Leslie O Anderson-Adams, Assistant General Counsel Attorney for the Florida Building Commission & Bureau of Codes & Standards Florida Bar # 871729

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Department of Business and Professional Regulation

Deputy Agency Clerk

Brandon Nichols CLERK Date

2/9/2012

File#

DS 2012-013

## PETITION FOR DECLARATORY STATEMENT BEFORE THE FLORIDA BUILDING COMMISSION

Company.

ATCO Rubber Products, Inc.

Address:

7101 ATCO Drive

Fort Worth, Texas 76118

Name

Ralph Koerber

Title:

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ATCO Rubber Products, Inc of Fort Worth, Texas, is a leading manufacturer of flexible air ducts for the heating, ventilating, and air conditioning market with fourteen manufacturing locations spread across the United States, including in Tampa Florida, and three international locations ATCO has been manufacturing UL Listed and Labeled Class 1 Flexible Ducts since 1964.

In our attempt to gain approval for the installation of ATCO flexible air ducts in hospital facilities in the state of Florida, ATCO hereby requests a declaratory statement from the Florida Building Commission regarding certain requirements for flexible air ducts in the 2010 Florida Building Code (Buildings), Section 419.3.6.4

Section 419.3 64 is very specific in its requirements for flexible ducts allowed for installation in hospitals

- **419.3.6.4** 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:
- **419.3.6.4.1** 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.
- **419.3.6.4.2** The inner core of the duct is constructed of Chlorinated Polyethylene (CPE) material encircling a steel helix bonded to the CPE.
- **419.3.6.4.3** 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.
- **419.3.6.4.4** The duct has passed an impact test equal 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.

Section 419.3.6.4.2 requires the flexible duct inner core be constructed solely of Chlorinated Polyethylene (CPE) material. This requirement is "material specific" in nature and thus does not allow alternative inner core materials that would provide excellent performance characteristics and suitability.

ATCO does manufacture flexible air ducts with a CPE inner core; however, we also manufacture air ducts with an inner core made from multiple plies of polyester (Polyethylene Terephthalate, PET) which have been tested, listed, and labeled to the UL181 standard and which also have an ICC-ES listing. This alternate inner core material provides excellent performance characteristics that in many ways can be seen as superior to the use of CPE, although CPE is a suitable inner core material as well.

ATCO maintains its UL Class 1 listing for our air ducts using either CPE or polyester, as-well-as aluminum & polyester laminate or pure aluminum. All of these materials when tested meet the requirements of the UL181 Standard and the national codes.

Section 419.3.6.4.4 requires that a flexible duct pass a more stringent impact test equal to the UL181 standard except the test must use a 25-pound weight dropped from a height of 10 feet. No known flexible air duct can meet this stringent testing requirement. In addition, round sheet metal ducting cannot meet this same stringent requirement.

## **Question(s):**

- 1. ATCO requests consideration for acceptance of alternative inner core materials provided the flexible air duct meets the requirements of the UL181 standard as Class 0 or Class 1.
- 2. Is the requirement of 419.3.6.4.4 which requires impact testing using a weight of 25 pounds dropped from a height of 10 feet a typographical miss-print?

ATCO appreciates the opportunity to clarify these points with the Florida Building Commission.

Your consideration of these questions would be helpful in our work to meet the requirements of the Florida Building Code relative to flexible duct installations in hospital facilities.

Respectfully submitted this  $8^{th}$  day of February, 2012

Ralph Koerber

Vice-President Technical Services

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February 8, 2012

Leslie Anderson-Adams
Department of Business and Professional Regulation
Building Codes and Standards Office
1940 North Monroe Street
Tallahassee, FL 32399

Reference: Petition for Declaratory Statement in regards to Florida Building Code 2010 (Building) Section 419.3.6.4.

Dear Leslie,

Please find attached a Petition for Declaratory Statement from ATCO Rubber Products, Inc. We respectfully request a Declaratory Statement from the Florida Building Commission seeking clarification regarding the requirements set forth in Section 419.3.6.4 of the Florida Building Code (Building) for flexible air ducts installed in hospitals.

Please contact me directly if you have any questions.

Respectfully,

Ralph Koerber

Vice-President Technical Services

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