DEPARTMENT OF ADMINISTRATIVE SERVICES

PROPOSED CHANGE OF THE CONNECTICUT STATE BUILDING CODE AND FIRE SAFETY CODE

DATE SUBMITTED: Apr 11, 2024

CODE INFORMATION

Proposed change to: ☑ Building Code ☐ Fire Safety Code

Code section(s): IMC Section 101.2.1, Appendix D, Appendix E

PROPONENT INFORMATION

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PROPOSAL INFORMATION

Description of change and reason for change (attach additional information as needed):

See detailed description attached

Proposed text change, addition or deletion (attach additional information as needed):

See proposed change attached

Supporting data and documents (attach additional information as needed)

☑ **This Proposal is original material.** (Note: Original material is considered to be the submitter's own idea based on or as a result of his/her own experience, thought or research and, to the best of his/her knowledge, is not copied from another source.)

☐ **This Comment is not original material, its source (if known) is as follows:** (such as material / code development proposal from a prior development cycle or proposal submitted to model code committee etc.)

☑ **I would like to make an in-person presentation of my proposal.**

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Proponent's Signature

Dominique TAUDIN

Printed Name

PLEASE EMAIL (PREFERRED) TO DAS.CodesStandards@CT.GOV OR MAIL OR FAX (SEE BELOW)

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Affirmative Action/Equal Opportunity Employer

April 10th, 2024

PROPOSED CHANGE OF THE CONNECTICUT STATE BUILDING CODE

IMC: 101.2.1, APPENDIX D, APPENDIX E

Proponent: Dominique Taudin, Carrier Global Corporation (dominique.taudin@carrier.com)

2024 International Mechanical Code

Revise as follows:

101.2.1 Appendices

Provisions in the following appendices ~~shall not apply unless specifically adopted~~ have been adopted and are part of this code.

Appendix D	Clean Air Delivery
Appendix E	Clean Air Delivery and Monitoring

In addition, the following appendices are included for informational purposes.

Appendix A	Chimney Connector Pass-Throughs
Appendix B	Recommended Permit Fee Schedule
Appendix C	Board of Appeals

APPENDIX D CLEAN AIR DELIVERY

~~*The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.*~~

Remaining text of APPENDIX D unchanged

APPENDIX E CLEAN AIR DELIVERY AND MONITORING

~~*The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.*~~

Remaining text of APPENDIX E unchanged

April 10th, 2024

PROPOSED CHANGE OF THE CONNECTICUT STATE BUILDING CODE

Description of change and reason for change:

This proposed code amendment aims to improve indoor air quality (IAQ) in Groups A, B, E, and I occupancies by integrating appendices D and E of the IMC:2024 into the Connecticut State Building Code. If adopted, this change will improve the health, well-being, and productivity of building occupants by reliably providing cleaner indoor air.

The two appendices (D and E) of the 2024 International Mechanical Code were passed with more than 90% of the votes during the last ICC Code cycle.

Appendix D requires that HVAC system design airflow rates be capable of accommodating a Minimum Efficiency Ratio Value (MERV) 13 filter when greater air filtration is required.

Appendix E requires that carbon dioxide (CO_2) sensors be installed for every 500 sq. feet of occupiable space and activate Demand-Controlled Ventilation (DCV) when necessary.

According to the U.S. Environmental Protection Agency (EPA), indoor pollutant levels are on average two to five times — and sometimes up to a hundred times — higher than outdoor levels.

The Centers for Disease Control and Prevention (CDC) recently called for upgrading central HVAC filter efficiency to a (MERV) rating of 13 or better.

Beyond airborne mitigation, increased filtration and Demand-Controlled Ventilation would improve IAQ in case of wildfire plumes. DCV would reduce outdoor air intake when a building is partially occupied and optimize energy consumption.

Increased air filtration, when necessary, reduces the risk of airborne contagions, viruses, dust, mites, and other contaminants being introduced into building spaces and inhaled by occupants.

Carbon dioxide sensors will detect when excessive amounts of CO_2 accumulate in a room, signaling that the indoor air is not being sufficiently renewed and could contain contaminants. The sensors will trigger the introduction of fresh air into the space, significantly reducing health risks for occupants.

These requirements provide effective but inexpensive ways to provide building occupants with cleaner indoor air.

Both appendices are supported by numerous health advocacy organizations, including the American Lung Association, the Asthma and Allergy Foundation of America, the International WELL Building Institute, and United Spinal.

<u>Additional note</u>: We are aware that Appendix A of the IMC is part of the current Connecticut Building Code. Having no competency on the equipment covered by Appendix A, we have retained Appendix A for informational purposes in this proposal.