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

Auxiliary and Secondary Drain Systems

Code: 2018 North Carolina Mechanical Code **Date:** March 15, 2019
Section: 307.2.3, 307.3

Code: 2018 North Carolina Residential Code **Date:** March 15, 2019
Section: M1411.3.1, M1411.4

Question:
Is an auxiliary drain pan or secondary drain required for equipment and appliances containing evaporators, cooling coils or condensing furnaces that are installed in a crawl space?

Answer:
No. The intent of Section 307.2.3 is to prevent damage to the building or its contents from overflow of the primary drain pan or blockage of the condensate drain piping. While moisture in a crawl space can cause damage over time, this is not the intent of this section. Overflow in the crawl space can be mitigated by provisions in R408.2 or R409.2.1 of the North Carolina Residential Code.

Follow-up Question #1:
Does this interpretation still hold true for closed crawl spaces?

Answer:
Yes. Again, although not an ideal situation, even sealed crawl spaces have means for handling sporadic or unintended dripping, see Residential Code Section R409.2.2, which permits drains to daylight or sump pumps. The absence of dripping from the primary drain line is an indication of it being plugged.

Follow-up Question #2:
Do all condensate pumps in crawl spaces have to be interlocked with the condensate-producing appliance to prevent it from operating in the event of pump failure?

Answer:
Yes, although section 307.2.1 only requires the interlock "…where damage to any building component could occur….", section 307.3 is broader and includes all condensate pumps in uninhabitable spaces, including all attics and all crawl spaces.

Keywords:
Mold, water level