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

Condensate Waste Discharge to Receptor or Exterior

Code: **2018 NC Residential Code** **Date: August 1, 2024**
Section: **P2706.2**

Code: **2018 NC Plumbing Code**
Sections: **802.1.5, 802.2**

Code: **2018 NC Mechanical Code**
Section: **307.2.1.1**

Question:

Can condensate from a heating, ventilation and cooling appliance drain into a lavatory drain line above the trap in a commercial building?

Code Analysis:

802.1.5 Nonpotable clear-water waste. Where devices and equipment such as process tanks, filters, condensate drains, 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 an *air gap*.

AIR BREAK (Drainage System). A piping arrangement in which a drain from a fixture, appliance or device discharges indirectly into another fixture, receptacle or interceptor at a point below the *flood level rim* and above the trap seal.

802.2 Installation. Indirect waste piping shall discharge through an *air gap* or *air break* into a **waste receptor**. Waste receptors shall be trapped and vented and shall connect to the building drainage system. Indirect waste piping that exceeds 30 inches (762 mm) in *developed length* measured horizontally, or 54 inches (1372 mm) in total *developed length*, shall be trapped.

Exception: Where a waste receptor receives only clearwater waste and does not directly connect to a sanitary drainage system, the receptor shall not require a trap.

WASTE RECEPTOR. A floor sink, standpipe, hub drain or floor drain that receives the discharge of one or more indirect waste pipes.

Answer:

No. Although the use of an existing drain trap provides an *air break*, Section 802.2 further requires that indirect waste to the drainage system shall discharge into a waste receptor, and a lavatory tailpiece does not satisfy the characteristics of a waste receptor.

Question:
Can condensate from a heating, ventilation and cooling appliance drain into a lavatory drain line above the trap in a residential building?

Code Analysis:

> **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.
>
> **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.

Answer:
No. 2018 NCRC Section P2706.2 specifically prohibits washing or bathing plumbing fixtures from receiving the discharge of indirect waste. There are two exceptions to this prohibition specifically for adjacent appliances that generate waste only when manually operated, and they do not include condensate waste.

This limitation in no way prevents the indirect drainage of residential condensate to a washing machine standpipe, other waste receptor, or to the exterior independent of any foundation drains.

Addendum:
Condensate has been piped to the lavatory tailpiece in the past as an alternate means of discharging that non-potable clear-water waste to the building drain, and from 1976 until 1991 this method was listed in the NC Mechanical Code as a code-compliant option, however; beginning with the 2018 Plumbing Code in Section 802.2, and 2018 NC Residential Code Section P2706.2 there has been direct language that prohibits this method. Even though this method, as well as draining to the bathtub overflow is currently approved by the 2021 International Mechanical Code and adopted by other states, the property damage and sanitation concerns are valid, so this documented interpretation is to clarify that these are not code-compliant methods in NC anymore.

Key Words:
condensate, air break, lavatory, tailpiece, overflow, standpipe, waste receptor