Message

**From**: BECKHAM, LISA [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=75A0012699094CF59508BB04E90B393C-LBECKHAM]
**Sent**: 8/2/2019 5:19:46 PM
**To**: Scott Treece (AQD) [Scott.Treece@Maricopa.gov]
**CC**: Richard Sumner (AQD) [Richard.Sumner@Maricopa.gov]; Todd Martin (AQD) [Todd.Martin@maricopa.gov]
**Subject**: RE: City of Phoenix - Renewlogy - Waste Plastic-to-Fuel System - NSPS Discussion

Thanks, this is helpful. I have your same concerns regarding EEEE. I'll forward along to HQ to see what they know.

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**From:** Scott Treece (AQD) <Scott.Treece@Maricopa.gov>
**Sent:** Friday, August 2, 2019 9:28 AM
**To:** BECKHAM, LISA <BECKHAM.LISA@EPA.GOV>
**Cc:** Richard Sumner (AQD) <Richard.Sumner@Maricopa.gov>; Todd Martin (AQD) <Todd.Martin@maricopa.gov>
**Subject:** RE: City of Phoenix - Renewlogy - Waste Plastic-to-Fuel System - NSPS Discussion

Thanks Lisa. I've attached 2 documents that they forwarded to us for a plant they recently installed in Nova Scotia that has a better description of the process. They will both produce a fuel and ship offsite and use it to fire the pyrolysis reactor (reactor startup will use natural gas). Again, their argument is that the plastic feedstock is a commodity and not a solid waste. They also have a plant in Salt Lake City that does not have an air permit because emissions were below their permitting thresholds, but we're curious as to whether they addressed EEEE applicability. It'll be interesting to see the air permits they said they will send us for other companies using this process in other states.

Scott Treece • Title V Permitting/Performance Testing Supervisor
Maricopa County Air Quality Department
Desk: 602.372.1341 | *CleanAirMakeMore.com*
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**From:** BECKHAM, LISA <BECKHAM.LISA@EPA.GOV>
**Sent:** Friday, August 2, 2019 9:09 AM
**To:** Scott Treece (AQD) <Scott.Treece@Maricopa.gov>
**Cc:** Richard Sumner (AQD) <Richard.Sumner@Maricopa.gov>; Todd Martin (AQD) <Todd.Martin@maricopa.gov>
**Subject:** RE: City of Phoenix - Renewlogy - Waste Plastic-to-Fuel System - NSPS Discussion

Hi Scott,

This is brand new to me. But, we do look at pyrolysis processes fairly often.

I'm a little confused on their specific process. Are they actually producing a fuel and using it onsite or shipping offsite? I haven't had much experience with the plastic/rubber exemption in AAAA, but I believe it is intended to be used if you are using the plastics as a feedstock that would offset other fuel use. Similar to cement plants burning tires in addition to multiple other fuels to heat their kilns.

What I see most often for pyrolysis processes is that the gas that is produced is then combusted immediately. We have typically held that such a process is still incineration and not exempt as a pyrolysis unit. If the are actually producing a fuel, then, in theory, there wouldn't be any emissions, right?

Once I understand their process a bit more, I'll forward to our HQ contacts that deal with these questions regularly and probably have the latest information.

Lisa

Lisa Beckham
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**From:** Scott Treece (AQD) <Scott.Treece@Maricopa.gov>
**Sent:** Thursday, August 1, 2019 4:23 PM
**To:** BECKHAM, LISA <BECKHAM.LISA@EPA.GOV>
**Cc:** Richard Sumner (AQD) <Richard.Sumner@Maricopa.gov>; Todd Martin (AQD) <Todd.Martin@maricopa.gov>
**Subject:** FW: City of Phoenix - Renewlogy - Waste Plastic-to-Fuel System - NSPS Discussion

Hello Lisa,

We're hoping you can provide us with some guidance related to the email chain below. Renewology is planning to install a plastics-to-fuel plant near a City of Phoenix recycling facility, essentially using pyrolysis to convert plastic to fuel. The maximum capacity of the plant is 10 tons per day. Their position is that the recycled plastic is a commodity feedstock and not a solid waste. However, as Todd points out below the process appears to be subject to NSPS EEEE (other (very small) solid waste incineration units). What's odd is that NSPS AAAA (small solid was incineration units) exempts this process. In our conversations with Renewology and ACC, they've indicated that this process is in operation in other states and we've asked them to send us any air permits/statement of basis for those, as well as reach out to their EPA contacts. Hopefully, you've already come across this and don't need to dig too much. Please let me know if you need any more information from us and/or if you'd like to set up a call.

Thank you,
Scott

Scott Treece • Title V Permitting/Performance Testing Supervisor
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**From:** Cookson, Craig <Craig_Cookson@americanchemistry.com>
**Sent:** Thursday, August 1, 2019 9:27 AM
**To:** Todd Martin (AQD) <Todd.Martin@maricopa.gov>; Rob Potts <rpotts@renewlogy.com>; Richard Sumner (AQD) <Richard.Sumner@Maricopa.gov>; Scott Treece (AQD) <Scott.Treece@Maricopa.gov>
**Cc:** Priyanka Bakaya <pbakaya@renewlogy.com>
**Subject:** RE: City of Phoenix - Renewlogy - Waste Plastic-to-Fuel System - NSPS Discussion

Hi Todd –

Thank you for sending this along. Yes, that is our position. The plastic materials received by a Renewlogy are not solid waste and have been source separated once, twice maybe three times and have value as a manufacturing feedstock/raw material to a Renewlogy for the production of more valuable fuels, chemicals and other intermediates. Additionally, facilities like Renewlogy are not receiving mixed solid waste nor are they in the "disposal" or "treatment" business (or combustion), but are taking plastics and converting those plastics into higher value commodities.

A couple of follow-up points. The nation's Lt. Governors last week agreed to a Resolution Regarding The Importance of Recycling and Distinguishing Recyclable Materials as Valuable Commodities That Are Not Solid Waste. I think the key

lines in this resolution can be found on 35 – 36 ***"Whereas the term 'waste' has legal and regulatory implications for business operations, making recycling more costly and discouraging entities from engaging in the business of recycling."*** So the ACC has been working with federal, state and local governments to encourage reforms so that we can have more facilities like Renewlogy so that fewer plastics get wasted in landfills and instead are converted into valuable commodities. We have been working with many states – but not yet in Arizona - to reform their laws to encourage advanced recycling and recovery like Renewlogy and to date eight states have passed reforms. Here are a couple of articles about several of these states that have passed reforms just this year: Iowa and Tennessee, and Texas.

Looking forward to the discussion this afternoon. Thanks. -Craig

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**From:** Todd Martin (AQD) [mailto:Todd.Martin@maricopa.gov]
**Sent:** Thursday, August 1, 2019 11:33 AM
**To:** Rob Potts <rpotts@renewlogy.com>; Richard Sumner (AQD) <Richard.Sumner@Maricopa.gov>; Scott Treece (AQD) <Scott.Treece@Maricopa.gov>; Cookson, Craig <Craig_Cookson@americanchemistry.com>
**Cc:** Priyanka Bakaya <pbakaya@renewlogy.com>
**Subject:** RE: City of Phoenix - Renewlogy - Waste Plastic-to-Fuel System - NSPS Discussion

Please come prepared to discuss the following:

The American Chemistry Council's position is that: "plastic to fuel plant (PTFP) feedstock is not solid waste".

I'm having a hard time squaring that with the definitions from Subpart EEEE:

> *Municipal solid waste* means refuse (and refuse-derived fuel) collected from the general public and from residential, commercial, institutional, and industrial sources consisting of paper, wood, yard wastes, food wastes, plastics, leather, rubber, and other combustible materials and non-combustible materials such as metal, glass and rock, provided that: (1) the term does not include industrial process wastes or medical wastes that are segregated from such other wastes; and (2) an incineration unit shall not be considered to be combusting municipal solid waste for purposes of this subpart if it combusts a fuel feed stream, 30 percent or less of the weight of which is comprised, in aggregate, of municipal solid waste, as determined by §60.2887(b).
>
> *Solid waste* means any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges that are point sources subject to permits under section 402 of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1342), or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C. 2014).
>
> *Refuse-derived fuel* means a type of municipal solid waste produced by processing municipal solid waste through shredding and size classification. This includes all classes of refuse-derived fuel including two fuels:
> (1) Low-density fluff refuse-derived fuel through densified refuse-derived fuel.
> (2) Pelletized refuse-derived fuel.

**Todd Martin • Permitting Supervisor**
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**From:** Rob Potts <rpotts@renewlogy.com>
**Sent:** Wednesday, July 31, 2019 6:03 PM
**To:** Richard Sumner (AQD) <Richard.Sumner@Maricopa.gov>; Todd Martin (AQD) <Todd.Martin@maricopa.gov>; Scott Treece (AQD) <Scott.Treece@Maricopa.gov>; Craig_Cookson <Craig_Cookson@americanchemistry.com>

**Cc:** Priyanka Bakaya <pbakaya@renewlogy.com>
**Subject:** City of Phoenix - Renewlogy - Waste Plastic-to-Fuel System - NSPS Discussion

Richard, Todd, Scott, and Craig,

Thank you for agreeing to have a discussion concerning the plastic-to-fuel system Renewlogy is planning on implementing in Phoenix. Craig is from American Chemistry Council and has graciously offered to discuss the NSPS EEEE question that came up this morning in our meeting.

The meeting notice is for 2:30PM Arizona / 5:30PM Eastern time. The dial-in is below. Should you have any issues with the dial-in please call me on my cell phone at 801-404-0534.

Phone Dial-in: 605-472-5441 Passcode: 752 632

Craig recommended that we pass along the following link as a resource for our discussion.

https://plastics.americanchemistry.com/Product-Groups-and-Stats/Plastics-to-Fuel/Regulatory-Treatment-of-Plastics-to-Fuel-Facilities.pdf

Look forward to speaking with all of you tomorrow.

Best,

Rob

Rob Potts
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