SYNERGY
SYNERGY SOLUTIONS CRISP COUNTY

November 9, 2020

Ms. Katy Lusky
Stationary Source Team Lead
Air Analysis and Support Branch
U.S. EPA Region IV
61 Forsyth Street SW
Atlanta, GA 30303-8960

Via email at: Lusky.Kathleen@epa.gov

Subject: **Request for Determination**
Gasification Project
Synergy Solutions of Crisp County, LP
155 Landfill Road, Cordele, GA 31015

Dear Ms. Lusky:

This letter is a follow up to the October 8, 2020 "technical" teleconference between representatives of U.S. EPA, the Georgia Environmental Protection Division (EPD) and Synergy Solutions Crisp County, LP (Synergy). On that call, we provided a more detailed process description of the Synergy system as currently designed, discussed Subpart AAAA and related determinations, and briefly discussed the process of a Hazardous Secondary Materials (NHSM) petition before tabling that topic for a separate call to be conducted in the near term during the month of November 2020. Please refer to the materials provided by Synergy in advance of that call for detailed technical information regarding the system.

On the call, our consultant brought up the possibility of considering the thermal oxidizer as a pollution control device. As previously explained, since we met with EPA and EPD in 2018, Synergy Solutions has implemented a modification to their system design wherein a boiler is not included in the process. In this scenario, the syngas produced in the gasification unit would simply be combusted in the adjacent oxidizer, which would function primarily as an air pollution control device. To improve efficiency, heat produced in the oxidizer is recycled in the system primarily to dry the highly processed fuel being fed to the gasifier. However, the oxidizer is not used to produce power or energy for any external processes or devices. The primary objective of the system would be production of valuable biochar and providing an alternative to landfilling the highly processed organic feedstock. EPA has determined similar setups (see Attachment 1) are not subject to CAA Section 129.

With this letter, we are requesting a written response on whether the thermal oxidizer in the system as currently proposed could be considered an air pollution control device, and if so, whether this would

exempt the unit as a whole from Subpart AAAA. We appreciate your consideration of this request. If you have any questions, please contact me at amcgehee@synergywms.com or (205) 784-7655.

Sincerely,

Andrew (Andy) O. McGehee P.E.
CTO
Synergy Solutions of Crisp County, LP

cc:
Matt Piell
David Harlow
Jim Christiansen, Carlson Environmental, Consultants, PC
Marion Watson
Dave McNeal

Attachment – Fulcrum Bioenergy Subpart AAAA Determination

Attachment 1 – Fulcrum Bioenergy Subpart AAAA Determination

March 30, 2010

Patrick D. Traylor
Hogan and Hartson, LLP
Columbia Square
555 Thirteenth Street, NW
Washington, DC 20004

Re: Request for Applicability Determination under 40 C.F.R. Part 60, Subpart AAAA New Source Performance Standards ("NSPS") for New Small Municipal Waste Combustion Units

Dear Mr. Traylor:

We have received your January 8, 2010 request on behalf of Fulcrum BioEnergy, Inc. ("Fulcrum") for an applicability determination under 40 CFR Part 60, Subpart AAAA – New Source Performance Standards for New Small Municipal Waste Combustion Units ("Subpart AAAA"). We understand that your request is regarding Fulcrum's proposed facility in McCarran, Nevada, which intends to convert post-sorted municipal solid waste feedstock into a synthetic gas that will be processed to produce ethanol and renewable power. Based on the information that you have provided, we have determined that Subpart AAAA would not apply to Fulcrum's syngas generation units or the air pollution control flare. Additionally, if Fulcrum's facility meets the requirements for a small power production facility or a cogeneration facility, then Subpart AAAA would not apply to the combined cycle combustion turbine. Our determinations are explained in further detail below.

Please note that you have requested EPA to make a determination on whether a particular federal regulation applies to a facility that is not yet constructed. As such, our decision in this matter is based solely on the information you provided, both electronically and verbally. If any of the referenced information changes or is no longer accurate, our determination of non-applicability may no longer apply and a new review would be required. Based on the information you have provided to date, our determinations are as follows:

Subpart AAAA does not apply to the syngas gasification process.

We concur with your explanation that Fulcrum's syngas gasification process is neither combustion nor pyrolysis. As a result, the syngas generation unit would not be considered a "pyrolysis/combustion unit" or "municipal waste combustion unit" as defined in Subpart AAAA.

Subpart AAAA would not apply to the combined cycle combustion turbine if the facility meets the requirements for the small power production facility exemption or the cogeneration facility exemption.

40 CFR 60.1020(b) and (c) list the requirements that a facility must meet to qualify for an exemption from Subpart AAAA as a small power production facility or cogeneration facility. Those requirements include meeting criteria established by the Federal Power Act, combusting homogeneous waste, and providing notification and documentation to EPA. We concur with your assessment that the gasified waste would be considered homogeneous. The facility would also need to provide appropriate notification and documentation that it meets the criteria established by the Federal Power Act to qualify for either of these exemptions.

Subpart AAAA would not apply to the air pollution control flare.

We concur with your assessment that the flare would be considered air pollution control equipment and therefore would be excluded from the definition of "municipal waste combustion unit" as defined in Subpart AAAA. This exclusion would apply as long as the flare is operated solely as an air pollution control device.

If you have further questions regarding this determination, please contact Tünde Wang of my staff at (415) 972-3990.

Sincerely,

Douglas K. McDaniel
Chief, Enforcement Office
Air Division

cc: Randy Phillips, NDEP