
- The maximum treatment rate should correspond to the maximum additive concentration registered with the EPA.

4. When do the Tier 3 standards come into effect?

Tier 3 standards take effect January 1, 2017 meaning the first annual reports are expected to be submitted to EPA by March 31, 2018. Qualifying small volume refineries and small refiners have the option to delay compliance until January 1, 2020.

5. Are denaturant producers and importers required to switch to certified ethanol denaturant (CED) in order to comply with Tier 3?

Denaturant producers and importers are not required to begin producing/importing CED under Tier 3. They may continue producing/importing uncertified denaturant beyond December 31, 2016.

Please Note: Denatured fuel ethanol (DFE) producers who opt to use uncertified denaturant are expected to sulfur-test every batch of DFE which contains uncertified denaturant. DFE producers can reduce the number of DFE batches they need to sulfur-test by using CED. DFE producers are also expected to certify that their product contains only carbon, hydrogen, oxygen, nitrogen, and/or sulfur. CED may only contain these elements, so DFE producers could rely on documentation from the CED provider to assist in ensuring their denatured ethanol contains only these elements.

6. Is there a website where someone purchasing CED can obtain proof that the producer is registered with EPA under Tier 3?

Producers of certified ethanol denaturant appear on EPA's list of registrants located at:

<https://www.epa.gov/fuels-registration-reporting-and-compliance-help/registered-companies-and-facilities-fuel-programs>

2. Registration

1. What are the deadlines for registering my company and/or facility?

Gasoline refiners:

- All gasoline refiners are expected to register each refinery by 12/1/16, or 30 days prior to the production of gasoline.

Gasoline importers:

- All gasoline importers are expected to register each Petroleum Administration for Defense District (PADD) in which they have an import facility by 12/1/16, or 30 days prior to the importation of gasoline.

Oxygenate blenders:

- All oxygenate blenders are expected to register each oxygenate blending facility by 11/1/16, or 90 days prior to blending oxygenate into gasoline or blendstock for oxygenate blending (BOB).

Oxygenate producers:

- All oxygenate producers are expected to register each oxygenate production facility by 11/1/16, or 60 days prior to the production of oxygenate.

Oxygenate importers:

- All oxygenate importers are expected to register each PADD in which they have an import facility by 11/1/16, or 60 days prior to the importation of oxygenate.

Certified ethanol denaturant producers:

- All CED producers are expected to register each ethanol denaturant production facility by 11/1/16, or 60 days prior to the production of CED.

Certified ethanol denaturant importers:

- All CED importers are expected to register each PADD in which they have an import facility by 11/1/16, or 60 days prior to the importation of CED.

Pentane producers and importers (pentane used for pentane blending per §80.85):

- Pentane producers are expected to register each pentane production facility and importers are expected to register each PADD in which they have an import facility 30 days prior to the production or importation of pentane.

2. How do I register my company and/or facility?

Registration and registration updates are done through EPA's Central Data Exchange (CDX) webpage. Instructions for registering a company/facility are available at: <https://www.epa.gov/fuels-registration-reporting-and-compliance-help/how-register-company-fuel-programs>

CDX user guides are available at: <https://www.epa.gov/fuels-registration-reporting-and-compliance-help/user-guides-otaqdcfuel-central-data-exchange-cdx>

3. If an oxygenate producer is already registered under §80.1450, do they need to register again under §80.1650?

If an oxygenate producer is already registered under §80.1450, it are not expected to register again under §80.1650. However, it is expected to make two updates to their existing registration.

First, it should add "Oxygenate Producer" as a business activity to their existing registration in CDX. All of the currently registered ethanol production plants should at least have "Ethanol Producer" already listed as a business activity, and some of them may also have "Renewable Fuel Producer" already listed as a business activity.

Second, oxygenate producers are expected to provide information on the chemical composition of their oxygenates. This can be done by entering the registration number for each produced oxygenate from EPA's fuels/fuels additives program (40 CFR Part79).

4. If a certified ethanol denaturant producer is not currently registered under §80.76, §80.103, or §80.1450, is registering under §80.1650 the only option?

Yes, registering under §80.1650 is currently the only option for certified ethanol denaturant producers.

5. §80.1650 mentions that the EPA will supply a company and facility registration number. Is this something new for CED producers? Or is it possible the producer already has this company and facility registration number?

It is possible that a CED producer already has company and facility registration number(s) assigned by EPA, if they it registered under another business activity such as refiner, importer, oxygenate blender, etc. If it is already registered, they would simply need to add “Certified ethanol denaturant producer” as a new business activity under its existing company and facility registrations. If it is not registered, it will be assigned a company and facility registration number(s) by EPA upon completion of their registration.

6. EPA now expects all oxygenate blenders to register under Tier 3. Are the owners of the oxygenate blending facility expected to register as an oxygenate blender or is the owner of the product being blended expected to register as an oxygenate blender? Or should both register?

The regulations at §80.2(mm) define an Oxygenate Blender as "any person who owns, leases, operates, controls, or supervises an oxygenate blending facility, or who owns or controls the blendstock or gasoline used or the gasoline produced at an oxygenate blending facility."

Therefore, either the facility owner or a product owner may register an oxygenate blending facility, but each oxygenate blending facility should only be registered by one party. The facility owner and product owner(s) should work together to determine a course of action, independent of EPA.

7. Concerning oxygenate blending facility registration, it is my understanding that each oxygenate blending facility that my company owns needs to be registered. Is that correct?

Yes. EPA expects that each individual oxygenate blending facility should be registered in CDX under Tier 3.

Please Note: All oxygenate blending facilities, including those that are currently registered, should include the type of oxygenate blended in their registration. Oxygenate blending facilities that are already registered should update their registration to include the type of oxygenate blended.

8. What are the registration requirements for denaturant producers and importers?

Denaturant producers and importers that are producing or importing uncertified ethanol denaturant are not required to register under Tier 3. However, denaturant producers and importers that are producing or importing certified ethanol denaturant are expected to register.

The steps below explain how to create a new company registration for certified ethanol denaturant producers and importers in CDX OTAQReg

1. Please log into cdx.epa.gov and choose the OTAQReg program service
2. Click the “Associate to Company” link in the left side toolbar of your OTAQ Registration Home Page
3. Before you can create a new company, you must first confirm that the company you intend to create does not already exist in OTAQReg. Enter search criteria pertinent to your company and click the “Search” button
4. If it is determined that your company does not currently exist in OTAQReg, click the “Create New Company” button
5. The Create New Company: Company Details page displays fields for you to provide the Company Name, Location, Responsible Corporate Officer information, Program Types, Business Activities,

Company Contacts, and other required company details. Enter information for all required fields. Required fields are marked with a red star. The Business Activities associated to each Program Type are displayed once a Program Type is selected

6. To register an Ethanol Denaturant Production facility you must first choose the "Gasoline" Program Type and Business Activity and then "Ethanol Denaturant Producers and Importers."
7. After choosing this Company Activity, please click on the Facility Details Tab.
Please note, you do not need to click "Review" before moving to the Facility Details Tab
8. Select the facility you wish to update
9. Choose "Next"
10. Check the "Certified Ethanol Denaturant Producer" and/or "Ethanol Denaturant Importer" Facility Activity
11. Choose "Next"
12. Click "review" on the bottom of the page
13. Print out the New Company Request paperwork. It must then be signed by the RCO.
14. All pages of the New Company Request must be sent to EPA in order for the update to be made.

9. What are the steps for an oxygenate producer/importer to update their registration in CDX?

1. Please follow the steps below to update a company registration in CDX to include Oxygenate Producer and/or Importer:
Please log into cdx.epa.gov and choose the OTAQReg program service
2. Click the "Associate to Company" link in the left side toolbar of your OTAQ Registration Home Page
3. Before you can create a new company, you must first confirm that the company you intend to create does not already exist in OTAQReg. Enter search criteria pertinent to your company and click the "Search" button
4. If it is determined that your company does not currently exist in OTAQReg, click the "Create New Company" button
5. The Create New Company: Company Details page displays fields for you to provide the Company Name, Location, Responsible Corporate Officer information, Program Types, Business Activities, Company Contacts, and other required company details. Enter information for all required fields. Required fields are marked with a red star. The Business Activities associated to each Program Type are displayed once a Program Type is selected
6. To register an Ethanol Denaturant Production facility you must first choose the "Gasoline" Program Type and Business Activity and then "Ethanol Denaturant Producers and Importers."
7. After choosing this Company Activity, please click on the Facility Details Tab.
Please note, you do not need to click "Review" before moving to the Facility Details Tab
8. Select the facility you wish to update
9. Choose "Next"
10. Check the "Certified Ethanol Denaturant Producer" and/or "Ethanol Denaturant Importer" Facility Activity
11. Choose "Next"
12. Click "review" on the bottom of the page
13. Print out the New Company Request paperwork. It must then be signed by the RCO.
14. All pages of the New Company Request must be sent to EPA in order for the update to be made.

All materials should be sent to the addresses below.

When using a commercial delivery service, do not use the U.S. Mail address (or vice versa) as your mail will be delayed, may be returned to you, or may never reach our offices. Be aware that sending materials via U.S. Mail will require an irradiation process and could possibly delay delivery.

For Commercial Delivery:

U.S. Environmental Protection Agency
William Jefferson Clinton Building - North
Mail Code 6405A, Room 6520V; (202) 343-9038
1200 Pennsylvania Ave NW
Washington, DC 20004

For U.S. Mail:

U.S. Environmental Protection Agency
Mail Code 6405A
1200 Pennsylvania Avenue, NW
Washington, DC 20460

10. Will validating the composition of CED be part of the EPA's registration process?

EPA does not intend to validate the composition of CED during registration. The CED producer is responsible for ensuring each batch of CED meets the standards in §80.1611.

3. Reporting

1. What are the reporting requirements for gasoline refiners and importers?

All gasoline refiners and importers are expected to submit annual reports containing the following information for each annual averaging period (see §80.1652(a)):

- Company and facility registration numbers.
- Total volume of gasoline produced or imported.
- For each batch of gasoline: the batch number, volume, sulfur content, sulfur test method, and date of production.
- Annual average gasoline sulfur content before and after inclusion of any gasoline sulfur credits.
- Number of credits owned at the beginning and end of each year.
- Number of credits generated, used, obtained, sold, or expired each year.
- Sulfur test method and date of production.

All importers of Sulfur-FRGAS are also expected to submit annual reports containing the following information for each annual averaging period (see §80.1652(b)):

- The EPA refiner and refinery registration numbers of each foreign refiner and refinery where the Certified Sulfur-FRGAS was produced.
- The total gallons of Certified Sulfur-FRGAS and Non-Certified Sulfur-FRGAS imported from each foreign refiner and refinery.

2. What are the reporting requirements for oxygenate producers/importers?

All oxygenate producers/importers are expected to submit annual reports containing the following information for each annual averaging period (see §80.1652(c)):

- Company and facility registration numbers.
- Total volume of oxygenate produced or imported.
- For each batch of oxygenate: the batch number, volume, sulfur content, sulfur test method, and date of production.

3. What are the reporting requirements for denaturant producers and importers? Do they differ for certified and uncertified denaturant producers and importers?

Producers and importers of denaturant (both certified and uncertified) do not have any reporting requirements.

4. For gasoline refiners and importers, how many decimal places should I include when reporting the sulfur of a batch of gasoline? 80.1630(c)(2) says to report gasoline sulfur to the nearest ppm, but 80.1652(a)(7)(iv) says to report the ppm sulfur content of each batch to two decimal places.

EPA intends for the ppm sulfur content of each batch of gasoline to be reported to two decimal places, and will correct this inconsistency in a future rulemaking. EPA is also aware that the reporting forms for gasoline batches (RFG0302 and GSF0401) currently allow sulfur content to only be reported to the nearest whole ppm, EPA intends to modify the forms to allow sulfur content to be reported to two decimal places.

5. For oxygenate producers and importers, how many decimal places should I include when reporting the sulfur content of a batch of oxygenate? 80.1642(c)(5) says to determine the sulfur of each batch of oxygenate to the nearest ppm, but 80.1652(c)(3)(iv) says to report the sulfur content of each batch to two decimal places.

EPA intends for the ppm sulfur content of each batch of oxygenate to be reported to two decimal places, and will correct this inconsistency in a future rulemaking. EPA intends to revise the GSF0401 gasoline batch reporting forms to allow oxygenate producers to report batch data, including reporting ppm sulfur content to two decimal places.

6. What are the reporting requirements for oxygenate blending facilities?

There are no reporting requirements for oxygenate blending facilities. Oxygenate blending facilities are expected to register, maintain PTDs, and keep records. Please note that EPA expects that all oxygenate

blending facilities are expected to register under Tier 3, including facilities which only blend oxygenate into conventional gasoline (CG) or conventional blendstock for oxygenate blending (CBOB).

7. If a batch of CED is produced over the course of multiple days, what date should it be reported as completed?

If a particular batch of CED is produced over the course of multiple days, EPA expects that the date of production would be reported as the day sulfur testing of the batch takes place.

8. Am I required to have anything verified by a third party?

Gasoline refiners/importers are expected to have their sulfur compliance calculations and credit activity independently verified in their attest engagements.

9. Why does 40 CFR 80.1652(d)(1) require denaturant producers and importers to sign annual reports, when there are no annual reporting requirements for denaturant producers and importers?

EPA intends to correct this inconsistency in a future rulemaking by deleting the requirement for denaturant producers and importers to sign reports.

10. What are the deadlines for submitting annual reports?

Annual reports are due to EPA by March 31 of the following year. For example, for compliance year 2017, reports would be due March 31, 2018.

4. Compliance

1. If a CED production facility ships to a petroleum terminal that also accepts non-CED, does that petroleum terminal need to physically segregate the CED and non-CED in separate tanks?

There is no EPA requirement that terminals segregate certified and non-certified ethanol denaturant in separate tanks. However, EPA intends that any facility (including but not limited to a production facility or a downstream terminal) that commingles CED and non-CED in a common tank would either classify the mixture as non-CED or have it recertified by a registered CED producer who meets all of the applicable requirements in subpart O.

2. As a practical matter, a petroleum terminal may receive CED from different suppliers and store it in one tank. For example: Supplier "A" may provide a certificate of analysis (COA) showing a sulfur content of <330 ppm. Supplier "B" may provide a COA showing a sulfur content of <120 ppm. Both levels of sulfur meet CED requirements, but since the molecules have been combined, what does the terminal give its CED buyers to verify the sulfur results?

EPA intends to allow multiple batches of denaturant which meet the standards for CED to be commingled, and the mixture classified as CED. If the specific sulfur content of the mixture is unknown,

the product transfer document (bill of lading, certificate of analysis, etc.) would simply state that the CED contains less than the maximum known sulfur content, per §80.1611(c). In the above example, the terminal would state that the commingled CED contains 330 ppm sulfur or less.

3. Is it possible for CED to be recertified if non-CED and CED product are commingled?

EPA intends to allow commingled CED and non-CED to be recertified by a registered CED producer who meets all of the applicable requirements in subpart O.

4. Are all denaturants required to be certified?

No. There is no requirement that denaturants be certified.

5. I produce CED at several fractionators and ship it via pipeline to different terminals. What is the point at which I would need to certify my denaturant and how exactly is that process to be handled? Are there any regulatory requirements for transporting CED via pipeline?

Ethanol denaturant may be certified at any facility, provided it is registered as a certified ethanol denaturant production facility per §80.1650(h), and the CED producer complies with all of the applicable requirements in subpart O. There are no regulatory requirements in Part 80 regarding transportation of CED, but EPA expects pipelines and other distributors to use normal business practices (e.g., pipelines making protective cuts) to ensure CED quality is maintained through the overall distribution system.

6. How do I account for oxygenate in my annual average sulfur compliance calculations?

Gasoline refiners and importers may include downstream-blended oxygenate in annual average sulfur compliance calculations, provided they comply with requirements of §80.69(a) for RFG, or §80.101(d)(4)(ii) for CG. To determine the sulfur content of the oxygenate, refiners and importers should:

- Separately sulfur-test both oxygenate and neat gasoline or BOB into which the oxygenate is blended.
- If the oxygenate is ethanol, its sulfur concentration may be assumed to be 5 ppm.

Please Note: Gasoline refiners and importers may not include downstream-blended oxygenate in complying with the 80 ppm per-gallon standard (i.e., 80 ppm standard applies to neat gasoline or BOB).

7. §80.1611(a)(3) notes that only previously certified gasoline blendstocks or natural gas liquids may be used as denaturants. What type of previous certification is needed? Is there a specific EPA code section for this certification?

The following list parses out the list of allowable denaturants in §80.1611(a)(3), and includes additional detail on each denaturants. Definitions for previously certified gasoline and various blendstocks are located in §80.2.

- 1) Previously certified gasoline (i.e., gasoline produced and certified at a refinery)

- 2) Previously certified blendstocks for oxygenate blending (i.e, CBOB produced and certified at a refinery)
- 3) Gasoline blendstocks (i.e., gasoline blending components produced at a refinery)
- 4) Natural gas liquids

8. Regarding ethanol denaturant, does EPA consider natural gasoline liquids to be the same as natural gas liquids? The definition for ethanol denaturant in 80.2 and the beginning of Subpart O refer to natural gasoline liquids, while §80.1610(a)(3) and §80.1611(a)(3) both refer to natural gas liquids.

With respect to ethanol denaturant, EPA considers the expressions “natural gasoline liquids” and “natural gas liquids” to refer to the same material, which is mostly pentanes and higher-boiling point hydrocarbons separated from raw natural gas streams.

9. If I do not sulfur-test my undenatured ethanol but use a certified denaturant, what sulfur content should I assume that my undenatured ethanol contains?

A: Per §80.1642(c), EPA expects a quality control program would be able to demonstrate that the undenatured ethanol contains a negligible or assumed amount of sulfur.

5. Sampling, Testing and Certification

1. What are the sampling and testing requirements for gasoline refiners and importers?

The sampling and testing requirements for gasoline refiners and importers are listed in §80.1630.

2. What are the sampling and testing requirements for oxygenate producers and importers?

The sampling and testing requirements for oxygenate producers and importers are listed in §80.1642.

3. What are the sampling and testing requirements for oxygenate blending facilities?

There are no sampling or testing requirements for oxygenate blending facilities. EPA expects oxygenate blending facilities to register, maintain PTDs, and keep records. Please note that all oxygenate blending facilities are expected to register under Tier 3, including facilities which only blend oxygenate into CG or CBOB.

4. How is a batch defined? Is it acceptable if the way a batch is defined under §80.1610(d) differs from the way a batch is defined under §80.1425 for Renewable Identification Numbers? For instance, DFE producers may define a batch under §80.1425 as the temperature-adjusted volume that flows through a certified loadout meter for one railcar. However, using that same batch definition for §80.1610(d) could translate to 96 batches and 96 calculations for a unit train of ethanol. Instead, DFE producers may want to define a batch under §80.1610 (d) as a denatured finished product tank.

A batch of gasoline is defined in §80.2(gg) as “a quantity of gasoline that is homogeneous with regard to those properties that are specified for conventional or reformulated gasoline.” EPA also intends to apply this definition to DFE and CED.

DFE producers may define a batch differently in Tier 3 compared to RFS. Under Tier 3, EPA considers a batch of DFE to be a quantity of DFE that is homogeneous with regard to those properties that are specified for DFE, which could include the volume of DFE in a static storage tank. The effective sulfur standard for DFE is a 10 ppm cap standard, which means each gallon of a batch of DFE should contain 10 ppm sulfur or less.

- 5. Some DFE producers may have an undenatured finished product tank and add denaturant at the time the ethanol flows through a certified loadout meter. (We often refer to this as direct injection of denaturant). Some DFE producers will directly inject a constant percentage of denaturant for an extended period of time so that each volume that flows through a certified loadout meter has the exact same percentage of denaturant. Other DFE producers may vary the percentage of denaturant directly injected with each volume that flows through a certified loadout meter (with denaturant levels ranging between 1.96% and 2.49%).**

If the DFE producer directly injects a constant % of denaturant, can they define their batch under §80.1610 (d) as the undenatured finished product tank? Conversely, if the DFE producer varies the percentage of denaturant directly injected with each railcar or truckload, does the batch definition under §80.1610 (d) need to be limited to each load? In each case, the calculation the DFE producer completes under §80.1642(c) would account for both the denaturant volume and the undenatured ethanol volume for each batch.

Any volume of DFE (truckload, railcar load, tank) may be considered a batch of DFE, provided the volume is homogeneous with regard to those properties specified for DFE. DFE Producers should either sample and test each batch of DFE for sulfur per 80.1642(a) and (b), or use the alternative compliance method specified in 80.1642(c). If using the alternative compliance method, the DFE producer should use certified ethanol denaturant, and have an acceptable demonstration of product quality control, per 80.1642(c)(2). The reported batch volume would be the total volume of ethanol plus denaturant, and the reported batch sulfur content would be the calculated by volume weighting the undenatured ethanol and denaturant per 80.1642(c)(1). Ethanol producers should also keep records on all data used to calculate the volume and sulfur of each DFE batch.

- 6. What are the procedures for determining the sulfur content of denatured ethanol?**

For batches of denatured fuel ethanol produced using certified denaturant, the producer could either sulfur-test every batch of denatured ethanol, or use the alternative means in 80.1642(c) for determining the sulfur content of the denatured ethanol, including but not limited to:

- Conduct production quality control which demonstrates that the sulfur content of the undenatured ethanol is negligible or may be assumed to be some specific value.
- Obtain the sulfur content of the certified denaturant from the product transfer document for the denaturant.

- Calculate the sulfur content of the denatured fuel ethanol by volume weighting the sulfur contributions of the undenatured ethanol and denaturant.

7. What is the recommended sampling procedure for CED for continuous processes? It's my understanding that every batch must be sampled, but our production facility is not a batch process. Are we able to take one sample every 24 hours and use that as an equivalent of a batch sample?

EPA does not consider it sufficient to sulfur-test periodic grab samples of CED. A static volume of CED should be tested so there is a defined volume associated with the sulfur test result. If a denaturant producer is unable to sulfur-test a static volume of denaturant at your facility in order to certify it, EPA expects other possible options, such as transferring the uncertified denaturant to another facility (either owned by you or another party) where a sample could be obtained from a static tank for sulfur-testing. In this case, whoever certifies the denaturant would need to register under §80.1650. If representative static tank samples of CED cannot be obtained, another potential alternative would be to obtain a composite sample of the CED (prepared using procedures specified in ASTM D5854) as it flows into a storage tank.

8. Can certification of denaturant take place at a registered downstream terminal even if the terminal is not the original denaturant producer?

EPA intends to allow denaturant to be certified at other facilities (such as a terminal) downstream of where the denaturant was produced, provided the facility which certifies the denaturant is registered as a CED production facility and comply with all the CED requirements in subpart O (sampling/testing, product transfer documents, recordkeeping, etc.).

9. What test methods are certified ethanol denaturant producers permitted to use to test sulfur content?

§80.47 generally allows any test method developed by a VCSB (voluntary consensus-based standards body), such as ASTM, to be used for measuring gasoline properties, provided the test equipment meets certain precision and accuracy criteria. EPA intends the test methods for denaturant to be the same as those specified for gasoline sulfur in §80.47(b). The precision criterion for gasoline sulfur was derived from ASTM D7039, but any VCSB method may be used to test denaturant sulfur, provided the test equipment meets the precision and accuracy criteria specified in §80.47(b).

6. Product Transfer Documents (PTDs)

1. What information should I include on a Product Transfer Document (PTD)?

EPA expects/intends that in any transfer of gasoline, RBOB, CBOB, certified ethanol denaturant, or oxygenate, the transferor would provide the following information to the transferee on the accompanying PTD:

- Name/address of transferor
- Name/address of transferee
- Volume of product transferred
- Location of product transfer
- Date of transfer
- If applicable, language stating that the product qualifies for an exemption (national security, research, territories, export racing, California, etc.)

EPA expects/intends that

PTDs for certified ethanol denaturant would also include the specific regulatory language detailed in §80.1611 and state the sulfur content in ppm.

PTDs for oxygenates would also include the oxygenate name and the statement “maximum 10 ppm sulfur.”

PTDs for gasoline additives would also state the maximum recommended additive treatment rate and the maximum additive concentration registered with the EPA.

2. Are product batch numbers required on PTDs?

No. Batch numbers are not required on PTDs.

3. If a product is sold that may be used as a denaturant, but the seller cannot reasonably ascertain whether the product will be used as a denaturant, does the corresponding PTD need to include the denaturant language?

EPA intends/expects that PTD language detailed in §80.1611 or §80.1651 would be used for CED that complies with all the applicable provisions in subpart O, including registration by the CED producer under §80.1650, compliance with all the standards and requirements in §80.1611, compliance with the sampling and testing requirements in §80.1630, and compliance with the recordkeeping requirements in §80.1653 should be used.

4. For products shipped by rail, the title transfers when the product is offloaded from the railcar. The seller of the fuel does not have access to this date. In this case, what date should the seller use on the PTD?

EPA expects the date of custody transfer to the rail carrier to be used on the PTD in this case.

5. My company shares an ethanol terminal tank and our product is commingled in the tank. The terminal does not perform any quality control testing, but we can show that our product is less than 10 ppm going into the tank. How does this impact the PTD?

All oxygenate producers and importers are expected to meet the sampling and testing requirements in §80.1642 for each batch of oxygenate produced/imported, prior to transferring all or part of the batch to another party with an accompanying PTD per §80.1651(e).

6. What sulfur content should be indicated on a PTD for commingled batches of denaturant?

EPA expects that once 2 or more batches of CED are commingled, the PTD for the combined batch would reflect the highest sulfur content listed on the PTDs of the respective commingled batches. If batches of CED and non-CED are commingled, the combined batch would either be recertified by a registered CED producer who meets all of the applicable requirements in subpart O or sold as uncertified denaturant.

7. Why is it necessary to put the location of the product along with the transfer of custody/title date on the PTD? What information should be included in the PTD for the location?

When necessary, EPA's Office of Enforcement and Compliance Assurance (OECA) uses locations to help trace back violations to upstream sources. The location should be the physical address of the transferring facility.

7. Recordkeeping

1. What records am I required to keep?

All gasoline refiners and importers, oxygenate producers and importers, and certified denaturant producers are expected to keep records of the information submitted in their reports and provided on their PTDs, plus the following additional information:

- For each batch sample collected: the location, date/time of the sample and the name of the person who collected the sample.
- For each sample sulfur test result: the original printout from the sulfur analyzer and the name of the person who conducted the test.

All gasoline refiners/importers are expected to also keep records of their calculations showing compliance with the 10 ppm annual average sulfur standard, calculations for sulfur credit generation, and commercial contracts for each credit transfer.

All oxygenate producers/importers are expected to also keep records on the data and calculations used to determine the sulfur content of each batch of ethanol.

All additive manufacturers are expected to keep records for each batch of additive produced including the production date, volume, product transfer documents, maximum treatment rate, and quality control practices.

2. How long do records need to be kept?

EPA expects records to be kept for five years from the date of creation.

3. Does the five year recordkeeping requirement include the actual oxygenate samples as well, or only the paperwork/electronic records?

Oxygenate samples should only be kept for a maximum of 90 days. Please refer to the sample retention requirements in §80.1643 for more information.

4. Do denaturant producers and importers have a recordkeeping requirement if they do not register as a CED producer/importer?

Producers and importers of uncertified denaturant do not have any recordkeeping requirements. Only CED producers and importers have recordkeeping requirements under Tier 3.

8. Small Refiners and Refineries

1. What are the requirements to qualify as a small volume refinery?

- The refinery produces gasoline from crude oil.
- The refinery processed less than 75,000 bbl/day crude oil on average in 2012.
- The refinery was commissioned before December 31, 2012.

2. What are the requirements to qualify as a small refiner?

- The refiner produces gasoline from crude oil.
- The refiner employed no more than 1,500 people, including parent company and all subsidiaries, in 2012.
- The refiner processed less than 155,000 bbl/day crude oil on average in 2012.

3. Do the small refiner/refinery exemptions apply to reporting and/or recordkeeping? In other words, are small refiners and refineries held to the same standards on PBMS as larger refiners?

The gasoline sulfur standards section of subpart O (Tier 3) has the following provision in §80.1603(a)(1)(iii)(B):

“Beginning January 1, 2020, for small refiners and small volume refineries approved pursuant to the provisions of §80.1622. Small refiners and small volume refineries will continue to be subject to the provisions of subpart H of this part through December 31, 2019 (or until compliance with this subpart O begins).”

Small refiners and refineries are exempt from all the requirements in subpart O (Tier 3), including the reporting and recordkeeping requirements during their 3 year grace period. However, the PBMS requirements are not in subpart O, they are in subpart D (§80.47), which applies to all refiners starting January 1, 2016.

4. What is the difference between non-small refiners/importers and small volume refineries/small refiners’ requirements for generating gasoline sulfur credits?

For non-small refiners/importers:

- Credits may be generated from 1/1/2012 through 12/31/2016 by producing gasoline containing less than 30 ppm sulfur on an annual average basis.
- Credits may be generated beginning 1/1/2017 by producing gasoline containing less than 10 ppm sulfur on an annual average basis.

For small volume refineries/small refiners:

- Credits may be generated from 1/1/2017 through 12/31/2019 if their annual average gasoline sulfur content is less than 30 ppm. These credits may only be used by small refineries/refiners for compliance with subpart H.
- Credits may be generated from 1/1/2017 through 12/31/2019 if their annual average gasoline sulfur content is less than 10 ppm. These credits may be used by all refiners and importers.

9. Sulfur Credits

1. What are sulfur credits used for?

Credits are generally used by refineries or importers whose annual average gasoline sulfur content exceeds 10 ppm beginning in 2017.

2. Can sulfur credits earned in Tier 2 be carried over for compliance with Tier 3?

Yes. EPA intends that banked credits would continue be used for Tier 2 compliance through the end of 2016. Starting in 2017, banked credits would be used for Tier 3 compliance.

3. How are sulfur credits measured?

EPA measures sulfur credits in ppm-gallons.

For example, beginning January 1, 2017, a refiner or importer who produced one gallon of gasoline containing seven ppm sulfur would generate three sulfur credits (i.e., three ppm-gallons). A refiner or importer who produced one gallon of gasoline containing four ppm sulfur would generate six sulfur credits (i.e., six ppm-gallons).

4. Who is eligible to generate sulfur credits under Tier 3?

EPA intends that only gasoline refiners and importers would be eligible to generate sulfur credits under Tier 3. EPA expects that denaturant and oxygenate producers/importers would not be eligible to generate sulfur credits.

5. Is there a limit to how many times a sulfur credit can be transferred?

EPA intends that credits would/could be transferred a maximum of two times between gasoline refiners/importers.

6. What is the process for notifying the EPA of a credit transfer?

EPA intends that purchase and/or sale of credits would be reported to the EPA on the annual reports due by March 31 of the year following the compliance year.

7. How long are sulfur credits valid for?

EPA intends that sulfur credits would be valid for use for five years after the year of generation and would expire if not used within this lifetime.

For example, credits generated in 2012 may be used either for compliance with the 30 ppm sulfur Tier 2 standard through 2016 or used for compliance with the 10 ppm sulfur Tier 3 standard in 2017. A credit generated in 2012 will expire March 31, 2018, which is the 2017 reporting deadline.

8. After the attestation, a credit correction is needed. When will the EPA Moderated Transaction System (EMTS) allow for corrections to a companies' sulfur and benzene credit balance?

EPA intends that EMTS would allow for corrections to sulfur and benzene credit balances. EPA expects that requests for remedial actions would be submitted through EMTS with an explanation of the remedial action and EPA intends to review and potentially provide EMTS access for necessary changes.