

**NC Department of Insurance
Office of the State Fire Marshal - Engineering Division
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Protection of Appliances from Damage

Code: 2012 Mechanical Code
Section: 303.4

Date: September 1, 2011

Question:

Section 303.4 states “Appliances shall not be installed in a location where subject to mechanical damage unless protected by *approved* barriers.” What is an example of “approved barriers” which is appropriate for protection of appliances from vehicle impact in a one-and-two family dwelling garage?

Answer:

Examples of approved barriers for protection of appliances from vehicle impact in a one-and-two family dwelling garage include:

- a) pipe bollards extending three feet above the floor
examples:
 - 2 inch Schedule 40 steel pipe set in a concrete floor;
 - 2 inch Schedule 40 steel pipe set in a cored hole in an existing concrete floor and sealed with epoxy
 - 2 inch Schedule 40 steel pipe welded to a ¼ inch steel base plate that is anchored to the concrete floor with four ½ inch x 2 ½ inch (embedment depth 2 ¼ inch) anchor bolts
- b) curb stops and/or raised pads of not less than 5 ½ inches set not less than 40 inches from the appliance.

Note that if the appliance is located out of the normal path of travel of vehicles, no protection is required.

Keywords:

protection from damage