FLORIDA HOUSE OF REPRESENTATIVES
BILL ANALYSIS

This bill analysis was prepared by nonpartisan committee staff and does not constitute an official statement of legislative intent.

BILL #: CS/HB 999	**COMPANION BILL:** SB 1226 (Burgess)
TITLE: Refrigerant Safety and Agricultural Continuity	**LINKED BILLS:** None
SPONSOR(S): Gonzalez Pittman	**RELATED BILLS:** None

Committee References

Housing, Agriculture & Tourism (12 Y, 1 N, As CS) ➤ Natural Resources & Disasters ➤ Commerce

SUMMARY

Effect of the Bill:
The bill creates the "Refrigerant Safety and Agricultural Continuity Act," which requires the Florida Department of Agriculture and Consumer Services to provide an annual report to the Legislature on A2L refrigerant issues related to safety and federal requirements.

Fiscal or Economic Impact:
The bill may have an indeterminate, negative fiscal impact on state government.

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ANALYSIS

EFFECT OF THE BILL:

The bill creates s. 604.74, F.S., the "Refrigerant Safety and Agricultural Continuity Act.,"

The bill provides that"A2L refrigerant" means any refrigerant classified as lower toxicity and mildly flammable under American Society of Heating, Refrigerating and Air-Conditioning Engineers Standard 34.

The bill requires the Florida Department of Agriculture and Consumer Services (FDACS), in consultation with the Department of Environmental Protection and the State Fire Marshal, by January 1, 2027, to provide an annual report to the President of the Senate and the Speaker of the House of Representatives on:

- Safety performance data for A2L refrigerants, including R-454B refrigerants.
- Availability of compliant equipment and certified technicians for statewide transition to A2L refrigerants.
- Insurance and liability standards applicable to A2L refrigerant systems.
- Recommendations regarding readiness for statewide transition to A2L refrigerants.
- The status of and updates to the U.S. Environmental Protection Agency's (EPA) Technology Transition Rule.

The bill allows FDACS to coordinate with Florida College System institutions, career centers, and industry trade associations to expand training and certification programs for the safe handling, installation, and servicing of A2L refrigerants.

The bill provides the following Legislative findings:

- Florida's agricultural food processing and cold chain industries rely upon refrigerant systems that ensure product safety, temperature stability, and export reliability.
- EPA's Technology Transition Rule requires replacement of R-410A refrigerants with A2L refrigerants, including R-454B refrigerants, beginning in calendar years 2025 and 2026. R-454B refrigerant is classified as a mildly flammable refrigerant and has not been fully tested or certified for all commercial agricultural refrigerant applications, creating potential risk of fire, equipment failure, and insurance exclusion.

- A rapid transition to A2L refrigerants may impose substantial costs on Florida's agricultural food processing and cold chain industries with statewide economic impacts estimated in the billions of dollars.

The bill provides an effective date of July 1, 2026.

FISCAL OR ECONOMIC IMPACT:

STATE GOVERNMENT:

The bill may have an indeterminate, negative fiscal impact on state government related to the creation of a report by the Florida Department of Agriculture and Consumer Services.

RELEVANT INFORMATION

SUBJECT OVERVIEW:

U.S. Department of Environmental Protection's Technology Transition Rule

Hydrofluorocarbons (HFCs) are a class of potent greenhouse gases commonly used in refrigeration and air conditioning, aerosols, and foam products. Their climate impact can be hundreds to thousands of times greater than carbon dioxide and have a high global warming potential (GWP).[1]

The American Innovation and Manufacturing (AIM) Act of 2020, enacted on December 27, 2020,[2] authorizes the U.S. Environmental Protection Agency (EPA) to phase down the production and consumption of HFCs by 85 percent in a stepwise manner by 2036 in three main areas: phasing down the production and consumption of listed HFCs, managing these HFCs and their substitutes, and facilitating the transition to next-generation technologies through sector-based restrictions.[3]

EPA has issued final rules[4] under the AIM Act to phase down the production and import of HFCs, including the Technology Transition Rule. The Technology Transition Rule places restrictions on the manufacture and import of products and installation of refrigeration, air conditioning, and heat pump systems take effect on different dates varying by subsector. The earliest restrictions began on January 1, 2025, and the latest restrictions begin on January 1, 2028. EPA set these dates by considering the availability of substitutes and other factors prescribed in the AIM Act.[5]

On October 3, 2025, the EPA published a proposed rule change to the Technology Transition Rule.[6] The proposed actions are to:[7]

- Change two aspects of the intermodal refrigerated transport provisions to adjust the lower bound temperature exclusion threshold and change the location where that temperature is measured.

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[1] U.S. Environmental Protection Agency (EPA), *Enforcement of the American Innovation and Manufacturing Act of 2020*, https://www.epa.gov/enforcement/enforcement-american-innovation-and-manufacturing-act-2020 (last visited Feb. 3, 2026).
[2] 42 U.S.C. § 7675 (2020).
[3] EPA, *Background on HFCs and the AIM Act*, https://www.epa.gov/climate-hfcs-reduction/background-hfcs-and-aim-acthttps://www.epa.gov/climate-hfcs-reduction/background-hfcs-and-aim-act (last visited Feb. 2, 2026).
[4] 40 C.F.R. part 40.
[5] EPA, *Technology Transitions Program Fact Sheet*, https://www.epa.gov/system/files/documents/2023-10/technology-transitions-final-rule-fact-sheet-2023.pdf (last visited Feb. 3, 2026); 40 C.F.R. § 84.54.
[6] Phasedown of Hydrofluorocarbons: Reconsideration of Certain Regulatory Requirements Promulgated Under the Technology Transitions Provisions of the American Innovation and Manufacturing Act of 2020, 90 Fed. Reg. 51042 (Oct. 3, 2025), https://www.federalregister.gov/documents/2025/10/03/2025-19438/phasedown-of-hydrofluorocarbons-reconsideration-of-certain-regulatory-requirements-promulgated-under (last visited Feb. 6, 2026).
[7] *Id*.

- Extend the compliance date for certain chillers used for industrial process refrigeration and certain industrial process refrigeration equipment used to manufacture semiconductors from January 1, 2026, and January 1, 2028, as applicable, to January 1, 2030.

The proposed rule is still pending and has not been finalized.[8]

R-410A and R-454B Refrigerants

In general, a refrigerant is a fluid that runs through the refrigerant lines of a system to cool warm air. The refrigerant changes from liquid to gas during this process, which is then condensed to a liquid to start the cycle again. Refrigerants have traditionally contained hydrochlorofluorocarbons (HCFCs) or HFCs, which are potent greenhouse gases.[9]

R-410A, which is a refrigerant that is a blend of HFC compounds R-32 and R-125, is part of the phasedown in the Technology Transition Rule.[10]R-410A is a refrigerant that has been used as a replacement for R-22, commonly known as Freon.[11] R-410A is widely used in commercial and industrial air conditioning systems. While it has been a reliable choice for cooling, R-410A has a high GWP.[12]

R-454B is a type of hydrofluoroolefin A2L refrigerant that is replacing R-410A due to its lower GWP and improved energy efficiency. It is designed to provide the same cooling performance while reducing environmental impact without HFCs.[13]

Companies installing A2L systems, including R-454 systems, will experience a transition and adjustment period due to needed additional training. While A2L refrigerants are less flammable than A2 or A3 options, they are still mildly flammable. With this in mind, professionals will need to understand the safety precautions they need to take in order to protect themselves while working with A2L refrigerants.[14] Technicians who work with A2L refrigerants need to receive proper training and education regarding the safe handling of these new refrigerants, and will likely need a EPA Section 608 Technician Certification, which is required for technicians who maintain, service, repair, or dispose of equipment that could release refrigerants into the atmosphere.[15]

R-454B components are not generally readily interchangeable with an existing R-410A system. While they have similar characteristics, current regulations restrict the use of R-454B to systems for which it was specifically designed. However, since R-454B closely matches R-410A, there may be minimal required system or component redesign. Components like compressors and filter driers must be rated and sized for R-454B, like any other refrigerant, but differences may be minor overall. Many existing tools, such as wrenches and tube cutters, currently

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[8] *Id*.
[9] Trane, *Understanding R-454B Refrigerant*, https://www.trane.com/residential/en/resources/glossary/what-is-r454b-refrigerant/ (last visited Feb. 3, 2026).
[10] Trane, *R-410A Refrigerant*, https://www.trane.com/residential/en/resources/glossary/what-is-r410a-refrigerant/ (last visited Feb. 3, 2026).
[11] *Id*.
[12] A&G Services, *A Deep Dive into the R-410A Phase-Out Timeline*, https://agservicestx.com/r-410a-timeline/ (last visited Feb. 3, 2026).
[13] Five Star Home Services, Is R-454B Flammable: Safety, Risks, and HVAC Compatibility, https://www.myfivestarhomeservices.com/is-r-454b-flammable/ (last visited Feb. 3, 2026); Kelly Helton, *Can You Replace R-410A With R-454B?*, IWAE, https://iwae.com/resources/articles/can-you-replace-r-410a-with-r-454b.html (last visited Feb. 6, 2026).
[14] CareerEnterprise, *A2L Refrigerants: Training and Certification for HVAC Professionals*, (Aug. 20, 2024) https://www.carrierenterprise.com/hvac-news/a2l-refrigerants-training-and-certification (last visited Feb. 3, 2026).
[15] 40 CFR Part 82, Subpart F; EPA, *Section 608 Technician Certification Requirements*, https://www.epa.gov/section608/section-608-technician-certification-requirements (last visited Feb. 3, 2026).

used with R-410A, will be suitable for R-454B. However, technicians must ensure their manufacturer vacuum pumps, recovery machines and leak detectors are compatible with A2L refrigerants.[16]

ASHRAE Standard 34

The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Standard 34 establishes a uniform system for assigning refrigerant reference numbers, safety classification based on toxicity and flammability, application guidelines, and concentration limits, which provides a systematic approach to identifying refrigerants and assessing their safety characteristics to enable proper selection, handling, and application in refrigeration and air conditioning systems.[17]

R-410A is in safety group A1, meaning it has a low toxicity and is not flammable. A2L refrigerants have a low toxicity and have a low flammability.[18] Since R-454B is classified as an A2L refrigerant, it is mildly flammable but does not ignite easily and requires a specific set of conditions to catch fire, including a high concentration and an open flame. R-454B is considered safe for residential HVAC systems when handled by licensed professionals.[19]

Agricultural Food Processing and Cold Chain Industries

Food processing includes many procedures, techniques, and technologies used to convert fresh ingredients into food products. The complexity of food processing ranges from basic tasks such as washing and cutting fresh produce, to sophisticated industrial operations that produce complex formulated foods.

The ability for fresh fruits, vegetables, dairy products, and meat to be available for days or weeks at a time is made possible by sophisticated refrigeration systems that have revolutionized how we process, store, and distribute food. Refrigeration in food processing works by maintaining low temperatures that dramatically slow down the chemical reactions and microbial growth responsible for food spoilage, effectively extending shelf life from days to weeks or even months. Temperature is a powerful control mechanism because both chemical reactions and microbial growth follow predictable patterns. For every 10°C decrease in temperature, chemical reaction rates typically slow down by half to three-quarters. Refrigeration dramatically extends the window of freshness, giving processors, distributors, and consumers valuable time to handle food safely.[20]

Maintaining temperature control is a necessity for the agriculture industry. Maintaining the correct temperature throughout the journey from raw materials to distribution is essential to keeping food safe, fresh, and compliant. Any deviation, even if temporary, can cause a cold chain[21] break that compromises product quality and could lead to health risks, waste, and financial loss.[22] Temperature-sensitive products, such as food, rely on cold chain management for product efficacy, product safety, and adherence to relevant regulatory requirements.[23]

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[16] Kelly Helton, *supra* note 19.
[17] ASHRAE, *ASHRAE Refrigerant Designations*, https://www.ashrae.org/technical-resources/standards-and-guidelines/ashrae-refrigerant-designations (last visited Feb. 3, 2026); HVAC Engineering Blog, *ASHRAE 34: Complete Guide to Refrigerant Classification and Safety Designation*, (Jan. 1, 2025) https://hvac.solver360.com/blog/ashrae-34-refrigerant-classification-complete-guide (last visited Feb. 3, 2026).
[18] HVAC Engineering Blog, *supra* note 17.
[19] Five Star Home Services, *supra* note 13.
[20] Agriculture Institute, *Refrigeration Systems in Food Processing: Components and Efficiency*, (Nov. 6, 2023) https://agriculture.institute/food-processing-and-engineering-i/refrigeration-systems-food-processing/#google_vignette (last visited Feb. 3, 2026).
[21] "Cold chain management" is the management of all phases of the cold chain, including products in transit, in process, in storage, and in display. Cold Chain Technologies, *What is Cold Chain Management*, (Nov. 15, 2021) https://www.coldchaintech.com/blog/knowledge/what-is-cold-chain-management (last visited Feb. 3, 2026).
[22] RVN Blog, *What Will Break the Cold Chain in Food Delivery*, (Jul. 20, 2025) https://reefervannetwork.com/blog/what-will-break-the-cold-chain-in-food-delivery/ (last visited Feb. 3, 2026).
[23] Cold Chain Technologies, *supra* note 19.

Florida Department of Agriculture and Consumer Services

The Florida Department of Agriculture and Consumer Services (FDACS) supports and promotes Florida agriculture, protects the environment, safeguards consumers, and ensures the safety and wholesomeness of food.[24] FDACS regulates commercial food establishments that manufacture, process, pack, hold, and prepare food for sale or distribution or sell food directly to customers, including retail food establishments such as convenience stores and grocery stores, wholesale and retail food processing operations, storage and warehouse operations, and nonalcoholic beverage operations. FDACS ensures that food establishments employ proper food safety measures, including temperature controls for potentially hazardous foods.[25] FDACS also runs the Office of Energy, the state energy policy and program development arm.[26]

BILL HISTORY

COMMITTEE REFERENCE	ACTION	DATE	STAFF DIRECTOR/ POLICY CHIEF	ANALYSIS PREPARED BY
Housing, Agriculture & Tourism Subcommittee	12 Y, 1 N, As CS	2/5/2026	Curtin	Wright
THE CHANGES ADOPTED BY THE COMMITTEE:	• Removes the authorization for agricultural food processing and cold chain industries to continue to purchase, install, and service equipment utilizing R-410A refrigerants through January 1, 2035, despite the federal phase-down schedule or other conflicting law. • Removes certain immunity from liability for using R-410A. • Removes a provision regarding the authority of the EPA. • Removes the requirement that FDACS maintain records of R-410A equipment installations and coordinate with relevant federal agencies to ensure compliance with applicable reporting requirements. • Removes authority for FDACS to adopt rules. • Adds that FDACS must give the status of and any updates to the EPA's Technology Transition Rule in their annual report to the Legislature on A2L refrigerants.			
Natural Resources & Disasters Subcommittee				
Commerce Committee				

THIS BILL ANALYSIS HAS BEEN UPDATED TO INCORPORATE ALL OF THE CHANGES DESCRIBED ABOVE.

[24] FDACS, *About Us*, https://www.fdacs.gov/about-us (last visited Feb. 3, 2026).
[25] S. 500.147, F.S.; *See* Rule Ch. 5K-4, F.A.C.; U.S. Food & Drug Administration Food Code 2017, Ref. 11767, incorporated into rule 5K-4.002, F.A.C.; FDACS, Food Temperature Cooking Requirements, https://ccmedia.fdacs.gov/content/download/67388/file/Food-Temperature-Requirements.pdf (last visited Feb. 6, 2026).
[26] FDACS, *Office of Energy*, https://www.fdacs.gov/Divisions-Offices/Energy (last visited Feb. 6, 2026).