



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

OCT 26 2007

OFFICE OF  
ENFORCEMENT AND  
COMPLIANCE ASSURANCE

Michael Rizzo  
Mainstream Engineering Corporation  
Pines Industrial Center  
200 Yellow Place, Rockledge, FL 32955

Re: Request for an Applicability Determination (AD) Under Clean Air Act (CAA) Section 608 (c) (1) Concerning the Use of QwikCheck for Acid Testing

Dear Mr. Rizzo:

This letter is in response to your letter of June 28, 2007, regarding the applicability of Section 608 (c) (1) of the CAA to your device and method, QwikCheck. Please note: the Office of Compliance (OC) does not endorse products. OC issues applicability determinations or "regulatory interpretations" to a particular source pursuant to the regulations in 40 CFR Part 82 with respect to the applicability of those regulations.

According to your letter, the QwikCheck acidity test method checks for and detects harmful acid levels in a refrigeration system. In your letter, you described how the QwikCheck device functions when performing these tests. To test the refrigerant acid content in an operating unit, the valve core depressor tip of the QwikCheck is inserted into the center of the refrigerant vapor service valve. The valve core depressor tip of the QwikCheck depresses the low-pressure (vapor) service valve, allowing vapor refrigerant to pass through the QwikCheck. If the yellow indicator paper turns orange during a 5-second interval, then the refrigerant contains some acid (Above ARI-700 limit of 1 PPM) and should be replaced or recycled. If the indicator paper turns red then the acid level in the refrigerant is very high (over 10 PPM in the refrigerant and even higher in the oil). In this case, the oil and refrigerant must be immediately replaced, or the compressor will fail probably in a matter of days under heavy load. If the indicator paper remained yellow, the acid level in the system is fine. According to Mainstream Engineering's literature, the entire process should not take more than 5 seconds.

Under Section 608 (c) (1) of the CAA, the National Recycling And Emission Reduction Program which states in part, "Effective July 1, 1992, it shall be unlawful for any person, in the course of maintaining, servicing, repairing, or disposing of an appliance or industrial process refrigeration, to knowingly vent or otherwise knowingly

release or dispose of any class I or class II substance used as a refrigerant in such appliance (or industrial process refrigeration) in a manner which permits such substance to enter the environment."

The EPA has issued two applicability determinations that clarified which releases associated with oil sampling and testing and which releases associated with the testing of refrigerant in an appliance for acid or moisture are allowable under Section 608 (c) (1). In an applicability determination (Control Number: C960019), dated June 7, 1993, the EPA determined that Totaltest, a device used for testing the refrigerant in an air conditioning or cooling system for the presence of acid or moisture, would not violate CAA Section 608 (c) (1). This AD was based on the information submitted by the company including the fact that the amount of refrigerant released to the atmosphere is "limited by a critical orifice and valve to one half ounce or less." See AD Control Number C960019.

In a later applicability determination (Control Number C960025), dated May 16, 1994, the EPA recognized the importance of performing periodic tests such as for acidity and moisture and noted that it had learned that the quantity of refrigerant released is very small. EPA noted that absent such testing, there is a likelihood of damage to the appliance from contaminated refrigerant and that such damage could result in greater emissions.

Similarly, using the QwickCheck device and method to test acidity and moisture in refrigeration units may help prevent damage to the appliances and may help avoid catastrophic failure, resulting in the loss of the refrigerant charge. Based on Mainstream Engineering's literature, the EPA also understands that the amount of refrigerant released into the air is about one half ounce. Based on the information that Mainstream Engineering has provided, the EPA determines at this time that the release of refrigerant from the use of QwickCheck device and method to test acidity and moisture in refrigeration units is not a violation of Section 608(c)(1) provided that the refrigerant release is (a) less than one half ounce and (b) the duration of the test procedure from beginning to end, does not last more than 5 seconds.

This response has been coordinated with the U.S. EPA's Office of Air and Radiation, the Office of General Counsel, and the Office of Enforcement and Compliance Assurance's Office of Civil Enforcement. Should you wish to have further discussions on this matter, please contact Rafael Sanchez of my staff at 202-564-7028.

Very truly yours,

A handwritten signature in dark ink, appearing to read "M. S. Alushin", written in a cursive style.

Michael S. Alushin, Director

Compliance Assessment and Media Programs Division  
Office of Compliance