Overview of the RFS Program Requirements or "The Program Starts *THIS* Year!?"

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Start Date

- The program is effective September 1, 2007
- RINs must be generated for all renewable fuel produced or imported on or after this date
  - Producers and importers of renewable fuel can also generate RINs for product in inventory on the start date
- Obligated parties begin counting the volumes of gasoline produced on or after this date
  - These volumes form the basis of their Renewable Volume Obligations (RVO) under the RFS program
- Recordkeeping and reporting requirements begin
  - John Weihrauch will cover these requirements

See regulations at: §80.1104, §80.1126(d)(4)

What's The Standard and To Whom Does It Apply?

- The standard for 2007 is 4.02%
- Applies to any party that produces gasoline in the 48 states, or imports gasoline into the 48 states
  - Includes blenders that produce gasoline from blendstocks
  - Does not include ethanol blenders
- Called "obligated parties" under the regs
  - Exporters of renewable fuel are not obligated parties, but they do have an RVO

See regulations at: §80.1105, §80.1106

Small Refiners and Refineries are Temporarily Exempt

- Automatic exemption for small refineries processing <75,000 bpd crude
- Automatic exemption for small refiners with <1500 employees company-wide and less than 155,000 bpd crude capacity
- Exemptions require a verification letter from the refinery/refiner by August 31, 2007
- Exemption ends on 12/31/10, but can be extended

See regulations at: §80.1141, §80.1142

So What's A RIN?

- The Renewable Identification Number (RIN) is a 38-character numeric code in the format:

KYYYYCCCCFFFFFBBBBBRRDSSSSSSSSSEEEEEEEE

- RINs are generated by renewable fuel producers and importers and assigned to batches that they transfer to others
- RINs form the basic currency for the RFS program
  - Currency for trades
  - Currency for credits
  - Currency for compliance

See regulations at: §80.1126

RIN Codes

KYYYYCCCCFFFFFBBBBBRRDSSSSSSSSEEEEEEEE

K	= RIN assignment code (1=assigned, 2=unassigned)
YYYY	= Year batch is produced/imported (when it leaves the facility)
CCCC	= Company registration ID
FFFFF	= Facility registration ID
BBBBB	= Producer assigned batch number
RR	= Equivalence Value for the renewable fuel
D	= Renewable type code (1=cellulosic; 2=non-cellulosic)
SSSSSSSS	= RIN Block Starting Number
EEEEEEEE	= RIN Block Ending Number

See regulations at: §80.1125

More On RINs

- A batch is defined as <100 million gallon-RINs and ≤ One calendar month's production
- A gallon-RIN represents a single gallon in the context of compliance with the RVO
  - The SSSSSSSS and EEEEEEEE codes are identical
- A batch-RIN is a RIN that represents multiple gallon-RINs
  - Shorthand for use on Product Transfer Documents (PTDs) such as invoices
- RINs are valid for purposes of compliance with an RVO for the calendar year generated (the YYYY code) or the following year

See regulations at: §80.1101(o), §80.1126(c), §80.1127(a)(3)

Potentially Qualifying Renewable Fuels

- Ethanol
  - Corn
  - Other Starches
  - Cellulose
  - Sugar
- Biodiesel (mono alkyl esters) and Renewable Diesel
  - Veg Oils and Animal Fats
- Renewable crude fuels
  - Veg Oils and Animal Fats
- ETBE
- Biobutanol
- Fischer-Tropsch-diesel/gasoline from
  - Biogas
  - Biomass gasification
  - Sewage plant
- Others

See regulations at: §80.1101

Equivalence Values

- The Equivalence Value indicates how many gallon-RINs can be generated for each gallon of renewable fuel
  - The RIN code RR represents the Equivalence Value of a batch of renewable fuel for which those RINs are generated (ignore decimal)
- The Energy Policy Act specified that 1 gal of cellulosic ethanol counts as 2.5 gallons for compliance purposes
  - 1 gallon of cellulosic ethanol = 2.5 gallon-RINs

See regulations at: §80.1126(d)

Equivalence Values

- We specified the Equivalence Value for several renewable fuels using volumetric energy content in comparison to ethanol (adjusted for renewable content)
  - Corn-ethanol: 1.0
  - Cellulosic biomass ethanol: 2.5
  - Biodiesel (alkyl esters): 1.5
  - Renewable diesel: 1.7
  - Biobutanol: 1.3
- We also provided out a process for calculating Equivalence Values for other renewable fuels

See regulations at: §80.1115

Basics of Compliance

1. For producers and importers of renewable fuel
2. For marketers and other parties who buy and sell renewable fuel
3. For blenders who add renewable fuel to gasoline or diesel
4. For obligated parties and exporters of renewable fuel

The Basics of Compliance for Producers/Importers

- Producers and importers of renewable fuel must generate RINs to represent all the renewable fuel they produce or import
  - The point in time when RINs must be generated is flexible, but no later than when the renewable fuel is transferred to another party
  - Can include product owned on Sept 1, 2007
- Total number of gallon-RINs that can be generated is determined from the Equivalence Value
  - Ratio of gallon-RINs to gallons = Equivalence Value

See regulations at: §80.1126(d)

The Basics of Compliance for Producers/Importers

- Producers and importers must assign RINs they generate to batches of renewable fuel and transfer them with renewable fuel
  - K code in the RIN must be 1 to indicate "assigned"
- Cellulosic ethanol is an exception
  - Excess gallon-RINs can be retained instead of transferred
  - Retained gallon-RINs would have a K code of 2 to indicate "unassigned"

See regulations at: §80.1128(a)(6)

Examples of RIN Generation: How Many Gallon-RINs?

A. 2000 gal corn-ethanol is produced
   - Equivalence Value is 1.0
   - 2000 gallon-RINs generated

B. 2000 gal biodiesel is produced
   - Equivalence Value is 1.5
   - 3000 gallon-RINs generated

C. 2000 gal cellulosic ethanol is produced
   - Equivalence Value is 2.5
   - 5000 gallon-RINs generated

See regulations at: §80.1126(d)

Example of RIN Generation: How To Number Gallon-RINs?

- Producer X decides that each batch will represent one day's worth of production
  - Under the regs, a batch is defined as <100 million gallon-RINs and ≤ One calendar month's production
- Producer X also decides that all his 2007 batches will be numbered sequentially starting on September 1
  - Under the regs, no two batch numbers can be the same in a given calendar year
- Therefore, all RINs generated on September 1, 2007 will have a BBBBB code of 00001

See regulations at: §80.1126(c), §80.1125(e)

Example of RIN Generation: How To Number Gallon-RINs?

- Producer X makes one 2000 gal tankfull of biodiesel on September 1 in the morning
  - Gallon-RINs go from SSSSSSSS = 0000000<u>1</u>
    to EEEEEEEE = 0000<u>3000</u>
- Producer X makes another 3000 gal tankfull of biodiesel September 1 in the afternoon
  - Gallon-RINs go from SSSSSSSS = 0000<u>3001</u>
    to EEEEEEEE = 0000<u>7500</u>
- If he delivers all 5000 gallons to his customer, he can summarize all gallon-RINs on one batch-RIN

Examples of RIN Assignment and Transfer

- In reality, RINs need not be generated until the renewable fuel is transferred to another party

- Producer Y makes 2000 gal of cellulosic ethanol on September 1 and stores it in a tank
  - On September 5, 5000 gallon-RINs generated
  - On September 10, 2000 gallons is transferred to party A, along with 2000 gallon-RINs
  - On September 15, 3000 gallon-RINs is transferred to party B without renewable fuel

See regulations at: §80.1126(e)(2), §80.1126(e)(4), §80.1128(a)(6)

The Basics of Compliance for Marketers and Others Who Own Renewable Fuel

- The requirements for parties that buy and sell renewable fuel are designed to ensure that RINs generated make their way to the obligated parties who need them
- In general, RINs must travel with renewable fuel
- However, we have created several flexibilities that allow marketers wide discretion in how this happens from day to day

See regulations at: §80.1128(a)(1) through (3)

The Basics of Compliance for Marketers et al

- There are three primary requirements that ensure RINs move with renewable fuel:

1. An assigned RIN cannot be transferred to another party without simultaneously transferring a volume of renewable fuel to that same party
   - Assigned RINs have a K code of 1
   - "Transfer" means a change in ownership, not custody

See regulations at: §80.1128(a)(3)

The Basics of Compliance for Marketers et al

2. No more than 2.5 assigned gallon-RINs can be transferred to another party with every gallon of renewable fuel transferred to that same party
   - But any party can transfer renewable fuel without RINs, subject to the end-of-quarter check
   - Thus a gallon of renewable fuel can be transferred with 0 - 2.5 gallon-RINs,
   - Assigned RINs are completely fungible: RINs can be assigned to different gallons, even different types of renewable fuels

See regulations at: §80.1128(a)(4)

End-of-Quarter Check for Marketers et al

3. At the end of each quarter, each party must demonstrate that it owns no more assigned RINs (with K = 1) than gallons of renewable fuel (adjusted for its Equivalence Value)

Sum of assigned gallon-RINs	≤	Volume of renewable fuel owned x Equivalence Value per volume

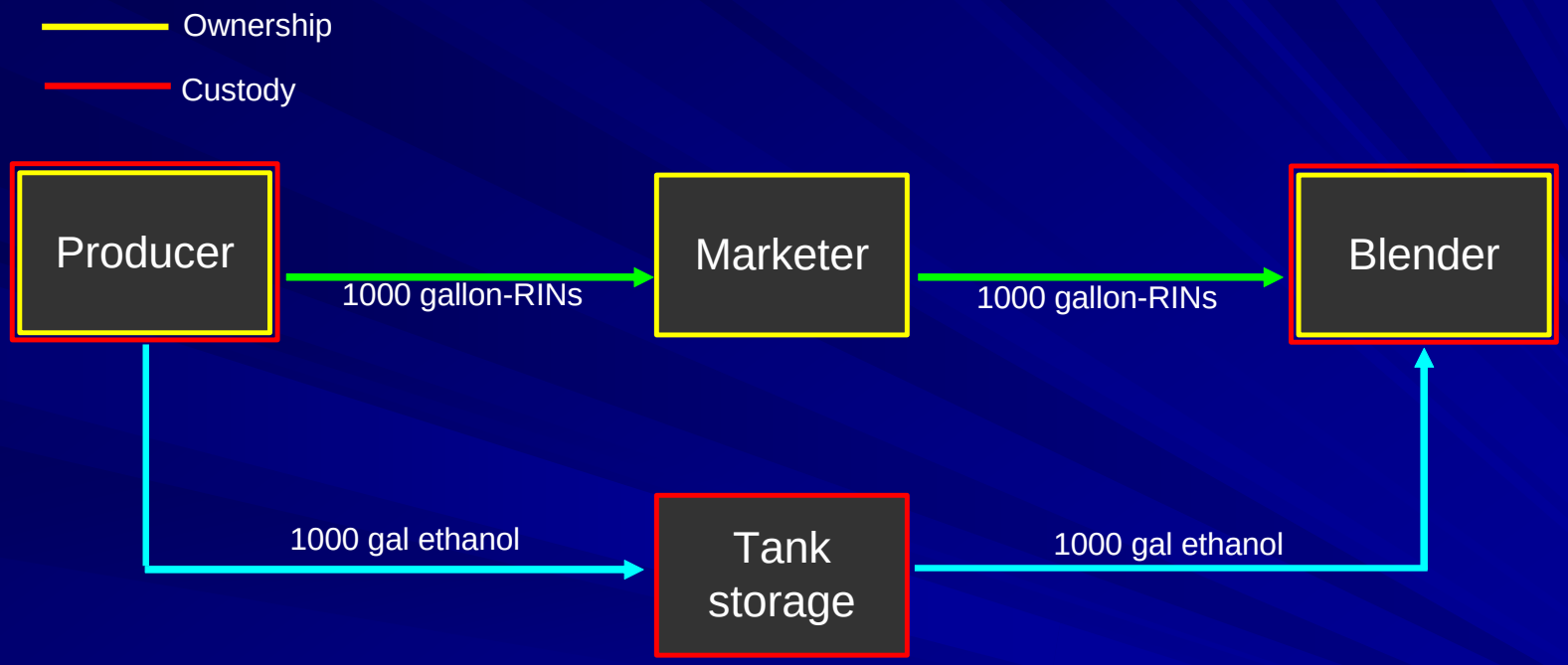
- This requirement ensures that, at least quarterly, RINs have been transferred with volume and obligated parties have opportunities to get RINs

See regulations at: §80.1128(a)(5)

Follow The RINs

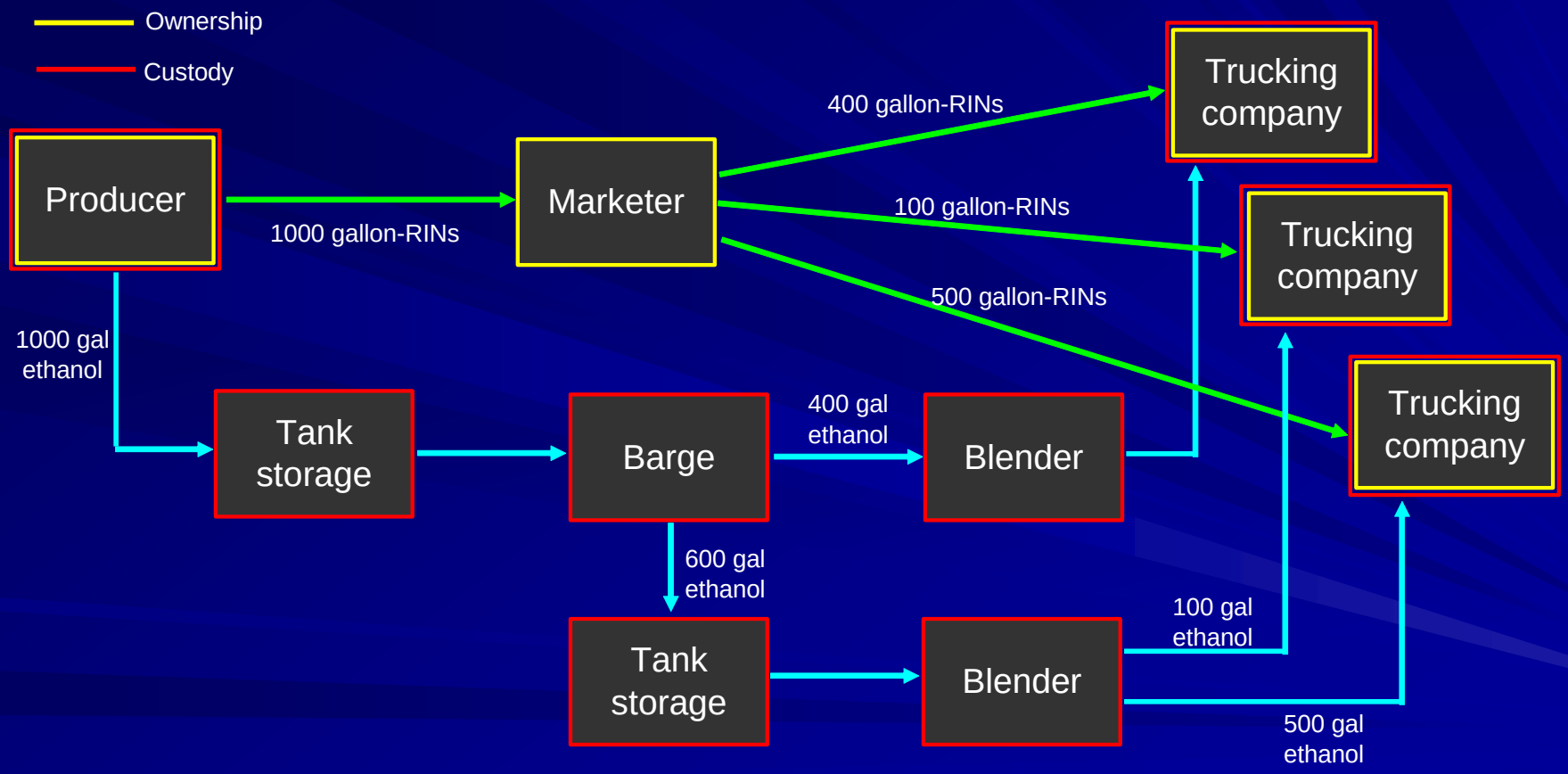
- Assigned RINs are transferred when ownership of a batch of renewable fuel is transferred
- RINs are not transferred if merely custody of a batch of renewable fuel is transferred

Follow The RINs



- Parties that take custody of renewable fuel but not ownership have no recordkeeping or reporting responsibilities under the RFS program

Follow The RINs



Separating RINs from Renewable Fuel

- Separating a RIN means changing an assigned RIN into an unassigned RIN
  - K code is changed from 1 to 2
  - Separated ("unassigned") RINs are not subject to the requirement to transfer RINs with renewable fuel
- Parties that separate RINs are:
  - Renewable fuel blenders upon blending
  - Any party blending biodiesel at 80% or less
  - Obligated parties upon ownership
  - Exporters upon export
  - Producers/importers if fuel is used in neat form

See regulations at: §80.1128(b) , §80.1129(b)

The Basics of Compliance for Blenders

- In general, blenders are not obligated parties
  - Includes ethanol and biodiesel blenders and any other party that only blends renewable fuel with conventional gasoline or diesel
  - Parties that blend MTBE or other blendstocks into gasoline are gasoline producers and thus are obligated parties
- Blenders must separate RINs from volumes of renewable fuel upon blending
  - This means changing the K code from 1 to 2

See regulations at: §80.1107, §80.1129

The Basics of Compliance for Obligated Parties

- Acquire RINs through either:
  - Purchasing renewable fuel from any party with assigned RINs
  - Purchasing unassigned RINs on the open RIN market
- For each calendar year, each obligated party must demonstrate that it has sufficient RINs to cover its RVO
  - Every gallon-RIN covers one gallon of the obligated party's RVO

See regulations at: §80.1127, §80.1129

Renewable Volume Obligations (RVO)

- Each obligated party must determine its own RVO based on the standard and the gasoline it produced or imported

RVO = Standard x annual gasoline volume

(+ Deficit carryover)

- Applicable gasoline volumes include
  - Finished gasoline, RBOB, CBOB, CARBOB, GTAB
  - Blendstocks added to gasoline (MTBE, butane, etc)
  - All renewable fuel is excluded

See regulations at: §80.1107, §80.1130

Limit on Use of Previous Year RINs

- When demonstrating compliance with its RVO, each obligated party must also demonstrate that no more than 20% of that RVO is met using previous-year RINs
  - i.e. at least 80% of the RVO for a given calendar year must come from RINs generated in that year
- Not relevant for 2007 compliance

See regulations at: §80.1127(a)(2)

Exporters of Renewable Fuel

- The RIN-based system works because essentially all renewable fuel that is produced or imported is eventually consumed as motor vehicle fuel in the U.S.
- Exports of renewable fuel conflict with this premise
- Therefore, we created a requirement to force RINs out of circulation if some volume of renewable fuel is exported

Exporters of Renewable Fuel

- Any party that exports renewable fuel from the 48 states is assigned an RVO based on the volume exported

RVO = Volume x Equivalence Value

(+ Deficit carryover)

- Most of the recordkeeping and reporting requirements applicable to obligated parties also apply to exporters of renewable fuel

See regulations at: §80.1130, §80.1151(a), §80.1152(a)

Distribution of Unassigned RINs

- Unassigned RINs (with K = 2) can be transferred freely without volumes of renewable fuel
  - Any registered party can own an unassigned RIN
  - There is no limit on the number of times an unassigned RIN can be transferred between parties
- A RIN can continue to be transferred until February 28 for compliance with the previous year's RVO

See regulations at: §80.1128(b)

What About Parties That Never Own RINs or Renewable Fuel?

- Regulated parties under the RFS program are those that take ownership of RINs
- If a party only takes custody of renewable fuel but never owns it, that party has no responsibilities under this program
- If a party takes custody of RINs but never owns them (such as some types of RIN brokers), he has no responsibilities under this program

What Happens if a Party "Loses" Some Volume?

- Most small volume losses can be accommodated through the provision allowing up to 2.5 gallon-RINs to be transferred with each gallon
  - Metering imprecision
  - Evaporation
  - Volume shrinkage due to temperature drop
  - Minor spills
- For more significant spills, we allow an appropriate number of gallon-RINs to be retired (reported as "retired" and no longer transferable)

See regulations at: §80.1128(a)(4), §80.1132

For More Information

RFS Program general website:

http://www.epa.gov/otaq/renewablefuels/

Questions not answered in Q&A document:

ASD info@epa.gov

Questions?