UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
SOLID WASTE AND
EMERGENCY RESPONSE

NOW THE
OFFICE OF LAND AND
EMERGENCY MANAGEMENT

JUL 14 2017

Ken Logan, President
A-Gas U.S. Holdings, Inc.
1100 Haskins Road
Bowling Green, Ohio 43402

Dear Mr. Logan,

Thank you for your letter dated March 24, 2017, requesting U.S. EPA's opinion regarding the applicability of the Resource Conservation and Recovery Act (RCRA) to the operations at the A-Gas facility in Bowling Green, Ohio.

As described in your letter, A-Gas reclaims used refrigerants from refrigeration systems at various commercial, industrial, and automotive sources, to be resold into the reclaimed refrigerant market. These refrigerants include ozone-depleting substances (ODS) such as R-11 (CFC-11 or trichlorofluoromethane) and R-12 (CFC-12 or dichlorodifluoromethane). A-Gas also has two plasma arc destruction units capable of achieving a 99.9999% destructive efficiency using pyrolysis. The units destroy ODS for a fee and/or for carbon offset credit, which can be sold into the voluntary or compliance carbon market in the United States. The plasma arc units do not have RCRA hazardous waste permits.

In order to operate the plasma arc unit without obtaining a RCRA hazardous waste permit, A-Gas would need to ensure that any material burned in the unit is neither a hazardous waste listed under 40 CFR part 261 subpart D nor exhibits a hazardous characteristic under 40 CFR 261 subpart C. Case-specific questions as to whether a company has made an accurate hazardous waste determination are best directed to the state authorized to administer and enforce the RCRA program under section 3006 (or to EPA regions where the state is not authorized). Thus, the authorized state program, in this case the Ohio Environmental Protection Agency, is in the best position to evaluate the site-specific circumstances at the A-Gas facility and is the appropriate authority to administer the state program.

However, we note that some of the arguments made by A-Gas regarding the RCRA status of CFCs are not consistent with the federal program (see Section III, pages 9–16 of your letter). In particular, the distinction between "contaminant" and "constituent" made on pages 10-12 is irrelevant to the hazardous characteristics; under 40 CFR parts 261.24 and 262.11, wastes are to be assessed based upon their properties, and the origin of or reason for the presence of a particular chemical in the waste is not a consideration. In addition, it is important to note that

general knowledge of a waste, or EPA statements that it is "unlikely" to exhibit a characteristic do not pre-empt specific test results in making a hazardous waste determination (see page 14 of your letter). The results from testing a waste is clearly knowledge about the waste that must be considered in making a knowledge-based RCRA hazardous waste determination; generators cannot choose to rely upon certain information about a waste and ignore other information that may be contrary to their desired outcome. All relevant knowledge about the waste must be considered in making a determination.

Further, in this case, the EPA letters and Federal Register notice you rely on for your general knowledge of CFC's RCRA status are from 1988 and 1989, and were superseded by the 1990 Toxicity Characteristic regulation, which added chloroform and carbon tetrachloride to the RCRA hazardous characteristics. While those statements were true when written, promulgation of the TC regulation made them obsolete because CFCs are well known to contain these two chemicals. EPA's primary purpose in excluding recycled CFCs from regulation as hazardous waste was to facilitate their recovery and reuse, and prevent the greater harm of service technicians venting coolants to the atmosphere to avoid the requirement to manage some as hazardous. Only CFCs reclaimed for reuse are exempt under Part 261.4(b)(12).

Your letter also raises the question of whether burning ODS for destruction in the plasma arc furnace for carbon credits would be considered reclamation under the hazardous waste exemption at 40 CFR 261.4(b)(12), which applies to used chlorofluorocarbon refrigerants that are "reclaimed for further use," and also whether such material would be considered "not discarded" (and therefore not a solid waste) under 40 CFR 261.2.

Under the federal regulations, a material that is burned for destruction is considered a discarded material per 40 CFR 261.2(b)(2), and it also would not meet the definition of "reclaimed" in 40 CFR 261.1(c)(4). Thus, if A-Gas were to accept CFCs for destruction that exhibited a hazardous characteristic under 40 CFR part 261 subpart C or that are listed under 40 CFR part 261 subpart D (therefore the CFCs are hazardous waste) then the facility would be managing a hazardous waste and would be subject to a RCRA hazardous waste treatment, storage and disposal facility permit, irrespective of whether A-Gas receives carbon offset credits for their destruction.

If you have any questions, please contact Tracy Atagi of my staff at 703-308-8672 or atagi.tracy@epa.gov.

Sincerely,

Barnes Johnson

Barnes Johnson, Director
Office of Resource Conservation and Recovery

cc: Brigid Lowery
Reid Harvey