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INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS

IAPMO GUIDE CRITERIA

FOR

DRAINAGE LINE BACKUP DETECTION DEVICE

IAPMO IGC 259-2008

1. PURPOSE

- 1.1** The purpose of this standard is to establish a generally acceptable standard a drainage line backup detection device. Its purpose is to serve as a guide for producers, distributors, architects, engineers, contractors, installers, inspectors, and users; to promote understanding regarding materials, manufacture, installation and performance; and to provide a means for identifying drainage line backup detection device that comply with this standard.
- 1.2** The provisions of this standard are not intended to prevent any alternate material or method of construction, provided any such alternate meets the intent and requirements of this document and changes are amended to this standard.

2. SCOPE

- 2.1** This standard covers definitions, general requirements, performance test requirements and marking and identification.

3. REFERENCED STANDARDS

- 3.1** All standards referenced herein shall be the current edition of the standards.
- ASME A112.18.2/CSA B125.2 Plumbing Waste Fittings

4. DEFINITIONS

- 4.1** **Detection Device.** A device installed within the drainage/sewage line through means of the cleanout which will sound an alarm when it detects flow of sewage/waste in the opposite direction of normal flow.

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5. GENERAL REQUIREMENTS

- 5.1 Materials.** Device body shall comply with the material requirements in Section 4.1 of ASME A112.18.2/CSA B125.2.
- 5.2 Threads.** Thread shall comply with the requirements in Section 4.3 of ASME A112.18.2/CSA B125.2.
- 5.3 Size.** The device shall be sized in accordance with the manufacturer's specifications and shall accommodate to the size of the connecting pipe system.
- 5.4** All electrical components shall comply with the applicable CSA or UL standards for low voltage.
- 5.5** Installation shall be in accordance with the manufacturer's recommendations and accepted plumbing procedures.

6. PERFORMANCE REQUIREMENTS

6.1 Hydrostatic Pressure Test

- 6.1.1 Test Method.** The device shall be installed to a pipe of appropriate size in accordance to the manufacturer's installation instructions. The clamp shall be tightened to a torque as recommended by the manufacturer. Increase the hydrostatic pressure at a rate of 1.0 psi (6.9 kPa) every 30 seconds until the target pressure of 25 psi (172 kPa) is reached. The internal pressure shall be measured by a pressure gauge.

Note: For safety, there be a means for bleeding air before commencing the hydrostatic pressure test.

- 6.1.2 Test Results.** No leakage shall occur on the joint when held under continuous test pressure for a 30 minute test period.

- 6.2 Activation Test.** Install device in accordance with Figure 1 below. Flow water at a rate of 2.0 gpm from location A to B for 5 minutes. No alarm should be activated.

After 5 minutes, close off the flow of water to the B side of the pipe creating a backflow pressure blockage in the system. The device shall be able to detect the presence of back pressure in the system and the alarm should activate within 10 seconds of the pipe filling completely with water. This shall constitute 1 cycle.