ASME A112.4.1-2009
[Revision of ASME A112.4.1-1993 (R2008)]

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Water Heater Relief Valve Drain Tubes

AN AMERICAN NATIONAL STANDARD

The American Society of Mechanical Engineers

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SETTING THE STANDARD

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FOREWORD

There are potential hazards associated with the heating of water in a closed vessel, as the potential for excessive temperature or pressure development within such closed systems is always present. In order to reduce the hazards associated with water heating, two special amendments have been added to the plumbing codes and standards over the past few decades that have resulted in much safer installations. The first requirement involved the installation of a high limit control in the water heating assembly, which deactivates the fuel gas control mechanism if the water heating device exceeds a specific temperature. The second requirement involved the installation of a temperature and pressure relief valve, which is designed to open to atmosphere if the water temperature or pressure within a vessel exceeds the defined specifications of the valve. Properly inspected and maintained, these devices provide the "state-of-the-art" in water heater safety.

For many years, relief valve drains were field-fabricated from metallic piping. With the increasing use of plastics and the need for more expedient installations of plumbing components, the ASME A112 Committee undertook the task of developing criteria for the performance of water heater relief valve drains.

It is intended that this Standard serve as a uniform reference document for use by manufacturers, inspectors, contractors, and installers to identify criteria applicable to water heater relief valve drain tubes.

When this Standard was first developed in 1993, the standard relief valve rating of residential water heaters was 100,000 Btu/hr. Today the common industry rating is 105,000 Btu/hr for the relief valves. This revision reflects this change.

Suggestions for improvement of this Standard are welcome. They should be sent to The American Society of Mechanical Engineers, Attn: Secretary, A112 Standards Committee, Three Park Avenue, New York, NY 10016-5990. The ASME A112 Standards Committee approved the Standard and it was subsequently adopted as an American National Standard by the American National Standards Institute on July 10, 2009.