

From: Mike Fowler <mikef@Mithun.com>

Sent: Tuesday, June 14, 2022 12:40 PM

Subject: RE: Public Comment for MVE Meeting - 2021 WSMC Proposal 098 - Filtration

External Email

Thank you Eric for continuing to review the proposal and for submitting new edits to improve enforceability.

As the 098 proposal proponent, I am in full agreement with what Eric has proposed. I also have two minor edit suggestions to what Eric sent:

- a. **Add new exception to 605.1 as follows:** “3. Recirculated air serving systems without wetted cooling coils ~~and~~ or with unducted heater (hydronic coils, fossil fuel heating elements or electric resistance heating elements) do not require filtration at the terminal device.”
 - i. Reason: with the word “and” I was reading that it would need both wetted coils and unducted heater in order to use the exception when it is either one.
- b. **Add new exception to 605.4 as follows:** “3. I changed the proposed exception 3 from Eric to become exception 2 and renumber previous exception 2 as exception 3.”
 - i. Reason: organizational only, this will give a progression in the exceptions of MERV 8, 8, 6 instead of MERV 8, 6, 8.

The attached word doc has three pages:

- Page 1: Shows the proposed edits from Eric to the Proposal 098 language approved as modified by the TAG on 6/2/22 (using track changes).
- Page 2: Shows proposed edits from Eric and the TAG modifications to the 2018 mechanical code (using track changes).
- Page 3: Shows the edits from Eric and the TAG modifications as it would appear in the 2021 mechanical code (without strikeouts and underlines).

Page 2 is the version which shows all current proposed changes to the 2018 code. I needed to do all three for myself to make sure I was seeing, understanding, and incorporating everything correctly. Since I have those, I am including in case that might assist you as well.

Thanks,
Mike

Michael E Fowler—

Senior Associate, Sustainability Integration Leader

AIA, LEED AP

(206) 971 5531

mithun.com

Seattle | San Francisco | Los Angeles

Eric Vander Mey proposed edits to Proposal 098, approved as modified by TAG on 6/2/22

605.1 General. Air handlers and ventilation systems shall be provided with *approved* air filters in accordance with Section 605.4. Filters shall be installed such that all return air, recirculated air, and all outdoor air and makeup air is filtered upstream from any heat exchanger or coil. Filters shall be installed in an *approved* convenient location. Liquid adhesive coatings used on filters shall have a flash point not lower than 325°F (163°C).

Exceptions:

1. Cooling coils that are designed, controlled and operated to provide sensible cooling only do not require filtration at the terminal device.
2. Ambient air that enters the building through intentional openings for natural ventilation or by infiltration is not required to be filtered.
3. Recirculated air serving systems without wetted cooling coils or with unducted heater (hydronic coils, fossil fuel heating elements or electric resistance heating elements) do not require filtration at the terminal device.

605.4 Particulate matter removal. Particulate matter filters or air cleaners shall have a minimum efficiency reporting value (MERV) of not less than the following:

1. MERV 13 for ducted air handlers and ventilation systems serving occupiable spaces in Group A, B, E, M, R, and I occupancies,
2. MERV 8 for ducted air handlers and ventilation systems serving occupiable spaces in Group F, H, S and U occupancies, and
3. MERV 4 for unducted air handlers and fan coil units.

Exceptions:

1. Ducted air handlers and ventilation systems 500 cfm or less shall have a filter not less than MERV 8.
2. Recirculated air at fan powered variable air volume terminal units with hydronic heating coils or electric resistance heating elements shall have a filter not less than MERV 8.
23. Exhaust or relief air upstream ~~from~~of a heat exchanger or coil shall have a filter not less than MERV 6.

Combined proposal 098, TAG modifications, and proposed edits from Eric to the 2018 code

605.1 General. ~~Heating and air conditioning~~ Air handlers and ventilation systems shall be provided with *approved* air filters in accordance with Section 605.4. Filters shall be installed such that all *return air, recirculated air, outdoor air* and *makeup air* is filtered upstream from any heat exchanger or coil. Filters shall be installed in an *approved* convenient location. Liquid adhesive coatings used on filters shall have a flash point not lower than 325°F (163°C).

Exceptions:

1. Cooling coils that are designed, controlled and operated to provide sensible cooling only do not require filtration at the terminal device.
2. Ambient air that enters the building through intentional openings for natural ventilation or by infiltration is not required to be filtered.
3. Recirculated air serving systems without wetted cooling coils or with unducted heater (hydronic coils, fossil fuel heating elements or electric resistance heating elements) do not require filtration at the terminal device.

605.4 Particulate matter removal. Particulate matter filters or air cleaners ~~shall have having~~ a minimum efficiency reporting value (MERV) of not less than the following: 6 for ducted air handlers and not less than 4 for ductless mini split systems shall be provided upstream of all cooling coils or other devices with wetted surfaces through which air is supplied to and occupiable space.

1. MERV 13 for ducted air handlers and ventilation systems serving occupiable spaces in Group A, B, E, M, R, and I occupancies,
2. MERV 8 for ducted air handlers and ventilation systems serving occupiable spaces in Group F, H, S and U occupancies, and
3. MERV 4 for unducted air handlers and fan coil units.

Exceptions:

1. Ducted air handlers and ventilation systems 500 cfm or less shall have a filter not less than MERV 8.
2. Recirculated air at fan powered variable air volume terminal units with hydronic heating coils or electric resistance heating elements shall have a filter not less than MERV 8.
3. Exhaust or relief air upstream of a heat exchanger or coil shall have a filter not less than MERV 6.

Combined proposal 098, TAG modifications, and proposed edits from Eric to the 2018 code

Shown without strikeouts and underline

How it would appear in the 2021 code

605.1 General. Air handlers and ventilation systems shall be provided with *approved* air filters in accordance with Section 605.4. Filters shall be installed such that all *return air, recirculated air, outdoor air* and *makeup air* is filtered upstream from any heat exchanger or coil. Filters shall be installed in an *approved* convenient location. Liquid adhesive coatings used on filters shall have a flash point not lower than 325°F (163°C).

Exceptions:

1. Cooling coils that are designed, controlled and operated to provide sensible cooling only do not require filtration at the terminal device.
2. Ambient air that enters the building through intentional openings for natural ventilation or by infiltration is not required to be filtered.
3. Recirculated air serving systems without wetted cooling coils **or** with unducted heater (hydronic coils, fossil fuel heating elements or electric resistance heating elements) do not require filtration at the terminal device.

605.4 Particulate matter removal. Particulate matter filters or air cleaners shall have a minimum efficiency reporting value (MERV) of not less than the following:

1. MERV 13 for ducted air handlers and ventilation systems serving occupiable spaces in Group A, B, E, M, R, and I occupancies,
2. MERV 8 for ducted air handlers and ventilation systems serving occupiable spaces in Group F, H, S and U occupancies, and
3. MERV 4 for unducted air handlers and fan coil units.

Exceptions:

1. Ducted air handlers and ventilation systems 500 cfm or less shall have a filter not less than MERV 8.
2. Recirculated air at fan powered variable air volume terminal units with hydronic heating coils or electric resistance heating elements shall have a filter not less than MERV 8.
3. Exhaust or relief air upstream of a heat exchanger or coil shall have a filter not less than MERV 6.