UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

Jon Orr
Veolia Water Technologies Inc.
4001 Weston Parkway
Cary, North Carolina 27513

Dear Mr. Orr:

This letter is in response to your April 30, 2021 letter requesting a rule applicability determination for the planned Warren Township wastewater sewage sludge incinerator (SSI). In your letter, you request that the United States Environmental Protection Agency (EPA) determine the applicability of your technology under Part 129 of the Clean Air Act (CAA), and whether the standards for multiple-hearth (MH) or fluidized bed (FB) incineration are applicable to Veolia's planned BioCon ERS process at the Warren, Michigan location. After our initial review, EPA sent a June 7, 2021 letter to you requesting additional information on your applicability determination request. On August 25, and again on September 15, 2021, Veolia provided additional clarification and information to EPA's follow up questions on the initial submittal. Based on the information that Veolia has provided, EPA provides the following response to your request.

The term sewage sludge incinerator ''SSI'' means any unit that combusts any amount of sewage sludge located at a wastewater treatment facility designed to treat domestic sewage sludge, as defined in 40 Code of Federal Regulations (CFR) Part 62, subpart LLL. The affected facility is each individual SSI unit. Sewage sludge incineration unit designs include FB and MH incineration. A SSI unit also includes, but is not limited to, the sewage sludge feed system, auxiliary fuel feed system, grate system, flue gas system, waste heat recovery equipment, if any, and bottom ash system. A SSI unit includes all ash handling systems connected to the bottom ash handling system. The combustion unit bottom ash system ends at the truck loading station or similar equipment that transfers the ash to final disposal. The Part 62 subpart LLL federal plan defines two subcategories for existing SSI units in 40 CFR 62.16045: MH incinerators and FB incinerators. If the construction of an SSI unit began after October 14, 2010, or modification of an SSI unit began after September 21, 2011, it would be considered a new SSI unit and would be subject to 40 CFR part 60, subpart LLLL.

In the SSI rulemaking in which EPA finalized the Federal plan for SSI and implemented the emission guidelines adopted in 2011, (81 Federal Register 26066) EPA states as follows (emphasis added below):

> *How do I establish operating limits if I do not use a wet scrubber, fabric filter, electrostatic precipitator, activated carbon injection, or afterburner,* ***or if I limit emissions in some other***

***manner**, to comply with the emission limits?* If you use an air pollution control device other than a wet scrubber, fabric filter, electrostatic precipitator, activated carbon injection, or afterburner, or limit emissions in some other manner (e.g., materials balance) to comply with the emission limits in § 62.15955, you must meet the requirements in paragraphs (a) and (b) of this section: (a) Meet the applicable operating limits and requirements in § 60.4850 of this chapter, and establish applicable operating limits according to § 62.15985; and **(b) Petition the Administrator for specific operating parameters, operating limits, and averaging periods to be established during the initial performance test and to be monitored continuously thereafter**. (1) You are responsible for submitting any supporting information in a timely manner to enable the Administrator to consider the application prior to the performance test. You must not conduct the initial performance test until after the petition has been approved by the Administrator, and you must comply with the operating limits as written, pending approval by the Administrator. Neither submittal of an application, nor the Administrator's failure to approve or disapprove the application relieves you of the responsibility to comply with any provision of this subpart; (2) Your petition must include the five items listed in paragraphs (b)(2)(i) through (v) of this section: (i) Identification of the specific parameters you propose to monitor; (ii) A discussion of the relationship between these parameters and emissions of regulated pollutants, identifying how emissions of regulated pollutants change with changes in these parameters, and how limits on these parameters will serve to limit emissions of regulated pollutants; (iii) A discussion of how you will establish the upper and/or lower values for these parameters that will establish the operating limits on these parameters, including a discussion of the averaging periods associated with those parameters for determining compliance; (iv) A discussion identifying the methods you will use to measure and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and (v) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

As described in Veolia's submittal and subsequent response to EPA's questions for the planned SSI, the projected air emission data information is not based on any actual performance test. The BioCon ERS air emission data submitted was calculated using EPA's AP-42 emission factors for a MH system. Because emission factors pose a certain level of uncertainty, in this situation, the reliance on an emission factor as representative of the quantity of a pollutant released to the atmosphere does not adequately support Veolia's position that the currently available data on this process to justify applying the MH incinerator limits for the BioCon ERS system. In addition, the AP-42 emission factors were based on MH and FB incineration systems, and therefore, are not applicable to the BioCon ERS system. As such, EPA believes that, if emissions factors were to be utilized, the more stringent FB incinerator emission limits from Table 2 in Subpart LLL of Part 62—EMISSION LIMITS AND STANDARDS FOR EXISTING FLUIDIZED BED SEWAGE SLUDGE INCINERATION UNITS should apply in this situation for air pollution permitting.

Once Veolia is prepared to conduct a performance test on its BioCon ERS process, EPA requests that the performance test also include the following: volatile organic compounds, particulate matter (both at the 10 micron and less than 2.5 micron level), carbon monoxide, hazardous air pollutants, mercury, beryllium, oxides of nitrogen, sulfur dioxide, hydrogen chloride,

dioxins/furans (total mass basis) and/or (total equivalency basis), cadmium, and lead. EPA is currently taking action to address PFAS releases, and as part of this action EPA is continuing its efforts to build its technical foundation on PFAS air emissions from air emissions sources. EPA requests Veolia conduct PFAS stack testing using EPA's Other Test Method (OTM) 45 to better understand the potential thermal destruction of PFAS by the BioCon ERS system. EPA requests that Veolia share a copy of the test protocol, prior to conducting any tests, to both EPA and the State of Michigan Department of Environment, Great Lakes and Energy (EGLE).

Thank you again for working with us on this applicability determination request. If you have any further questions, please feel free to contact Constantine Blathras, of my staff, at (312) 886-0671.

Sincerely,

DOUGLAS ABURANO

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Date: 2021.10.28 08:13:13 -05'00'

Douglas Aburano, Chief
Air Programs Branch

cc: Annette Switzer
Michigan Department of Environment, Great Lakes, and Energy