



Air Conditioning Contractors of America

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November 14, 2018

Mr. Andrew R. Wheeler  
Acting Administrator  
U.S. Environmental Protection Agency  
1200 Pennsylvania Ave. NW  
Washington, D.C. 20460

Re: ACCA Public Comments on EPA proposed rule, *Protection of Stratospheric Ozone: Revisions to the Refrigerant Management Program's Extension of Substitutes*. Submitted online via [www.regulations.gov](http://www.regulations.gov), Docket ID No. EPA-HQ-OAR-2017-0629.

Dear Mr. Wheeler:

The Air Conditioning Contractors of America is the national association of heating, ventilation, air conditioning, and refrigeration (HVACR) contractors, with an approximate membership of 3,000 corporations representing more than 60,000 professionals; including, business managers, engineers, technicians, installers, and other industry specialists. ACCA also supports municipal governments, trade schools, and allied partners with corporate sponsorships that include other industry sectors such as manufacturing, distribution, insurance, design, and training. ACCA has led, and continues to lead, the HVACR industry's technical needs by developing and maintaining industry-recognized ANSI standards.

ACCA members are widely recognized as the leading mechanical trade companies across the U.S. These companies are responsible for our fresh food supply, make modern medicine and communication possible through refrigeration of drugs, and data center cooling. The HVACR industry also provides essential comfort and indoor air quality for nearly every American. ACCA's members view their profession as an essential component of modern life and our economy, with the added benefit of enhanced comfort.

The Environmental Protection Agency (EPA), and other federal, state, or local agencies, should not allow the general public to purchase, transport, store, handle, add refrigerant charges, and recover refrigerants. The sale and handling of refrigerants should be restricted to individuals who operate professional businesses and maintain EPA certifications which are endorsed and recognized by the HVACR industry.

ACCA members believe that restricting the sale of refrigerants to trained and certified individuals has contributed to protecting our environment, and support efforts to stop the release of these products, whether they are ozone depleting substances (ODS) or non-ODS that have high global warming potential (GWP). Professional contractors believe that protecting the

environment is part of their job and have proudly contributed to the healing of the ozone layer by properly recovering and reclaiming ODS. By also recovering and reclaiming non-ODS, like R410a, ACCA members do their part to protect against the release of products that contribute to climate change because of their high GWP.

Additionally, refrigerants used in the HVACR industry are dangerous chemicals that can cause severe harm, and even death, if mishandled. Allowing unqualified individuals to purchase these products would create opportunities for individuals to be burned, blinded, or even killed. Unsafe storage and transportation provide unexpected additional hazards for first responders in an accident or fire. With the anticipated market entry of flammable refrigerants, making them available for unregulated sale can become dangerous for everyone who owns, operates, or repairs HVACR equipment.

On September 13, 2018, it was reported that two individuals in Australia died as a result of mishandling refrigerants<sup>1</sup>. In her investigation, Coroner Paresa Spanos stated that the individuals who died were “good with their hands” and had some technical skills because one of them was a motor mechanic. However, the deceased were not “qualified refrigeration mechanics/technicians.” They had encountered an HVAC system which had mixed refrigerants, and one of the constituents turned out to be unexpectedly flammable. When inadvertently released into the mechanical room, the mixed refrigerants caused an explosion that was “preventable in the sense that the explosion could have been averted through correct maintenance, correct use and labelling of refrigerants, and correct dismantling and removal processes.”

ACCA also fears that opening the sale of refrigerants to the general public would increase the amount of refrigerant mixing in the market, a problem that has been on the rise<sup>2</sup>. Refrigerant mixing is not only dangerous, it decreases equipment efficiencies and system longevity. Mixed refrigerants increase system pressures and temperatures, which have a negative impact on compressors, metering devices, and a host of other technical problems. Depending on the types of mixtures, these problems could cause the entire system to fail or explode.

Refrigerant mixing and mishandling problems have been increasing, and even highly trained and EPA certified contracting professionals are susceptible. Some unscrupulous refrigerant producers mis-advertise their products as compatible with other products, sometimes referring to them as “gas-and-go” drop-ins. This can lead to technicians believing they do not need to evacuate the refrigerant and perform a full system check and recharge the equipment properly. This problem will certainly increase should the sale of refrigerants be open to non-certified individuals.

As additional evidence of the dangers of handling refrigerants, ACCA is including several pictures of burns and disfigurements caused by refrigerants. These pictures were sent to ACCA’s staff by professional contractors, technicians, and installers from across the country. The

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<sup>1</sup> <https://www.hvacrnews.com.au/news/rochester-coronial-investigation-releases-findings/>

<sup>2</sup> <https://www.achrnews.com/articles/139916-it-is-never-a-good-idea-for-hvacr-techs-to-mix-refrigerants>

attached pictures show how dangerous refrigerants can be, even when in the care of highly trained individuals.

Injuries like this can occur for many reasons, but one of the most common is consumers hiring unqualified individuals who “top-off” a system with a product that was not intended for the product or supposed to be mixed with other products. One of the greatest fears amongst ACCA’s professional members is servicing an HVACR system for a customer who is not one of their regular customers. They have serious concerns that the customer may have had their system serviced by an unqualified person who put the wrong refrigerants in it, which could cause the system to explode and expose technicians to serious harm.

These problems will be exacerbated if the EPA allows non-certified people to purchase and handle refrigerants. It would be irresponsible and unwise to allow the purchase and handling of refrigerants to the untrained and unqualified.

Today, there are a host of challenges and safety concerns in the industry as contractors and industry professionals work with refrigerants. While the current 608-program is not perfect, particularly when it comes to enforcement, it has created a safety barrier that, more often than not, protects consumers. This barrier serves to protect consumers from the physical dangers of these products, as well as the problems that refrigerant mixing can have on equipment efficiencies and lifespans.

Other industry organizations will likely provide substantive comments addressing federal pre-emption, climate impacts, and the negative impact on the industry’s educators. ACCA understands and agrees with their concerns. However, our primary concern is the safety of consumers and the contracting professionals who serve them.

In regard to the EPA’s proposed rule that would rescind the leak repair, reporting, and maintenance requirements for appliances with 50 pounds or more of substitute refrigerants, many commercial HVACR contractors believe this would be misguided.

If contractors are no longer required to conduct period leak inspections, conduct verification tests on repairs, and report to the EPA on chronically leaking devices, then larger HVACR systems will use more energy than they are designed to consume. The nation’s electrical grid is already strained, and poorly installed and maintained contribute to the strain on the grid because these systems use as much as 40 percent more energy than they are designed to use.

Rescinding the repair and reporting requirements would also lead to premature equipment failure. The increased energy consumption requires systems to work harder and adds extraordinary wear and tear on the mechanical systems. This is one of the leading causes of equipment failure. Industry professionals attest that the lifespan of a properly installed, serviced, and maintained system is significantly longer than a system that was not maintained according to industry standards.

Thank you for the opportunity to comment on this important topic. ACCA values the great working relationship we have with you and your professional staff.

Enclosed are pictures of contractors and technicians who have been injured by refrigerants, which is referenced above.

Sincerely,



Todd Washam  
Director of Industry and External Relations  
Air Conditioning Contractors of America

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