

PLUMBING AND MECHANICAL
INTERPRETATION MANUAL



CODE: 2003 IPC & IRC

DATE:

CODE REF: IRC 2803.6.1 & IPC 504.6.1

7/11/2006

SUBJECT: Pan and T & P Relief Drains PAGE 1 of 2

Question: Can the T&P drain and water heater pan drain be connected together when there is not anyway to run as separate pan-drain and T&P discharge line to the outside?

Answer: IPC and IRC State the Following:

IRC P2803.6.1 Requirements of discharge pipe.

The outlet of a pressure relief valve, temperature relief valve or combination thereof, shall not be directly connected to the drainage system. The discharge from the relief valve shall be piped full size separately to the floor, to the outside of the building or to an indirect waste receptor located inside the building. In areas subject to freezing, the relief valve shall discharge through an air gap into an indirect waste receptor located within a heated space, or by other approved means. The discharge shall be installed in a manner that does not cause personal injury or property damage and that is readily observable by the building occupants. The discharge from a relief valve shall not be trapped. The diameter of the discharge piping shall not be less than the diameter of the relief valve outlet. The discharge pipe shall be installed so as to drain by gravity flow and shall terminate atmospherically not more than 6 inches (152 mm) above the floor. The outlet end of the discharge pipe shall not have a valve installed.

IPC 504.6.1 Discharge.

The relief valve shall discharge full size to a safe place of disposal such as the floor, outside the building, or an indirect waste receptor. The discharge pipe shall not have any trapped sections and shall have a visible air gap or air gap fitting located in the same room as the water heater. The outlet end of the discharge pipe shall not be threaded and such discharge pipe shall not have a valve or tee installed. Relief valve piping shall be piped independent of other equipment drains or relief valve discharge piping to the disposal point. Such pipe shall be installed in a manner that does not cause personal injury to occupants in the immediate area or structural damage to the building.

There are times when because of the age or design of the structure in which a water heater is installed that it may not be possible to have a separate T&P and pan-drain discharge line. The contractor could install a "Waggs Valve" if the water heater utilizes gas as a fuel source, but if the water heater is electric the "Waggs" is not designed work with an electric water heater. By installing a "Waggs" this will increase the cost to the consumer without necessarily providing any greater level of safety. Therefore, if there is no other way to install a separate T&P drain line and a separate drain-pan drain line to an approved location the T&P and pan drain may be connected together utilize the same drain line and run to an approved point of disposal. A swing check valve will not be required on the pan-drain line; however, the connection from the T&P to the common discharge line should be made in a manner to minimize the possibility of discharge water from flowing back into the drain-pan. See illustration below.

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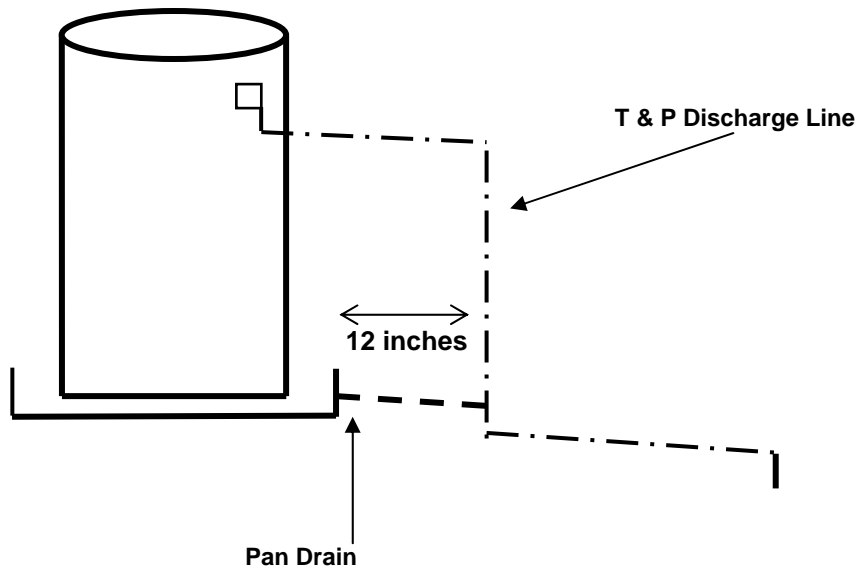
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The T&P discharge line may not terminate in the pan. The point of connection of the T&P and the pan drain should be 12" from the drain pan if possible. If possible the pan drain should be connected to the branch of a tee and the size of the combined discharge line should be no less than 3/4 inch or the size of the T&P discharge outlet.

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