The Controller
October

LOGIC
Technologies, Inc.

"Advanced technological solutions at an affordable cost."

Inside this issue:

Ideas for articles of interest?
Please submit articles or requests to:
lauren.s@logictechnologies.com

WHAT IS A RECONDITIONED I/O MODULE?

BY PAUL JASCZYNSKI

A reconditioned I/O module is a module that is not brand new. It is used but it is tested and certified that it is functional. At our facility here in Stockbridge, GA, we do the following:

- Clean the module of any dirt or dust.
- Test the module on a rack–based system to make sure the module powers up and the I/O points work properly.
- Label the module as tested with the actual test date.
- Include a wiring terminal block for each I/O module.
- Module is packaged in either a box or a static resistant bag.
- New warranty for one year!

Also, the cost of a reconditioned module is approximately 20–30% less than the price of a new module.

Training Information and Schedule

Training Enrollment

LOGIC Technologies, Inc. conducts in-depth training sessions at our facility on a monthly basis. Two free sessions are included with each system purchased. Additional training sessions are available for a nominal fee. Operator training sessions are $950 per person and advanced training sessions are $950 per person. We provide lunch for each class day; however, all other travel expenses are your responsibility.

Operator-Level Sessions

This class session provides overview coverage of the use of our system to maintain the daily operations of a refrigerated facility. The class is conducted by one of our senior engineers who have many years of experience designing refrigeration control systems. In effect, the classes are taught in layman's terms by someone who fully understands the issues faced by refrigeration operators.

October 13-15
December 8-10

Advanced SST Sessions

This class session provides in-depth coverage of the screen and report development tools. Also, briefly covering the script language used to develop control algorithms. These classes are conducted by senior members of our engineering staff. Prior technical and basic programming knowledge is a pre-requisite for this course.

November 10-12 (postponed TBA)

*Seating is limited, make your reservations early by contacting:
Kim Smith
(770) 389-4964 ext. 6611
ksmith@logictechnologies.com

SAFETY REQUIREMENTS DEFINED BY ANSI/IIAR-2 AND OSHA
BY RETA

Note: this article is referenced from the RETA Breeze publication and is duplicated with full permission.

Recent Safety Day questions were asked about engine room security, ammonia detection and alarm levels, and safety controls requirements. So here is a run-down of some of the requirements defined by ANSI/IIAR-2 and OSHA. Always consult with your local inspecting authority, LEPC, fire department or emergency responders. Keep in mind the requirements may be different in your location.

> ### 1 - Ammonia Detection Levels and Required Actions

5 ppm – This is 50% of the OSHA eight-hour (Time Weighted Average) maximum permissible exposure level of 50 ppm. This level is an indication of abnormal operation condition requiring:

- audible alarm – heard over ambient noise level,
- visual alarm indication,
- alarm notification to monitored location,
- activate occupied ventilation.

Note: Monitored location is defined as a means of continual oversight such as pager, on-site staff, third party alarm service, or a responsible party.

For areas where ammonia is utilized, which is not part of the main machine room, such as evaporators in cold rooms, loading docks, production areas, etc.:

- shutdown hot gas and liquid feed solenoids and fans.

150 ppm – This is 50% of the IDLH for ammonia. APR/SCBA – PPE required; Machine Room activate emergency ventilation capable of providing not less than 30 air changes per hour.

40,000 ppm – This is 25% of the LEL/LFL for ammonia (or maximum reading on the highest reading sensor), whichever is less. Shut down all power to the area except emergency ventilation and telemetry.

Ammonia detection alarm signage shall be placed next to the actual audio / visual alarms that identify these alarms as part of the ammonia detection system.

Machinery room door signage, that all entrances to a machinery room include the following information:

Warning – When Alarms Are Activated, Ammonia Has Been Detected:

a. Leave room immediately when alarms are activated.

b. Do not enter except by emergency trained personnel only.

c. Do not enter without personal protective equipment.

Machinery room entrances shall be provided with signage which:

(1) restricts the area to authorized personnel only,

(2) indicates the proper NFPA 704 designation.

Machinery room door signage, all entrances to a machinery room include the following information:

- Refrigeration Machinery Room
- Authorized Personnel Only
- Caution – Ammonia R-717
- Caution – Eye and Ear Protection Required
- NFPA 704 – Ammonia Fire Diamond (Blue-3, Red-3, Yellow-0)
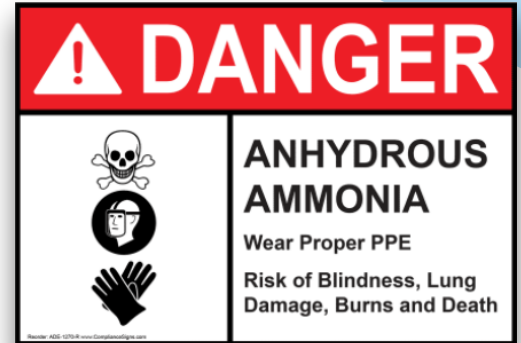
Standards require a clearly identified, tamper resistant break-glass type, global system shut-down emergency stop switch, to be located outside and adjacent to the designated principal machinery room exit door(s). The E-Stop switch must immediately shut down compressors, refrigerant pumps, and the normally closed refrigerant control valves. Additional switches may be co-located to activate the emergency ventilation fans or other emergency equipment.

SECURITY
BY GORDON SIMPSON

We have heard about an increase with system security lately and how hackers put such viruses as ransom ware on networks. Large corporate networks are very inviting to these guys but we have good news for LOGIC Technologies, Inc. controller users. We are proud to say that over the entire life of our systems, we have not had any system attacked by a virus.

The dbcOS control server is not based on Windows or Linux and uses embedded programming techniques to restrict exposure to any Windows or Linux malware that it may be exposed to. You cannot even run a virus program designed for Windows on the controller OS. The dbcOS operating system was designed to install fast and is loaded as one image. The attached remote Windows workstations cannot transmit malware to the controller processor. File and directory formatting is completely different and requires special file transfer techniques.

Connecting to controllers requires three items of login credentials. Also, three factor authentication is available on cell connections which also provides an isolated connection over the Internet and keeps the system off the corporate network.

Complete system backup is maintained on an offline flash memory card. This card is brought online for backup purposes only and is not seen until mounted.

In the case of main drive hardware failure or corruption of any type, the flash drive may be booted and used. The operator may create a new working volume from it while operations continue. Typical card cost is $ 45.00 per card.

With this type of system, any recovery is simple.

LOGIC
Technologies, Inc.

117 Bellamy Place – P.O. Box 189
Stockbridge, Georgia 30281
Voice: (770) 389-4964
www.logictechnologies.com

Address Correction Requested