



REGION 3

PHILADELPHIA, PA 19103

January 8, 2025

VIA ELECTRONIC MAIL
RETURN RECEIPT REQUESTED

Ms. Suna Yi Sariscak
Manager
Maryland Department of the Environment
Air Quality Permits Program
Air and Radiation Administration
1800 Washington Blvd,
Baltimore, MD 21230

RE: Applicability Determination Request - OSWI Rule and Proposed Pilot Plant in Maryland

Dear Ms. Sariscak:

We have received your December 13th, 2024 letter requesting an Applicability Determination for W.R. Grace & Co.-Conn and applicability of 40 CFR Part 60, Subpart EEEE - Standards of Performance for Other Solid Waste Incineration (OSWI).

Background

The December 13th letter and supplemental application describe a proposed Research and Development lab to be constructed by W.R. Grace & Co.-Conn ("Grace"). The proposed R&D facility intends to construct a catalytic pyrolysis unit, for the purposes of:

...researching the scaling up of an innovative process to convert 1kg/hr of plastics back to their original components. The reactor in this proposed process will use a catalyst and heat in the form of steam to carry out this reaction. The Product from the reactor is a vapor. The vapor is sent via pipe to a condenser. The vapor that is liquified in the condenser is the product, which is then stored in drums. The drums are sent off site for disposal once data is collected. Non condensables from the condenser are sent via pipe to an electric flameless thermal oxidizer to control any VOC that may be present in the gas stream.

Furthermore, two phases will occur in which phase 1 will utilized virgin plastic as feedstock and if the project is determined to be "technologically feasible" and "commercially viable" phase 2 will consist of

processing recycled plastics. It's stated that Grace "cannot directly process plastic waste" and will need to source cleaned, pelletized recycled plastics.

Determination

Subpart EEEE has three applicability requirements, which are:

- (a) Your incineration unit is a new incineration unit as defined in § 60.2886.
- (b) Your incineration unit is an [Other Solid Waste Incinerator] OSWI unit as defined in § 60.2977 or an air curtain incinerator subject to this subpart as described in § 60.2888(b). Other solid waste incineration units are very small municipal waste combustion units and institutional waste incineration units as defined in § 60.2977.
- (c) Your incineration unit is not excluded under § 60.2887.

The proposed catalytic pyrolysis unit, when constructed would be "new" as defined in §60.2886, which is defined to mean having a construction date after December 9, 2004. Additionally, the unit would meet the definition of an Other Solid Waste Incinerator, as OSWI expressly includes pyrolysis units. Despite the first two applicability requirements being satiated, the proposed catalytic pyrolysis unit would meet an exemption under § 60.2887.

§ 60.2887 states that "Your unit is excluded if it burns samples of materials only for the purpose of chemical or physical analysis." If the catalytic pyrolysis unit is operated for the sole purpose of research, the unit would be exempted from other requirements promulgated in 40 CFR Part 60, Subpart EEEE - Standards of Performance for Other Solid Waste Incineration (OSWI). Please note that rules such as 40 CFR 60 – Standards of Performance for New Stationary Sources do change occasionally, and any future changes to Subpart EEEE should be evaluated.

The EPA's response hereinabove to the request for applicability determination was coordinated with EPA's Office of Enforcement and Compliance Assurance (OECA) and EPA's Office of Air Quality Planning and Standards (OAQPS). EPA's applicability determination is specific to the facts provided in the December 13th, 2024 letter and supplemental application from W.R. Grace & Co.-Conn and any differences in the constructed facility or its operations may invalidate this response. If you have any questions regarding this response, please contact Steve Ott, of the Enforcement and Compliance Assurance Division at (215) 814-2267 or ott.steven@epa.gov.

Sincerely,

Karen Melvin
Director
Enforcement and Compliance Assurance Division

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