

EPIC FAILS

One of the most critical ways that ammonia refrigeration operators can keep themselves, their co-workers, and the public safe is to maintain an extreme attention to detail. Unfortunately, attention to detail is often the first thing that lapses under the pressures of being under manned, over worked, and under financed. As operators retire, or leave for better opportunities, they are often not replaced, leaving those remaining to pick up the slack. As the economy worsens, not only do our repair materials dollars stretch less, but often our budgets are slashed due to a drop in demand for our product.

This edition of Epic Fails focuses on the results of inattention to detail.

ATTENTION TO DETAIL (OR MAYBE LACK THEREOF)

By Bill Lape



The ammonia detector above had been in operation for approximately eighteen months when this picture was taken, meaning it would have had to be calibrated four times, which is hard to do when the sticker that protects the electrochemical cell from premature aging due to exposure to air and contaminants had not yet been removed.

The SRV pictured below had been installed sometime within the previous five years based on the manufacturer's date code, but exactly when is not identifiable given that the install/replace tag had not been punched.



The facility in the picture right was attempting to do the right thing by conducting non destructive testing of pipe that had been identified areas that have experienced possible corrosion. However, by not properly plugging the insulation holes created to use the ultrasonic thickness probe, they have, in fact, created a path by which corrosion can occur.





As operators get pressed for time, they often overlook final steps in operating procedures, such as reinstalling plugs on drain valves.



The facility in the picture above needed a different suction temperature to run air handling units for an area of their production facility. Rather than installing the compressor in the machinery room in the basement and running the suction header out to the air handling units, they installed the compressor in the middle of the production area.



Or, they may not take the time to find the proper bolt for full thread engagement.



Often, it is not operators that lack attention to detail, including applicable codes and standards. The transfer drum below was installed on a -45°F recirculator. Note, that it is not dual rated and its Minimum Design Metal Temperature is -20°F.



Some engineers ignore the primary use of a doorway and consider it a pipe chase.

Some engineers don't have the appropriate level of attention to detail to fully account for hazards when designing the layout for ammonia refrigeration systems and the associated equipment. This particular machinery room exhaust fan was installed below the condenser catwalk immediately in front of the only point of access to and from the roof of the facility.

If you have photos of an Epic Fail please pass them on to nh3isB2L@gmail.com.

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