

August 31, 2023



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Air Quality Program
P.O. Box 47600
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Subject: Chapter 173-433 WAC, Hydrofluorocarbons (HFCs)

Electronic Submittal¹ via website

To Whom It May Concern:

I am writing on behalf of Johnson Controls (JCI). JCI is a global provider of heating, ventilating and air conditioning equipment, building controls, security and fire/life safety solutions which includes brands such as York, PennBarry, Ruskin, Metasys, Simplex, Grinnell, Zettler and Tyco. The company has more than 100,000 employees and 2,000 locations across six continents. JCI first set sustainability goals in 2002, and the company has reduced its greenhouse gas emissions intensity from our global operations by more than 70%. Since then, JCI has committed to reducing its Scope 1 & 2 emissions in alignment with a 1.5°C pathway for global temperature rise, as well as reducing Scope 3 emissions in alignment with a well below 2°C pathway, both of which have been approved by the Science Based Targets Initiative (SBTi). Further, we are AAA rated by MSCI and are recognized as among the Top 100 Most Sustainable Companies by Corporate Knights.

Concerns

While JCI appreciates its partnership with the department and its willingness to work with all stakeholders in the development of its HFC regulations, we do have concerns with specific parts of the proposed rule and respectfully propose the following.

Alignment with the American Innovation and Manufacturing Act (AIM)

In order to maximize environmental benefits, minimize cost to Washington State businesses, Washington State consumers and HVAC OEM's, we strongly encourage exact alignment with EPA's American Innovation and Manufacturing Act (AIM) which was signed into law in December of 2020. While we understand the departments original reasoning for pursuing its own HFC regulation, we believe alignment with AIM is now the best option for DEC, Washington State consumers and the environment alike.

JCI further understands that while components of AIM are not formally complete, all indications from EPA are that both the refrigerant management (subsection h) rule as well as the Technology Transition rule will be finalized in the coming months of 2023. In support of this recommendation, EPA does have a statutory deadline to complete its ruling on the Technology Transitions by October 7, 2023. By aligning with AIM, DEC will minimize the confusion and complexity of any unique state requirements and allow for a seamless transition with minimal market disruption.

JCI believes that EPA's legal authority with the AIM technology transitions does allow states to continue with their own HFC rulemaking however when EPA does issue a final technology transition mandate (e.g., 1/1/2025 @ 700 GWP maximum limit for stationary air-conditioning and heat pumps) that states must comply. States may indeed modify a technology transition rule to make it more stringent but cannot weaken the rule. Therefore, with DEC's proposed differences in some sector dates which are later than that of EPA's pending technology transitions, we believe AIM dates would take precedence thus negating their need.

In order to ensure exact alignment, JCI recommends that DEC not finalize its pending HFC regulation until after EPA completes its imminent rules for the refrigerant management and the technology transitions.

¹ <https://aq.ecology.commentinput.com/?id=trCUMYBx2G>

Technology Transition Petitions

Since the initial passage of AIM, JCI along with its industry peers and channel partners has been diligently working to meet these technology transition dates as listed in the industry petitions and as such we are committed to meeting these dates with our new low GWP product offerings. JCI was one of the early adopters in publicly announcing its low GWP choice of R454B for the stationary AC and air-cooled chiller sectors in 2018. We have since launched multiple low and ultra-low GWP offerings in our applied chiller and refrigeration businesses around the globe and are aligning our future low GWP market introductions to comply with the pending Technology Transitions. Federal alignment makes the most economic sense to OEM's like JCI whereas retaining legacy higher GWP products (where legally allowed) will lead to substantial cost increases due to their lower volume and demand.

Sector Misalignment

Should DEC ultimately decide to continue with its rulemaking, JCI recommends exact alignment with the currently proposed technology transition petitions² submitted by AHRI. The primary sector where JCI recommends alignment with EPA is noted below in Table 3 for the "Other types of air-conditioning equipment used in residential and non-residential applications". After much debate and taking into account multiple factors such as safety standard updates, state building code adoption as well as additional research, industry OEM's agreed to a 1/1/2025 date. This date was largely driven by the need for time to update safety standards and the adoption of these standards into state building codes as a necessary prerequisite to allow large charges of the new lower GWP alternatives which have a different flammability class than that of previous alternatives. JCI, working diligently with its peers is happy to note there are now 40+ US states which have either updated their building codes or in cases where the building code update cycle extends beyond the 1/1/2025 transition date, passed legislation permitting the use of these EPA approved, lower GWP alternatives. As Washington State had completed both legislation and build code updates there is no regulatory reason why the state should delay its transition date for this sector. JCI recommends DEC revise the effective date from 1/1/2028 to 1/1/2025.

TABLE 3. Prohibited Substances for New Air Conditioning Equipment

End-Use	Criteria	Prohibited Substances	Effective Date
<u>Other types of air conditioning equipment used in residential and nonresidential applications</u>	<u>New air conditioning equipment</u>	<u>Refrigerants with a GWP of 750 or more</u>	<u>January 1, 2028</u>

Consequences of Sector Misalignment

DEC's proposed misalignment for the specific sectors noted, could be incorrectly interpreted by Washington State businesses and consumers, and ultimately lead to unforeseen, negative consequences including the continued and unlawful installation per federal regulation, of higher GWP equipment for multiple years to come.

Authority to Align with EPA

Per Washington State legislation HB 1050³ which passed in May of 2021, DEC was granted authority to align with EPA where federal law is "substantially duplicative". JCI believes this provides all the necessary authority DEC requires to align exactly with the pending AIM technology transitions and refrigerant management provisions. Again, JCI agrees that DEC should wait to ensure there are no surprises before finalizing its own pending HFC regulation.

Retrofits

DEC's inclusion of retrofits in the definition of new air-conditioning and refrigeration equipment is problematic as it will discourage equipment owners who do not have the financial means to purchase new systems or pay for extensive upgrades for a system to be able to utilize the substantially lower, new equipment GWP thresholds. This is especially financially onerous to owners whose equipment has not reached the end of its design life and who have lower GWP alternatives available (but not as low as the new equipment GWP levels) on the market. Allowing for refrigerant conversion of an existing system to a lower GWP alternative which does not meet the lower GWP threshold of a "new" system will spur additional upgrades to systems that otherwise may not have been upgraded until the equipment reached the end of its useful design life.

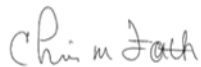
² <https://www.epa.gov/climate-hfcs-reduction/petitions-technology-transitions>

³ <https://app.leg.wa.gov/billssummary?billnumber=1050&year=2021>

JCI's supports removal of retrofits from the new equipment definition.

Thank you for your time and attention. Please feel free to contact me at chris.m.forth@jci.com or (405) 826-5802 with any questions. JCI looks forward to continuing working with DEC on this as well as other future regulations.

Respectfully,

A handwritten signature in cursive script that reads "Chris M Forth".

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