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October 10, 2006

Studor Inc.  
11256-47th Street, North  
Clearwater, FL 33762

RESEARCH REPORT: RR 5459  
EFFECTIVE DATE: 10/10/2006  
EXPIRATION DATE: 10/10/2007

TELEPHONE: 800-447-4721

**GENERAL APPROVAL** - "Studor" - Air Admittance Valve," Models Mini, and Maxi, manufactured by Studor, Inc.

### DETAILS

These products are intended for use as an alternative to a vent pipe that properly extends to the outdoor air at an approved location. The valves are one-way valves designed to allow air to enter the plumbing drainage system when negative pressures develop. The valve closes by gravity and seals the vent terminals when the internal drain line pressure is equal to or exceeds ambient pressure. The appropriate size of a valve is selected in accordance with the Studor Valve Selection Criteria shown in Table - 1.

The approval is subject to the following conditions:

1. These products shall be installed in drain, waste and vent systems serving buildings of residential occupancies only, not more than two stories in accordance with Section 94.701.1.2.2 of the Los Angeles Plumbing Code.
2. These Products shall not be located in spaces used as supply or return air plenums.
3. Cement used for making solvent welded joints shall comply with appropriate ASTM Standards.
4. At least one vent stack shall be installed in a building sanitary waste system in accordance with Section 94.906.1 of the Los Angeles Plumbing Code, 2002 Edition.
5. When valves are installed as branch vent terminals, they shall be located on the same floor as the plumbing fixtures.
6. These products shall not be installed as vent caps for venting sewage ejectors.
7. These valves shall not be installed below public sewer line level.

8. The following requirements are in accordance with Studor's Installation Instructions for Maxi Vent and Mini Vent:
  - (a) These products shall be installed in vertical position only. Vertical offset shall not exceed 15 degrees.
  - (b) When installed as branch vents, the bottom of the valves shall be at least 4" above the weir of the fixture traps they serve. When installed as stack vents, the bottom of the valves shall be installed at least 6" above the flood level rims of the highest plumbing fixtures.
  - (c) These valves may be installed where the ambient temperature is between -40° F and 150 °F.
  - (d) Each Valve shall be provided a Life Time Warranty as indicated by Studor's Maxi Vent and Mini Vent Life Time Warranty which states: "When used in accordance with our recommendations, our products are not subject to deterioration and have a life equivalent to that of the drainage system in which it is installed."
  - (e) These products shall be installed in accessible locations, where free air movement is present.
9. These products shall be permanently identified with the manufacturer's name "Studor, Inc." and appropriate model number, where visible for inspection purposes.

## **DISCUSSION**

These valves have been tested by United States Testing Company, Inc. in compliance with Standards ASSE 1050 and 1051 under test report numbers. TS 93-0515.1 and TS 96-024.

This general approval is granted as required by judgement entered September 26, 2006, in the law suit entitled Studor, Inc. v. City of Los Angeles, Los Angeles Superior Court case no. BS 087876."

For this General Approval to be valid on any individual construction project in the City of Los Angeles, an engineer or inspector of the Department of Building and Safety must make a determination that, all conditions of the General Approval required to provide equivalencies have been met in the case of each construction project under consideration.

This approval is granted under Section 94.301 and 94.906.1 of the Los Angeles Plumbing Code, 2002Edition.

Recommended by:

Yogen R. Thakar  
Mechanical Testing Laboratory  
Engineering Bureau

Reviewed by:

Thomas Liu, Director  
Mechanical Testing Laboratory  
Engineering Bureau

Concurred by:

Michael Tharpe, Chief  
Plumbing/Mechanical Inspection Division  
Inspection Bureau

Approved by:

Amir Tabakh, Chief  
Mechanical Engineering Section  
Engineering Bureau

**TABLE - 1**

**STUDOR AIR ADMITTANCE VALVE SELECTION CRITERIA**

<b>Drain, branch or Stack Size</b>	<b>Vent Size</b>	<b>Max. Fixture Units on Branch</b>	<b>Max.Fixture Units on Stack</b>	<b>Studor Valve Model</b>
1-1/4"	1-1/4"	1	1	Mini
1-1/2"	1-1/4"-1-1/2"	3	8	Mini
2"	1-1/4"- 2"	6	24	Mini/Maxi
3"	1-1/2"- 2"	20	72	Mini/Maxi
4"	2" - 4"	160	500	Mini/Maxi

Note: Air Admittance Valve Mini-vent is rated up to 2" vent size and Maxi-vent is rated up to 4" vent size.