UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

FEB 6 2013

OFFICE OF
AIR AND RADIATION

Mr. Rick Schwarck
President and CEO
Absolute Energy, LLC
1372 State Line Road
St. Ansgar, Iowa 50472

Dear Mr. Schwarck:

You petitioned the Agency on behalf of Absolute Energy, LLC, to approve their pathway for the generation of renewable fuel RINs (D-code 6) under the renewable fuel standard ("RFS") program for the production of ethanol for expanded capacity above the facility's baseline volume that is exempted from the requirement of having a 20% reduction in GHG lifecycle emissions. Absolute's facility produces ethanol using corn as a feedstock, a dry mill process, natural gas for all process energy (to produce steam, dry up to 100% distillers grains, operate emissions control devices, etc.), grid electricity, and an efficient process that uses no more than 24,700 Btus of natural gas per gallon of ethanol produced and no more than 1,870 Btus of grid electricity per gallon of ethanol produced (the "Absolute Energy Process").

Through the petition process described under 40 CFR § 80.1416, Absolute submitted data to the EPA to perform a lifecycle greenhouse gas emissions analysis of the Absolute Energy Process. This analysis involved a straightforward application of the same methodology and much of the same modeling used for the final rule published on March 26, 2010 ("the March 2010 RFS Rule"). The EPA performed its assessment of Absolute's process based on the modeling done for the corn starch ethanol pathways performed as part of the March 2010 RFS Rule. The attached document "Absolute Energy, LLC Request for Fuel Pathway Determination under the RFS Program" describes the data submitted by Absolute, the analysis conducted by the EPA, and our determination of the lifecycle greenhouse gas emissions associated with the fuel production pathway described in Absolute's petition.

Based on our assessment, fuel produced pursuant to the Absolute Energy Process qualifies under the Clean Air Act (CAA) for renewable fuel (D-code 6) RINs, assuming that the fuel meets the other definitional criteria for renewable fuel (e.g., produced from renewable biomass, and used to reduce or replace petroleum-based transportation fuel, heating oil or jet fuel) specified in the CAA and EPA implementing regulations.

This approval applies specifically to Absolute Energy, LLC, and to the process, materials used, fuel produced, and process energy sources as outlined and described in the petition request submitted by Absolute.

The OTAQ Reg: Fuels Programs Registration and OTAQEMTS: OTAQ EMTS Application will be modified to allow Absolute to register and generate RINs for the production of ethanol from corn feedstock using a production process of "Absolute Energy Process."

If you have additional questions about this or related issues, please contact Venu Ghanta of my staff at 202-564-1374.

Sincerely,

Christopher Grundler, Director
Office of Transportation and Air Quality

Enclosure

Absolute Energy, LLC Request for Fuel Pathway Determination under the RFS Program
Office of Transportation and Air Quality
February 6, 2013

Summary: Absolute Energy, LLC ("Absolute") petitioned the Agency to approve their generation of renewable fuel RINs (D-code 6) under the renewable fuel standard ("RFS") program for the production of ethanol for expanded capacity above the facility's baseline volume that is exempted from the requirement of having a 20% reduction in GHG lifecycle emissions. Absolute's facility produces ethanol using corn as a feedstock, a dry mill process, natural gas for all process energy (to produce steam, dry up to 100% distillers grains, operate emissions control devices, etc.), grid electricity, and an efficient process that uses no more than 24,700 Btus of natural gas per gallon of ethanol produced and no more than 1,870 Btus of grid electricity per gallon of ethanol produced (the "Absolute Energy Process").

Through the petition process described under 40 CFR § 80.1416, Absolute submitted data to EPA to perform a lifecycle greenhouse gas emissions analysis of the Absolute Energy Process. EPA's analysis involved a straightforward application of the same methodology and much of the same modeling used for the final rule published on March 26, 2010 (75 FR 14670)("the March 2010 RFS Rule"). The difference between this analysis and the analyses completed for the March 2010 RFS Rule is the evaluation of a modified fuel production process.

As outlined in the preamble to the March 2010 RFS Rule, the Absolute Energy Process is the type of new pathway that EPA envisioned would be evaluated by comparing the applicant's fuel pathway to pathway(s) that EPA has already analyzed. EPA performed its assessment of Absolute's process based on the modeling done for the corn starch ethanol pathways performed as part of the March 2010 RFS Rule (the "RFS corn ethanol pathways"). Our analysis shows that the GHG impacts related to corn starch feedstock production for the Absolute Energy Process are slightly lower than the comparable emission impacts for the RFS corn ethanol pathways because the Absolute Energy Process consumes less natural gas and electricity for process needs. Based on the data submitted and the existing modeling for the RFS corn ethanol pathways, EPA conducted a lifecycle assessment and determined that the Absolute Energy Process meets the 20% lifecycle greenhouse gas (GHG) threshold. For the Absolute Energy Process, the result is a 22% reduction in GHG emissions compared to the gasoline fuel baseline. Based on our assessment, the fuel produced through the Absolute Energy Process qualifies for generating RINs for renewable fuel (D-code 6).

This document is organized as follows:

- *Section I. Required Information and Criteria for Petition Requests*: This section contains information on the background and purpose of the petition process, the criteria EPA uses to evaluate the petitions and the information that is required to be provided under the petition process as outlined in 40 CFR § 80.1416. This section is not specific to Absolute's request and applies to all petitions submitted pursuant to 40 CFR § 80.1416.

- *Section II. Available Information*: This section contains background information on Absolute and describes the information that Absolute provided and how it complies with the petition requirements outlined in Section I.
- *Section III. Analysis and Discussion*: This section describes the lifecycle analysis done for the Absolute Energy Process and identifies how it differs from the analysis done for the corn starch ethanol pathway analyzed as part of the March 2010 RFS Rule. This section also describes how we have applied the lifecycle results to determine the appropriate D-Code for the Absolute Energy Process.
- *Section IV. Conditions and Associated Regulatory Provisions:* This section describes the regulatory provisions associated with this petition.
- *Section V. Public Participation*: This section describes our administrative process to consider Absolute's petition and explains how this petition analysis is an extension of the analysis done as part of the March 2010 RFS Rule.
- *Section VI. Conclusion*: This section summarizes our conclusions regarding Absolute's petition, including the D-code Absolute may use in generating RINs for fuel produced using the Absolute Energy Process.

I. Required Information and Criteria for Petition Requests

A. Background and Purpose of Petition Process

As a result of changes to the Renewable Fuel Standard program in Clean Air Act ("CAA") section 211(o), as amended by the Energy Security and Independence Act of 2007 ("EISA"), EPA adopted new regulations, published at 40 CFR § 80.1400 *et. seq*. The RFS program regulations specify the types of renewable fuels eligible to participate in the RFS program and the procedures by which renewable fuel producers and importers could generate Renewable Identification Numbers ("RINs") for the qualifying renewable fuels they produce through approved fuel pathways. *See* 75 FR 14670 (March 26, 2010); 75 FR 26026 (May 10, 2010); 75 FR 37733 (June 30, 2010); 75 FR 59622 (September 28, 2010); 75 FR 76790 (December 9, 2010); 75 FR 79964 (December 21, 2010); 77 FR 1320 (January 9, 2012); and 77 FR 74592 (December 17, 2012).

Pursuant to 40 CFR § 80.1426(f)(1):

> *Applicable pathways.* D-codes shall be used in RINs generated by producers or importers of renewable fuel according to the pathways listed in Table 1 to this section, subparagraph 6 of this section, or as approved by the Administrator.

Table 1 to 40 CFR § 80.1426 lists the three critical components of a fuel pathway: (1) fuel type; (2) feedstock; and (3) production process. Each specific combination of the three components, or fuel pathway, is assigned a D-code. EPA may also independently approve additional fuel pathways not

currently listed in Table 1 for participation in the RFS program, or a third party may petition for EPA to evaluate a new fuel pathway in accordance with 40 CFR § 80.1416. In addition, producers of facilities identified in 40 CFR §§ 1403 (c) and (d) that are exempt from the 20% GHG emissions reduction requirement of the Act may generate RINs with a D-code of 6 pursuant to 40 CFR § 80.1426(f)(6) for a specified baseline volume of fuel.

The petition process under 40 CFR § 80.1416 allows parties to request that EPA evaluate a new fuel pathway's lifecycle GHG reduction and provide a determination of the D-code for which the new pathway may be eligible. In the event that EPA determines that the pathway described in a petition qualifies for a D-code, EPA will extend a similar approval to other petitioners utilizing the same fuel pathway upon verification that the pathway is indeed the same, assuming all other requirements are met.

B. Required Information in Petitions

As specified in 40 CFR § 80.1416(b)(1), petitions must include all of the following information, and should also include as appropriate supporting documents such as independent studies, engineering estimates, industry survey data, and reports or other documents supporting any claims:

- The information specified under § 80.76 (Registration of refiners, importers or oxygenate blenders).
- A technical justification that includes a description of the renewable fuel, feedstock(s), and production process. The justification must include process modeling flow charts.
- A mass balance for the pathway, including feedstocks, fuels produced, co-products, and waste materials production.
- Information on co-products, including their expected use and market value.
- An energy balance for the pathway, including a list of any energy and process heat inputs and outputs used in the pathway, including such sources produced off site or by another entity.
- Any other relevant information, including information pertaining to energy saving technologies or other process improvements.
- Other additional information as requested by the Administrator to complete the lifecycle greenhouse gas assessment of the new fuel pathway.

In addition to the requirements stated above, parties who use a feedstock not previously evaluated by EPA must also include the following, and should also include as appropriate supporting information such as state, county, or regional crop data, commodity reports, independent studies, industry or farm survey data, and reports or other documents supporting any claims:

- Type of feedstock and description of how it meets the definition of renewable biomass.

- Market value of the feedstock.
- List of other uses for the feedstock.
- List of chemical inputs needed to produce the renewable biomass source of the feedstock and prepare the renewable biomass for processing into feedstock.
- Energy needed to obtain the feedstock and deliver it to the facility. If applicable, identify energy needed to plant and harvest the source of the feedstock and modify the source to create the feedstock.
- Current and projected yields of the feedstock that will be used to produce the fuels.
- Other additional information as requested by the Administrator to complete the lifecycle greenhouse gas assessment of the new fuel pathway.

II. Available Information

A. Background on Absolute

Absolute submitted a petition requesting authorization to generate D-code 6 RINs for fuel produced through the Absolute Energy Process. A petition is required because the Absolute Energy Process is not included as an approved process in Table 1 to 40 CFR § 80.1426. Table 1 (relevant portions of which are reproduced below) includes pathways for ethanol from corn starch, but requires that fuel producers utilize two advanced technologies if they do not take a limit on the amount of distillers dry grains with solubles (DDGS) that they produce. Absolute does not use any of the advanced technologies specified in the RFS regulations, and dries up to 100% of its co-product distillers dry grains with solubles (DDGS). As a result, fuel produced pursuant to the Absolute Energy Process does not qualify for the generation of RINs under any of the existing pathways in Table 1 to 40 CFR § 80.1426.

Per the March 2010 RFS Rule, Absolute's baseline volume of grandfathered fuel is 115.5 million gallons per year. Absolute's air permit from the State of Iowa limits production at the Absolute facility to 150 million gallons per year. Absolute has petitioned EPA to receive approval under the RFS regulations to generate RINs for volumes it produces pursuant to the Absolute Energy Process that are in addition to the grandfathered baseline volume of 115.5 million gallons per year.

B. Information Available Through Existing Modeling

A fuel pathway under the RFS regulations is defined by three components: (1) fuel type; (2) feedstock; and (3) production process. For the pathway addressed in Absolute's petition, Absolute would use a feedstock – corn starch – that has already been analyzed as part of the March 2010 RFS Rule, as noted in Table 1. As a result, no new feedstock modeling was required as modeling for corn starch was already done as part of the March 2010 RFS Rule. Similarly, no new emissions impact modeling of using ethanol as a transportation fuel was required as that was already done as part of the

March 2010 RFS Rule. This petition only requires EPA to evaluate a modified fuel production process for an existing fuel type.

Table 1: Relevant Existing Corn Ethanol Fuel Pathways from 40 CFR § 80.1426

Fuel Type	Feedstock	Production Process Requirements	D-Code
Ethanol	Corn Starch	All of the following: Dry mill process, using natural gas, biomass, or biogas for process energy and at least two advanced technologies from Table 2 to this section	6 (Renewable Fuel)
Ethanol	Corn Starch	All of the following: Dry mill process, using natural gas, biomass, or biogas for process energy and at least one of the advanced technologies from Table 2 to this section plus drying no more than 65% of the distillers grains with soluble it markets annually	6 (Renewable Fuel)
Ethanol	Corn Starch	All of the following: Dry mill process, using natural gas, biomass, or biogas for process energy and drying no more than 50% of the distillers grains with soluble it markets annually	6 (Renewable Fuel)

The same analytical approach that was used to evaluate the lifecycle GHG emissions of the existing pathways noted above was used to analyze the Absolute Energy Process. The preamble to the March 2010 RFS Rule describes the modeling approach used to estimate lifecycle GHG emissions from corn starch ethanol. The preamble describes the models and data used as well as the input and output streams from those models to calculate the emissions for each of the lifecycle stages. To modify the corn starch ethanol analysis to reflect the Absolute Energy Process, the only change required was replacing the corn ethanol production process data with the Absolute process data. This resulted in the following changes to the modeling (described in more detail in the following sections):

- Amount of corn used in the fuel production process was decreased to reflect Absolute's efficiency in terms of bushels of corn input per gallons of ethanol produced; and
- Amount of energy used by the fuel production process and associated emissions from fuel production and use was changed to reflect data provided in Absolute's energy balance.

This was a straightforward analysis based on existing modeling done for the March 2010 RFS Rule and substituting Absolute's proprietary process data, which only altered the amounts of inputs and outputs. The analyses completed for EPA's response to Absolute's petition utilizes the same fundamental modeling approach as was used in the March 2010 RFS Rule analyses.

C. Information Submitted by Absolute

Absolute has supplied all the required information on their production process that EPA needs to analyze the lifecycle GHG emissions associated with the Absolute Energy Process. Information submitted includes a technical justification that has a description of the fuel, feedstocks used, and their proprietary production process with modeling flow charts, a detailed mass and energy balance of the process with information on co-products as applicable, and other additional information as needed to complete the lifecycle greenhouse gas assessment.

III. Analysis and Discussion

A. Lifecycle Analysis

Determining a fuel pathway's compliance with the lifecycle GHG reduction thresholds specified in the CAA for different types of renewable fuel requires a comprehensive evaluation of the renewable fuel, as compared to the gasoline or diesel fuel that it replaces, on the basis of its lifecycle GHG emissions. As mandated by the CAA, the GHG emissions assessments must evaluate the aggregate quantity of GHG emissions (including direct emissions and significant indirect emissions such as significant emissions from land use changes) related to the fuel's full lifecycle, including all stages of fuel and feedstock production, distribution, and use by the ultimate consumer.

In examining the full lifecycle GHG impacts of renewable fuels for the RFS program, EPA considers the following:

- Feedstock production – based on agricultural sector models that include direct and indirect impacts of feedstock production.
- Fuel production – including process energy requirements, impacts of any raw materials used in the process, and benefits from co-products produced.
- Fuel and feedstock distribution – including impacts of transporting feedstock from production to use, and transport of the final fuel to the consumer.
- Use of the fuel – including combustion emissions from use of the fuel in a vehicle.

EPA's evaluation of the lifecycle GHG emissions of the Absolute Energy Process under this petition request is consistent with the CAA's applicable requirements, including the definition of lifecycle GHG emissions and threshold evaluation requirements. It was based on information

regarding Absolute's production process that was submitted under a claim of Confidential Business Information (CBI) by Absolute on August 31, 2012. The information provided included the mass and energy balances necessary for EPA to evaluate the lifecycle GHG emissions of the Absolute Energy Process.

The lifecycle GHG emissions of fuel produced pursuant to the Absolute Energy Process were determined as follows:

Feedstock production – The Absolute Energy Process uses corn starch as a feedstock for the production of ethanol. As previously noted, corn starch is one of the feedstocks already listed in Table 1 to § 80.1426 of the RFS regulations. Since corn starch has already been evaluated as part of the March 2010 RFS rule, no new feedstock production modeling was required.

The FASOM and FAPRI models were used to analyze the GHG impacts of the feedstock production portion of the fuel's lifecycle. The same FASOM and FAPRI results representing the emissions from an increase in corn production that were generated as part of the March 2010 RFS Rule analysis of the corn ethanol pathways were used in our analysis of the Absolute Energy Process. These results represent agriculture / feedstock production emissions for a certain quantity of corn produced. For the analysis in the March 2010 RFS Rule, we found that roughly 960 million bushels of corn is used to produce 2.6 billion gallons of fuel, and we calculated GHG emissions from feedstock production for that amount of corn. Absolute's process for converting corn into ethanol is the same as that modeled as part of the March 2010 RFS Rule. Therefore, the existing agricultural sector modeling analyses for corn as a feedstock remain valid for use in estimating the lifecycle impact of renewable fuel produced using the Absolute Energy Process. Absolute submitted information indicating that their expected process yield in terms of gallons of fuel produced per bushel of corn is slightly greater than what was modeled as part of the March 2010 RFS Rule. However, for this analysis we conservatively assumed that Absolute's process yield is the same as that modeled as part of the March 2010 RFS Rule.

For the RFS corn ethanol pathways, the use of 960 million bushels of corn resulted in approximately 197,480,000 mmBtu of corn ethanol produced, based on a yield of 2.71 gallons ethanol per bushel of corn and a lower heating value (LHV) of 76,000 Btus per gallon of ethanol. The FASOM and FAPRI agricultural sector GHG results were divided by the total energy value of fuel produced to get emissions per mmBtu of ethanol.

Fuel production – Absolute's fuel production method involves the production of ethanol from corn starch in a dry mill process. However, the amount of energy used in the Absolute Energy Process is different than in the corn ethanol pathways that were analyzed under the March 2010 RFS Rule.

To analyze the GHG impacts of Absolute's process, EPA utilized the same approach that was used to determine the impacts of processes in the corn starch ethanol pathways analyzed in the March 2010 RFS Rule, taking into account the differences noted above. The GHG emissions for the fuel production component of the Absolute Energy Process were based on an assessment of the type and amount of energy used and associated emissions per mmBtu of fuel produced.

The amount and type of energy used was taken from information submitted to EPA on Absolute's mass balance and energy balance. Absolute submitted energy data on natural gas (in mmBtus) and electricity (in MWhs) inputs, as well as gallons of fuel produced. Absolute based their natural gas use in the energy balance on the heat required for all steam needs and for drying all distillers grains. The electrical energy use was based on use for all process needs.

Absolute's process uses less energy per gallon of fuel produced than the corn ethanol processes analyzed in the March 2010 RFS Rule, which results in lower GHG emissions. Absolute states in their petition that they have improved their plant energy efficiency by 16% since production first began in 2008.

The emissions from the use of energy were calculated by multiplying the amount of energy by emission factors for fuel production and combustion, based on the same method and factors used in the March 2010 RFS Rule. The emission factors for the different fuel types are from GREET and were based on assumed carbon contents of the different process fuels. Table 3 below summarizes the emission factors used in the Absolute analysis.

Table 3: Fuel Production Emission Factors for Natural Gas and Electricity in 2022

Fuel Type	Emission Factor (gCO_2e/mmBtu fuel input)
Natural Gas Production	**9,392**
Natural Gas Combustion	**59,183**
Electricity	**219,824**

Individual process input and output mass and energy flows within the production plant were not needed for this analysis; rather, as was done for the March 2010 RFS Rule analysis, total input and output mass and energy flows from the entire plant were used. No additional raw materials were required in the Absolute Energy Process and thus no emissions were calculated for additional raw materials for this analysis.

Absolute's process produces up to 100% co-product DDGS. The corn starch ethanol pathways analyzed for the March 2010 RFS Rule included an estimate for DDGS co-product production which we similarly applied to the Absolute production process. Since DDGS impact the agricultural markets, such inclusion was modeled as part of the FASOM and FAPRI modeling as already described in the

feedstock production section above. Thus no additional co-product credits are applied for the fuel production stage of the analysis.

The estimated fuel production emissions from the Absolute Energy Process are shown below in Table 4.

Table 4: Fuel Production Emissions for Absolute Energy Process

Fuel Production Source	Pathway for Corn Ethanol, Natural Gas Fired, Dry Mill, 100% Dry DDGS, No Advanced Technologies **(g CO_2-eq./mmBtu ethanol produced)**	Absolute Energy Process (assuming 100% DDGS) **(g CO_2-eq./mmBtu ethanol produced)**
On-Site Emissions	22,317	19,234
Upstream (natural gas and electricity production)	10,052	8,461
Total Fuel Production Emissions:	**32,369**	**27,696**

Fuel and feedstock distribution – We used the same feedstock distribution emissions assumption considered for corn ethanol in the March 2010 RFS Rule for Absolute's corn feedstock. The fuel type, ethanol, and hence the fuel distribution for ethanol, was already considered as part of the March 2010 RFS Rule. Therefore, we applied the existing feedstock and fuel distribution lifecycle GHG impacts for corn ethanol to our analysis of the Absolute Energy Process.

Use of the fuel – Absolute's process produces a fuel that was analyzed as part of the March 2010 RFS Rule. Thus, we applied the fuel combustion emissions calculated as part of the March 2010 RFS Rule for ethanol to our analysis of the Absolute Energy Process.

Absolute's fuel was then compared to baseline gasoline, using the same value for baseline gasoline as in the March 2010 RFS Rule analysis. Our analysis indicates that the Absolute Energy Process would result in a GHG emissions reduction of 22% compared to the gasoline it would replace, as shown in Table 5.

B. Application of the Criteria for Petition Approval

Absolute's petition request involved a fuel pathway with a modified production process, using similar feedstocks and producing a fuel product already considered as part of the March 2010 RFS Rule. Absolute provided all the necessary information that was required for this type of petition request.

Based on the data submitted and information already available through analyses conducted for the March 2010 RFS Rule, EPA conducted a lifecycle assessment and determined that the Absolute Energy Process meets the 20% lifecycle GHG threshold requirement specified in the CAA for renewable fuel.

Absolute's process results in a 22% reduction in GHG emissions compared to the gasoline baseline. These results justify authorizing the generation of renewable fuel RINs for fuel produced by the Absolute Energy Process, assuming that the fuel meets the other definitional criteria for renewable fuel (e.g., produced from renewable biomass, and used to reduce or replace petroleum-based transportation fuel, heating oil or jet fuel) specified in the CAA and EPA implementing regulations.

Table 5 below breaks down by stage the lifecycle GHG emissions for the Absolute Energy Process, a corn ethanol pathway analyzed as part of the March 2010 RFS Rule that does not use any of the advanced technologies specified in the RFS regulations and dries all of its co-product DDGS, and the 2005 gasoline baseline. This table demonstrates the contribution of each stage in the fuel pathway and its relative significance in terms of GHG emissions.

Table 5: Lifecycle GHG Emissions for Absolute(kg CO2-eq./mmBtu ethanol produced)

Fuel Type	Pathway for Corn Ethanol, Natural Gas Fired, Dry Mill, 100% Dry DDGS, No Advanced Technologies	Absolute Energy Process (assuming 100% DDGS)	RFS 2005 Gasoline Baseline
Net Domestic Agriculture (w/o land use change)	4	4	
Net International Agriculture (w/o land use change)	12	12	
Domestic Land Use Change	-4	-4	
International Land Use Change, Mean (*Low/High*)	32 (*21/46*)	32 (*21/46*)	
Fuel Production	32	28	19
Fuel and Feedstock Transport	4	4	*
Tailpipe Emissions	1	1	79
Total Emissions, Mean *(Low/High)*	**82 *(71/96)***	**77 *(66/91)***	**98**
% Reduction	**17%**	**22%**	

*Emissions included in fuel production stage.

IV. Conditions and Associated Regulatory Provisions

As part of the registration process, Absolute must submit the estimated amount of natural gas consumption in mmBtu and the estimated amount of purchased grid electricity in mmBtu. Absolute must also submit as part of the registration process a description of how the facility intends to demonstrate and document that for fuel produced pursuant to the Absolute Energy Process that: (1) no more than 26,000 Btu of natural gas was used per gallon of ethanol produced, calculated as an average across the sum of all gallons of ethanol produced in the batch plus all gallons in other batches for which RINs were generated pursuant to the Absolute Energy Process in the preceding 364 days; and (2) that no more than 1,970 Btu of purchased grid electricity was used per gallon of ethanol produced, calculated as an average across the sum of all gallons of ethanol produced in the batch plus all gallons in other batches for which RINs were generated pursuant to the Absolute Energy Process in the preceding 364 days. Absolute is also subject to the general registration, recordkeeping and reporting provisions in 40 CFR subpart M that apply to renewable fuel producers. In addition, the authority for Absolute to generate RINs pursuant to the Absolute Energy Process for any batch of fuel is expressly conditioned on Absolute demonstrating through records available as of the date of RIN generation and maintained by the producer that the batch of ethanol used to generate the RINs meets the following requirements:

1. Corn was used as the only feedstock;

2. The ethanol was produced by a dry mill process;

3. No more than 26,000 Btu of natural gas per gallon of ethanol produced was used, calculated as an average across the sum of all gallons of ethanol produced in the batch plus all gallons in other batches for which RINs were generated pursuant to the Absolute Energy Process in the preceding 364 days;

4. No more than 1,970 Btu of purchased grid electricity per gallon of ethanol produced was used, calculated as an average across the sum of all gallons of ethanol produced in the batch plus all gallons in other batches for which RINs were generated pursuant to the Absolute Energy Process in the preceding 364 days.

If Absolute fails to comply with this demonstration requirement, or fails to meet the elements of the approved Absolute Energy Process for any batch of fuel for which it generates RINs pursuant to this pathway, all RINs generated for the affected batches shall be considered improperly generated under 40 CFR 80.1431(a).

V. Public Participation

As part of the March 2010 RFS Rule, we took public comment on our lifecycle assessment of the RFS corn ethanol pathways, including all models used and all modeling inputs and evaluative approaches. We also acknowledged that it was unlikely that our final regulations would address all possible qualifying fuel production pathways, and we took comment on allowing the generation of RINs using a temporary D-code in certain circumstances while EPA was evaluating such new pathways and updating its regulations. After considering comments, we finalized the current petition process, where we allow for EPA approval of certain petitions without going through additional rulemaking if we can do so as a reasonably straightforward extension of prior analyses, whereas rulemaking would be conducted to respond to petitions requiring new modeling. *See* 58 FR 14797 (March 26, 2010).

In responding to Absolute's petition, we have relied on the corn ethanol modeling that we conducted for the March 2010 RFS Rule, and have simply adjusted the analysis to account for Absolute's specific production process. We relied on the same agricultural sector modeling (FASOM and FAPRI results) that was conducted and commented on as part of the March 2010 RFS Rule to represent feedstock production. This also includes use of the same emission factors and types of emission sources that were used in the March 2010 RFS Rule analysis. Thus, the fundamental analyses relied on for this decision have already been made available for public comment as part of the March 2010 RFS Rule. Our approach today is also consistent with our description of the petition

process in the preamble to the March 2010 RFS Rule. Our evaluation in response to the petition is a logical extension of analyses already conducted for the March 2010 RFS Rule.

VI. Conclusion

Based on our lifecycle GHG assessment, fuel produced pursuant to the Absolute Energy Process qualifies under the CAA for renewable fuel (D-code 6) RINs, assuming that the fuel meets the other definitional criteria for renewable fuel (e.g., produced from renewable biomass, and used to reduce or replace petroleum-based transportation fuel, heating oil or jet fuel) specified in the CAA and EPA implementing regulations.

This approval applies specifically to Absolute Energy, LLC, and to the process, materials used, fuel produced, and process energy sources as outlined and described in the petition request submitted by Absolute. EPA will extend a similar approval to other petitioners utilizing the same fuel pathway as Absolute upon verification that the pathway is indeed the same, assuming all other requirements are met. This approval is effective as of February 6, 2013. Fuel produced pursuant to the Absolute Energy Process does not meet the requirements for delayed RIN generation, as outlined in 40 CFR § 80.1426(g)(1)(ii), because the complete petition was not received by EPA by January 31, 2011, as required by 40 CFR § 80.1426(g)(1)(i)(A).

The OTAQ Reg: Fuels Programs Registration and OTAQEMTS: OTAQ EMTS Application will be modified to allow Absolute to register and generate RINs for the production of ethanol from corn feedstock using a production process of "Absolute Energy Process."