PRODUCT RECALL ACTION NOTICE

PR 06-02

Date: June 19, 2007

Subject: YCAV Chiller Feed and Drain Valve Component Failures

From: Mike Greiman, Product Technical Support Manager, Commercial Chillers

To: Johnson Controls® Branches

Problem: The **025-39688-000 Feed and Drain Valves** used to control the flash tank level and refrigerant flow to the evaporator fail within the first few months of operation causing the affected refrigerant circuit to shut down on a system fault (safety). Various safeties may occur depending on the valve position when it fails. Typical safeties are low suction superheat, low discharge superheat, low suction pressure, and high or low flash tank level.

Figure 1 shows an example of the affected 025-39688-000 valve and its 025-41564-000 replacement valve.

Note: Some affected valves have silver labels. Always check the part number on the label.

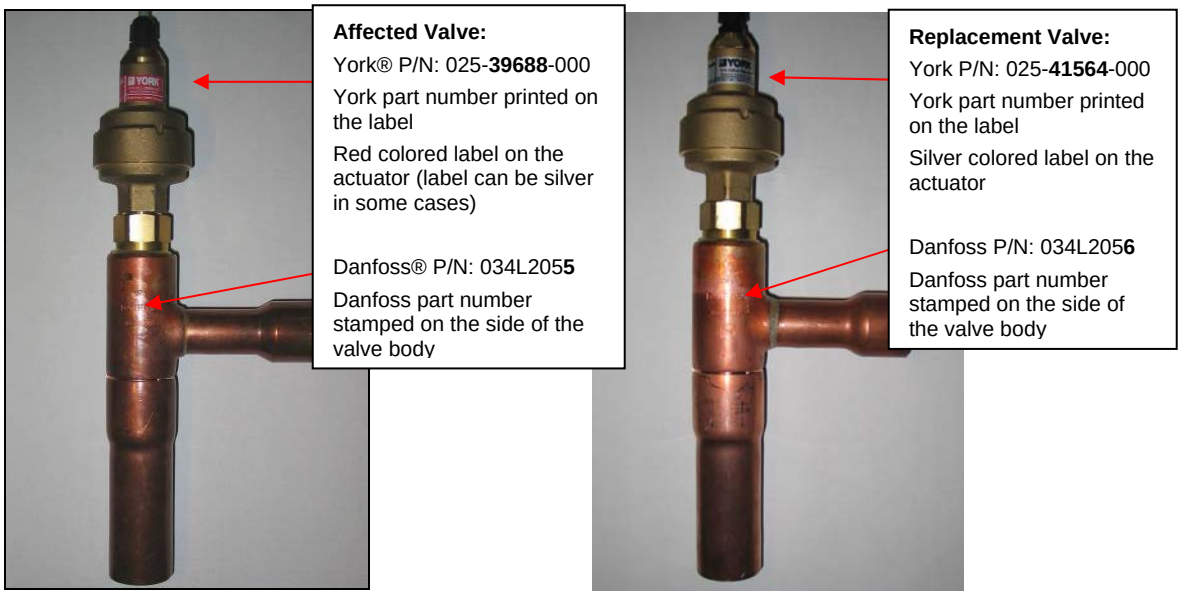

Figure 1: Feed and Drain Valve Example

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Affects: All 025-39688-000 Drain and Feed Valves installed in YCAV chillers shipped **prior to May 17, 2006**

Solution: Order the required **025-41564-000** replacement valves **immediately**, and replace all valves in the chillers shipped prior to May 17, 2006, with the new valves as soon as possible. If some of the valves on the chillers have already been replaced with the new valves, order only what you need to replace the existing affected valves.

Valves ordered as replacement parts after July 15, 2006, should have been automatically upgraded to the replacement 025-41564-000 valve.

Scrap all valves removed from the chiller.

Note: Externally, both the original and the replacement valves appear virtually identical other than the part number. Use Figure 1 to identify old and new valves as required.

Action: Review office records for any YCAV chillers shipped to your area. Determine whether the retrofit is needed based on the ship date. Identify the site location of the chillers, order parts, and make arrangements to perform the retrofit as quickly as possible.

Also, review warranty records on any known YCAV chillers to determine how many remaining valves you may need to replace. Chiller lists based on factory ship data will also be sent to branch managers and chiller team managers to aid in locating chillers requiring the retrofit. Do not delay ordering parts for known chillers.

Order parts with standard delivery lead times and schedule the retrofit immediately.

The goal for completion of all retrofits is by July 31, 2007. Please try to work efficiently by carefully planning and scheduling the work to minimize costs.

If the Unit Is Operating:

- Take out a warranty number and order parts as needed for each chiller: 2 compressor chillers require 4 valves, 3 compressor chillers require 6 valves, and 4 compressor chillers require 8 valves, assuming that the valves have not been upgraded already. Take out one warranty for each chiller by serial number. Apply all retrofit costs to the warranty.
- Make sure the warranty text description includes **Drain and Feed Valve Retrofit**. This specific description is used to track the retrofit for completion and cost.
- Try to retrofit all valves on the scheduled warranty visit to the site in an effort to complete the work quickly and reduce costs.
- Cut the valve out of the system with a saw or tubing cutter rather than un-sweating it, which could weaken the copper piping due to heat from removal and installation of the new valve.
- **Do not attempt to loosen or remove the stepper motor from the valve prior to installation. This permanently damages the valve. Always use heat sink compound or wet paper towels to keep heat away from the stepper motor while brazing a valve into the system. Always use a nitrogen purge when brazing to ensure that scale does not build up in the pipe.**

- Be sure to use environmentally safe procedures while removing any refrigerant that cannot be pumped into the condenser and isolated. Ensure the portion of the refrigerant system being worked on is evacuated to 500 microns and is able to hold the vacuum for at least 10 minutes before operating the system. Replace any refrigerant removed from the system.
- Scrap all valves removed from chillers.

If the Unit Is Not Operating:

- If the unit has not been commissioned, delay ordering parts and retrofitting until you can operate the chiller. This delay ensures that you can pump the refrigerant into the condenser, which reduces time spent completing the valve replacement. This also ensures that the chiller circuits are fully operational prior to performing any work.
- Once the chiller is ready to operate, order parts and perform the retrofit to coincide with the chiller startup, whenever possible. Follow the instructions for an operating unit when completing the work. See the *If the Unit Is Operating* section.

Deadline: Complete all field actions related to this activity **before July 31, 2007**.