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January 23, 2016

Mr. Luke Hall-Jordan
Stratospheric Protection Division
Office of Atmospheric Programs
US Environmental Protection Agency

RE: ASHRAE Comments on EPA Proposed Rule on Protection of Stratospheric Ozone: Update to the Refrigerant Management Requirements Under the Clean Air Act (EPA–HQ–OAR–2015–0453; RIN 2060-AS51)

Dear Mr. Hall-Jordan:

I am writing on behalf of ASHRAE to provide comments regarding the US Environmental Protection Agency's (EPA) **Proposed Rule on *Protection of Stratospheric Ozone: Update to the Refrigerant Management Requirements Under the Clean Air Act*. 80 Fed. Reg. 69458. (November 9, 2015).**

ASHRAE, founded in 1894, is an international organization of over 54,000 members. The Society and its members focus on building systems, energy efficiency, indoor air quality and sustainability within the industry. Through research, standards writing, publishing and continuing education, ASHRAE shapes tomorrow's built environment today.

ASHRAE strongly supports the principle of refrigerant management and has recently joined the efforts of the Global Refrigerant Management Initiative (GRMI). We look forward to being a part of the GRMI Steering Team and the benefits that this program will offer around the world.

ASHRAE is generally supportive of the proposed changes to the Section 608 rule. It will be important however, that EPA takes into account the challenges faced by manufacturers and service technicians in the field and to improve upon any shortcomings of past refrigerant management policies. It is with this in mind that ASHRAE offers the following comments for your consideration:

1. Enforcement

The enforcement of policies and regulations is critical to the achievement of their objectives. ASHRAE supports the comprehensive strategy within the "Next Generation Compliance" initiative and encourages EPA to continue to identify cost-effective means of ensuring that the regulated community supports and follows lawful policies and regulations.

2. Technician Certification

ASHRAE supports the required testing of technicians for initial certification and periodic recertification. Certification should place greater focus on venting prohibitions and increase the reach of enforcement efforts. Recertification could be achieved through an abbreviated online test, to include only questions relevant to the servicing of ozone-depleting substance (ODS) alternative refrigerants. Many new refrigerants will be coming to the market and some technicians could be handling refrigerants that carry additional risk for the first time. Therefore, the certification program needs to be updated to reflect current technology trends and changes in the use of refrigerants.

EPA should also require reclaimers to participate in a third party certification program and require all reclaimed refrigerant to be certified as reclaimed by a refrigerant testing laboratory certified pursuant to a third party laboratory certification program. Currently the Air-Conditioning, Heating, and Refrigeration Institute (AHRI) operates both a Reclaimed Refrigerant Certification Program and a Refrigerant Testing Laboratory Program that could be used as models for such required certification programs. Currently, no other organization operates similar certification programs. EPA could propose requiring such certification only after two or more independent certification programs have been approved by EPA.

ASHRAE supports the development of a comprehensive database or list of certified technicians. This database should be held by EPA and made publicly available online.

3. Recordkeeping

EPA should consider exempting residential systems from recordkeeping requirements due to the nature of their servicing. Record keeping at the macro level in the residential market needs consideration. ASHRAE believes that EPA should developing tools (templates, brochures, videos, etc.) to aid the regulated community in complying with the rule.

4. Leak Detection and Repair

As a principle, ASHRAE supports leak detection and repair requirements which minimize leaks and encourage repairs to be made as soon as possible. California's experience with refrigerant management policies should inform EPA's own rulemaking in this area. With regards to frequency of leak inspections, EPA should implement this section uniformly and not offer a reduced inspection schedule for federally-owned appliances.

ASHRAE supports the lowering of leak rates for commercial appliances and industrial processing refrigeration as well as comfort cooling appliances. EPA should explore the possibility of further lowering the commercial and industrial process refrigeration rate beyond the proposed 20 percent.

ASHRAE supports leak inspections as a proactive means of identifying leaks. EPA should differentiate between short-term accidental discharge and a leak over time, as well as between major fixable leaks and minor unfixable leaks. ASHRAE supports EPA's proposal of the 50 lb

threshold for leak monitoring and repair and encourages EPA to develop a cost and environmental benefit analysis for lowering the 50 lb threshold. ASHRAE supports a shorter effective date for the leak monitoring and repair components of the proposal and believes that these requirements can be implemented within 12 months.

ASHRAE encourages EPA to consider that a corporate average limit on leaks could make it more difficult to identify leaks and negate the effectiveness of the rule.

5. Recovery

As noted by EPA in the preamble to the proposed rule, certain refrigerants, particularly flammable products, may constitute hazardous waste which would, in effect, prevent any contractor from recovering and transporting such recovered refrigerant, and would prevent reclaimers from receiving, processing and reclaiming such refrigerant. At the time of enactment of the original 608 rules, EPA also enacted rules under Resource Conservation and Recovery Act (RCRA) that specifically exempted used CFCs from being classified as hazardous waste to ensure that used CFCs would be able to be reclaimed. ASHRAE strongly encourages EPA to consider implementing a blanket exemption for all used/recovered refrigerants from the definition of hazardous waste so as not to frustrate the purpose of these regulations.

6. Relevant Standards

ASHRAE strongly encourages EPA to incorporate the AHRI 700 standard, and specifically to incorporate the most current standard, as it changes from time to time, rather than to adopt the standard at any point in time. The AHRI 700 standard is continually reviewed, updated and revised to establish a purity standard for each new “substitute” refrigerants as they are developed and approved. If EPA establishes a standard for reclaimed refrigerant based upon the current AHRI 700 standard, then as additional substitutes are developed, the industry will be placed in the untenable position of having to deal with regulations requiring the reclamation of these new refrigerants, but without any EPA required standard for these new substitutes. The 608 regulation needs to be updated as the AHRI 700 standard is updated.

7. Seasonal Variances

ASHRAE supports EPA’s proposal for a limited exclusion to the requirement to calculate the leak rate upon the addition of refrigerant for seasonal variance.

8. Additional Considerations

ASHRAE recommends that EPA consider revising the language in the final rule to ensure that all refrigerants (including HFCs, PFCs, HFOs, hydrofluoroethers, hydrocarbons, ammonia, and carbon dioxide, among others) are treated equally in the rule with respect to all elements of the regulation including recovery and reclamation, technician certification, leak detection, and recordkeeping. ASHRAE recommends that EPA consider revising the definition of “substitute” in the final rule to mean “any substance other than Class I and Class II ozone depleting substances that functions as a refrigerant, to include HFCs, PFC, HFOs, hydrofluoroethers,

hydrocarbons, ammonia and carbon dioxide". ASHRAE views refrigerant management policies, particularly policies that encourage the recovery and re-use of refrigerants, as promoting not only product stewardship requirements, but also increased energy efficiency, by ensuring systems are properly maintained and serviced with the refrigerant each system was designed to use. By applying the regulation to all refrigerants, essential refrigerant management practices are reinforced for all systems, with the result being that leaks are reduced, safety is improved, and equipment will operate at a higher efficiency level.

As a final suggestion, ASHRAE submits that any policy measure should be assessed based on the following factors:

- Technical feasibility,
- Ease of implementation,
- Ease of enforcement, and
- Anticipated
 - Environmental impacts, and
 - Economic impacts on consumers, small businesses (including contractors, distributors, and retailers), and industry

ASHRAE remains available to assist EPA as it finalizes this proposal. ASHRAE appreciates the opportunity to provide input on EPA's proposed rule and looks forward to working with the agency in a constructive manner to achieve and implement an environmentally beneficial, safety enhancing, and economically viable rule. Please feel free to contact Mark Ames, ASHRAE's Senior Manager of Federal Government Affairs at mames@ashrae.org or 202-833-1830.

Sincerely,



David Underwood
ASHRAE Society President