

Appendix W: CIMCO Web Article – Brine Maintenance for Rinks

The maintenance contractor’s website contains a useful article for understanding brine analysis and rinks titled [Brine Maintenance for Rinks](#). A version of this [article](#) prior to the incident was accessed via internet archive as recorded on March 5, 2016 and the portion relating to ammonia detection in the brine is included below.

the pH, so no further action of required.

Ammonia
Sometimes brine samples show traces of ammonia. This is usually due to a chiller tube failure and definitely cause for concern. If the brine results show ammonia, it is recommended that another test be done for ammonia only at the same laboratory to see if the level has increased or stayed the same. If the levels have increased, the chiller should be repaired or replaced immediately. If the level has stayed the same or decreased, this would indicate residual ammonia in the brine charge which will dissipate through the expansion tank over time.

There are other possible causes for ammonia in the brine. If the brine was too acidic, then ammonia may have been added to raise the pH. This is not standard practice and not recommended, but it does happen on occasion. Also, many rinks have already replaced their chiller, so ammonia in the brine could be attributed to a failure of the original chiller. Having past brine analysis reports available for comparison can help lead to a quick diagnosis and prevent a lot of anxiety.

Rust Inhibitor
Although often ignored, maintaining the proper level of rust inhibitor is important to prolong the

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Figure W-1: Portion of Brine Maintenance for Rinks from maintenance contractor’s website prior to the incident.