

IRC — Building



2018 GROUP A PUBLIC COMMENT AGENDA

OCTOBER 24 - 31, 2018
GREATER RICHMOND CONVENTION CENTER
RICHMOND, VA

2018 Public Comment Agenda

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RB5-18

IRC: R105.2

Proposed Change as Submitted

Proponent: Jim Tidwell, Tidwell Code Consulting, representing Honeywell (jimtidwell@tccfire.com)

2018 International Residential Code

Revise as follows

R105.2 Work exempt from permit. Exemption from *permit* requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this *jurisdiction*. *Permits* shall not be required for the following:

Building:

1. One-story detached *accessory structures*, provided that the floor area does not exceed 200 square feet (18.58 m²).
2. Fences not over 7 feet (2134 mm) high.
3. Retaining walls that are not over 4 feet (1219 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge.
4. Water tanks supported directly upon *grade* if the capacity does not exceed 5,000 gallons (18 927 L) and the ratio of height to diameter or width does not exceed 2 to 1.
5. Sidewalks and driveways.
6. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
7. Prefabricated swimming pools that are less than 24 inches (610 mm) deep.
8. Swings and other playground equipment.
9. Window awnings supported by an exterior wall that do not project more than 54 inches (1372 mm) from the exterior wall and do not require additional support.
10. Decks not exceeding 200 square feet (18.58 m²) in area, that are not more than 30 inches (762 mm) above *grade* at any point, are not attached to a dwelling and do not serve the exit door required by Section R311.4.

Electrical:

1. *Listed* cord-and-plug connected temporary decorative lighting.
2. Reinstallation of attachment plug receptacles but not the outlets therefor.
3. Replacement of branch circuit overcurrent devices of the required capacity in the same location.
4. Electrical wiring, devices, *appliances*, apparatus or *equipment* operating at less than 25 volts and not capable of supplying more than 50 watts of energy.
5. Minor repair work, including the replacement of lamps or the connection of *approved* portable electrical *equipment* to *approved* permanently installed receptacles.

Gas:

1. Portable heating, cooking or clothes drying *appliances*.
2. Replacement of any minor part that does not alter approval of *equipment* or make such *equipment* unsafe.
3. Portable-fuel-cell *appliances* that are not connected to a fixed piping system and are not interconnected to a power grid.

Mechanical:

1. Portable heating *appliances*.
2. Portable ventilation *appliances*.
3. Portable cooling units.
4. Steam, hot- or chilled-water piping within any heating or cooling *equipment* regulated by this code.
5. Replacement of any minor part that does not alter approval of *equipment* or make such *equipment* unsafe.
6. Portable evaporative coolers.
7. Self-contained refrigeration systems containing 10 pounds (4.54 kg) or less of ~~refrigerant~~ or non-flammable (A-1) refrigerant.
8. Self-contained refrigeration systems containing non-flammable (A-1) refrigerants that are actuated by motors of 1 horsepower (746 W) or less.
- ~~8-9.~~ Portable-fuel-cell *appliances* that are not connected to a fixed piping system and are not interconnected to a power grid.

Plumbing:

1. The stopping of leaks in drains, water, soil, waste or vent pipe; provided, however, that if any concealed trap, drainpipe, water, soil, waste or vent pipe becomes defective and it becomes necessary to remove and replace the same with new material, such work shall be considered as new work and a *permit* shall be obtained and inspection made as provided in this code.
2. The clearing of stoppages or the repairing of leaks in pipes, valves or fixtures, and the removal and reinstallation of water closets, provided such repairs do not involve or require the replacement or rearrangement of valves, pipes or fixtures.

Reason: The existing exemption for permitting residential size HVAC systems is founded on the fact that all refrigerants used in these systems have been non-flammable up until now. Changing out a system historically hasn't presented a significant risk. That changes with the introduction of flammable refrigerants. Changing out a system now may require significantly more design work to assure a safe installation. In addition, piping may need to be re-routed or replaced in some cases. If flammable refrigerants are used, it is no longer a simple equipment replacement, but a much more complex issue with significant safety risk. Requiring a permit will provide the jurisdiction with the opportunity to address that risk during the review and inspection process.

Cost Impact: The code change proposal will increase the cost of construction. While the actual cost of construction isn't impacted, the requirement for a permit will add to the final cost.

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Public Hearing Results

Committee Action:

As Submitted

Committee Reason: Approval was based on the proponent's published reason statement. (Vote 6-2)

Assembly Action:

None

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Individual Consideration Agenda

Public Comment 1:

Proponent: Connor Barbaree, representing ASHRAE (cbarbaree@ashrae.org) requests As Modified by This Public Comment.

Replace as follows:

2018 International Residential Code

R105.2 Work exempt from permit. Exemption from *permit* requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this *jurisdiction*. *Permits* shall not be required for the following:

Building:

1. One-story detached *accessory structures*, provided that the floor area does not exceed 200 square feet (18.58 m²).
2. Fences not over 7 feet (2134 mm) high.
3. Retaining walls that are not over 4 feet (1219 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge.
4. Water tanks supported directly upon *grade* if the capacity does not exceed 5,000 gallons (18 927 L) and the ratio of height to diameter or width does not exceed 2 to 1.
5. Sidewalks and driveways.
6. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
7. Prefabricated swimming pools that are less than 24 inches (610 mm) deep.
8. Swings and other playground equipment.
9. Window awnings supported by an exterior wall that do not project more than 54 inches (1372 mm) from the exterior wall and do not require additional support.
10. Decks not exceeding 200 square feet (18.58 m²) in area, that are not more than 30 inches (762 mm) above *grade* at any point, are not attached to a dwelling and do not serve the exit door required by Section R311.4.

Electrical:

1. *Listed* cord-and-plug connected temporary decorative lighting.
2. Reinstallation of attachment plug receptacles but not the outlets therefor.
3. Replacement of branch circuit overcurrent devices of the required capacity in the same location.
4. Electrical wiring, devices, *appliances*, apparatus or *equipment* operating at less than 25 volts and not capable of supplying more than 50 watts of energy.
5. Minor repair work, including the replacement of lamps or the connection of *approved* portable electrical *equipment* to *approved* permanently installed receptacles.

Gas:

1. Portable heating, cooking or clothes drying *appliances*.
2. Replacement of any minor part that does not alter approval of *equipment* or make such *equipment* unsafe.
3. Portable-fuel-cell *appliances* that are not connected to a fixed piping system and are not interconnected to a power grid.

Mechanical:

1. Portable heating *appliances*.
2. Portable ventilation *appliances*.
3. Portable cooling units.
4. Steam, hot- or chilled-water piping within any heating or cooling *equipment* regulated by this code.
5. Replacement of any minor part that does not alter approval of *equipment* or make such *equipment* unsafe.
6. Portable evaporative coolers.
7. Self-contained ~~refrigeration~~ refrigerating systems, containing Group A1 or A2L refrigerants in accordance with IMC Table 1103.1, with either of the following:
 - 7.1. 10.0 pounds (4.54 kg) or less a motor of 1.00 horsepower (746 W) or less. of refrigerant, or that are
 - 7.2. actuated by motor
8. Self-contained refrigerating systems, containing Group A2 or A3 refrigerants in accordance with IMC Table 1103.1, with either 0.331 pounds (150 g) or less refrigerant.
9. Portable-fuel-cell appliances that are not connected to a fixed piping system and are not interconnected to a power grid.

Plumbing:

1. The stopping of leaks in drains, water, soil, waste or vent pipe; provided, however, that if any concealed trap, drainpipe, water, soil, waste or vent pipe becomes defective and it becomes necessary to remove and replace the same with new material, such work shall be considered as new work and a *permit* shall be obtained and inspection made as provided in this code.
2. The clearing of stoppages or the repairing of leaks in pipes, valves or fixtures, and the removal and reinstallation of water closets, provided such repairs do not involve or require the replacement or rearrangement of valves, pipes or fixtures.

Commenter's Reason: Self-contained systems are all required to be listed and labeled in accordance with the relevant UL product safety standard. The UL standards have requirements for protection of refrigerant tubing, with more stringent requirements when flammable refrigerants are used, so the proponent's reason statement about re-routing piping do not make sense. Split-type refrigerating systems for cooling or split-type heat pumps, with field installed piping, are not exempt from permit requirements.

Cost Impact: The net effect of the public comment and code change proposal will not increase or decrease the cost of construction

The actual cost of construction is not impacted. Some cases not qualifying for the exemption may require a permit with small impact on total cost.

Public Comment 2:

Proponent: Julius Ballanco, JB Engineering and Code Consulting, P.C., representing National Association of Home Builders (jbengineer@aol.com); Donald Surrena, National Association of Home Builders, representing National Association of Home Builders (dsurrena@nahb.org) requests Disapprove.

Commenter's Reason: This change would be over reaching in applying to typical units that are installed without a permit. You can buy a window air conditioning unit, that is permanently installed through the wall, at many of

the major home super stores that use R32 as the refrigerant. R32 falls into the category of an A2L refrigerant. As such, it would not be exempt from the requirement for a permit.

Similarly, small mini-splits using R32 refrigerant would not be exempt from requiring a permit when they are replaced. However, a mini-split using R410A would be exempt. Both units are safe to use because of the small refrigerant charge size.

The proponent states that the original exemption was based on A1 refrigerants. There is no documentation to support this claim. The exemption is based on a small charge size that will not be detrimental to the occupants. That remains true for an A2L unit being installed.

All of the current units exempt, including units using Group A2L refrigerants, are listed to a consensus standard. Hence, the use of these smaller units in residences is safe without the need for a permit regardless of the refrigerant used.

Cost Impact: The net effect of the public comment and code change proposal will decrease the cost of construction

A permit fee would not be required for the installation of small air conditioning units, including window air conditioners that are permanently installed.

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