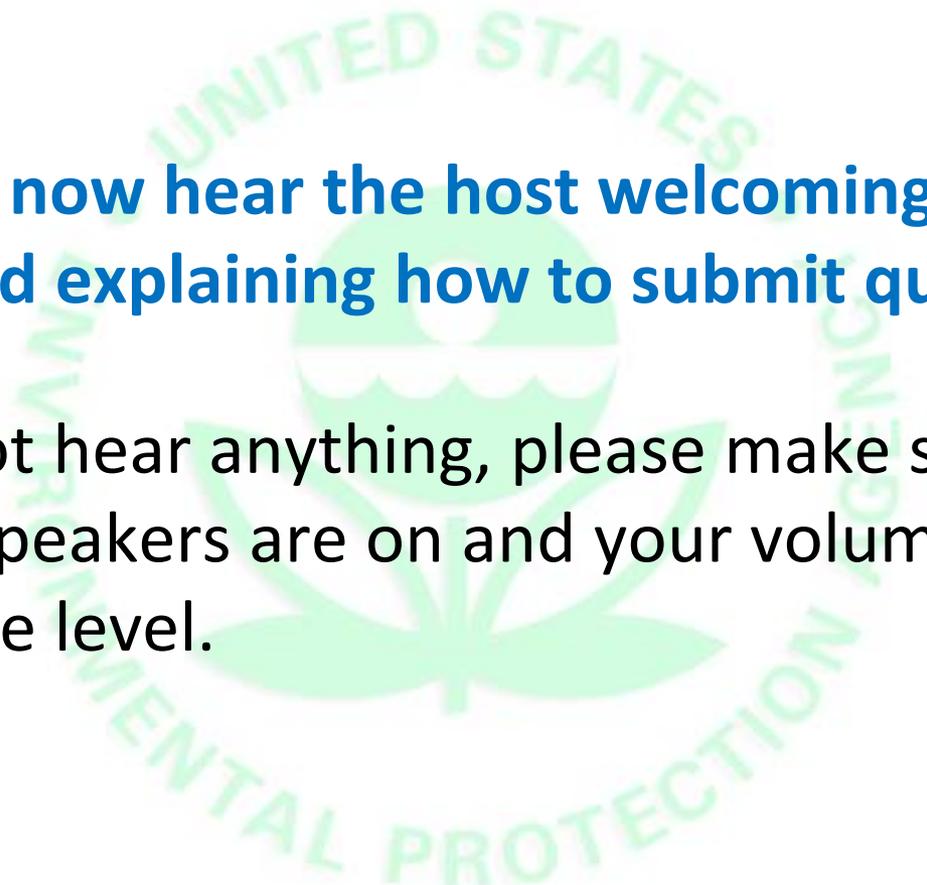


Thank you for joining

**RFS Registration for
Renewable Fuel Producers**

**Webinar II – Engineering Reviews: Required Elements and
Common Errors**

The webinar will begin momentarily.



You should now hear the host welcoming you to the webinar and explaining how to submit questions.

If you do not hear anything, please make sure your computer speakers are on and your volume is set to a reasonable level.



RFS Registration for Renewable Fuel Producers

Webinar II - Engineering Reviews: Required Elements and Common Errors

June 4, 2015



Introduction

- The goal of this webinar is to provide guidance to renewable fuel producers and third-party engineers about engineering reviews (ERs).
- EPA has pushed back a number of registrations based on inadequate engineering reviews.
- This webinar should help reduce the number of pushbacks and speed up the registration process by improving the quality of ERs.



The Engineering Review

- The regulations at 40 CFR 80.1450(b)(2) requires the following (emphasis added):
 - (2) An independent third-party engineering review and written report and verification of the information provided pursuant to paragraph (b)(1) of this section. The report and verification shall be **based upon a site visit** and review of relevant documents and **shall separately identify each item** required by paragraph (b)(1) of this section, **describe how the independent third-party evaluated the accuracy of the information provided**, state whether the independent third-party agrees with the information provided, and identify any exceptions between the independent third-party's findings and the information provided.



What the Engineer Needs to Do

- As stated at 80.1450(b)(2), the engineer needs to:
 - Conduct a site visit
 - Separately identify each element from 80.1450(b)(1)
 - Describe in the report how the engineer verified each element
 - State whether the engineer agrees with the information provided by the renewable fuel producer
 - List any exceptions found by the engineer to the information provided by the renewable fuel producer



Required Elements of the Engineering Review

1. Qualifications of professional engineer
2. Third-party independence of professional engineer
3. Date of onsite visit
4. Verification of types of renewable fuels or ethanol the facility is capable of producing without significant modification to the facility



Required Elements of the Engineering Review

5. Verification of feedstocks the facility is capable of using without significant modification to the facility
6. Verification of description of the production processes
7. Verification of co-products produced with each fuel type
8. Verification of process heat fuel supply plan



Required Elements of the Engineering Review

9. Verification of records supporting baseline or production volume, as applicable
10. For producers using separated yard/food waste, verification of a separated yard/food waste plan
11. For three-year updates, review of V-RIN calculations



Required Elements of the Engineering Review Grandfathered Facilities

- For grandfathered facilities, the following is also required:
 - Evidence demonstrating the date that construction started
 - Construction contracts
 - Applicable air permits
 - Records supporting baseline volume, either:
 - Air permit, or
 - Actual peak capacity



Required Elements of the Engineering Review

Other Elements

- There are also specific requirements in 40 CFR 80.1450(b)(1) for certain feedstocks/fuels/production processes that will not be covered here, including but not limited to:
 - Use of Arundo donax
 - Use of grain sorghum
 - Use of municipal solid waste
 - D3 and D7 RINs
 - Production of heating oil



Verifying Each Element

- The engineer needs to describe how each element was verified. The description should be sufficiently detailed so that EPA can evaluate whether the verification performed was appropriate. The verifications should cite any documents in the appendix which were verified.
- If the description is not sufficiently detailed or appropriate, then EPA will request more information for those elements.



Elements Required to Review

1. Qualifications of professional engineer (PE)
 - Proof of appropriate professional license or foreign equivalent (copy of PE's license and resume/CV are generally adequate)
 - For a domestic renewable fuel production facility or a foreign ethanol production facility, a PE licensed by an appropriate state agency in the US, with experience in chemical engineering or renewable fuel production.
 - For a foreign renewable fuel production facility, an engineer who is a foreign equivalent to a PE licensed in the US with experience in chemical engineering or renewable fuel production.



Elements Required to Review

2. Third-party independence of professional engineer
 - Statement from the PE that s/he is an independent third party meeting each requirement at 40 CFR 80.1450(b)(2)(ii)
3. Date(s) of onsite visit
 - A statement from the PE certifying the date(s) that the facility was visited



Elements Required to Review

4. Types of renewable fuels or ethanol the facility is capable of producing without significant modification to the facility
 - Based on first-hand observation by the PE
 - The ER should include *how* the PE verified this information. Be specific (e.g. through observation of what? Review of what documents?).



Elements Required to Review

5. All feedstocks the facility is capable of using without significant modification to the facility
 - Based on first-hand observation by the PE
 - The ER should include *how* the PE verified this information. Be specific (e.g. through observation of what? Review of what documents?).



Elements Required to Review

6. A description of the production processes
 - For each renewable fuel, describe the facility’s production process; e.g., a diagram of the overall process train, and a description of each stage in the process, including, but not necessarily limited to, major and minor ancillary equipment, process heat fuel, collection and treatment of waste streams, etc. The description given should be based on first-hand observation by the professional engineer. Verify the information is consistent with registration information submitted to EPA by the renewable fuel producer, or note any exceptions thereto.*

*Adapted from “Renewable Fuels Standard Regulation (RFS2) Registration Compliance Guidelines Engineering Review” available at <http://epa.gov/otaq/fuels/renewablefuels/compliancehelp/420b10024.pdf>.



Elements Required to Review

7. Co-products produced with each fuel type
 - List the types of co-products produced and verify or indicate any exceptions to the list of co-products submitted by the producer to EPA. Examples of typical co-products produced from renewable fuel production include dried distiller's grain (DDGS), carbon dioxide, industrial alcohols, oils, nutraceutical oils, etc.
 - The ER should include *how* the PE verified this information. Be specific (e.g. through observation of what? Review of what documents?).



Elements Required to Review

8. Process heat fuel supply plan
 - List the types of process heat fuels used at the facility and verify or identify exceptions with the information provided to EPA by the renewable fuel producer.
 - The PE should review and verify or indicate exceptions with respect to the process heat fuel supply plan that was submitted to EPA by the renewable fuel producer.
 - The ER should include *how* the PE verified this information. Be specific (e.g. through observation of what? Review of what documents?).



Elements Required to Review

9. Records supporting baseline or production volume, as applicable
 - Review all permits submitted by the renewable fuel producer to EPA that support the facility's baseline volume and verify, or indicate any exceptions, that all permits specified in 80.1450(b)(1)(v) have been submitted.
 - Review the content of the permits to determine whether one or more of them specify a maximum volume output of renewable fuel production for the facility, and state the results of this review.



Elements Required to Review

9. Records supporting baseline or production volume, as applicable
 - If no maximum volume output is specified in the appropriate permits, review documents submitted to EPA by the renewable fuel producer to demonstrate the facility's actual peak capacity as defined in 80.1401, and verify, or indicate any exceptions, that all documents necessary to demonstrate actual peak capacity have been submitted.
 - Show any calculations, as applicable



Elements Required to Review

10. For producers using separated yard waste or separated food waste
 - The PE must verify that the information contained in the separated yard waste or separated food waste plan is true, and must say how the information was verified.
 - The PE may look at, for example, contracts with separated food waste suppliers, templates for contracts, affidavits, etc.



Elements Required to Review

11. For three-year updates, review of V-RIN calculations

– The PE should:

- Verify the volumes of renewable fuel and state how the volumes were verified
- Verify that the appropriate equivalence values were used
- State what sample size was used, which should be in accordance with 40 CFR 80.127
- Show the calculations performed, including equivalence values used
 - Inclusion of spreadsheet showing calculations is recommended



Supplemental Documents

- Documents verified by the engineer which were provided by the producer per 80.1450(b)(1) may be included as an appendix to the ER.
 - English translations must be provided in addition to originals for any non-English documents.



Examples of Insufficient Descriptions

Please do not use statements such as:

- “I verified all information the producer submitted and found no exceptions” without saying how the information was verified.
- “Appropriate documents were examined to verify [element]” without listing said documents.
- “Through an onsite visit, I verified [element].” What specifically did you see during the onsite visit?



What Does this Mean for Me?

- EPA will continue to ask for more information in cases where we are unable to determine whether the regulatory requirements of § 80.1450 have been met.
- All pending and future ERs must meet this guidance.



Future Webinars

- Separated Food Waste Plans, July 23
- V-RIN Calculations, September 24



Send Feedback and Questions to:

support@epamts-support.com