NC Department of Insurance Office of the State Fire Marshal - Engineering Division 1202 Mail Service Center, Raleigh, NC 27699-1202 919-647-0000

Non-potable clear water waste connection to lavatory prohibited

Code: 2018 Residential Code Date: 09/08/2020

Section: P2706.2i

Code: 2018 Plumbing Code

Section: 802.1.5ⁱⁱ

Question:

Can condensate from a residential heating and cooling appliance drain into a lavatory drain line above the lavatory trap, as illustrated conceptually in Figure 1?

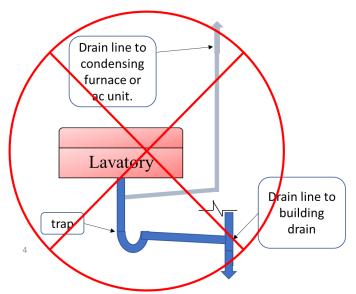


Figure 1: Detail of connections below lavatory

Answer:

No.

Section P2706.2 specifically prohibits the use of a plumbing fixture used for washing or bathing (a lavatory would be used for washing) from being used as the discharge of indirect waste piping. There are two specific exceptions to this prohibition, but those exceptions are very specific and do not include indirect waste from a condensing furnace or ac unit.

Although this method may have been used in the past as an alternate means of discharging condensate to the building drain, indeed, from 1976 until 1991ⁱⁱⁱ, this was listed in the NC Mechanical Code as a code-compliant option; however, beginning with the 2018 code, the

Plumbing Code has clear language that prohibits this, and the concern is valid, so this interpretation is clarifying it is not a code-compliant method anymore.

Follow up question #1:

Can condensate from a residential heating and cooling appliance drain into a washing machine standpipe?

Answer:

Yes.

This method has does not pose the potential to back up into any fixture and cause contamination concerns. The amount being drained is also minimal, and insufficient to blowout a trap.

This methodology is not to be construed as the preferred method of condensate drainage from an attic. Although the volume is small, it could be steady and may be audible to occupants of the building.

Other methods include drains to the outdoors that do not connect to the building drain^{iv}, dedicated hub drains properly installed to all applicable code requirements, and floor drains.

Key Words: None		

Exceptions:

- 1. A kitchen sink trap is acceptable for use as a receptor for a dishwasher.
- 2. A laundry tray is acceptable for use as a receptor for a clothes washing machine.

ⁱ **P2706.2 Prohibited waste receptors**. Plumbing fixtures that are used for washing or bathing shall not be used to receive the discharge of indirect waste piping.

ii 802.1.5 **Nonpotable clear-water waste**. Where devices and equipment such as process tanks, filters, <u>condensate drains</u>, drips, and boilers discharge nonpotable water to the building drainage system, the discharge shall be through an indirect waste pipe by means of an air break or air gap.

iii 1971 Mechanical code, 1705(a) had an amended section in effect from 1976 - 1980, reapproved in the 1980 code in effect from 1980 - 1991. The language about draining to a lavatory trap ended at this point.

iv If freezing at the outlet of an external wall-mounted drain is a concern, there are various designs routinely used in colder climes that utilize French drains or drywells that keep the drainpipe exit from being exposed to the harshest conditions. The earlier NC Mechanical Codes (1971, 1980, 1991) recommended this as one of several options, and the 1991 Mechanical Code even had prescriptive designs for French drains, 603.3. Although the code no longer has prescriptive designs for French drains, in concept they are not prohibited, but they cannot be combined with foundation drains.