

Code Amendment Proposal Form

For public amendments proposed to the 2021 editions of the International Codes



Instructions: Upload this form and all accompanying documentation. If you are submitting your proposal on a separate sheet, make sure it includes all information requested below.

All proposals must be received by **July 23, 2021**.

CONTACT INFORMATION

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Organization or Representing Self: Air Conditioning, Heating, and Refrigeration Institute (AHRI)
in coordination with Natural Resources Defense Council (NRDC) and the Southwest Energy Efficiency Program (SWEET)

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Signature:

Mary E. Koban

AMENDMENT PROPOSAL

Please use a separate form for each proposal.

- 1) Code(s) associated with this proposal. Please use acronym: IRC
If you submitted a separate coordination change to another code, please indicate which code: _____

<u>Acronym</u>	<u>Code Name</u>	<u>Acronym</u>	<u>Code Name</u>
DBC-AP	Denver Building Code–Administrative Provisions	IFC	International Fire Code
DBC-xxxx	Denver Building Code–xxxx (code) amendments (e.g., DBC-IBC, DBC-IEBC)	IFGC	International Fuel Gas Code
IBC	International Building Code	IRC	International Residential Code
IEBC	International Existing Building Code	IMC	International Mechanical Code
IECC	International Energy Conservation Code	IPC	International Plumbing Code
		DGC	Denver Green Code

- 2) Please check here if a separate graphic file is provided:
Graphics may also be embedded within your proposal below.
- 3) Use this template to submit your proposal or attach a separate file, but please include all items requested below in your proposal. The only formatting needed is **BOLDING**, ~~STRIKETHROUGH~~ AND UNDERLINING. Please do not provide additional formatting such as tabs, columns, etc., as this will be done by CPD.

Code Sections/Tables/Figures Proposed for Revision:

Update standard references in Chapter 44 of the IMC and Chapter 15 of the IRC as well as section references. Update the UL/CSA 60335-2-40 to the 2019 edition and remove ANCE.

Note: If the proposal is for a new section, indicate (new).

Proposal:

PART ONE: IMC

CHAPTER 15 REFERENCED STANDARDS

UL/CSA 60335-2-40-~~2017~~ 2019

Standard for Household and Similar Electrical Appliances – Safety – Part 2-40: Particular Requirements for Electrical Heat Pumps, Air-Conditioners and Dehumidifiers
908.1, 916.1, 918.1, 918.2, Table 1101.2

PART TWO: IRC

CHAPTER 44 REFERENCED STANDARDS

UL/CSA/~~ANCE~~ 60335-2-40-~~2012~~ 2019

Standard for Household and Similar Electrical Appliances – Safety – Part 2-40: Particular Requirements for ~~Motor Compressors~~ Electrical Heat Pumps, Air-Conditioners and Dehumidifiers
M1402.1, M1403.1, M1412.1, M1413.1, M2006.1

CAN/CSA/C22.2 No. 60335-2-40-2012

Safety of Household and Similar Electrical Appliances, Part 2-40: Particular Requirements for Electrical Heat Pumps, Air Conditioners and Dehumidifiers.
M1403.1, M1412.1, M1413.1

CHAPTER 11

1101.1 Scope. This chapter shall govern the design, installation, construction and repair of refrigeration systems that vaporize and liquefy a fluid during the refrigerating cycle. Permanently installed refrigerant storage systems and other components shall be considered as part of the refrigeration system to which they are attached.

1101.1.1 Refrigerants other than ammonia. Refrigerant piping design and installation for systems containing a refrigerant other than ammonia, including pressure vessels and pressure relief devices, shall comply with this chapter and ASHRAE 15.

Exception: Refrigeration Systems using A2L refrigerants shall comply with this chapter where not expressly covered in ASHRAE 15.

1101.1.2 Ammonia refrigerant. Refrigeration systems using ammonia as the refrigerant shall comply with IIAR 2, IIAR 3, IIAR 4 and IIAR 5 and shall not be required to comply with this chapter.

CHAPTER 14 HEATING AND COOLING EQUIPMENT AND APPLICANCES

M1402.1 General. Oil-fired central furnaces shall conform to ANSI/UL 727. Electric furnaces shall conform to UL 1995 or UL/CSA/~~ANCE~~ 60335-2-40.

M1403.1 Heat pumps. Electric heat pumps shall be *listed* and *labeled* in accordance with UL 1995 or UL/CSA/~~ANCE~~ 60335-2-40.

M1412.1 Approval of equipment. Absorption systems shall be installed in accordance with the manufacturer's instructions. Absorption equipment shall comply with UL 1995 or UL/CSA/~~ANCE~~ 60335-2-40.

M1413.1 General. Evaporative cooling equipment and appliances shall comply with UL 1995 or UL/CSA/~~ANCE~~ 60335-2-40 and shall be installed:

1. In accordance with the manufacturer's instructions
2. On level platforms in accordance with Section M1305.1.3.1

3. So that openings in exterior walls are flashed in accordance with Section R703.4
4. So as to protect the potable water supply in accordance with Section P2902
5. So that air intake opening locations are in accordance with Section R303.5.1

CHAPTER 20

BOILERS AND WATER HEATERS

M2006.1 General. Pool and spa heaters shall be installed in accordance with the manufacturer's installation instructions. Oil-fired pool heaters shall comply with UL 726. Electric pool and spa heaters shall comply with UL 1261. Pool and spa heat pump water heaters shall comply with UL 1995, UL/CSA/ANCE 60335-2-40 or CSA C22.2 No. 236

Supporting Information:

- Purpose- Revise outdated material.
- Reason-UL will withdraw UL 1995 as a national standard effective January 1, 2024. The standard is being replaced by UL/CSA 60335-2-40. The 3rd edition of UL 60335-2-40 was published November 2019 with many new requirements for electrical and refrigerant safety.
It is important to note that UL 60335-2-40 is the product standard that covers chillers and a wide range of heating, ventilation, and air-conditioning products. The most current version (published November 2019) will enable the use of low GWP refrigerants for use in HVAC and chiller equipment. This is needed because Colorado has an impending low GWP requirement starting Jan 1, 2024.
- Substantiation- The 2021 edition of the International Residential Code has made the change to reference UL/CSA 60335-2-40, but references the 2nd edition. Third party listing agencies are using the latest version of the UL 60335-2-40 safety standard for certification testing. The third edition, which was published in November 2019 did not get referenced in time for the 2021 I-code hearings. Therefore, this code proposal is to update and correct that issue.
- The IRC has the standard listed under CSA as well as UL in Chapter 44 but does not specifically reference the CAN/CSA/C22.2 No. 60335-2-40-2012 in the body of the IRC, nor have the referenced sections been updated in Chapter 44. The UL/CSA standard is harmonized between both standards organizations and is the only reference necessary. Removing the CAN/CSA/C22.2 reference in Chapter 44 of the IRC will match Chapter 15 of the IMC which does not provide duplicate references. More information about the harmonized standard can be found at this link: <https://webstore.ansi.org/standards/csa/csac2260335402019>
- Bibliography- UL 60335-2-40 is available from UL standards.
Questions on the International Residential Code (IRC) and/or the equipment standard UL 60335-2-40 can be directed to Mary Koban at mkoban@ahrinet.org.
Questions regarding climate impact and low GWP refrigerant regulations can be sent to either Christina Theodoridi or Christine Brinker.
Christina Theodoridi can be reached at Ctheodoridi@nrdc.org.
Christine Brinker can be reached at cbrinker@swenergy.org.

Referenced Standards:

UL 60335-2-40: 2019 edition (3rd edition) is being referenced. UL/CSA 60335-2-40 has complete safety requirements regarding the use of low global warming potential (Low GWP) refrigerants classified as Group A2L.

Note: List any new referenced standards that are proposed to be referenced in the code.

Impact:

Without the adoption of the latest version (3rd edition which published in 2019) of UL 60335-2-40, Denver will not be able to install and/or use equipment that meets the impending low GWP regulations for chillers. There should not be any impact on the cost of construction or the cost of design as the 2021 I-codes have already incorporated UL 60335-2-40. This code proposal is aligned with the 2021 I-codes and updates the referenced standard to the latest edition.

