

2025 HVAC – IMC Updates

1. Course Description

This 3-hour video-based course is designed for licensed Utah HVAC contractors to fulfill continuing education requirements by covering significant changes introduced in the 2021 International Mechanical Code (IMC). The content focuses specifically on updates relevant to Utah professionals, as per the statewide adoption of the 2021 I-Codes (effective July 1, 2023, via H.B. 532, 2023 Legislative Session).

The curriculum provides a detailed review of critical code modifications, including new refrigerant classifications, complex residential ventilation requirements, fire-safety updates for duct systems, new rules for exhaust systems, and changes to specific appliance and refrigeration codes.

Module 1: Foundations, Code Adoption, & Key Definitions

This module establishes the legal foundation for the code updates and covers critical new terminology that impacts system design and installation.

- **A. Utah Code Adoption & Administration**
 - The Role of the Utah Uniform Building Code Commission (UBCC)
 - Legislative Process: Passage of H.B. 532 (2023)
 - Official Adoption Date: July 1, 2023
 - Upcoming Contractor Licensing Changes: S350 to H100 (July 1, 2025)
- **B. Chapter 1: Scope & Administration**
 - IMC 101.2: Scope and the new exception for 1- & 2-family dwellings (IMC vs. IRC).
 - IMC 110.3: Authority to Disconnect Service.
- **C. Chapter 2: Definitions – Critical Updates**
 - New Refrigerant Definitions and Lower GWP Impact
 - **Refrigerant Flammability:** Class 1, 2, 2L, and 3.
 - **Refrigerant Toxicity:** Class A and B.
 - **HRVs & ERVs:** In-depth explanation of balanced ventilation, heat/moisture transfer, and application in Utah.

- **D. Module 1 Assessment** (10-question quiz)

Module 2: General Regulations & Ventilation Deep Dive

This module focuses on the complex and impactful changes to ventilation requirements, which represent a significant shift in compliance strategy.

- **A. Chapter 3: General Regulations**
 - IMC 307.2.1.1: Condensate discharge prohibitions and location requirements.
- **B. Chapter 4: Ventilation – Major Updates & Compliance**
 - IMC 401.2: Mechanical ventilation mandate and its link to IECC/ASHRAE 90.1.
 - **Navigating the Codes:** The relationship between IMC 401.2, IECC air leakage targets (e.g., 3.5 ACH50), and the IRC R303.4 exception for homes >3.0 ACH50.
 - IMC 401.4.3: New exception for intake/exhaust combination fittings.
 - **Demand Controlled Ventilation (DCV):** Principles and methods (CO2 sensors).
 - **Recirculation Prohibitions & ERV Leakage:** Review of Footnote G and AHRI 1060 (EATR).
 - IMC 403.3.2.1: The new **30% reduction** in mechanical ventilation rates and its two qualifying conditions (ducted supply & balanced system).
- **C. Module 2 Assessment** (10-question quiz)

Module 3: Exhaust, Ducts, Appliances, & Refrigeration

This final module covers a range of specific system updates, with a strong focus on fire safety in ductwork and new appliance rules.

- **A. Chapter 5: Exhaust Systems**
 - IMC 502.20: Source capture and filtration rules for manicure stations.
 - IMC 506.3.7: Grease duct slope requirements and exceptions.
 - IMC 514.2: Prohibited applications for ERVs and the sensible-heat-only exception.

- **B. Chapter 6: Duct Systems – Safety & Installation**

- Plenums: Definition and inherent fire-safety concerns.
- IMC 602.2.1.8: Flame/smoke index requirements for insulation in plenums.
- IMC 607.5.2: Exception for fully ducted systems penetrating 1-hour fire barriers.
- IMC 607.5.5: Exception for fire dampers in shaft enclosures with powered exhaust.
- IMC 608.1: Balancing and verification of Chapter 4 airflow rates.

- **C. Chapter 8, 9, & 11 Updates**

- IMC 801.21: Blocked vent switch requirement for oil-fired appliances.
- IMC 929: New section on listed/labeled alcohol-burning appliances (UL 1370).
- IMC 1101.6: Maintenance requirements for systems with A2L refrigerants (compliance with ASHRAE 15).
- IMC 1105.9: Egress requirements for refrigeration machinery rooms >1,000 sq ft.

- **D. Module 3 Assessment (10-question quiz)**