NEWSLINE
Electronic Environments Corporation's Customer Newsletter
information to help you better manage your IT or Telecom critical infrastructure

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January 29, 2004

# Service resolutions for the New Year


Have you been able to stick to your New Years resolution? Below are some practical at-work resolutions to consider for the coming year. Stick with them and help ensure your infrastructure is prepared for 2004.

**I resolve** to ensure my batteries are ready to respond in an emergency. Because batteries normally sit in standby mode until a power outage, they make up the weakest link in most UPS systems. More often than not, batteries fail when called upon because they have been overlooked throughout the year. Make sure my batteries are being properly cared for and periodically tested.

**I resolve** to do everything I can to provide a safe environment for my co-workers. I will insist on full compliance with all state and federal safety and environmental laws, including the proper disposal and tracking of hazardous material.

**I resolve** to not overlook regular maintenance practices and ensure my staff and/or vendors are following simple factory recommended guidelines like changing filters and belts in my UPS and HVAC systems.

**I resolve** to rely on predictive maintenance measures during the New Year and proactively approach maintenance. Instead of reacting to problems, I will work to prevent them.

**I resolve** to read EEC's newsletter faithfully throughout the year!

January 29, 2004

# When do I replace my computer room HVAC system?

*The answer is not so much when, but why.*

Recently, while visiting a customer's site, I was asked "when do I replace my computer room air conditioner?" It was a straight forward question, but hard to answer, because in my experience the answer is not so much when, but why.

There are many variables to consider when contemplating replacing an HVAC system.

1. First a general understanding of how the system works: Without getting into great detail on the principals of thermodynamics or the refrigeration cycle, it helps to think of an air conditioner as a sponge. An air conditioner that operates in a controlled environment, in this case raised floor, absorbs heat through the refrigeration cycle and has to dissipate, or reject, the heat outside the building. This is accomplished using an air cooled condenser or a drycooler, if the unit is Glycol

cooled. Similar to the way a radiator operates, fans on the unit are used to move air over the heat transfer coil, which is made up of cooper tubing and encased with aluminum fins, making it a very efficient way to reject heat.

2. Unfortunately, these condensers and drycoolers reside in harsh environments, frequently on the facilities roof. As the unit ages the aluminum fins oxidize and the system losses efficiency. The oxidation is caused by pollutants in the atmosphere, yearly coil cleaning, and possibly acid rain. In some cases, they become so inefficient that during high summer temperatures service providers scramble to cool the units and find themselves resorting to putting a water sprinkler under the equipment to help reject heat and prevent down time. As you would expect, this is not considered a standard maintenance or troubleshooting procedure – but a fast reaction to the situation at hand.

3. What other considerations should be taken into account when considering replacing your computer room air conditioner? Reliability, parts availability, and cost of maintenance: Some manufacturers phase out control boards after 15 years of production, so if the microprocessor were to fail - it could render the cooling system useless. The newer microprocessors used in air conditioners are far more advanced than the microprocessors used in the late 1980's. They can utilize proportional control or an optional fuzzy logic control. In the data center, this type of microprocessor results in tighter control of temperature and humidity levels, overall improving energy efficiency. The new HVAC units also have advanced alarm, system monitoring functions, and energy efficient humidity controls (ultrasonic) that deliver real user benefits.

4. The final issue is maintenance cost. Many service providers will only provide time and material contracts on equipment that has exceeded its life expectancy, approximately 12 years depending on cooling load and maintenance history. In this case the equipment owner assumes the risk of frequent failures and elevated repair cost. Does cost out weigh reliability? It is a tough decision to make in a struggling economy, and many facility managers and IT professionals are forced to make it daily.

The bottom line is when looking at replacing an air conditioning system there are many items to consider, and hours of operation is more important to look at than years of possession. If you would like additional information about HVAC systems, or their life expectancy, or you would like someone to evaluate your system feel free to give me a call, Alex Connolly (781)302-2711 or aconnolly@eecnet.com.

January 29, 2004

## Don’t miss the opportunity to attend a premier Lyncole grounding course

*On Feb. 19th & 20th in Cromwell, Connecticut*

It is a rarity that a grounding course of this magnitude is offered on the East Coast. EEC is pleased Lyncole has chosen to conduct the course in Connecticut on February 19th & 20th, 2004. The course will be held at the Radisson Conference Center in Cromwell, CT, (approximately 5 minutes from our Wethersfield location and 20 minutes from Bradley Int. Airport). The course will be taught by a Lyncole engineer trained in the design, testing, and installation of grounding systems, lightening protection, and surge suppression.

The price is $695 per person with a 10% discount given to all EEC customers. Clients with more than three attendees will receive a 25% discount for the fourth attendee and any attendee after that.

The numbers for the Radisson are (800)333-3333 for reservations and (860)635-2000 for information. If you would like to enroll in the course or obtain additional information contact Steve Johnson, sjohnson@eecnet.com, or Paul Colangelo, pcolangelo@eecnet.com, both can be reached at (860)721-9869.

January 29, 2004

## Bill Daniels joins EEC's Design/Build group

Bill Daniels has recently joined EEC as a project manager in our professional services group headquartered in Canton, Massachusetts. Bill is a mechanical engineer by trade who comes to EEC from Sprint PCS. Bill brings with him a wealth of experience and knowledge in the wireless industry. Bill joins the company at a key time, as the professional services side of EEC's business is on the upswing.

Bill will be instrumental in implementing and managing some of our larger design build projects as well as helping out with wireless program management. Please help us welcome Bill to EEC. Bill can be reached by email at wdaniels@eecnet.com or phone (781)302-2712.

January 29, 2004

## Reminder – EEC's emergency response numbers have changed

By now, all of our clients should have received new emergency response cards in the mail. As mentioned in earlier newsletters, the only change to the procedure was our pager numbers. If you did not receive a card you can obtain one from our website, http://www.eecnet.com/SiteServices.asp and click on the emergency response link, or by contacting Heather Melendy at (781)302-2742 or hmelendy@eecnet.com.