

Department of Permitting Services Division of Commercial Building Construction

2425 Reedie Drive, 7th Floor, Wheaton, MD 20902

CODE INTERPRETATION/POLICY

Code/Year	Section of Code	Title of Code Section/Subsection/Policy
IMC Edition & ER 13-24	Chapter 11	Refrigerant Restrictions 1104.3, 2021 IMC

Statement/Background of Issue:

The EPA instituted new rules in 2020 that mandate the conversion of mechanical units to utilize Group A2L refrigerants. Montgomery County is currently under the 2021 International Mechanical Code (IMC) as adopted with ER 13-24. The 2021 IMC does not specifically address the use of A2L refrigerants in air conditioning systems for human comfort, while the 2024 edition of the IMC does.

The 2024 IMC states:

1104.3.1 Air Conditioning for Human Comfort

High-probability systems used for human comfort shall use Group A1 or A2L refrigerant.

Exceptions:

- 1. Equipment listed for and used in residential occupancies containing a maximum of 6.6 pounds (3 kg) of refrigerant.
- 2. Equipment listed for and used in commercial occupancies containing a maximum of 22 pounds (10 kg) of refrigerant.
- 3. Industrial occupancies.

The 2024 IMC revision to section 1104.3.1 is consistent with Section 7.5.2 of ASHRAE 15-2022. High probability direct systems for human comfort must use either Group A1 or A2L refrigerant, unless meeting one of the three exceptions provided. Where Exceptions 1 and 2 of Section 1104.3.1, 2024 IMC is used, it is the intent to allow Section 9.12.1.5.1 Shaft Alternative, ASHRAE 15-2022 (b), which indicates that a shaft enclosure shall not be required for the refrigerant piping in a high probability system where the refrigerant concentration does not exceed the amounts shown in ASHRAE Standard 34, Table 4-1 or 4-2 for the smallest occupied space through which the piping passes.

Division Interpretation/Policy:

Whereas neither the 2018 IMC nor the 2021 IMC specifically addresses the use of A2L refrigerants in air conditioning systems used for human comfort, compliance with the requirements of ASHRAE 15-2022 for refrigeration systems in its entirety shall be accepted until the adoption of the 2024 IMC or later edition occurs.

Interpretation/Policy No.	Date	Division Chief The Motagedi
BCP 25-02	March 12, 2025	Ehsan Motazedi