



**Informal Interpretation Report
Number 7934**



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Section P2903.9.2

Question:

Is it the intent of P2903.9.2 to have a shut off valve at each water heater, when more than one are installed in series or parallel.

Answer

The answer is a qualified Yes. Please see the attached commentary.

Commentary:

While the rationale for the series piping of two water heaters is not stated, it is certainly not advisable as there is no appreciable advantage other than capacity. There are a number of drawbacks for this type of installation including: 1) Standby heat loss and reheating is doubled, 2) Maintenance costs over the life of the units is doubled, 3) In the event of a tank failure the entire hot water system has to be isolated where parallel piping would allow isolation of the failed heater and continued service by the other. If the installers intent is for the second heater to be a storage tank, albeit connected to the gas system and operational as a water heater, storage tanks require shut off valves on the inlet piping. The assertion that supplying the second heater with hot water from the first thereby eliminated the code requirement of a valve on the cold inlet is weak and only makes sense since the valve would actually serve no appreciable purpose, however if the installer has some justification for the series installation, the arrangement of piping and valves allowing for by-passing either heater might satisfy this homeowner.

Notice:

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