

**From:** Ralph Koerber [<mailto:Rkoerber@atcoflex.com>]

**Sent:** Friday, December 19, 2014 12:14 PM

**To:** Madani, Mo

**Subject:** Written Comment for the Jan 5th Public Hearing Regarding the 5th Edition (2014) Update to the Florida Building Code

Hello Mr. Madani,

I wish to make the following written comment for review at the public hearing as referenced above:

The current proposed language to the 2014 Florida Building Code Section 451.3.6.3 is as follows -

**451.3.6.3** Friable duct linings exposed to air movement shall not be used in ducts, terminal boxes or other systems supplying operating rooms and recovery rooms, unless terminal filters of at least 90-percent efficiency are installed downstream of linings. Flexible duct work shall have a continuous metal inner liner encased by insulating material with an outer vapor jacket conforming to UL 181 unless the flexible duct meets the following criteria:

**451.3.6.3.1** The duct conforms to UL Class 1 Air Duct, Standard 181 with minimum rated air velocity of 4,000 feet per minute, and is pressure rated for a minimum of 4-inches water gage positive pressure and 1-inch water gage negative pressure.

**451.3.6.3.2** The inner core of the duct is constructed of Chlorinated Polyethylene (CPE) material encircling a steel helix bonded to the CPE.

**451.3.6.3.3** The duct has a fire-retardant metalized vapor barrier that is reinforced with crosshatched fiberglass scrim having a permanence of not greater than 0.05 perms when tested in accordance with ASTM E 96 Procedure A.

**451.3.6.3.4** The duct has passed an impact test similar to the UL 181 standard, conducted by a nationally recognized testing laboratory (NRTL) except it shall use a 25-pound weight dropped from a height of 10 feet. As a result of the test, the inner and outer surfaces of the sample shall not have ruptured, broken, torn, ripped, collapsed or separated in order for the duct to pass the test. In addition, the helix shall rebound to a cross-sectional elliptical area not less than 80 percent of the original test sample diameter. The use of flexible duct shall be limited to flexible air connector applications.

I respectfully request the committee consider and accept the following modification to this proposed language in order to harmonize the language in section 451.3.6.3 with the already proposed new language in section **449.3.6.4** -

**451.3.6.3** Friable duct linings exposed to air movement shall not be used in ducts, terminal boxes or other systems supplying operating rooms and recovery rooms, unless terminal filters of at least 90-percent efficiency are installed downstream of linings. Flexible ~~duct work~~ ducts shall ~~have a continuous metal inner liner encased by insulating material with an outer vapor jacket conforming to UL 181 unless the flexible duct meets~~ be Listed and Labeled to the UL181 Standard for Factory-Made Air Ducts and Air Connectors and shall be Class 0 or Class 1. Flexible ducts shall meet the following additional performance rating criteria:

~~451.3.6.3.1 The duct conforms to UL Class 1 Air Duct, Standard 181 with minimum rated air velocity of 4,000 feet per minute, and is pressure rated for a minimum of 4 inches water gage positive pressure and 1 inch water gage negative pressure shall have a minimum rated air velocity of 4,000 feet per minute, a minimum positive pressure rating of 4 inches water gauge, and a minimum negative pressure rating of 1 inch water gauge.~~

~~451.3.6.3.2 The inner core of the flexible duct is constructed of Chlorinated Polyethylene (CPE) material encircling a steel helix bonded to the CPE outer vapor barrier shall have a perm rating not greater than 0.05 perms when tested in accordance with ASTM E 96, Procedure A.~~

~~451.3.6.3.3 The duct has a fire retardant metalized vapor barrier that is reinforced with crosshatched fiberglass scrim having a permance of not greater than 0.05 perms when tested in accordance with ASTM E 96 Procedure A. Flexible Air Connectors shall be limited to 14 feet maximum installed length and shall not pass through any wall, partition, or enclosure of a vertical shaft that is required to have a fire resistance rating of 1 hour or more. Flexible Air Ducts shall not be limited in length.~~

~~451.3.6.3.4 The duct has passed an impact test similar to the UL 181 standard, conducted by a nationally recognized testing laboratory (NRTL) except it shall use a 25 pound weight dropped from a height of 10 feet. As a result of the test, the inner and outer surfaces of the sample shall not have ruptured, broken, torn, ripped, collapsed or separated in order for the duct to pass the test. In addition, the helix shall rebound to a cross-sectional elliptical area not less than 80 percent of the original test sample diameter. The use of flexible duct shall be limited to flexible air connector applications.~~

When new language was proposed to section 449.3.6.4 during the earlier glitch cycle a duplicate proposal was inadvertently neglected for this section 451.3.6.3.

The committee's consideration of this comment and proposal is greatly appreciated.

Respectfully,

**Ralph Koerber**  
**Vice President Technical Services**  
**Office: 817-595-2894 x278**  
**Cell: 817-966-2100**  
[rkoerber@atcoflex.com](mailto:rkoerber@atcoflex.com)