

MEMORANDUM

TO: Inservice Inspectors and Inspection Companies

FROM: Fred P. Barton, Director/Chief Inspector
Boiler Safety Compliance Program

SUBJECT: Hot Oil Boilers

DATE: November 8, 2007

In our memorandum of June 9, 2004, entitled "Internal Inspections..." the need for a variance to allow annual external inspections in lieu of an internal inspection for "S" stamped vaporizing oil boilers was addressed. Additionally, it stated that electric hot oil heaters (non-vaporizing) that were "U" stamped would not be considered a boiler and allowing an external inspection every two years. An attempt was made to describe which heaters- no valves between the heater and an expansion tank opening to the atmosphere - may be considered exempt. Recently there have been some new types of hot oil heaters brought to Boiler Safety's attention. In determining the status of these objects, Boiler Safety has developed the following criteria for making these objects exempt:

- A. The object must not be a vaporizing boiler, i.e. the contents must remain in a liquid state.
- B. The object must be atmospheric with no intervening shut off valves between the heat source and the atmospheric vent. There must be no shut off valves that could cause a safety valve or heat exchanger to be isolated.
- C. The source of heating may be electric: if directly fired there shall be at least two controls that shut off the heat source independently such as flow switches, temperature controls, or a fire eye.
- D. There shall be a system oil analysis performed annually.

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- E. The atmospheric vent shall be of sufficient size (relieving capacity) for the maximum burner input.
- F. Any pumps shall be of the centrifugal type.

Above all, care must be taken to examine the system and determine if the vent is sufficient for the system or whether there are any possible scenarios where the closing of a valve(s) or blockage/blanking of piping could create a pressure situation that the system is not designed for.