

AIR Tech Notes

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Date: 4-15-04
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Subject: Relief Valves

I have a few thoughts on relief valve installation and replacement I would like to share with AIR employees and our Customers.

In the future you may want to consider installing Hansen HA2B hydrostatic relief's on the ammonia side of thermosyphon oil coolers and evaporative condensers. The majority of evaporative condensers are not ASME rated and also are not a vessel. In some states, like Minnesota, it is required that a means of relief be installed if the condenser has valves that can be closed to isolate the condenser. It does not state it has to be a relief to atmosphere. A hydrostatic relief in this location would adequately protect the coil and minimize the potential for a release. The ammonia side of the shell and tube oil cooler is not a vessel therefore does not require a relief to atmosphere. Reliefs installed in this position are protecting the tube bundle not the vessel shell. It does however require a relief on the oil side of the oil cooler because this is the shell of the heat exchanger and is a vessel.

Protecting the tube bundle with a hydrostatic relief has two benefits; first at this point in the system we are dealing primarily with liquid and this type of relief is rated for liquid, second this relief does not require replacement every five years.

If you choose to change the type of relief valves installed, check with your system design professionals to insure proper safe guards are met and acceptance by the authorized agency.