



STATE OF WASHINGTON
STATE BUILDING CODE COUNCIL

May 2018
Log No. _____

1. State Building Code to be Amended:

- | | |
|---|---|
| <input type="checkbox"/> International Building Code | <input checked="" type="checkbox"/> International Mechanical Code |
| <input type="checkbox"/> ICC ANSI A117.1 Accessibility Code | <input type="checkbox"/> International Fuel Gas Code |
| <input type="checkbox"/> International Existing Building Code | <input type="checkbox"/> NFPA 54 National Fuel Gas Code |
| <input type="checkbox"/> International Residential Code | <input type="checkbox"/> NFPA 58 Liquefied Petroleum Gas Code |
| <input type="checkbox"/> International Fire Code | <input type="checkbox"/> Wildland Urban Interface Code |
| <input type="checkbox"/> Uniform Plumbing Code | |

For the Washington State Energy Code, please see specialized [energy code forms](#)

Section(s): **new section 605.5**
(e.g.: Section: R403.2)

Title: **Smoke filtration**
(e.g: Footings for wood foundations)

2. Proponent Name (Specific local government, organization or individual):

Proponent: **Mike Fowler**
Title: **Sustainability Integration Leader, Mithun**
Date: **April 8, 2022**

3. Designated Contact Person:

Name: **same**
Title:
Address:

Office Phone: ()
Cell: ()
E-Mail address: **mikef@mithun.com**

4. **Proposed Code Amendment.** Reproduce the section to be amended by underlining all added language, striking through all deleted language. Insert new sections in the appropriate place in the code in order to continue the established numbering system of the code. If more than one section is proposed for amendment or more than one page is needed for reproducing the affected section of the code, additional pages may be attached.

Clearly state if the proposal modifies an existing amendment or if a new amendment is needed. If the proposal modifies an **existing amendment**, show the modifications to the existing amendment by underlining all added language and striking through all deleted language. If a new amendment is needed, show the modifications to the **model code** by underlining all added language and striking through all deleted language.

Code(s) IMC

Section(s) 605.5 (new)

Enforceable code language must be used.
Amend section to read as follows:

This is language from city of Seattle,
and the same as proposal 21-GP2-086

605.5 Smoke filtration

Air handlers and energy recovery ventilators serving occupiable spaces each with individual capacity greater than 500 cfm shall provide a filter box capable of housing a filter with a minimum efficiency reporting value (MERV) of not less than 13.

Exception: Air handlers that process 100 percent recirculated air with no outdoor air are not required to comply with this section provided one of the following is met:

- 1. The air handler serves only one living unit or a space that does not serve multiple occupants.**
- 2. The recirculated air passes through a filter with MERV of not less than 13 prior to delivery back into occupied space.**

This modified proposal 21-GP2-098 is to edit the language in the exception from city of Seattle and 21-GP2-086.
Content underlined is the proposed modification to the exception.

5. **Briefly explain your proposed amendment, including the purpose, benefits and problems addressed.** Specifically note any impacts or benefits to business, and specify construction types, industries and services that would be affected. Finally, please note any potential impact on enforcement such as special reporting requirements or additional inspections required.

Proposal is to adopt language currently in the 2018 Seattle Mechanical Code. This will protect occupant health by providing a filtration level needed to reduce fine particulates such as diesel emissions, vehicle exhaust, pesticide spray, dust, wood smoke, and wildfire smoke.

6. **Specify what criteria this proposal meets.** You may select more than one.

- The amendment is needed to address a critical life/safety need.
- The amendment clarifies the intent or application of the code.
- The amendment is needed to address a specific state policy or statute.
- The amendment is needed for consistency with state or federal regulations.
- The amendment is needed to address a unique character of the state.
- The amendment corrects errors and omissions.

7. **Is there an economic impact:** Yes No

If no, state reason: **not applicable, proposal is focused on occupant health, life/safety need.**

If yes, provide economic impact, costs and benefits as noted below in items a – f.

ASHRAE EPIDEMIC TASK FORCE


Core Recommendations for Reducing Airborne Infectious Aerosol Exposure

The following recommendations are the basis for the detailed guidance issued by ASHRAE Epidemic Task Force. They are based on the concept that within limits ventilation, filtration, and air cleaners can be deployed flexibly to achieve exposure reduction goals subject to constraints that may include comfort, energy use, and costs. This is done by setting targets for equivalent clean air supply rate and expressing the performance of filters, air cleaners, and other removal mechanisms in these terms.

1. *Public Health Guidance* – Follow all current regulatory and statutory requirements and recommendations, including vaccination, wearing of masks and other personal protective equipment, social distancing, administrative measures, circulation of occupants, hygiene, and sanitation.
2. *Ventilation, Filtration, Air Cleaning*
 - 2.1 Provide and maintain at least required minimum outdoor airflow rates for ventilation as specified by applicable codes and standards.
 - 2.2 Use combinations of filters and air cleaners that achieve **MERV 13 or better levels of performance for air recirculated by HVAC systems.**
 - 2.3 Only use air cleaners for which evidence of effectiveness and safety is clear.
 - 2.4 Select control options, including standalone filters and air cleaners, that provide desired exposure reduction while minimizing associated energy penalties.
3. *Air Distribution* - Where directional airflow is not specifically required, or not recommended as the result of a risk assessment, promote mixing of space air without causing strong air currents that increase direct transmission from person-to-person.
4. *HVAC System Operation*
 - 4.1 Maintain temperature and humidity design set points.
 - 4.2 Maintain equivalent clean air supply required for design occupancy whenever anyone is present in the space served by a system.
 - 4.3 When necessary to flush spaces between occupied periods, operate systems for a time required to achieve three air changes of equivalent clean air supply.
 - 4.4 Limit re-entry of contaminated air that may re-enter the building from energy recovery devices, outdoor air, and other sources to acceptable levels.
5. *System Commissioning* – Verify that HVAC systems are functioning as designed.

- a. **Life Cycle Cost.** Use the OFM Life Cycle Cost [Analysis tool](#) to estimate the life cycle cost of the proposal using one or more typical examples. Reference these [Instructions](#); use these [Inputs](#). Webinars on the tool can be found [Here](#) and [Here](#)). If the tool is used, submit a copy of the excel file with your proposal submission. If preferred, you may submit an alternate life cycle cost analysis.
- b. **Construction Cost.** Provide your best estimate of the construction cost (or cost savings) of your code change proposal. **Better filters cost a little more than less effective filters. For an example:**

20x20x2 MERV 8 Pleated Air Filter



Roll over image to zoom in

Made in the USA

Ships in 24 Hours

MERV 8 / Silver
STANDARD
3 Month Filter

★★★★★
361 Reviews

- 20x20x2 MERV 8 filters made and manufactured by FilterBuy
- Actual Size 19.5x19.5x1.75"
- Traps and blocks over 90% of pollen, dust mites, mold, larger dust particles, and more.
- Ideal for standard and residential commercial use
- Designed to last 90 days. Replace regularly for optimum performance.
- Free shipping on all orders!
- [Learn more about 20x20x2 Air Filters.](#)

Other MERV Ratings Available

Fast & Free 3-Day Delivery
Free Delivery: **Monday April 11**
If you order within 18 hours and 57 mins

\$95.64
~~\$239.28~~

12

| Qty | Price per Filter |
|------|------------------|
| 1 | \$19.94 |
| 2 | \$12.00 |
| 3 | \$10.26 |
| 4 | \$9.66 |
| 5 | \$9.31 |
| 6-11 | \$8.96 |
| 12+ | \$7.97 |

20x20x2 MERV 13 Pleated Air Filter



Roll over image to zoom in

Made in the USA

Ships in 24 Hours

MERV 13 / Platinum
BEST
3 Month Filter

★★★★★
361 Reviews

- 20x20x2 MERV 13 filters made and manufactured by FilterBuy
- Actual Size 19.5x19.5x1.75"
- Hospital Grade. Attracts and captures airborne particles or allergens less than one micron in size such as pollen, fine dust, pet dander. Also captures bacteria, viruses carrying particles, mold spores and smoke.
- Ideal for standard and residential commercial use
- Designed to last 90 days. Replace regularly for optimum performance.
- Free shipping on all orders!
- [Learn more about 20x20x2 Air Filters.](#)

Fast & Free 3-Day Delivery
Free Delivery: **Monday April 11**
If you order within 18 hours and 56 mins

\$155.52
~~\$330.84~~

12

| Qty | Price per Filter |
|------|------------------|
| 1 | \$27.57 |
| 2 | \$16.59 |
| 3 | \$15.40 |
| 4 | \$14.75 |
| 5 | \$14.38 |
| 6-11 | \$14.00 |
| 12+ | \$12.96 |

\$5 more per filter (20x20x2), replaced every 3 months, \$1.67 per month per filter.

Click here to enter text./square foot

(For residential projects, also provide Click here to enter text./ dwelling unit)

Show calculations here, and list sources for costs/savings, or attach backup data pages

- c. **Code Enforcement.** List any code enforcement time for additional plan review or inspections that your proposal will require, in hours per permit application: **no increase**
- d. **Small Business Impact.** Describe economic impacts to small businesses: **small increase in filter cost**
- e. **Housing Affordability.** Describe economic impacts on housing affordability: **small increase in filter cost**
- f. **Other.** Describe other qualitative cost and benefits to owners, to occupants, to the public, to the environment, and to other stakeholders that have not yet been discussed: **more public health information**

available at Washington State Department of Ecology website:
<https://ecology.wa.gov/Air-Climate/Air-quality/Smoke-fire/Health-effects>

Please send your completed proposal to: sbcc@des.wa.gov

All questions must be answered to be considered complete. Incomplete proposals will not be accepted.