STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

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STATE BUILDING CODE INTERPRETATION NO. 01-06

CODE: 1997 Washington State Uniform Mechanical Code (UMC)

SECTIONS: 1104.3.2 Ventilated Spaces

QUESTIONS:

1. In the context of Section 1104.3.2 Ventilated Spaces, what is the definition of **system**?

2. In an air conditioning unit with multiple refrigerant circuits (from separate compressors), is each circuit considered a separate "closed circuit?"

3. Is the maximum allowable quantity of refrigerant for each system specifying the amount allowed for each closed circuit?

ANSWERS:

1. The UMC does not define **system.** However, in Section 1101.6 General, the code states, "Refrigeration systems shall comply with the requirements of this code, and except as modified by this code, ASHRAE 15-1994." ASHRAE 15 defines **refrigerating systems** as, "a combination of interconnected parts forming a closed circuit in which refrigerant is circulated for a the purpose of extracting, then rejecting, heat." The Uniform Fire Code also defines **system** as, "an assembly of equipment consisting of a container or containers, appurtenances, pumps, compressors and connecting piping."

2. Yes, if each circuit is not "interconnected" with the others, as specified in the definition above, it would be a "closed circuit."

3. Yes. The intent of restricting the amount of refrigerant in each system (or closed circuit) is to limit the amount of spillage in the event that one was to fail. Since a closed circuit is not interconnected with any other circuit, by definition, if it was to fail, the failure would be limited to that one circuit and the refrigerant spilled would be limited to the maximum amount specified in the code.

SUPERSEDES: None

REQUESTED BY: City of Federal Way