PRACTICAL GUIDE TO FORESTRY FEEDSTOCK UNDER THE RENEWABLE FUEL STANDARD

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Disclaimer

This document, “A Practical Guide to Forestry Feedstock under the Renewable Fuel Standard,” is based on work conducted under a cooperative agreement with the USDA Forest Service (U.S. Forest Service). Input was received from the U.S. Environmental Protection Agency (EPA), Weaver & Tidwell (Weaver), other project developers, foresters, loggers, and related industry stakeholders. The material presented represents the opinion of the Strategic Biofuels LLC authors and should not be considered the official position of the U.S. Forest Service or the official position of the EPA.

Those planning on using forestry feedstocks for fuel production under the Renewable Fuel Standard are encouraged to work directly with the EPA and third-party compliance auditors regarding qualification and documentation of their specific intended feedstock.

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Fax: (833) 256-1665 or (202) 690-7442; or
Email: program.intake@usda.gov.

Background

Project Award and Goals. In October 2022 the U.S. Forest Service awarded a Cooperative Agreement to Strategic Biofuels for the first phase of a multi-phase project to develop a robust, auditable cloud-based system for demonstrating compliance of forestry feedstock with EPA regulations under the Renewable Fuel Standard (RFS2, hereafter referred to as RFS). The project was targeted to develop a user-friendly, cost effective, fraud-resistant gold standard tracking system that enables the forestry feedstock sector to supply the raw data that can accurately and conveniently be transmitted to the biofuel producer and validated by a third-party auditor for EPA compliance. The tracking system should be:

- Accessible via mobile devices
- Auditable by third-party auditors with the database readily accessible and compliant with EPA and state authorities' programs
- Usable by the biofuel producer, all parties along the forest feedstock supply chain, and third-party auditors to aid in ongoing qualification of forestry feedstock for the generation of cellulosic RIN credits under the RFS.

In order to achieve these overall goals and to provide valuable functionality to project developers and forest management personnel, the following features will be designed into the tracking system:

- Standardized. Define specific acceptable documentation formats, tracking protocols, and auditability needs for the EPA
- Cost effective. Create economically reasonable and viable documentation systems and protocols that are not so costly or onerous that they negate the value of the environmental credits
- Cost informative. Provide cost information from each element of the supply chain to support and encourage supply chain optimization
- Flexible. Flexible protocol that could reflect different forestry sources (plantation forests vs natural forests), geographic regions, and forestry management/logging processes
- Accounting outputs. Provide outputs that are usable as inputs to standard cost accounting software packages (e.g., QuickBooks, NetSuite, etc.)
- Software applicable. Documents, protocols, and systems that can reasonably be expected to be integrated into a software solution in Phase II

Project Team. Strategic Biofuels has led this effort as part of a Core team of senior leaders to execute and deliver the project and includes the U.S. Forest Service, the EPA, and Weaver as shown below.

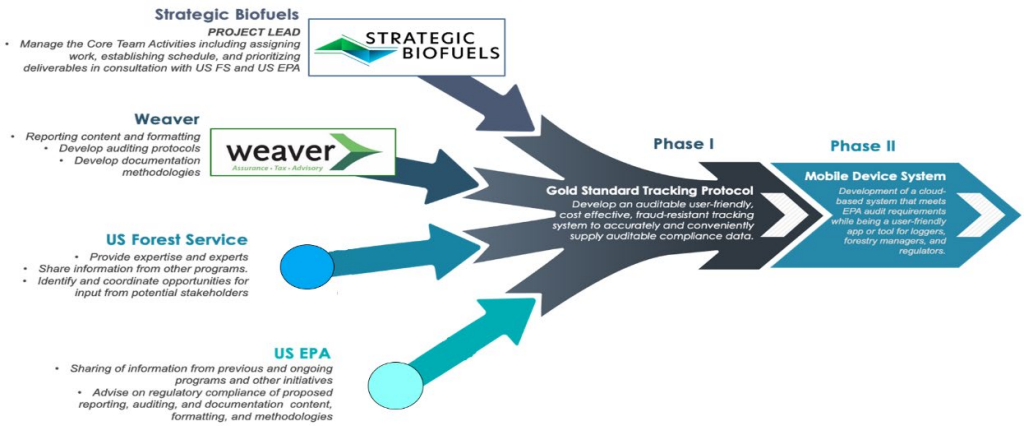


Figure 1. Project Core team for RFS Compliance Tracking for Forestry Feedstocks Project.

The Core team has been supported by an advisory team that includes other renewable fuel project developers and representatives from the National Association of State Foresters, National Association of Forest Owners, National Woodland Owners Association, American Loggers Council, and Intertribal Timber Council.

Project Approach. The approach of the Core team was to review the detailed scope of work as prepared by Strategic Biofuels and which contained ten areas of concentration for review, discussion, and collaboration. The result of this effort was to identify effectively "what works, and what doesn't work" from a **practical** perspective in terms of forestry feedstocks. Theoretically all of the feedstocks currently included under the RFS program could be used to produce renewable fuels. This guide is designed to help producers understand the challenges of using specific types of woody biomass feedstocks. However, since there are many different sources of information available that may support use of a particular feedstock, one should always consult the EPA along with a third-party auditor for clarification and confirmation.

Phase I Objectives. The specific objectives of Phase I of the project are shown in Figure 2. This "Practical Guide to Forestry Feedstock under the Renewable Fuel Standard," is based on discussions within the Core and advisory teams related to objectives 1 through 4: feedstock material identification; source documentation requirements; point of origin; and chain of custody.

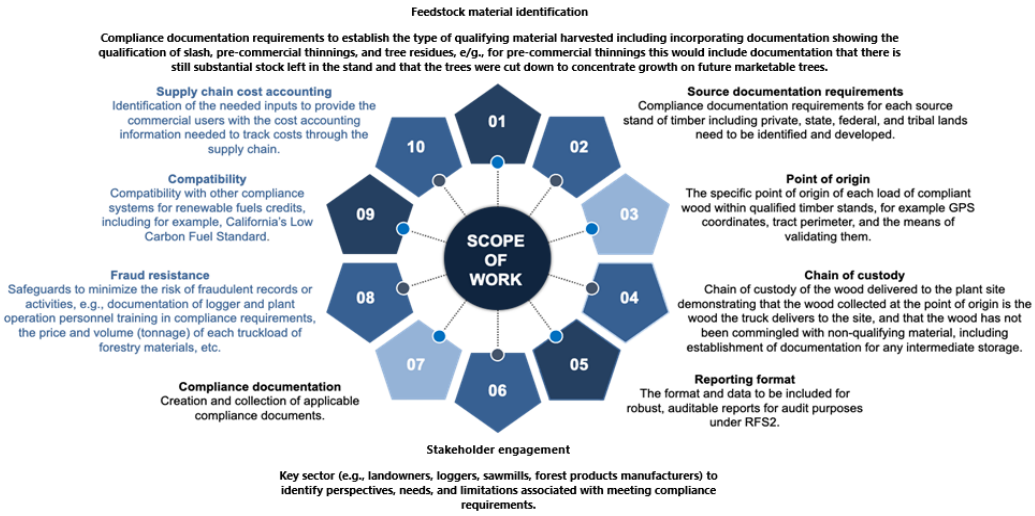


Figure 2. Specific objectives of Phase I of the project

Strategic Biofuels has written this Guide on its letterhead to avoid potential conflicts with a U.S. government agency officially "signing off" on the practical conclusions and findings that have resulted from these collaborative discussions. Project developers are encouraged to work directly with the EPA and third-party compliance auditors regarding qualification and documentation of their specific intended feedstock.

Summary

This Guide provides details regarding the information and documentation required for woody biomass to qualify for use as feedstock under the RFS. Project developers are encouraged to work directly with the EPA and third-party compliance auditors regarding qualification and documentation of their specific intended feedstock. Below are some key summary points from this guide:

- **Management plan or timber harvest plan.** For virtually all feedstock coming out of the forest, a management plan or timber harvest plan is a requirement to clearly document the intent for removal of the material from the tract. EPA expects and assumes that the removal of feedstock from the forest is incidental to normal forestry management and does not change or drive forest management practices.
- **Logging.** Currently, for materials to be considered qualified feedstock, they must be generated from logging operations or from downstream lumber processing / wood product manufacturing. These materials could be whole trees ("pre-commercial thinnings") or slash generated from logging. Slash that has accumulated in a forest as a result of a storm, wildfire, or similar disturbance is not currently usable as EPA is having internal discussions related to this material.
- **Qualified feedstock.** Per the RFS regulations, qualified feedstock can take the form of slash, thinnings, or milling or manufacturing residues. Slash and thinnings are relatively straightforward in terms of qualification, however milling or manufacturing residue, particularly sawmill waste — as a significant subset of residue — has unique challenges to use due to the potential for incoming RFS-qualified raw material to be mixed with non-RFS-qualified material during the storage and/or milling processes, and traceability concerns.
- **Areas at risk of wildfire.** Wood from federal and non-federal lands is allowable under the "areas at risk of wildfire" renewable biomass category; however, this wood cannot practically be used at this time because it is not included in the existing RFS pathways. A new facility-specific pathway petition would have to be filed with and approved by EPA prior to being able to use this material.
- **Tribal lands**. Based on a recent EPA ruling, wood from tribal lands may be usable under the RFS program.
- **Current View.** The conclusions and findings in this Guide are based on the current views of the authors, and it is acknowledged that these views could change in the future.
- **Decision Matrix.** A high-level decision matrix/flowchart regarding qualification of feedstock is located in Appendix A.

Essential Definitions

Feedstock Types and Qualifications. The Core team members sought to review, discuss, and fully agree on what qualifies as renewable biomass in terms of forestry feedstock under Subparts A and M of the Renewable Fuel Standard (see APPENDIX B, page 19, for full reference). Specifically, this section discusses three (3) types of feedstock: slash, pre-commercial thinnings, and tree residue[1].

- **Slash**. As currently defined in the RFS, "**Slash is the residue, including treetops, branches, and bark, left on the ground after logging or accumulating as a result of a storm, fire, delimbing, or other similar disturbance"[2]**. It should be noted that slash can be described from a general forestry perspective and from an RFS perspective. A general forestry perspective is that tops, limbs, branches, and bark typically make up what is referred to as slash. In the case of harvesting RFS-qualified pre-commercial thinnings, EPA's current interpretation allows materials that would otherwise be considered slash (tops/limbs/branches/bark) to be considered pre-commercial thinnings (along with the stemwood or roundwood) for purposes of the RFS. This applies to both natural forests and plantation forests. On that basis the typical material from an RFS perspective that is identified as slash in both plantation forests and natural forests are the tops/limbs/branches/bark from a final harvest
    - *Qualified slash.* The following materials may qualify under the RFS:
        - Slash produced from logging operations in non-federal, RFS land history — compliant, managed plantation forests. RFS qualification requirements for tree plantations are discussed in the definition of "Plantation Forest" below.
        - Slash produced from logging operations in non-federal, RFS-compliant natural stands. To be considered RFS-compliant, natural stands must not be in an old-growth or late successional growth stage (defined as >200 years old) or be in certain imperiled or rare ecological communities. The natural stands do not need to be previously cleared/managed as of a specific date to be RFS-compliant.
    - *Non-qualified slash.* The following materials are likely not qualified to be considered as "slash" under the RFS at this time:
        - *Slash containing whole trees.* Although logging practices often include whole trees (volunteer trees, crooked trees, etc.), slash piles containing only parts of trees (not whole trees) generally can be used. No tree parts or whole trees can be cut or cleared solely for the purpose of qualifying as slash to meet RFS regulations.
        - *Storm debris.* The ability to use material that is accumulated as a result of a storm, fire, delimbing, or other disturbance is currently being reviewed by EPA. Until this review is completed this material is not eligible for use.
        - *Slash from non-RFS-compliant forests.* Slash from federal forests, or slash from plantation or natural forests that do not meet the qualification requirements under the RFS regulations are not usable under the RFS.
- *Pre-commercial thinnings*. "**Pre-commercial thinnings are trees, including unhealthy or diseased trees, removed to reduce stocking to concentrate growth on (existing[3],) more desirable, healthy trees, or other vegetative material that is removed to promote tree growth"[4].** Thinning is

[1] This guide does not address a separate renewable biomass category, "biomass in areas at risk of wildfire".
[2],[4] 40 CFR §80.2 RFS Definitions
[3] Clarification added by EPA representatives of Core team

defined by the Society of American Foresters as “a cultural treatment made to reduce stand density of trees primarily to improve growth (of residual trees), enhance forest health, or recover potential mortality”[5]. All thinnings are designed to promote the production of commercial dimensional lumber, veneers, poles, or other wood products - hereafter referred to as sawtimber products — at the final harvest. Thinning activity must provide a surety that substantial stock remains in the tract, which might require third-party auditing confirmation or other documentation that demonstrates that the residual stand is within the normal range for being adequately stocked. While it is recognized that thinning may have multiple results or outcomes, pre-commercial thinnings are only usable under the RFS if at least one of the specifically stated objectives of the thinning is to concentrate growth on existing, more desirable healthy trees in a stand. A consideration for inclusion in thinning contracts and silvicultural plans is to attach thinning specifications and a description of the desired residual stand as well as the desired future condition of the stand to produce sawtimber products. A key to harvesting qualified pre-commercial thinnings from any tract is having a silvicultural prescription, forest management plan (although a management plan is not required to make a natural forest eligible to source from), or timber harvest plan in place. As noted previously in “Slash”, in the case of harvesting RFS-qualified pre-commercial thinnings, the EPA’s current interpretation results in the materials that would otherwise be considered slash (tops/limbs/branches/bark) be considered pre-commercial thinnings (along with the stemwood or roundwood) for purposes of the RFS. This applies to both natural forests and plantation forests.

- *Qualified thinnings.* The following materials may be qualified under the RFS:
  Thinning from below (low thinning), thinning from above (crown thinning), and free thinning are the most common silviculture operations utilized to manage stand density and improve stand health and vigor in natural or other stand types, and are all designed to result in stands that are within the normal range of stocking to promote tree diameter growth (concentrate growth on desirable trees) as well as stand growth (adequate stocking).
  - *Thinning from below.* Thinning from below refers to the removal of trees in the lower crown classes (smaller trees) while favoring for retention trees in the upper crown classes (larger trees).
  - *Thinning from above.* Thinning from above refers to the removal of trees in the upper crown classes in order to favor the retention of the best trees (most capable of producing sawtimber products) in the same crown classes.
  - *Free thinning.* Free thinning refers to utilizing a combination of all thinning criteria to control stand density and stand composition of desirable trees.
  - *Underbrush.* Underbrush and other vegetative materials can also be removed from the tract to promote tree growth as part of the qualified thinning activity.

  Multiple thinnings may be performed within an individual timber stand in a combination of thinning from below, thinning from above, or free thinning. In tree plantations, thinning typically involves a combination of row thinning (removing every 3rd or 5th rows or cutting corridors) and free thinning that focuses on further reducing stand density to the prescribed level with a focus on removal of less desirable trees. All thinnings may qualify under the RFS as long as a stated purpose of the thinning process is to reduce the number of trees to concentrate growth on the existing remaining stock. Thinning activity must provide a surety that substantial stock remains in the tract, which might require

[5] **Society of American Foresters, The Dictionary of Forestry**

third-party auditing confirmation or other documentation that the residual stand is within the normal range for being adequately stocked.

- *Non-qualified thinnings.* The following materials are not qualified under the RFS at this time. Developers intending to use these materials should review their specific materials with the EPA and third-party auditors to ensure that the specific materials to be used actually qualify.
  - *Thinnings during final harvest.* By definition, pre-commercial thinning cannot occur concurrently with a final harvest within the same tract.
  - *Thinnings to promote growth of future plantings.* Qualified thinnings must be for the purpose of concentrating growth on the remaining, existing trees. Therefore, enhancing the growth of trees which have not yet been planted or of seeds to be planted cannot qualify.
  - *Thinnings from non-RFS compliant natural forests or plantation forests.* Thinnings from stands that do not meet the qualification requirements under the RFS cannot qualify regardless of whether the thinning was performed to concentrate growth on the remaining trees.

- *Tree residue.* **"Tree residue is slash and any woody residue generated during the processing of planted trees from tree plantations for use in lumber, paper, furniture, or other applications, provided that such woody residue is not mixed with similar residue from trees that do not originate in tree plantations"**[6].
  - *Residues from sawmills or other woody biomass processing facilities.* Mills or biomass processing facilities must process 100% RFS-qualifying tree plantation residue for the resulting sawdust or chips to qualify as an RFS feedstock. Any commingling with non-qualified residues is not allowed and would disqualify all of the sawdust or chips. It may be feasible for a facility to process segregated batches of only RFS-qualifying trees, but the resulting sawdust or chips must remain segregated from residues of non-qualifying tree plantations.
  - *Materials that are difficult to trace back to the source tree.* Examples of items that can effectively be excluded from consideration as RFS-qualified feedstock due to difficult traceability back to the source might include: trees that have been cleared to allow for homes, buildings or parking lots to be built, railroad ties, telephone poles, animal litter that contains sawdust or wood chips, construction and demolition debris from landfills or construction sites (excluding a project using separated MSW as feedstock), wallboard made from wood chips, wooden pallets and packing crates, leftover wood flooring and paneling, leftover wood at closed mills and power plants, pellets that have gotten waterlogged or don't meet the buyer's specifications, discarded wooden furniture and cabinets, compressed cardboard, and tall oil.
  - *Materials that derive from the non-cellulosic portions of woody biomass.* The RFS regulations make it clear that oil that is physically separated from any woody or herbaceous biomass and is used to produce renewable fuel shall not generate cellulosic (D-code 3 or 7) RINs.
- *Natural Forest.* A natural forest is defined as a forest composed of primarily indigenous or naturalized trees and not classified as plantation forest.
  - *Qualified natural forest.* A natural forest timber stand may be eligible under the RFS but will likely need to be reviewed with the EPA and third-party auditors to ensure that the

[6] **40 CFR §80.2 RFS Definitions; underlining added here for emphasis.**

specific materials to be used actually qualify. A stand which may qualify will have the following attributes:

- *Ownership type*[7]
  - Privately-owned land or
  - Land owned by government entities other than the federal government (i.e. state-owned forests)
- *Clear geographical identification.* Must have the name and geographic boundaries of the land (see APPENDIX C, RFS0801 renewable biomass reporting requirements, page 37, for reference)

- *Non-qualified natural forests.* The following attributes are disqualifiers under the RFS at this time. These include:
  - *Ecologically sensitive land.* Ecologically sensitive lands are identified and can be found on NatureServe. These are stands that contain ecological communities with Natural Heritage Programs global ranking of G1 or G2 or with a State ranking of S1, S2, or S3; or old growth or late successional forest land (which EPA has characterized as having trees at least 200 years old).
  - *Federal land.* Woody biomass cannot be used from federal forests. Pre-commercial thinnings, slash, and tree residue must all be derived from non-federal land.
    - *Possible exception:* Areas at risk of wildfire within 200 ft of existing buildings and other areas regularly occupied by people, or of public infrastructure. However, until EPA interprets more definitively what areas at risk of wildfire include or don't include, feedstocks from these areas should be regarded as not qualified under the RFS. It should also be noted that an EPA-approved RFS fuel pathway for use of this material does not currently exist.
  - *Tribal land.* A recent communication (Feb 2024) from EPA clarified that the use of feedstock from non-federal forestlands and tree plantations on non-federal land belonging to an Indian tribe, Indian business, or an Indian individual that is held in trust by the U.S. or subject to a restriction against alienation imposed by the U.S. may qualify under the RFS provided it meets the other requirements.

- *Plantation Forest*. A plantation forest is a forest established by planting and/or seeding in the process of afforestation or reforestation. It may consist of native, naturalized, non-native, or introduced species.
  - *Qualified plantation forest.* Even if a plantation forest qualifies under the RFS, feedstock generated from the forests will likely need to be reviewed with the EPA and perhaps third-party auditors to ensure that the specific materials to be used actually qualify. A stand which may qualify will have the following attributes:
    - A stand of no less than 1 acre composed primarily of trees established by hand- or machine-planting of a seed or sapling, or by coppice growth from the stump or root of a tree that was hand- or machine-planted
    - Must have been cleared prior to December 19, 2007.
    - Must have been actively managed on December 19, 2007.
    - Separate documentation must exist for the clearing and the active management above. This could include certification by the Sustainable Forestry Initiative (SFI),

[7] **Tribal-owned land is not currently available for use until the EPA determines whether Congress intended tribal land to be treated as federal or non-federal land**

the Forest Stewardship Council (FSC), or similar other certifications on or prior to December 19, 2007. Current stands that are certified under SFI or FSC (or similar certifications) may not meet the requirements depending on other available documentation.
        - Clear geographical identification. Must have the name and geographic boundaries of the land (see APPENDIX C, RFS0801 renewable biomass reporting requirements, page 37, for reference).
- *Logging*
    - Logging is the removal of forest products as part of forest management activities or to achieve silvicultural or other commercial objectives and includes land clearing for development or conversion to non-forest, right-of-way maintenance, or maintenance of a non-forested condition, and also includes (among others):
        - Traditional timberland harvesting which include thinnings and final harvests (including clearcuts).
        - Salvage harvesting after storms, wildfires and insect infestations.
        - Wood chipping of trees located in forest stands.
        - All species and merchantable products such as stems, and all traditionally nonmerchantable products such as tops, limbs, and stumps.
    - Logging *is not* work done by arborists, residential or commercial tree care professionals, or landscape service professionals.

Source Documentation Requirements

From each specific source (i.e. tract) from which feedstock is generated as well as through the chain of custody along the entire supply chain, various compliance documents must be secured and retained to provide support to the determination of the RFS qualification eligibility of the material harvested. Developers should collaborate with the EPA and third-party auditors to ensure that the collected compliance documents meet their requirements. In the sections below these details are broken out by the two primary qualifying feedstock types.

- *Slash*
    - A silvicultural prescription, management plan, or timber harvest plan should be in place and provided by the forestry feedstock sector. These will likely be reviewed by the third-party auditor hired by the renewable fuel producer as a part of the compliance documentation requirements. The plan will also be reviewed to ensure that the harvest was not deliberately performed solely for use of the material under the RFS.
    - In a final harvest, the tops and limbs may qualify as slash under the RFS. However, whole trees — ie small trees that are harvested during the final harvest of large trees — are not considered slash and would not be qualified feedstock material. It is recommended that developers collaborate with the EPA and third-party auditors to confirm that the specific materials to be used actually qualify.
    - If slash is removed from the forest, there should be an accompanying mass balance of the slash/roundwood mix that was extracted during the operation. This is a primary consideration particularly if both materials are removed from the forest in chip form.
    - Truck weight records for each load.
    - Separate trip tickets delineating slash and roundwood. Trip tickets should include identification that ties the truckload to the source documentation of the tract and specific

point of origin identification. Trip tickets should also be generated reflecting any intermediate feedstock handling/preparation and transportation to/from offsite locations prior to delivery to the final processing facility.
    - Slash and pre-commercial thinnings have separate feedstock reporting codes and must be identified individually for each batch of renewable fuel. On that basis they likely need to be kept separated prior to delivery to the final destination. If it is desired to commingle them in the field, a plan to account for the individual feedstocks should be presented to EPA for approval.
    - Other documentation — any additional information or documentation that could provide evidence that the material removed is slash.
- *Pre-commercial thinnings*
    - A silvicultural prescription, management plan, or timber harvest plan should be in place and provided by the forestry feedstock sector. The plan should include a current inventory of trees on the land, and the type and quantity of trees to be harvested. The plan will be reviewed to ensure that the harvest was not deliberately done solely for use of the material under the RFS (e.g., to promote growth and health in remaining trees). It is recommended that developers collaborate with EPA and third-party auditors to ensure that the plan or treatment meets their requirements.
    - A timber contract or agreement should list products and volumes of material. The contract or agreement will be reviewed to ensure that the harvest was not deliberately done solely for use of the material under the RFS (e.g., to promote growth and health of remaining trees).
    - Certifications, like SFI or FSC, possessed by members of the forestry feedstock sector will likely be reviewed by the third-party auditor hired by the renewable fuel producer as a part of the compliance documentation requirements.
    - Land history records: for tree plantations, records showing dates of planting and any prior thinnings; for natural forests, records providing dates of any prior thinnings.
    - For tree plantations: From 40 CFR 80.1454(d)(2), domestic producers of renewable fuel made from planted trees or tree residue from actively managed tree plantations must keep records that serve as evidence that the land from which the feedstock was obtained was cleared prior to December 19, 2007 **and** actively managed on December 19, 2007. The records must be provided by the feedstock producer and **must include at least one** of the following documents, which must be traceable to the land in question (for clarity, generally one would need at least one document each to prove the clearing qualification and the actively managed qualification):
        - Sales records for planted trees or tree residue.
        - Purchasing records for fertilizer, weed control, or replanting, including seeds, seedlings, or other nursery stock.
        - A written management plan for silvicultural purposes.
        - Documentation of participation in a silvicultural program sponsored by a federal, state, or local government agency.
        - Documentation of land management in accordance with a silvicultural product certification program.
        - An agreement for land management consultation with a professional forester.
        - Evidence of the existence and ongoing maintenance of a road system or other physical infrastructure designed and maintained for logging use, together with one of the aforementioned documents.

        - Note: Satellite data is NOT acceptable as sole documentation, although it may be acceptable to confirm evidence of a road system to be used for logging.
    - A tree plantation must be a stand of no less than 1 acre composed primarily of trees established by hand- or machine-planting of a seed or sapling, or by coppice growth from the stump or root of a tree that was hand- or machine-planted.
    - Not ecologically sensitive forestland — see ***Ecologically sensitive forestland*** under **40 CFR §80.2 RFS Definitions** in Appendix A, page 17.
    - Professional foresters report post-thinning — an inventory of trees remaining on the tract, both types and quantities. This will aid confirmation of substantial stock remaining in the tract following the thinning operation.
    - Truck weight records for each load. It should be noted that for reporting and auditing purposes the feedstock volume records should also be kept on a bone dry ton basis. A consistent conversion process from wet tons to bone dry tons should be identified and documented.
    - Trip tickets should include identification that ties the truckload to the source documentation of the tract and specific point of origin identification. Trip tickets should also be generated reflecting any intermediate feedstock handling/preparation and transportation to/from offsite locations prior to delivery to the final processing facility.
    - Documentation to identify and verify ownership of the land to be thinned. County or Parish Records Offices have information available to help. Harvester and/or landowner records related to historical management of tree plantations are also helpful.
    - Slash and pre-commercial thinnings have separate feedstock reporting codes and must be identified individually for each batch of renewable fuel. On that basis they likely need to be kept separated prior to delivery to the final destination. If it is desired to commingle them in the field, a plan to account for the individual feedstocks should be presented to EPA for approval.
- *Additional requirements*. In addition to the specific details listed above for slash and pre-commercial thinnings, there are general requirements for each load of material removed from the forest that validate the exact *point of origin.* It is recommended that developers collaborate with EPA and third-party auditors to ensure that these requirements and information meet their expectations:
    - GPS coordinates are a good source of validation, while others prefer to use tract maps or GIS files alone or to augment GPS coordinates.
    - Plantation names, as appropriate
    - Plantation boundaries, as appropriate
    - Quantity (typically weight) removed from each tract

Chain of Custody

- Full documentation of the chain of custody of the qualified feedstock from the forest to the processing plant site must be secured and retained for auditing purposes. This should include information regarding any intermediate storage of the feedstock along with efforts to ensure that it has not been commingled with non-qualifying material. It is recommended that developers collaborate with EPA and third-party auditors to ensure that this information meets their requirements:
    - Tickets, either paper or electronic, should be generated at the harvest source. Tickets could include a specific and unique load number, a GPS tag representing the coordinates of the load location, an identifying code, information representing the specific tract and tract owner, transport truck ID, or a picture of the truck.
    - The storage of feedstock at intermediate, likely offsite, locations should be guided by establishment of a written protocol which includes means of maintaining segregation from non-qualified materials, methods to account for inbound and outbound materials, and the release of intermediate inventory to refinery/facility inventory.
    - SFI, FSC, or other similar certifications may have imbedded requirements for Chain of Custody documentation and handling of information, which may inform this process.
    - Chain of Custody documentation may also be usable under certification systems other than the RFS, such as Low Carbon Fuel Standard programs or European systems such as The International Sustainability and Carbon Certification (ISSC) or The Roundtable on Sustainable Biomaterials (RSB).

Reporting and Recordkeeping Requirements for All Renewable Fuel Producers

Under the RFS there are specific requirements for reporting and recordkeeping of information associated with all facets of renewable fuel and co-products production, RIN transactions, and feedstock sourcing for regular reporting, Quality assurance plan (QAP) participation (as applicable), and attestation purposes as outlined below:

- Quarterly reporting under 40 CFR Part 80:
    - RIN Transactions
        - RFS0107 – RIN Activity Report – Shows submitter's RIN holdings versus certain thresholds, corporate affiliates, RIN counterparties and volume of renewable fuel (for which RINs were generated) owned at the end of the quarter (for anti-hoarding check)
        - EMTS e-signature Copy of Record – RIN Transaction Report — shows all RIN generation, purchase, sale, and retirement transactions for the calendar quarter
    - Co-products
        - RFS0702 – Renewable Fuel Producer Co-products report — shows all secondary products produced at the facility for which no RINs are generated and are sold into the marketplace, e.g. biochar, CO_2

    - Renewable Biomass
        - RFS0801 — Renewable Biomass report — identifies each forest or tree plantation where feedstock was sourced for renewable fuel produced in the calendar quarter, type and quantity of feedstock used, coordinates of the boundaries of the forests/tree plantations land where the feedstock was sourced
        - Helpful Note — this information should be required as part of the feedstock supply agreement with the feedstock provider
    - Additional reports
        - If the renewable fuel producer has made jet fuel or naphtha, three additional reports are required describing where these fuels were blended with petroleum fuels
        - Helpful Note- producer needs to have the information/documentation related to the outcome of these additional products in terms of who blended it into what, where it went, etc. – include this requirement in the Offtake Agreement.
- Annual Reporting under Parts 79, 80 and 1090

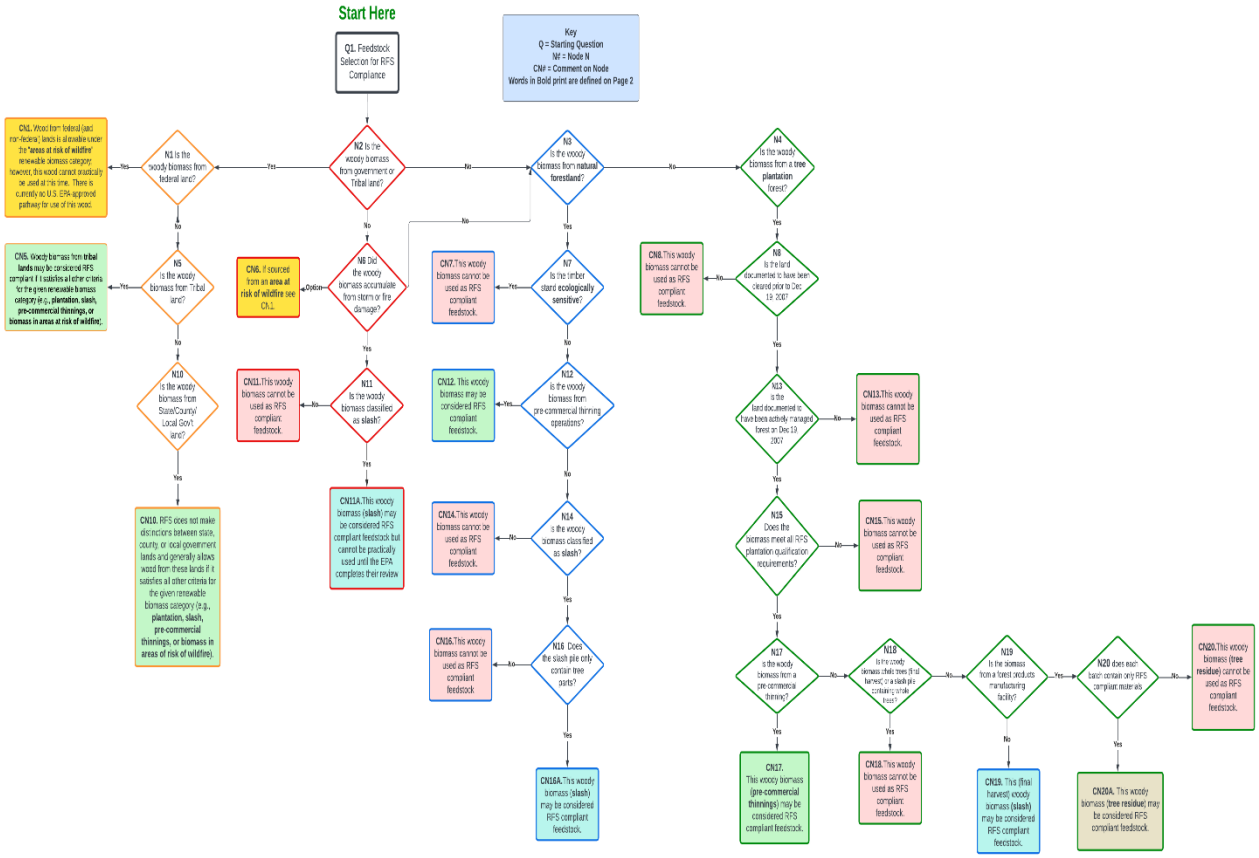
    - https://www.epa.gov/fuels-registration-reporting-and-compliance-help/how-report-quarterly-and-annually-renewable-fuel

    - Production Outlook Report — RFS0902 — shows projections of RIN and renewable fuel production estimates by feedstock
    - Attestation Report — producer must use an auditor (that does not perform the renewable fuel producer's QAP) to perform an "agreed upon procedures" audit of all reporting and transactions during the previous calendar year.
    - Optional RFS report — RFS2700 Cellulosic Biofuel Producer Questionnaire Form — producer may elect to file this report that shows nameplate capacity, process description, technology partners, construction completion date, etc.
    - ULSD Batch Facility Summary Report — STR0300 — for producers of "diesel fuel" — shows volume of diesel produced during the year, maximum and average sulfur content of all batches produced during the year.
    - Motor Vehicle Fuel Manufacturers Report — 3520-12A — shows annual production volume, properties of the fuel, additives used.
- Quality Assurance Plan (QAP) Quarterly Reviews — participation in the RFS QAP program is voluntary for renewable fuel producers. Auditor performs review of past quarter's activity to enable producer to generate "verified" RINs on future production.
    - Feedstock-related components
        - Renewable biomass verification
        - Feedstocks used are consistent with registration information

    - Production-related components
        - Process is consistent with registration information
        - Mass and energy balances are appropriate for type and size of facility
    - RIN generation-related components
        - Designation is correct for qualifying use of fuel
        - Certificates of analysis verify fuel type and quality
        - Production volume is consistent with registration information
        - RIN generation is commensurate with volume of renewable fuel produced
    - RIN separation components
        - Were RINs separated correctly?
        - Verify that exported fuel had no RINs generated for it or that the RINs were retired
        - Verify that annual attestation report is accurate
    - Representative Sampling
        - Auditor may elect to use a representative sample of fuel batches to ensure compliance with all applicable regulations
- Recordkeeping for renewable fuel producers
    - Quarterly and annual Part 79, 80 and 1090 reports
    - Records related to RIN generation, sales, purchases, retirements
    - Records related to any exported fuel
    - Product transfer documents (PTDs)
    - Feedstock custody and title transfer documents
    - Registration documents
    - QAP contractual agreements
    - Records related to any volume of renewable fuel for which RINs were not generated
    - Maps or electronic data identifying boundaries of land where each type of feedstock was produced
    - Bills of lading, PTDs showing quantity of feedstock purchased from each natural forest or tree plantation, and custody transfer documents
    - For feedstocks sourced from tree plantations, land history records showing that the land was cleared prior to December 19, 2007 and actively managed on that date
    - Supplier certificates affirming that the feedstock met the renewable biomass requirements
    - Records related to contractual and corporate affiliates of the renewable fuel producer
    - All records must be kept for five years from the date they were created; records relating to RIN transactions must be kept for five years from the date of the transaction.

APPENDIX A — Part 1
RFS Compliant Feedstock Flowchart

RFS Woody Biomass Compliant Feedstock Flowchart



Disclaimer

This document is for general guidance only and is not exhaustive or comprehensive. Those planning on using forestry feedstocks for fuel production under the Renewable Fuel Standard are encouraged in the early stages of project development to work directly with the U.S. EPA and third-party compliance auditors to assess qualification and required documentation of their specific intended feedstock. Neither Strategic Biofuels nor the U.S. Forest Service is responsible for decisions made by any organization based on the information presented in this document, which represents a perspective as of December 1, 2023. Note: Biomass from areas at risk of wildfire could become more readily eligible in the future if there is legislative action and/or U.S. EPA issues a rulemaking to clarify and/or expand the acceptability of this renewable biomass category.

APPENDIX A — Part 2

40 CFR §80.2 RFS Definitions related to woody biomass in alphabetic order

Areas at risk of wildfire are those areas in the "wildland-urban interface", where humans and their development meet or intermix with wildland fuel. Note that, for guidance, the SILVIS laboratory at the University of Wisconsin previously maintained a Web site that provided a detailed map of areas meeting this criteria, however this website is no longer available. For more information regarding areas at risk of wildfire please see the following links:

The wildland-urban interface in the United States | US Forest Service Research and Development (usda.gov) ; What is the WUI? (fema.gov) ; Wildland–urban interface - Wikipedia; WUI Definitions | NIST ; FHT_Fall2008.qxd (foresthistory.org)

Ecologically sensitive forestland means forestland that meets either of the following criteria:

> (1) An ecological community with a global or state ranking of critically imperiled, imperiled or rare pursuant to a State Natural Heritage Program. For examples of such ecological communities, see "Listing of Forest Ecological Communities Pursuant to 40 CFR 80.1401; S1-S3 communities," which is number EPA-HQ-OAR-2005-0161-1034.1 in the public docket, and "Listing of Forest Ecological Communities Pursuant to 40 CFR 80.1401; G1-G2 communities," which is number EPA-HQ-OAR-2005-0161-2906.1 in the public docket. This material is available for inspection at the EPA Docket Center, EPA/DC, EPA West, Room 3334, 1301 Constitution Ave., NW., Washington DC. The telephone number for the Air Docket is (202) 566-1742.
>
> (2) Old growth or late successional, characterized by trees at least 200 years in age.

Forestland is generally undeveloped land covering a minimum area of 1 acre upon which the primary vegetative species are trees, including land that formerly had such tree cover and that will be regenerated and tree plantations. Tree-covered areas in intensive agricultural crop production settings, such as fruit orchards, or tree-covered areas in urban settings, such as city parks, are not considered forestland.

Pre-commercial thinnings are trees, including unhealthy or diseased trees, removed to reduce stocking to concentrate growth on more desirable, healthy trees, or other vegetative material that is removed to promote tree growth.

Slash is the residue, including treetops, branches, and bark, left on the ground after logging or accumulating as a result of a storm, fire, delimbing, or other similar disturbance.

Tree plantation is a stand of no less than 1 acre composed primarily of trees established by hand- or machine-planting of a seed or sapling, or by coppice growth from the stump or root of a tree that was hand- or machine-planted. Tree plantations must have been cleared prior to December 19, 2007 and must have been actively managed on December 19, 2007, as evidenced by records which must be traceable to the land in question, which must include [one of the following[8]]:

> (1) Sales records for planted trees or tree residue together with other written documentation connecting the land in question to these purchases;

[8] **Inserted for clarity by Weaver**

(2) Purchasing records for seeds, seedlings, or other nursery stock together with other written documentation connecting the land in question to these purchases;

(3) A written management plan for silvicultural purposes;

(4) Documentation of participation in a silvicultural program sponsored by a Federal, state or local government agency;

(5) Documentation of land management in accordance with an agricultural or silvicultural product certification program;

(6) An agreement for land management consultation with a professional forester that identifies the land in question; or

(7) Evidence of the existence and ongoing maintenance of a road system or other physical infrastructure designed and maintained for logging use, together with one of the above-mentioned documents.

Tree residue is slash and any woody residue generated during the processing of planted trees from tree plantations for use in lumber, paper, furniture, or other applications, provided that such woody residue is not mixed with similar residue from trees that do not originate in tree plantations.

Tribal lands are those lands belonging to an Indian tribe, Indian business, or an Indian individual that is held in trust by the U.S. or subject to a restriction against alienation imposed by the U.S.

Other useful definitions

Biomass-based diesel means a renewable fuel that has lifecycle greenhouse gas emissions that are at least 50 percent less than baseline lifecycle greenhouse gas emissions and meets all of the requirements of paragraph (1) of this definition:

(1)

(i) Is a transportation fuel, transportation fuel additive, heating oil, or jet fuel.

(ii) Meets the definition of either biodiesel or non-ester renewable diesel.

(iii) Is registered as a motor vehicle fuel or fuel additive under 40 CFR part 79, if the fuel or fuel additive is intended for use in a motor vehicle.

(2) Renewable fuel produced from renewable biomass that is co-processed with petroleum is not biomass-based diesel.

Cellulosic biofuel means renewable fuel derived from any cellulose, hemi-cellulose, or lignin that has lifecycle greenhouse gas emissions that are at least 60 percent less than the baseline lifecycle greenhouse gas emissions.

Cellulosic diesel is any renewable fuel which meets both the definitions of cellulosic biofuel and biomass-based diesel. Cellulosic diesel includes heating oil and jet fuel produced from cellulosic feedstocks.

APPENDIX B

https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-80/subpart-A

Subpart A of the Renewable Fuel Standard, Section 80.2

Subpart A—General Provisions

Source: 88 FR 44468, July 12, 2023.

40 CFR 80.2 Definitions

The definitions of this section apply in this part unless otherwise specified. Note that many terms defined here are common terms that have specific meanings under this part.

Actual peak capacity means 105% of the maximum annual volume of renewable fuels produced from a specific renewable fuel production facility on a calendar year basis.

(1) For facilities that commenced construction prior to December 19, 2007, the actual peak capacity is based on the last five calendar years prior to 2008, unless no such production exists, in which case actual peak capacity is based on any calendar year after startup during the first three years of operation.

(2) For facilities that commenced construction after December 19, 2007 and before January 1, 2010, that are fired with natural gas, biomass, or a combination thereof, the actual peak capacity is based on any calendar year after startup during the first three years of operation.

(3) For all other facilities not included above, the actual peak capacity is based on the last five calendar years prior to the year in which the owner or operator registers the facility under the provisions of § 80.1450, unless no such production exists, in which case actual peak capacity is based on any calendar year after startup during the first three years of operation.

Adjusted cellulosic content means the percent of organic material that is cellulose, hemicellulose, and lignin.

Advanced biofuel means renewable fuel, other than ethanol derived from cornstarch, that has lifecycle greenhouse gas emissions that are at least 50 percent less than baseline lifecycle greenhouse gas emissions.

Agricultural digester means an anaerobic digester that processes only animal manure, crop residues, or separated yard waste with an adjusted cellulosic content of at least 75%. Each and every material processed in an agricultural digester must have an adjusted cellulosic content of at least 75%.

Algae grown photosynthetically are algae that are grown such that their energy and carbon are predominantly derived from photosynthesis.

Annual cover crop means an annual crop, planted as a rotation between primary planted crops, or between trees and vines in orchards and vineyards, typically to protect soil from erosion and to improve the soil between periods of regular crops. An annual cover crop has no existing market to which it can be sold except for its use as feedstock for the production of renewable fuel.

Approved pathway means a pathway listed in table 1 to § 80.1426 or in a petition approved under § 80.1416 that is eligible to generate RINs of a particular D code.

Areas at risk of wildfire are those areas in the "wildland-urban interface", where humans and their development meet or intermix with wildland fuel. Note that, for guidance, the SILVIS laboratory at the University of Wisconsin maintains a website that provides a detailed map of areas meeting this criteria at: *www.silvis.forest.wisc.edu/projects/US_WUI_2000.asp*. The SILVIS laboratory is located at 1630 Linden Drive, Madison, Wisconsin 53706 and can be contacted at (608) 263–4349.

A–RIN means a RIN verified during the interim period by a registered independent third-party auditor using a QAP that has been approved under § 80.1469(a) following the audit process specified in § 80.1472.

Assigned RIN means a RIN assigned to a volume of renewable fuel or RNG pursuant to § 80.1426(e) or § 80.125(c), respectively, with a K code of 1.

Audited facility means any facility audited under an approved quality assurance plan under this part.

Audited party means a party that pays for or receives services from an independent third party under this part.

Baseline lifecycle greenhouse gas emissions means the average lifecycle greenhouse gas emissions for gasoline or diesel (whichever is being replaced by the renewable fuel) sold or distributed as transportation fuel in 2005.

Baseline volume means the permitted capacity or, if permitted capacity cannot be determined, the actual peak capacity or nameplate capacity as applicable pursuant to § 80.1450(b)(1)(v)(A) through (C), of a specific renewable fuel production facility on a calendar year basis.

Batch pathway means each combination of approved pathway, equivalence value as determined under § 80.1415, and verification status for which a facility is registered.

Biocrude means a liquid biointermediate that meets all the following requirements:

(1) It is produced at a biointermediate production facility using one or more of the following processes:

(i) A process identified in row M under table 1 to § 80.1426.

(ii) A process identified in a pathway listed in a petition approved under § 80.1416 for the production of renewable fuel produced from biocrude.

(2) It is to be used to produce renewable fuel at a refinery as defined in 40 CFR 1090.80.

Biodiesel means a mono-alkyl ester that meets ASTM D6751 (incorporated by reference, see § 80.12).

Biodiesel distillation bottoms means the heavier product from distillation at a biodiesel production facility that does not meet the definition of biodiesel.

Biogas means a mixture of biomethane, inert gases, and impurities that meets all the following requirements:

(1) It is produced through the anaerobic digestion of renewable biomass under an approved pathway.

(2) Non-renewable components have not been added.

(3) It requires removal of additional components to be suitable for its designated use (*e.g.,* as a biointermediate, to produce RNG, or to produce biogas-derived renewable fuel).

Biogas closed distribution system means the infrastructure contained between when biogas is produced and when biogas or treated biogas is used to produce biogas-derived renewable fuel within a discrete location or series of locations that does not include placement of biogas, treated biogas, or RNG on a natural gas commercial pipeline system.

Biogas closed distribution system RIN generator means any party that generates RINs for renewable CNG/LNG in a biogas closed distribution system.

Biogas-derived renewable fuel means renewable CNG/LNG or any other renewable fuel that is produced from biogas or RNG, including from biogas used as a biointermediate.

Biogas producer means any person who owns, leases, operates, controls, or supervises a biogas production facility.

Biogas production facility means any facility where biogas is produced from renewable biomass under an approved pathway.

Biogas used as a biointermediate means biogas or treated biogas that a renewable fuel producer uses to produce renewable fuel other than renewable CNG/LNG at a separate facility from where the biogas is produced.

Biointermediate means any feedstock material that is intended for use to produce renewable fuel and meets all the following requirements:

(1) It is produced from renewable biomass.

(2) It has not previously had RINs generated for it.

(3) It is produced at a facility registered with EPA that is different than the facility at which it is used as feedstock material to produce renewable fuel.

(4) It is produced from the feedstock material identified in an approved pathway, will be used to produce the renewable fuel listed in that approved pathway, and is produced and processed in accordance with the process(es) listed in that approved pathway.

(5) Is one of the following types of biointermediate:

(i) Biocrude.

(ii) Biodiesel distillate bottoms.

(iii) Biomass-based sugars.

(iv) Digestate.

(v) Free fatty acid (FFA) feedstock.

(vi) Glycerin.

(vii) Soapstock.

(viii) Undenatured ethanol.

(ix) Biogas used to make a renewable fuel other than renewable CNG/LNG.

(6) It is not a feedstock material identified in an approved pathway that is used to produce the renewable fuel specified in that approved pathway.

Biointermediate import facility means any facility as defined in 40 CFR 1090.80 where a biointermediate is imported from outside the covered location into the covered location.

Biointermediate importer means any person who owns, leases, operates, controls, or supervises a biointermediate import facility.

Biointermediate producer means any person who owns, leases, operates, controls, or supervises a biointermediate production facility.

Biointermediate production facility means all of the activities and equipment associated with the production of a biointermediate starting from the point of delivery of feedstock material to the point of final storage of the end biointermediate product, which are located on one property, and are under the control of the same person (or persons under common control).

Biomass-based diesel means a renewable fuel that has lifecycle greenhouse gas emissions that are at least 50 percent less than baseline lifecycle greenhouse gas emissions and meets all of the requirements of paragraph (1) of this definition:

(1)

(i) Is a transportation fuel, transportation fuel additive, heating oil, or jet fuel.

(ii) Meets the definition of either biodiesel or non-ester renewable diesel.

(iii) Is registered as a motor vehicle fuel or fuel additive under 40 CFR part 79, if the fuel or fuel additive is intended for use in a motor vehicle.

(2) Renewable fuel produced from renewable biomass that is co-processed with petroleum is not biomass-based diesel.

Biomass-based sugars means sugars (*e.g.,* dextrose, sucrose, etc.) extracted from renewable biomass under an approved pathway, other than through a form change specified in § 80.1460(k)(2).

Biomethane means methane produced from renewable biomass.

B–RIN means a RIN verified during the interim period by a registered independent third-party auditor using a QAP that has been approved under § 80.1469(b) following the audit process specified in § 80.1472.

Business day has the meaning given in 40 CFR 1090.80.

Canola/Rapeseed oil means either of the following:

(1) ***Canola oil*** is oil from the plants *Brassica napus, Brassica rapa, Brassica juncea, Sinapis alba,* or *Sinapis arvensis,* and which typically contains less than 2 percent erucic acid in the component fatty acids obtained.

(2) ***Rapeseed oil*** is the oil obtained from the plants *Brassica napus, Brassica rapa,* or *Brassica juncea.*

Carrier means any distributor who transports or stores or causes the transportation or storage of gasoline or diesel fuel without taking title to or otherwise having any ownership of the gasoline or diesel fuel, and without altering either the quality or quantity of the gasoline or diesel fuel.

Category 3 (C3) marine vessels, for the purposes of this part 80, are vessels that are propelled by engines meeting the definition of “Category 3” in 40 CFR 1042.901.

CBOB means gasoline blendstock that could become conventional gasoline solely upon the addition of oxygenate.

Cellulosic biofuel means renewable fuel derived from any cellulose, hemi-cellulose, or lignin that has lifecycle greenhouse gas emissions that are at least 60 percent less than the baseline lifecycle greenhouse gas emissions.

Cellulosic biogas feedstock means an individual feedstock used to produce biogas that contains at least 75% average adjusted cellulosic content and whose batch pathway has been assigned a D code of 3 or 7.

Cellulosic diesel is any renewable fuel which meets both the definitions of cellulosic biofuel and biomass-based diesel. Cellulosic diesel includes heating oil and jet fuel produced from cellulosic feedstocks.

Certified non-transportation 15 ppm distillate fuel or *certified NTDF* means distillate fuel that meets all the following:

(1) The fuel has been certified under 40 CFR 1090.1000 as meeting the ULSD standards in 40 CFR 1090.305.

(2) The fuel has been designated under 40 CFR 1090.1015 as certified NTDF.

(3) The fuel has also been designated under 40 CFR 1090.1015 as 15 ppm heating oil, 15 ppm ECA marine fuel, or other non-transportation fuel (*e.g.,* jet fuel, kerosene, or distillate global marine fuel).

(4) The fuel has not been designated under 40 CFR 1090.1015 as ULSD or 15 ppm MVNRLM diesel fuel.

(5) The PTD for the fuel meets the requirements in § 80.1453(e).

Combined heat and power (CHP), also known as cogeneration, refers to industrial processes in which waste heat from the production of electricity is used for process energy in a biointermediate or renewable fuel production facility.

Continuous measurement means the automated measurement of specified parameters of biogas, treated biogas, or natural gas as follows:

(1) For in-line GC meters, automated measurement must occur and be recorded no less frequent than once every 15 minutes.

(2) For flow meters, automated measurement must occur no less frequent than once every 6 seconds, and weighted totals of such measurement must be recorded at no more than 1 minute intervals.

(3) For all other meters, automated measurement and recording must occur at a frequency specified at registration.

Contractual affiliate means one of the following:

(1) Two parties are contractual affiliates if they have an explicit or implicit agreement in place for one to purchase or hold RINs on behalf of the other or to deliver RINs to the other. This other party may or may not be registered under the RFS program.

(2) Two parties are contractual affiliates if one RIN-owning party purchases or holds RINs on behalf of the other. This other party may or may not be registered under the RFS program.

Control area means a geographic area in which only oxygenated gasoline under the oxygenated gasoline program may be sold or dispensed, with boundaries determined by Clean Air Act section 211(m) (42 U.S.C. 7545(m)).

Control period means the period during which oxygenated gasoline must be sold or dispensed in any control area, pursuant to Clean Air Act section 211(m)(2) (42 U.S.C. 7545(m)(2)).

Conventional gasoline (CG) means any gasoline that has been certified under 40 CFR 1090.1000(b) and is not RFG.

Co-processed means that renewable biomass or a biointermediate was simultaneously processed with fossil fuels or other non-renewable feedstock in the same unit or units to produce a fuel that is partially derived from renewable biomass or a biointermediate.

Co-processed cellulosic diesel is any renewable fuel that meets the definition of cellulosic biofuel and meets all the requirements of paragraph (1) of this definition:

(1)

(i) Is a transportation fuel, transportation fuel additive, heating oil, or jet fuel.

(ii) Meets the definition of either biodiesel or non-ester renewable diesel.

(iii) Is registered as a motor vehicle fuel or fuel additive under 40 CFR part 79, if the fuel or fuel additive is intended for use in a motor vehicle.

(2) Co-processed cellulosic diesel includes all the following:

(i) Heating oil and jet fuel produced from cellulosic feedstocks.

(ii) Cellulosic biofuel produced from cellulosic feedstocks co-processed with petroleum.

Corn oil extraction means the recovery of corn oil from the thin stillage and/or the distillers grains and solubles produced by a dry mill corn ethanol plant, most often by mechanical separation.

Corn oil fractionation means a process whereby seeds are divided in various components and oils are removed prior to fermentation for the production of ethanol.

Corporate affiliate means one of the following:

(1) Two RIN-holding parties are corporate affiliates if one owns or controls ownership of more than 20 percent of the other.

(2) Two RIN-holding parties are corporate affiliates if one parent company owns or controls ownership of more than 20 percent of both.

Corporate affiliate group means a group of parties in which each party is a corporate affiliate to at least one other party in the group.

Covered location means the contiguous 48 states, Hawaii, and any state or territory that has received an approval from EPA to opt-in to the RFS program under § 80.1443.

Crop residue means biomass left over from the harvesting or processing of planted crops from existing agricultural land and any biomass removed from existing agricultural land that facilitates crop management (including biomass removed from such lands in relation to invasive species control or fire management), whether or not the biomass includes any portion of a crop or crop plant. Biomass is considered crop residue only if the use of that biomass for the production of renewable fuel has no significant impact on demand for the feedstock crop, products produced from that feedstock crop, and all substitutes for the crop and its products, nor any other impact that would result in a significant increase in direct or indirect GHG emissions.

Cropland is land used for production of crops for harvest and includes cultivated cropland, such as for row crops or close-grown crops, and non-cultivated cropland, such as for horticultural or aquatic crops.

Diesel fuel means any of the following:

(1) Any fuel sold in any State or Territory of the United States and suitable for use in diesel engines, and that is one of the following:

(i) A distillate fuel commonly or commercially known or sold as No. 1 diesel fuel or No. 2 diesel fuel.

(ii) A non-distillate fuel other than residual fuel with comparable physical and chemical properties (*e.g.,* biodiesel fuel).

(iii) A mixture of fuels meeting the criteria of paragraphs (1)(i) and (ii) of this definition.

(2) For purposes of subpart M of this part, any and all of the products specified at § 80.1407(e).

Digestate means the material that remains following the anaerobic digestion of renewable biomass in an anaerobic digester. Digestate must only contain the leftovers that were unable to be completely converted to biogas in an anaerobic digestor that is part of an EPA-accepted registration under § 80.1450.

Distillate fuel means diesel fuel and other petroleum fuels that can be used in engines that are designed for diesel fuel. For example, jet fuel, heating oil, kerosene, No. 4 fuel, DMX, DMA, DMB, and DMC are distillate fuels; and natural gas, LPG, gasoline, and residual fuel are not distillate fuels. Blends containing residual fuel may be distillate fuels.

Distillers corn oil means corn oil recovered at any point downstream of when a dry mill ethanol or butanol plant grinds the corn, provided that the corn starch is converted to ethanol or butanol, the recovered oil is unfit for human food use without further refining, and the distillers grains remaining after the dry mill and oil recovery processes are marketable as animal feed.

Distillers sorghum oil means grain sorghum oil recovered at any point downstream of when a dry mill ethanol or butanol plant grinds the grain sorghum, provided that the grain sorghum is converted to ethanol or butanol, the recovered oil is unfit for human food use without further refining, and the distillers grains remaining after the dry mill and oil recovery processes are marketable as animal feed.

Distributor means any person who transports or stores or causes the transportation or storage of gasoline or diesel fuel at any point between any gasoline or diesel fuel refinery or importer's facility and any retail outlet or wholesale purchaser-consumer's facility.

DX RIN means a RIN with a D code of X, where X is the D code of the renewable fuel as identified under § 80.1425(g), generated under § 80.1426, and submitted under § 80.1452. For example, a D6 RIN is a RIN with a D code of 6.

ECA marine fuel is diesel, distillate, or residual fuel that meets the criteria of paragraph (1) of this definition, but not the criteria of paragraph (2) of this definition.

(1) All diesel, distillate, or residual fuel used, intended for use, or made available for use in Category 3 marine vessels while the vessels are operating within an Emission Control Area (ECA), or an ECA associated area, is ECA marine fuel, unless it meets the criteria of paragraph (2) of this definition.

(2) ECA marine fuel does not include any of the following fuel:

(i) Fuel used by exempted or excluded vessels (such as exempted steamships), or fuel used by vessels allowed by the U.S. government pursuant to MARPOL Annex VI Regulation 3 or Regulation 4 to exceed the fuel sulfur limits while operating in an ECA or an ECA associated area (see 33 U.S.C. 1903).

(ii) Fuel that conforms fully to the requirements of this part for MVNRLM diesel fuel (including being designated as MVNRLM).

(iii) Fuel used, or made available for use, in any diesel engines not installed on a Category 3 marine vessel.

Ecologically sensitive forestland means forestland that meets either of the following criteria:

(1) An ecological community with a global or state ranking of critically imperiled, imperiled or rare pursuant to a State Natural Heritage Program. For examples of such ecological communities, see "Listing of Forest Ecological Communities Pursuant to 40 CFR 80.1401; S1–S3 communities," which is number EPA–HQ–OAR–2005–0161–1034.1 in the public docket, and "Listing of Forest Ecological Communities Pursuant to 40 CFR 80.1401; G1–G2 communities," which is number EPA–HQ–OAR–2005–0161–2906.1 in the public docket. This material is available for inspection at the EPA Docket Center, EPA/DC, EPA West, Room 3334, 1301 Constitution Ave. NW, Washington, DC. The telephone number for the Air Docket is (202) 566–1742.

(2) Old growth or late successional, characterized by trees at least 200 years in age.

End of day means 7 a.m. Coordinated Universal Time (UTC).

Energy cane means a complex hybrid in the Saccharum genus that has been bred to maximize cellulosic rather than sugar content. For the purposes of this part:

(1) Energy cane excludes the species *Saccharum spontaneum,* but may include hybrids derived from *S. spontaneum* that have been developed and publicly released by USDA; and

(2) Energy cane only includes cultivars that have, on average, at least 75% adjusted cellulosic content on a dry mass basis.

EPA Moderated Transaction System (EMTS) means a closed, EPA moderated system that provides a mechanism for screening and tracking RINs under § 80.1452.

Existing agricultural land is cropland, pastureland, and land enrolled in the Conservation Reserve Program (administered by the U.S. Department of Agriculture's Farm Service Agency) that was cleared or cultivated prior to December 19, 2007, and that, on December 19, 2007, was:

(1) Nonforested; and

(2) Actively managed as agricultural land or fallow, as evidenced by records which must be traceable to the land in question, which must include one of the following:

(i) Records of sales of planted crops, crop residue, or livestock, or records of purchases for land treatments such as fertilizer, weed control, or seeding.

(ii) A written management plan for agricultural purposes.

(iii) Documented participation in an agricultural management program administered by a Federal, state, or local government agency.

(iv) Documented management in accordance with a certification program for agricultural products.

Exporter of renewable fuel means all buyers, sellers, and owners of the renewable fuel in any transaction that results in renewable fuel being transferred from a covered location to a destination outside of the covered locations.

Facility means all of the activities and equipment associated with the production of renewable fuel, biogas, treated biogas, RNG, or a biointermediate—starting from the point of delivery of feedstock material to the point of final storage of the end product—that are located on one property and are under the control of the same person (or persons under common control).

Fallow means cropland, pastureland, or land enrolled in the Conservation Reserve Program (administered by the U.S. Department of Agriculture's Farm Service Agency) that is intentionally left idle to regenerate for future agricultural purposes with no seeding or planting, harvesting, mowing, or treatment during the fallow period.

Feedstock aggregator means any person who collects feedstock from feedstock suppliers or other feedstock aggregators and distributes such feedstock to a renewable fuel producer, biointermediate producer, or other feedstock aggregator.

Feedstock supplier means any person who generates and supplies feedstock to a feedstock aggregator, renewable fuel producer, biogas producer, or biointermediate producer.

Foreign biogas producer means any person who owns, leases, operates, controls, or supervises a biogas production facility outside of the United States.

Foreign ethanol producer means a foreign renewable fuel producer who produces ethanol for use in transportation fuel, heating oil, or jet fuel but who does not add ethanol denaturant to their product as specified in paragraph (2) of the definition of “renewable fuel” in this section.

Foreign renewable fuel producer means a person from a foreign country or from an area outside the covered location who produces renewable fuel for use in transportation fuel, heating oil, or jet fuel for export to the covered location. Foreign ethanol producers are considered foreign renewable fuel producers.

Foreign RNG producer means any person who owns, leases, operates, controls, or supervises an RNG production facility outside of the United States.

Forestland is generally undeveloped land covering a minimum area of 1 acre upon which the primary vegetative species are trees, including land that formerly had such tree cover and that will be regenerated and tree plantations. Tree-covered areas in intensive agricultural crop production settings, such as fruit orchards, or tree-covered areas in urban settings, such as city parks, are not considered forestland.

Free fatty acid (FFA) feedstock means a biointermediate that is composed of at least 50 percent free fatty acids. FFA feedstock must not include any free fatty acids from the refining of crude palm oil.

Fuel for use in an ocean-going vessel means, for this part only:

(1) Any marine residual fuel (whether burned in ocean waters, Great Lakes, or other internal waters);

(2) Emission Control Area (ECA) marine fuel, pursuant to § 80.2 and 40 CFR 1090.80 (whether burned in ocean waters, Great Lakes, or other internal waters); and

(3) Any other fuel intended for use only in ocean-going vessels.

Gasoline means any of the following:

(1) Any fuel sold in the United States for use in motor vehicles and motor vehicle engines, and commonly or commercially known or sold as gasoline.

(2) For purposes of subpart M of this part, any and all of the products specified at § 80.1407(c).

Gasoline blendstock or *component* means any liquid compound that is blended with other liquid compounds to produce gasoline.

Gasoline blendstock for oxygenate blending (BOB) has the meaning given in 40 CFR 1090.80.

Gasoline treated as blendstock (GTAB) means imported gasoline that is excluded from an import facility's compliance calculations, but is treated as blendstock in a related refinery that includes the GTAB in its refinery compliance calculations.

Glycerin means a coproduct from the production of biodiesel that primarily contains glycerol.

Heating oil means any of the following:

(1) Any No. 1, No. 2, or non-petroleum diesel blend that is sold for use in furnaces, boilers, and similar applications and which is commonly or commercially known or sold as heating oil, fuel oil, and similar trade names, and that is not jet fuel, kerosene, or MVNRLM diesel fuel.

(2) Any fuel oil that is used to heat or cool interior spaces of homes or buildings to control ambient climate for human comfort. The fuel oil must be liquid at STP and contain no more than 2.5% mass solids.

Importer means any person who imports transportation fuel or renewable fuel into the covered location from an area outside of the covered location.

Independent third-party auditor means a party meeting the requirements of § 80.1471(b) that conducts QAP audits and verifies RINs, biointermediates, or biogas.

Interim period means the period between February 21, 2013, and December 31, 2014.

Jet fuel means any distillate fuel used, intended for use, or made available for use in aircraft.

Kerosene means any No.1 distillate fuel commonly or commercially sold as kerosene.

Liquefied petroleum gas (LPG) means a liquid hydrocarbon fuel that is stored under pressure and is composed primarily of species that are gases at atmospheric conditions (temperature = 25 °C and pressure = 1 atm), excluding natural gas.

Locomotive engine means an engine used in a locomotive as defined under 40 CFR 92.2.

Marine engine has the meaning given in 40 CFR 1042.901.

Membrane separation means the process of dehydrating ethanol to fuel grade (>99.5% purity) using a hydrophilic membrane.

Mixed digester means an anaerobic digester that has received feedstocks under both an approved pathway with D code 3 or 7 and an approved pathway with D code 5 during the current calendar month or the previous two calendar months.

Motor vehicle has the meaning given in Section 216(2) of the Clean Air Act (42 U.S.C. 7550(2)).

Municipal wastewater treatment facility digester means an anaerobic digester that processes only municipal wastewater treatment plant sludge with an adjusted cellulosic content of at least 75%.

MVNRLM diesel fuel means any diesel fuel or other distillate fuel that is used, intended for use, or made available for use in motor vehicles or motor vehicle engines, or as a fuel in any nonroad diesel engines, including locomotive and marine diesel engines, except the following: Distillate fuel with a T90 at or above 700 °F that is used only in Category 2 and 3 marine engines is not MVNRLM diesel fuel, and ECA marine fuel is not MVNRLM diesel fuel (note that fuel that conforms to the requirements of MVNRLM diesel fuel is

excluded from the definition of “ECA marine fuel” in this section without regard to its actual use). Use the distillation test method specified in 40 CFR 1065.1010 to determine the T90 of the fuel.

(1) Any diesel fuel that is sold for use in stationary engines that are required to meet the requirements of 40 CFR 1090.300, when such provisions are applicable to nonroad engines, is considered MVNRLM diesel fuel.

(2) [Reserved]

Nameplate capacity means the peak design capacity of a facility for the purposes of registration of a facility under this part.

Naphtha means a blendstock or fuel blending component falling within the boiling range of gasoline, which is composed of only hydrocarbons, is commonly or commercially known as naphtha, and is used to produce gasoline or E85 (as defined in 40 CFR 1090.80) through blending.

Natural gas means a fuel whose primary constituent is methane. Natural gas includes RNG.

Natural gas commercial pipeline system means one or more connected pipelines that transport natural gas that meets all the following:

(1) The natural gas originates from multiple parties.

(2) The natural gas meets specifications set by the pipeline owner or operator.

(3) The natural gas is delivered to multiple parties in the covered location.

Neat renewable fuel is a renewable fuel to which 1% or less of gasoline (as defined in this section) or diesel fuel has been added.

Non-ester renewable diesel or *renewable diesel* means renewable fuel that is not a mono-alkyl ester and that is either:

(1) A fuel or fuel additive that meets the Grade No. 1–D or No. 2–D specification in ASTM D975 (incorporated by reference, see § 80.12) and can be used in an engine designed to operate on conventional diesel fuel; or

(2) A fuel or fuel additive that is registered under 40 CFR part 79 and can be used in an engine designed to operate using conventional diesel fuel.

Nonforested land means land that is not forestland.

Non-petroleum diesel means a diesel fuel that contains at least 80 percent mono-alkyl esters of long chain fatty acids derived from vegetable oils or animal fats.

Non-qualifying fuel use means a use of renewable fuel in an application other than transportation fuel, heating oil, or jet fuel.

Non-renewable component means any material (or any portion thereof) blended into biogas or RNG that does not meet the definition of renewable biomass.

Non-renewable feedstock means a feedstock (or any portion thereof) that does not meet the definition of renewable biomass or biointermediate.

Non-RIN-generating foreign producer means a foreign renewable fuel producer that has been registered by EPA to produce renewable fuel for which RINs have not been generated.

Nonroad diesel engine means an engine that is designed to operate with diesel fuel that meets the definition of nonroad engine in 40 CFR 1068.30, including locomotive and marine diesel engines.

Nonroad vehicle has the meaning given in Section 216(11) of the Clean Air Act (42 U.S.C. 7550(11)).

Obligated party means any refiner that produces gasoline or diesel fuel within the covered location, or any importer that imports gasoline or diesel fuel into the covered location, during a compliance period. A party that simply blends renewable fuel into gasoline or diesel fuel, as specified in § 80.1407(c) or (e), is not an obligated party.

Ocean-going vessel means vessels that are equipped with engines meeting the definition of "Category 3" in 40 CFR 1042.901.

Oxygenate means any substance which, when added to gasoline, increases the oxygen content of that gasoline. Lawful use of any of the substances or any combination of these substances requires that they be "substantially similar" under section 211(f)(1) of the Clean Air Act (42 U.S.C. 7545(f)(1)), or be permitted under a waiver granted by EPA under the authority of section 211(f)(4) of the Clean Air Act (42 U.S.C. 7545(f)(4)).

Oxygenated gasoline means gasoline which contains a measurable amount of oxygenate.

Pastureland is land managed for the production of select indigenous or introduced forage plants for livestock grazing or hay production, and to prevent succession to other plant types.

Permitted capacity means 105% of the maximum permissible volume output of renewable fuel that is allowed under operating conditions specified in the most restrictive of all applicable preconstruction, construction and operating permits issued by regulatory authorities (including local, regional, state or a foreign equivalent of a state, and federal permits, or permits issued by foreign governmental agencies) that govern the construction and/or operation of the renewable fuel facility, based on an annual volume output on a calendar year basis. If the permit specifies maximum rated volume output on an hourly basis, then annual volume output is determined by multiplying the hourly output by 8,322 hours per year.

(1) For facilities that commenced construction prior to December 19, 2007, the permitted capacity is based on permits issued or revised no later than December 19, 2007.

(2) For facilities that commenced construction after December 19, 2007 and before January 1, 2010 that are fired with natural gas, biomass, or a combination thereof, the permitted capacity is based on permits issued or revised no later than December 31, 2009.

(3) For facilities other than those specified in paragraphs (1) and (2) of this definition, permitted capacity is based on the most recent applicable permits.

Pipeline interconnect means the physical injection or withdrawal point where RNG is injected or withdrawn into or from the natural gas commercial pipeline system.

Planted crops are all annual or perennial agricultural crops from existing agricultural land that may be used as feedstocks for renewable fuel, such as grains, oilseeds, sugarcane, switchgrass, prairie grass, duckweed, and other species (but not including algae species or planted trees), providing that they were intentionally applied by humans to the ground, a growth medium, a pond or tank, either by direct application as seed or plant, or through intentional natural seeding or vegetative propagation by mature plants introduced or left undisturbed for that purpose.

Planted trees are trees harvested from a tree plantation.

Pre-commercial thinnings are trees, including unhealthy or diseased trees, removed to reduce stocking to concentrate growth on more desirable, healthy trees, or other vegetative material that is removed to promote tree growth.

Professional liability insurance means insurance coverage for liability arising out of the performance of professional or business duties related to a specific occupation, with coverage being tailored to the needs of the specific occupation. Examples include abstracters, accountants, insurance adjusters, architects, engineers, insurance agents and brokers, lawyers, real estate agents, stockbrokers, and veterinarians. For purposes of this definition, professional liability insurance does not include directors and officers liability insurance.

Q–RIN means a RIN verified by a registered independent third-party auditor using a QAP that has been approved under § 80.1469(c) following the audit process specified in § 80.1472.

Quality assurance audit means an audit of a renewable fuel production facility or biointermediate production facility conducted by an independent third-party auditor in accordance with a QAP that meets the requirements of §§ 80.1469, 80.1472, and 80.1477.

Quality assurance plan (QAP) means the list of elements that an independent third-party auditor will check to verify that the RINs generated by a renewable fuel producer or importer are valid or to verify the appropriate production of a biointermediate. A QAP includes both general and pathway specific elements.

Raw starch hydrolysis means the process of hydrolyzing corn starch into simple sugars at low temperatures, generally not exceeding 100 °F (38 °C), using enzymes designed to be effective under these conditions.

Refiner means any person who owns, leases, operates, controls, or supervises a refinery.

Refinery means any facility, including but not limited to, a plant, tanker truck, or vessel where gasoline or diesel fuel is produced, including any facility at which blendstocks are combined to produce gasoline or diesel fuel, or at which blendstock is added to gasoline or diesel fuel.

Reformulated gasoline (RFG) means any gasoline whose formulation has been certified under 40 CFR 1090.1000(b), and which meets each of the standards and requirements prescribed under 40 CFR 1090.220.

Reformulated gasoline blendstock for oxygenate blending (RBOB) means a petroleum product that, when blended with a specified type and percentage of oxygenate, meets the definition of reformulated gasoline, and to which the specified type and percentage of oxygenate is added other than by the refiner or importer of the RBOB at the refinery or import facility where the RBOB is produced or imported.

Renewable biomass means each of the following (including any incidental, de minimis contaminants that are impractical to remove and are related to customary feedstock production and transport):

(1) Planted crops and crop residue harvested from existing agricultural land cleared or cultivated prior to December 19, 2007 and that was nonforested and either actively managed or fallow on December 19, 2007.

(2) Planted trees and tree residue from a tree plantation located on non-federal land (including land belonging to an Indian tribe or an Indian individual that is held in trust by the U.S. or subject to a restriction against alienation imposed by the U.S.) that was cleared at any time prior to December 19, 2007 and actively managed on December 19, 2007.

(3) Animal waste material and animal byproducts.

(4) Slash and pre-commercial thinnings from non-federal forestland (including forestland belonging to an Indian tribe or an Indian individual, that are held in trust by the United States or subject to a restriction against alienation imposed by the United States) that is not ecologically sensitive forestland.

(5) Biomass (organic matter that is available on a renewable or recurring basis) obtained from within 200 feet of buildings and other areas regularly occupied by people, or of public infrastructure, in an area at risk of wildfire.

(6) Algae.

(7) Separated yard waste or food waste, including recycled cooking and trap grease.

Renewable compressed natural gas or *renewable CNG* means biogas, treated biogas, or RNG that is compressed for use as transportation fuel and meets the definition of renewable fuel.

Renewable electricity means electricity that meets the definition of renewable fuel.

Renewable fuel means a fuel that meets all the following requirements:

(1)

(i) Fuel that is produced either from renewable biomass or from a biointermediate produced from renewable biomass.

(ii) Fuel that is used in the covered location to replace or reduce the quantity of fossil fuel present in a transportation fuel, heating oil, or jet fuel.

(iii) Has lifecycle greenhouse gas emissions that are at least 20 percent less than baseline lifecycle greenhouse gas emissions, unless the fuel is exempt from this requirement pursuant to § 80.1403.

(2) Ethanol covered by this definition must be denatured using an ethanol denaturant as required in 27 CFR parts 19 through 21. Any volume of ethanol denaturant added to the undenatured ethanol by a producer or importer in excess of 2 volume percent must not be included in the volume of ethanol for purposes of determining compliance with the requirements of this part.

Renewable gasoline means renewable fuel produced from renewable biomass that is composed of only hydrocarbons and that meets the definition of gasoline.

Renewable gasoline blendstock means a blendstock produced from renewable biomass that is composed of only hydrocarbons and which meets the definition of gasoline blendstock in § 80.2.

Renewable Identification Number (RIN) is a unique number generated to represent a volume of renewable fuel pursuant to §§ 80.1425 and 80.1426.

(1) ***Gallon-RIN*** is a RIN that represents an individual gallon of renewable fuel used for compliance purposes pursuant to § 80.1427 to satisfy a renewable volume obligation.

(2) ***Batch-RIN*** is a RIN that represents multiple gallon-RINs.

Renewable liquefied natural gas or *renewable LNG* means biogas, treated biogas, or RNG that is liquified (*i.e.,* it is cooled below its boiling point) for use as transportation fuel and meets the definition of renewable fuel.

Renewable natural gas (RNG) means a product that meets all the following requirements:

(1) It is produced from biogas.

(2) It does not require removal of additional components to be suitable for injection into the natural gas commercial pipeline system.

(3) It is used to produce renewable fuel.

Residual fuel means a petroleum fuel that can only be used in diesel engines if it is preheated before injection. For example, No. 5 fuels, No. 6 fuels, and RM grade marine fuels are residual fuels. Note: Residual fuels do not necessarily require heating for storage or pumping.

Responsible corporate officer (RCO) has the meaning given in 40 CFR 1090.80.

Retail outlet means any establishment at which gasoline, diesel fuel, natural gas or liquefied petroleum gas is sold or offered for sale for use in motor vehicles or nonroad engines, including locomotive or marine engines.

Retailer means any person who owns, leases, operates, controls, or supervises a retail outlet.

RIN-generating foreign producer means a foreign renewable fuel producer that has been registered by EPA to generate RINs for renewable fuel it produces.

RIN generator means any party allowed to generate RINs under this part.

RIN-less RNG means RNG produced by a foreign RNG producer and for which RINs were not generated by the foreign RNG producer.

RNG importer means any person who imports RNG into the covered location and generates RINs for the RNG as specified in § 80.125.

RNG producer means any person who owns, leases, operates, controls, or supervises an RNG production facility.

RNG production facility means a facility where biogas is upgraded to RNG under an approved pathway.

RNG RIN separator means any person registered to separate RINs for RNG under § 80.125(d).

RNG used as a feedstock or *RNG as a feedstock* means any RNG used to produce renewable fuel under § 80.125.

Separated food waste means a feedstock stream consisting of food waste kept separate since generation from other waste materials, and which includes food and beverage production waste and post-consumer food and beverage waste.

Separated municipal solid waste or *separated MSW* means material remaining after separation actions have been taken to remove recyclable paper, cardboard, plastics, rubber, textiles, metals, and glass from municipal solid waste, and which is composed of both cellulosic and non-cellulosic materials.

Separated RIN means a RIN with a K code of 2 that has been separated from a volume of renewable fuel or RNG pursuant to § 80.1429.

Separated yard waste means a feedstock stream consisting of yard waste kept separate since generation from other waste materials.

Slash is the residue, including treetops, branches, and bark, left on the ground after logging or accumulating as a result of a storm, fire, delimbing, or other similar disturbance.

Small refinery means a refinery for which the average aggregate daily crude oil throughput (as determined by dividing the aggregate throughput for the calendar year by the number of days in the calendar year) does not exceed 75,000 barrels.

Soapstock means an emulsion, or the oil obtained from separation of that emulsion, produced by washing oils listed as a feedstock in an approved pathway with water.

Standard temperature and pressure (STP) means 60 degrees Fahrenheit and 1 atmosphere of pressure.

Transportation fuel means fuel for use in motor vehicles, motor vehicle engines, nonroad vehicles, or nonroad engines (except fuel for use in ocean-going vessels).

Treated biogas means a product that meets all the following requirements:

(1) It is produced from biogas.

(2) It does not require removal of additional components to be suitable for its designated use (*e.g.,* as a biointermediate or to produce biogas-derived renewable fuel).

(3) It is used in a biogas closed distribution system as a biointermediate or to produce biogas-derived renewable fuel.

Tree plantation is a stand of no less than 1 acre composed primarily of trees established by hand- or machine-planting of a seed or sapling, or by coppice growth from the stump or root of a tree that was hand- or machine-planted. Tree plantations must have been cleared prior to December 19, 2007 and must have been actively managed on December 19, 2007, as evidenced by records which must be traceable to the land in question, which must include:

(1) Sales records for planted trees or tree residue together with other written documentation connecting the land in question to these purchases;

(2) Purchasing records for seeds, seedlings, or other nursery stock together with other written documentation connecting the land in question to these purchases;

(3) A written management plan for silvicultural purposes;

(4) Documentation of participation in a silvicultural program sponsored by a Federal, state, or local government agency;

(5) Documentation of land management in accordance with an agricultural or silvicultural product certification program;

(6) An agreement for land management consultation with a professional forester that identifies the land in question; or

(7) Evidence of the existence and ongoing maintenance of a road system or other physical infrastructure designed and maintained for logging use, together with one of the above-mentioned documents.

Tree residue is slash and any woody residue generated during the processing of planted trees from tree plantations for use in lumber, paper, furniture, or other applications, provided that such woody residue is not mixed with similar residue from trees that do not originate in tree plantations.

Undenatured ethanol means a liquid that meets one of the definitions in paragraph (1) of this definition:

(1)

(i) Ethanol that has not been denatured as required in 27 CFR parts 19 through 21.

(ii) Specially denatured alcohol as defined in 27 CFR 21.11.

(2) Undenatured ethanol is not renewable fuel.

United States has the meaning given in 40 CFR 1090.80.

Verification status means a description of whether biogas, treated biogas, RNG, or a RIN has been verified under an EPA-approved quality assurance plan.

Verified RIN means a RIN generated by a renewable fuel producer that was subject to a QAP audit executed by an independent third-party auditor, and determined by the independent third-party auditor to be valid. Verified RINs includes A–RINs, B–RINs, and Q–RINs.

Wholesale purchaser-consumer means any person that is an ultimate consumer of gasoline, diesel fuel, natural gas, or liquefied petroleum gas and which purchases or obtains gasoline, diesel fuel, natural gas or liquefied petroleum gas from a supplier for use in motor vehicles or nonroad engines, including locomotive or marine engines and, in the case of gasoline, diesel fuel, or liquefied petroleum gas, receives delivery of that product into a storage tank of at least 550-gallon capacity substantially under the control of that person.

APPENDIX C

RFS2 Renewable Biomass Report (Report Form ID: RFS0801): Instructions for Completing

Who must report

- The RFS0801 RFS2 Renewable Biomass Report is for RIN-generating producers and importers to provide supplemental feedstock information for feedstocks used to produce renewable fuel and generate RINs under RFS2.
- Any producer or importer, except those subject to the aggregate approach in 80.1454(g),that generates RINs during a given quarter for renewable fuel made from feedstocks that are planted crops and crop residue from existing agricultural land, planted trees or tree residue from actively managed tree plantations, slash or precommercial thinnings from forestlands, or biomass obtained from areas at risk of wildfire, shall summarize and submit information verifying that the feedstocks meet the definition of renewable biomass, as required in 80.1451(d).
- RIN-generating renewable fuel producers reporting for more than one registered production facility and importers reporting for more than one registered foreign facility must submit data for each facility on separate report rows.
- Reports must be submitted individually for each separate plot of land from which feedstocks were harvested, and additional electronic files that identify each plot of land by coordinates of the points defining the boundaries of each plot simultaneously submitted.

Reporting deadlines

- Producers and Importers shall report on a quarterly basis:

Production Calendar Quarter	Time Period Covered	Quarterly Report Deadline
Quarter 1	January 1 – March 31	June 1
Quarter 2	April 1 – June 30	September 1
Quarter 3	July 1 – September 30	December 1
Quarter 4	October 1 – December 31	March 31

The following fields have been added:

- Field 8: Foreign Company ID. This field is required if the reporting party is importing and generating RINs for renewable fuel produced by a registered and accepted foreign company whose feedstocks are not subject to the aggregate approach.
- Field 9: Foreign Company Name: This field is required if the reporting party is importing and generating RINs for renewable fuel produced by a registered and accepted foreign company whose feedstocks are not subject to the aggregate approach.
- Field 10: Foreign Company Facility ID: This field is required if the reporting party is importing and generating RINs for renewable fuel produced by a registered and accepted foreign company whose feedstocks are not subject to the aggregate approach.

How to submit reports

- EPA maintains report templates, electronic submission procedures and additional support options at https://www.epa.gov/fuels-registration-reporting-and-compliance-help/reporting-fuel-programs

Field Instructions

Field No.	Field Name	Units	Field Formats, Codes & Special Instructions
1.	Report Form ID		**AAAAAA**; *Character*. Enter **REPORT FORM ID: RFS0801**
2.	Report Type		**A**; *Character*. Specify if the data submitted in this report is original or if it is being resubmitted. Submit only one original report; any corrections or updates should be marked as a resubmission. **O** = Original **R** = Resubmission
3.	CBI		**A**; *Character*. Specify if the data contained within the report is claimed as Confidential Business Information (CBI) under 40 CFR Part 2, subpart B: **Y** = Confidential Business Information **N** = Non-Confidential Business Information
4.	Report Date		**MM/DD/YYYY**; *Character*. Enter the date the original or resubmitted report is created.
5.	Report Year		**YYYY**; *Number*. Indicate the compliance period (year) of the report.
6.	Company/Entity ID		**9999**; *Number*. Enter the four-digit, EPA-assigned company/entity ID.
7.	Company Name		**AAAAAAA**…; *Character (125 Max)*. The reporting party's name (Your company name).
8.	Foreign Company ID		**AAAAA**; *Character*. Enter the four-digit, EPA-assigned foreign company ID whose feedstocks are not subject to the aggregate approach. Note: Domestic renewable fuel producers enter "NA".
9.	Foreign Company Name		**AAAAAAA**…; *Character (125 Max)*. The foreign company's name whose feedstocks are not subject to the aggregate approach. Note: Domestic renewable fuel producers enter "NA".
10.	Foreign Company Facility ID		**AAAAA**; *Character*. Enter the five-digit, EPA-assigned foreign company's facility ID whose feedstocks are not subject to the aggregate approach. If more than one facility is being reported, a separate row for each facility is required. Note: Domestic renewable fuel producers enter "NA".

Field No.	Field Name	Units	Field Formats, Codes & Special Instructions
11.	Compliance Period Code		**AA**; *Character*. Indicate the compliance period for which the information is being reported. Month ranges are provided below to assist in labeling quarters: **Q1**: First Quarter (January – March) **Q2**: Second Quarter (April – June) **Q3**: Third Quarter (July – September) **Q4**: Fourth Quarter (October – December)
12.	Facility ID		**AAAAA**; *Number*. Producers and Importers who generate RINs must reference individual facility ID numbers. Please include all preceding zeros in five-digit facility ID numbers. **#####**: The five Character EPA-assigned facility ID If more than one facility is being reported, a separate row for each facility is required.
13.	Feedstock Location Name		**AAAAAAA**…; *Character (125 Max)*. The feedstock location name (e.g. name of the farm, forest or tree plantation). You may only enter in one feedstock location per row.

14.	Feedstock from the Location		**999**; *Number*. Indicate code(s) corresponding to the feedstock(s) for fuel. Note: You may only enter in one feedstock per row. Biodiesel and/or Non-ester Renewable Diesel **160**: Biogenic Waste Oils/Fats/Greases **230**: Algal Oil **200**: Non-food grade corn oil **240**: Oil from Annual Covercrops **210**: Soybean Oil **360**: Canola Oil **400**: Camelina sativa Oil Cellulosic (Diesel, Ethanol, Heating Oil, Jet Fuel, and/or Naphtha) **10**: Starch – Corn **70**: Cellulosic Biomass – Agricultural Residues **80**: Cellulosic Biomass – Switchgrass Ethanol and/or Butanol **90**: Cellulosic Biomass – Miscanthus **120**: Sugarcane **140**: Cellulosic Biomass - Separated Yard Wastes **220**: Cellulosic Biomass - Separated Municipal Solid Waste **250**: Cellulosic Biomass – Annual Cover Crops **260**: Cellulosic Biomass - Forest Product Residues **270**: Cellulosic Biomass - Forest Thinnings **280**: Cellulosic Biomass - Separated Food Wastes **290**: Cellulosic Biomass – Slash **300**: Starch - Agricultural Residues **310**: Starch - Annual Covercrops **410**: Cellulosic Biomass - Arundo donax **420**: Cellulosic Biomass - Energy Cane **430**: Cellulosic Biomass - Pennisetum purpureum **560**: Starch – Barley Biogas **320**: Manure Digesters **330**: Landfills **331**: Biogas from landfills **332**: Biogas from municipal wastewater treatment facility digesters **333**: Biogas from agricultural digesters **334**: Biogas from separated MSW digesters

Field No.	Field Name	Units	Field Formats, Codes & Special Instructions
			335: Biogas from the cellulosic components of biomass processed in other waste digesters **336**: Biogas from waste digesters **340**: Sewage and Waste Treatment Plants Ethanol, Renewable Diesel, Heating oil, Jet Fuel, and/or Naphtha **251**: Non-cellulosic components of annual cover crops **350**: Non-Cellulosic Portions of Separated Food Wastes **380**: Grain Sorghum Note: Each feedstock must be reported on separate report rows.
15.	Feedstock Quantity		**9999999999**; *Number*. Enter the total quantity of feedstock that was used for renewable fuel production that was from the specified location.
16.	Feedstock Quantity Units		**999**; *Number*. Enter the Feedstock Quantity Units: **10:** Cubic Feet **20:** 100 Cubic Feet **30:** 1,000,000 Cubic Feet **40:** Gallon **50:** Liter **60:** Short Ton **70:** Cubic Meters **80:** Therm **90:** Decatherm **100:** Bushel **110:** Pounds
17.	Documentation File Name		**AAAAAAA…;** *Character (100 Max).* Please enter the file name of electronic documentation that will be submitted with this report to identify the land by coordinates of the points defining the boundaries from which the feedstock was harvested, pursuant to 80.1451(d)(2). Please make sure to include the file extension name (e.g. .doc, .xls, .zip). If an additional document is not included, enter “NA.”

Sample report line:
RFS0801,O,Y,11/15/2010,2010,1234,”Sample Company Inc”, 9999, “Foreign Company Name”, 99991, Q3,99999,Sample Farm 1, 210, 5000, 40, electronic coordinates.zip

Paperwork Reduction Act Statement

This collection of information is approved by OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. (OMB Control Nos. 2060-0725 and 2060-0740). Responses to this collection of information are mandatory (40 CFR part 80, subpart M. 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 public reporting and recordkeeping burden for this collection of information is estimated to be less than one hour per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates and any suggested methods for minimizing respondent burden to the Regulatory Support Division Director, U.S. Environmental Protection Agency (2821T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.