

**NC Department of Insurance  
Office of the State Fire Marshal - Engineering Division  
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**Process Refrigerant Piping Insulation for Commercial Buildings**

**Code:** 2018 Energy Conservation Code

**Date:** July 1, 2019

**Section:** C403.2.10

**Question:**

Do the piping insulation requirements of Section C403.2.10 apply to process refrigerant piping such as for refrigerant piping for walk in coolers or open case coolers in grocery stores?

**Answer:**

No, the refrigerant piping insulation requirements in Section C403.2.10 apply only to piping serving as part of a building HVAC system. Process piping associated with other refrigeration processes are not within the scope of the NC Energy Code. However, the NC Mechanical Code, Section 1107.4 requires that process refrigerant piping that will reach a surface temperature below the dew point of the surrounding air, and is located in spaces or areas where condensation will cause a safety hazard to the building occupants, structure, electrical equipment, or any other equipment or appliances, shall be protected in an approved manner to prevent such damage. This may be accomplished by installing adequate insulation to prevent condensation.