

HALOGEN ACID FURNACES AS INDUSTRIAL FURNACES OR BOILERS

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Byron R. Crary, Esq.
Environmental Law Section
The Dow Chemical Company
2030 Willard H. Dow Center
Midland, Michigan 48674

Dear Mr. Crary:

This is in reference to your rulemaking petition to classify your halogen acid furnaces (HAFs) as industrial furnaces under RCRA. Although the Agency has not yet reached a decision on the merits of your petition, our thinking has progressed sufficiently to prove you with our initial views.

I understand that you and other DOW representatives met with members of my staff and our Office of General Counsel on July 10, 1986, to exchange information. At that meeting, we provided an overview of our regulatory authority and existing and planned controls for materials that are recycled by burning. We also discussed the information you provided in your July 8, 1986, letter.

Based on our understanding of your operations as summarized in the enclosure, we believe it could be appropriate to classify those HAFs that are not currently boilers as industrial furnaces. Accordingly, we currently plan to propose to designate your non-boiler HAFs as industrial furnaces in a Federal Register notice. We hope to be able to develop the notice for publication this fall and to make a final decision early next year after considering public comment.

Please review the enclosure and correct any misunderstandings we may have about your operations. In particular note that we consider the nonboiler HAFs that we tentatively plan to propose to designate as industrial furnaces to be burning the secondary streams both as an ingredient and for energy recovery. The heat energy released from burning the materials provides substantial, useful energy to drive furnace reactions (i.e., to thermally degrade chlorinated organic compounds). (Energy recovery does not have to involve export of energy from a combustion device such as

steam produced by boilers.) Accordingly, these nonboiler HAFs as well as the boiler HAFs would be subject to regulation under the rules we are planning to propose this fall for boilers and industrial furnaces burning hazardous wastes.

Furthermore, we consider the secondary streams to be inherently waste-like and subject to designation as a solid waste under 261.2(d) when burned in the HAFs. However, given that the HAFs are considered to be burning partially for energy recovery and would be subject to the soon-to-be proposed rules for industrial furnaces, there is no need to undertake a designation at this time.

If you have questions or comments, please contact Bob Holloway, Chief, Waste Combustion Section, at (202) 382-7938.

Sincerely,

Original Document signed

Marcia E. Williams
Director
Office of Solid Waste (WH-562)

Enclosure

cc: Bob Holloway
Steve Silverman, Esq

bcc: David Garrett
Dwight Hlustick
Marc Turgeon

TENTATIVE BASIS FOR CLASSIFICATIONS OF HAFs AS BOILERS OR INDUSTRIAL FURNACES

1. The HAFs are fire-tube boilers modified to produce HCl from chlorine-bearing secondary streams by scrubbing HCl from combustion gases. The typical chlorine content of the streams is 20-70%.
2. Some HAFs operate as boilers and meet EPA's definition of a boiler.
3. The nonboiler HAFs meet EPA's criteria for designation as an industrial furnace (see 40 CFR 260.10) and related preamble language (50 FR at pp. 625-627 (January 4, 1985)) for the following reasons:
 - a. Although industrial furnaces normally process raw materials and, thus, there is no question that they are integral components of a manufacturing process, the HAFs are considered to be integral components of a manufacturing process because: (1) they are located on the site of a manufacturing process and the only secondary streams they handle are from that manufacturing process; (2) the HCl produced is a bona fide product in that it has a HCl content of 7-20% and is used on-site. Thus, for these reasons and others identified below, these devices are clearly distinguishable from devices used to incinerate waste where some output from the incinerator may be considered to be a marketable product (e.g., HCl-bearing scrubber water, bottom ash).
 - b. The device is designed and used primarily to accomplish recovery of material products. The devices are specially designed and operated fire-tube boilers that enable them to accept highly chlorinated feedstocks without unacceptable corrosion and to maximize HCl production and recovery. DOW has patents on the HAFs as evidence of their special design differing from normal incinerators. The materials are also burned in these nonboiler HAFs partially for energy recovery because substantial, usable heat energy is released by the material during combustion. (Energy recovery occurs when substantial, usable heat energy is provided either to drive furnace reactions or for export (e.g., steam generation by a boiler).) The materials have an as-fired heating value of approximately 9,000 Btu/lb. The heat released results in

the thermal degradation of chlorinated organic compounds to form HCl. If the materials had insignificant heating value, auxiliary fuels would have to be used.

- c. The device is used to burn a secondary material as an ingredient to make a material product. Chlorine-bearing secondary streams from chemicals manufacturing operations are burned to produce HCl.