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**Re: AHRI Comments on Washington State Department of Ecology's HFC/Refrigerants End-of-Life Management Program Recommendations**

Dear Ms. Goetz:

The Air-Conditioning, Heating, and Refrigeration Institute (AHRI) is commenting on the Washington State Department of Ecology's HFC/Refrigerants End-of-Life Management Program Recommendations.

AHRI represents more than 300 manufacturers of air conditioning, heating, and commercial refrigeration equipment. It is an internationally recognized advocate for the heating, ventilation, air conditioning, and refrigeration (HVACR) industry and certifies the performance of many of the products manufactured by its members. In North America, the annual economic activity resulting from the HVACR industry is approximately \$256 billion. In the United States alone, AHRI's members, along with distributors, contractors, and technicians, employ more than 1.3 million people.

AHRI has been working for more than a decade to support regulations to reduce the consumption and production of hydrofluorocarbons (HFCs). Our members strongly supported the agreement to amend the Montreal Protocol on Substances that Deplete the Ozone Layer to phase down HFC production and consumption as a proven, predictable, and practical approach. We demonstrated that support in our work with state regulators, environmental non-governmental organizations (E-NGOs), and other stakeholders around the world, including sharing information regarding HFC transitions with local industries to encourage a positive outcome.

AHRI greatly appreciates the efforts of the Department of Ecology to develop options to increase the recovery and reclamation of refrigerant in the State of Washington. As discussed in the virtual stakeholder meetings, recovery and the subsequent use of reclaimed refrigerant has proved challenging both nationally and internationally, and we greatly appreciate the willingness of the Department of Ecology to explore options that may be replicated in other jurisdictions.

**Prioritize reclamation over destruction and refrigerant recovery.**

Proper recovery of refrigerant during equipment maintenance and end-of-life is paramount to providing the most significant benefit to the environment. There are significant banks of ozone depleting refrigerants, as well as higher global warming potential refrigerants, that could, and should, be recovered. Most of this refrigerant could displace new refrigerant that is produced providing an added benefit in that the greenhouse gas footprint from producing new refrigerant would not need to be created. Any remaining refrigerant that is no longer in use or of sufficient quality for use could then be destroyed.

None of this will occur without proper refrigerant recovery which, although required by Section 608 of the Clean Air Act, is insufficient.

**Allow only reclaimed refrigerant to be used in state-owned and / or operated buildings.**

A proven policy change that Washington State could make with an immediate impact would be to require that state procurement policy only allow for the use of certified reclaimed refrigerant in refrigeration and comfort-cooling equipment in any state-owned or operated building. This would immediately create an opportunity for the use of reclaimed refrigerant encouraging proper recovery of refrigerant within the state.

Washington State could also create and document their maintenance schedule and collect data related to leak rates to better understand the needs to ensure compliance with federal refrigerant management policies in Section 608 of the Clean Air Act as well as to optimize maintenance practices. The State could also use this as an opportunity to inventory its own refrigerant usage and ensure that service technicians use best practices to recover refrigerant and to maintain refrigerating equipment.

This is a proven policy option that could be made permanent.

**Adopt federal refrigerant management policies similar to those adopted within the State of California.**

Washington State's adoption of refrigerant management policies would provide the State with the ability to monitor and enforce those policies and gain knowledge of gaps related to this issue.

**Start an awareness campaign to educate responsible stakeholders of the need for proper refrigerant management as a legal requirement.**

During the Department of Ecology stakeholder discussions, it became apparent that not all stakeholders throughout the supply chain understand their responsibilities regarding refrigerant management. Section 608 of the Clean Air Act does not allow for venting of any fluorinated

refrigerant. Yet, some stakeholders seemed unclear in the responsibility to properly recover refrigerant during equipment maintenance and at the end of life.

Washington State could quickly benefit from better recovery of refrigerant during maintenance and at end-of-life with communications throughout the supply chain and for end-users.

**Use the tools in place today such as existing reverse supply chains.**

Small appliances are collected by big box stores and distributors and may be collected at other points in the supply chain. The Department of Ecology should hold stakeholder discussions with home appliance manufacturers and retailers to better understand policies, procedures, costs, and the ultimate disposition of refrigerant based on current practices at end-of-life.

**Focus on mid-sized equipment.**

The refrigerant from very large equipment containing hundreds to thousands of pounds of refrigerant, such as chillers, is nearly always collected through large recovery organizations and either reclaimed for reuse or destroyed. Equipment containing very small charges (less than one pound), such as domestic refrigerators and automobiles, often have a reverse supply chain. Larger commercial refrigeration systems are also properly managed by retail chains.

The largest opportunity that is as yet unaddressed is mid-sized equipment, especially residential and light commercial air conditioning systems. There may also be an opportunity in smaller or remote grocery stores.

**Continue to allow refrigerant reclaimed in other states to be used in Washington State.**

The recovery supply chain is national. Facilities that separate blends, or simply purify refrigerants and then add a component to ensure that the blend remains intact for reuse, accept recovered refrigerant from all over the country.

Distribution channels are well-established including reverse supply chains from wholesalers back to reclaimers with established commercial relationships in most cases.

**The national phase-down of refrigerant will help to drive the necessary economic conditions to encourage the use of reclaimed refrigerants; however, recovery economics could use some support.**

Reclaimers stand ready to purify refrigerants and return them to the market. State procurement of reclaimed refrigerant can help to create demand. The phase-down will help to create demand. Recovery of refrigerant is essential, and it is simply not happening in many cases. This is the most challenging issue to resolve.

Recovery is challenging. It requires empty cylinders to be available at the time that it is needed, and there must be an easy place to drop off cylinders that are full. Contractors and technicians must take time out of a very busy workday and choose to address this environmental issue by shuttling refrigerant to a wholesaler when they could be driving to another job. Cylinder availability also creates a challenge.

Even if contractors and technicians know that if they start recovering refrigerant as soon as they arrive at a jobsite, before they unload their tools, the recovery can be complete, so that it doesn't slow down other work, they still have to do something with the cylinder once it's full.

In addition, in many cases technicians and contractors are charged for the disposition of refrigerant.

It is easy to do the wrong thing, which is to allow for the release of refrigerant at the jobsite or even in transporting cylinders from the job, and hard to do the right thing, which is to recover the refrigerant and drive it to the wholesaler and pay a fee for its proper disposition.

Education of end-users, contractors, technicians, and all stakeholders will help. Adoption of refrigerant management policies would allow for enforcement and potential funding of recovery incentive<sup>1</sup> programs.

Washington State could consider providing incentives at the point of sale, such as a credit that could be used immediately. The cylinder containing recovered refrigerant could be returned to a wholesaler and a nominal credit could be provided. Additional credit could be provided once the refrigerant quality is established. Empty cylinders would need to be available at the wholesaler. The wholesaler would ship the recovered refrigerant to a certified reclaimer.

Washington State may want to demonstrate this concept on a small-scale basis before statewide implementation to ensure that any optimization to policies and procedures is determined and to better understand the economics of such an operation.

### **Don't carve reclaim policies in stone initially.**

There are a broad array of refrigerant recovery and reclaim policies and incentives internationally that have had varying degrees of success. Washington State has shown a willingness to take bold measures to improve refrigerant management. Some policy options may be successful while others may not prove effective or cost-effective.

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<sup>1</sup> California Air Resources Board, CARB settles with Albertsons grocery chain for \$5.1 million for violations of the Refrigerant Management Program (July 14, 2021), <https://ww2.arb.ca.gov/news/carb-settles-albertsons-grocery-chain-51-million-violations-refrigerant-management-program>.

Another option would be for Washington State to create some demonstration projects within specific jurisdictions to determine the most effective options for statewide regulations such as the one described above.

Thank you for your time and consideration of this matter, which is a high priority for AHRI and the U.S. HVACR industry. We appreciate the continuing dialogue on this important matter.

Sincerely,

*Helen Walter-Terrinoni*

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