



Richardson Fire Department
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www.cor.net/fire

Duct Smoke Detectors - Policy

[revised 12/13/2021]

This policy is subject to revision - download the latest version at: www.cor.net/fire/permits.

DUCT SMOKE DETECTORS:

Duct smoke detectors that are supervised by a fire alarm system must be tested in accordance with the *National Fire Alarm Code* [see below] and the manufacturer's instructions.

Existing duct smoke detectors are presumed to have been properly tested when initially installed if they were previously connected to the building's fire alarm system.

Duct smoke detectors that were not previously connected to the fire alarm system must be properly tested in accordance with the following requirements, as if they are newly installed:

NFPA 72, 2019/2022 editions, Table 14.4.3.2 Test Methods

17.(7)(e) Duct type *In addition to the testing required in Table 14.4.3.2 17.(7)(a) and should read Table 14.4.3.2.(8), test duct smoke detectors that use sampling tubes to ensure that they will properly sample the airstream in the duct using a method acceptable to the manufacturer or in accordance with their published instructions.*

Required Submittals:

BEFORE requesting “final” inspection, email the following [.PDFs ONLY] to firepermits@cor.gov, **with the permit # and “close-out documents” in the subject line:**

1. A copy of the page(s) of the manufacturer’s instructions, describing the test methods and the acceptable differential pressure range; AND,
2. The individual measurements and differential calculations for each unit. The measurements and results must be on letterhead, signed by a representative of the fire alarm or HVAC contractor.

COMPUTER ROOM AIR HANDLERS [CRAH] / COMPUTER ROOM AIR CONDITIONERS [CRAC]

When CRAH units and CRAC units are provided with factory installed duct smoke detectors that are not required by the 2018 International Mechanical Code, Section 606, *Smoke Detection Systems Control*, these shall be tied into the Fire Alarm system **ONLY** when the following conditions apply:

Each component of the duct smoke detection system [smoke detector, smoke detector housing, sampling tubes, etc...] shall be listed for the specific application, and installed and tested according to the smoke detector manufacturer’s instructions and NFPA 72 [see above].

“DEDICATED FUNCTION FIRE ALARMS” such as “Sprinkler Monitoring” systems, shall not be used to supervise Duct Smoke Detectors, unless specifically approved.

If you have any questions, please contact the Richardson Fire Marshal’s Office at (972)744-5750.