

DOCKETED

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Comment Received From: Joseph R. Degenfelder
Submitted On: 11/6/2018
Docket Number: 18-ALT-01

EPA Approval MSW to Ethanol

Additional submitted attachment is included below.

EPA Approval MSW to Ethanol October 2018

Prepared November 6, 2018

From: "Burkholder, Dallas" <burkholder.dallas@epa.gov>

To: ROBERT FREERKS <rfreeerks@msn.com>, "jrdegenfelder@juno.com" <jrdegenfelder@juno.com>

Cc: "Miller, Andy" <Miller.Andy@epa.gov>

Subject: RE: Summary of facility registration requirements

Date: Mon, 22 Oct 2018 14:12:43 +0000

That is correct. Not all non-biogenic materials have to be removed from the MSW, only those that are "reasonably practicable" to separate as determined in the waste separation plan. While some non-biogenic materials may remain in the separated waste separation plan, a party may not generate RINs for fuel produced from this non-biogenic material. In nearly all cases where separated MSW is the feedstock, RINs are only generated for a portion of the fuel that can be shown to be produced from the biogenic feedstocks.

And you are correct that the registration requirements I discussed were only for the RFS program (part 80 of our regulations) and that there are additional requirements for F&FA (part 79 of our regulations).

Dallas Burkholder
Office of Transportation & Air Quality
US Environmental Protection Agency
(734)214-4766

Burkholder.Dallas@epa.gov

From: ROBERT FREERKS [mailto:rfreeerks@msn.com]

Sent: Monday, October 22, 2018 9:53 AM

To: Burkholder, Dallas <burkholder.dallas@epa.gov>; jrdegenfelder@juno.com

Cc: Miller, Andy <Miller.Andy@epa.gov>

Subject: RE: Summary of facility registration requirements

Dallas,

Your statement is correct per my understanding of how current waste to liquids plants were registered. All "economically" recyclable materials must be removed to achieve approval, but that doesn't mean that all plastics are removed, just the economically recyclable materials.

What is not approved right now is the use of MSW as feed for fuel under F&FA. That is being addressed by synthesis of fuel from this feedstock and emissions testing of fuel blends. Other fuel blending components have been approved such as butanol blends, and ethanol was not approved but was "grandfathered" in the approval. At least in older engines, ethanol is not a clean fuel emitting high levels of aldehydes and other substances. It is a good thing that catalytic converters eliminate essentially all emissions to near zero once warmed up and only "Bag 1" emissions remain. Thus essentially all vehicles meet stringent emissions requirements easily. This comment ignores VW's issues.

Have a great week,

Bob

From: Burkholder, Dallas [<mailto:burkholder.dallas@epa.gov>]

Sent: Monday, October 22, 2018 7:43 AM

To: ROBERT FREERKS <rfreeerks@msn.com>; jrdegenfelder@juno.com

Cc: Miller, Andy <Miller.Andy@epa.gov>

Subject: RE: Summary of facility registration requirements

Dr. Freerks,

Any facility intending to use separated MSW as a feedstock must have a separated waste plan that has been approved by the EPA. This is specified in our regulations in 80.1426(f)(5)(i)(C) and 80.1426(f)(5)(ii)(B).

(C) *Separated municipal solid waste (separated MSW)*, which is 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.

(B) A feedstock qualifies under paragraph (f)(5)(i)(C) of this section only if it is collected according to a plan submitted to and approved by U.S. EPA.

I think, in broad strokes, your description is the type of efforts we would require in a waste separation plan, but there must be a formal waste separation plan approved. And as noted in my previous email, RINs can only be generated for biogenic materials, and the default method for determining the biogenic portion of the separated MSW is a C-14 test of the finished fuel.

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From: ROBERT FREERKS [<mailto:rfreerks@msn.com>]
Sent: Friday, October 19, 2018 6:37 PM
To: Burkholder, Dallas <burkholder.dallas@epa.gov>; jrdegenfelder@juno.com
Cc: Miller, Andy <Miller.Andy@epa.gov>
Subject: RE: Summary of facility registration requirements

Joe, Dallas,

As I understand it from my discussions with Fulcrum Bioenergy, if the material has already been sorted to remove economically recyclable materials, the sorting to remove non-carbon containing materials is the only further step needed. This includes metals and other non-organic materials which have no energy content or might have value for recycling.

Bob

From: Burkholder, Dallas [<mailto:burkholder.dallas@epa.gov>]
Sent: Friday, October 19, 2018 12:56 PM
To: jrdegenfelder@juno.com
Cc: rfreerks@msn.com; Miller, Andy <Miller.Andy@epa.gov>
Subject: Summary of facility registration requirements

Mr. Degenfelder,

At your request, here is a brief summary of our discussion yesterday, regarding the steps that need to be taken for a facility to generate RINs under the RFS program.

The first step is to ensure that a valid RIN-generating pathway exists for your intended pathway (which includes a combination of feedstock, process technology, and fuel type). The list of approved pathways can be found on our EPA website here: <https://www.epa.gov/renewable-fuel-standard-program/approved-pathways-renewable-fuel>

Based on our conversation it would appear that the projects you intend to pursue already have approved pathways for the production of cellulosic ethanol or jet fuel from separated MSW (see pathways K and L). If these pathways describe your facility, you would not need to apply for a new pathway approval.

The second step is to register your facility. For more information on how to register a facility to generate RINs under the RFS program, see our website at: <https://www.epa.gov/fuels-registration-reporting-and-compliance-help/registration-fuel-programs>

As part of your facility registration, you would be required to have an approved waste separation plan. This is due to the fact that only "separated" MSW is an approved feedstock, so you must have an approved plan to separate out recyclable materials to the degree practicable. For more information on waste separation plans, including an example of an approved waste separation plan see <https://www.epa.gov/renewable-fuel-standard-program/waste-separation-plans-renewable-fuel-standard-program>

Finally, as we discussed, facilities processing (or potentially processing) both biogenic and non-biogenic materials together can only generate RINs for the feedstock that qualifies as renewable biomass (in this case, the biogenic portions of separated MSW). You may be asked to conduct C14 testing on the fuel produced from this facility to verify the biogenic content in the fuel. For more information on this aspect of the RFS program see our regulations at 80.1426(f)(4)(i)(A).

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----- Forwarded Message -----

From: "Miller, Andy" <Miller.Andy@epa.gov>
To: "jrdegenfelder@juno.com" <jrdegenfelder@juno.com>
Cc: "kymarcuri@gmail.com" <kymarcuri@gmail.com>, "rfreeerks@msn.com" <rfreeerks@msn.com>
Subject: RE: Draft Executive Summary
Date: Wed, 17 Oct 2018 21:01:59 +0000

Joseph:

Dallas suggested that you get in touch with him directly. He's at (734) 214-4766, or Burkholder.Dallas@epa.gov. I'm ok with helping to set up a time if you send me your availability over the next week or so. But don't hesitate to contact Dallas directly.

Andy

C.A. (Andy) Miller
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From: jrdegenfelder@juno.com [mailto:jrdegenfelder@juno.com]
Sent: Wednesday, October 17, 2018 2:15 PM
To: Miller, Andy <Miller.Andy@epa.gov>
Cc: kymarcuri@gmail.com; rfreeerks@msn.com
Subject: RE: Draft Executive Summary

Andy:

Here is an improved executive summary of MSW gasified to syngas converted to cellulosic ethanol with key change identifying it as the property of Atlantic Greenfuels, LLC.

I look forward to the telecon with Dallas.

Best regards,

Joseph
CEO, Atlantic Greenfuels, LLC
(O) 216-751-5800

----- Original Message -----

From: "Miller, Andy" <Miller.Andy@epa.gov>
To: "jrdegenfelder@juno.com" <jrdegenfelder@juno.com>
Subject: RE: Draft Executive Summary
Date: Wed, 17 Oct 2018 14:07:37 +0000

Hi Joseph. I will find a time for us to talk with Dallas Burkholder in our Office of Transportation Air Quality. That Office is responsible for determining whether a new pathway needs to be submitted for this approach. I will be in touch with Dallas today and see when we can schedule a call.

Andy

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From: jrdegenfelder@juno.com [<mailto:jrdegenfelder@juno.com>]
Sent: Tuesday, October 16, 2018 7:38 PM
To: Miller, Andy <Miller.Andy@epa.gov>
Subject: Fwd: Draft Executive Summary

Andy:

Here is a draft of exec summary re pathway to ethanol from MSW; OSU is Oklahoma State University.

My recall of our discussion re EPA's approval of such ethanol for blending into gasoline was that we need a specific case for production. We are planning a plant in greater Los Angeles, and in Marcus Hook, PA.

Would you please suggest when we could discuss by phone?

Best regards,

Joseph
Atlantic Greenfuels, LLC
(O) 216-751-5800