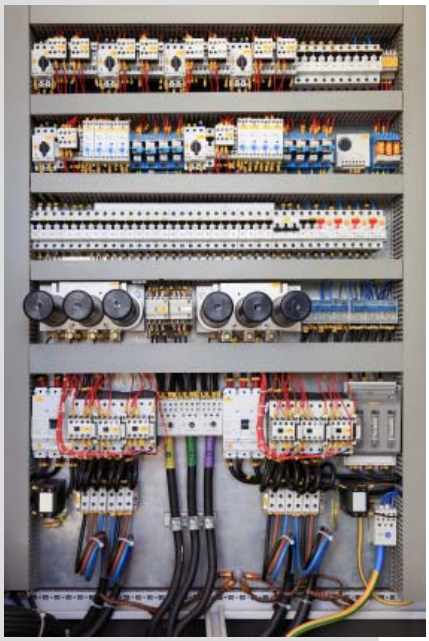
The OMNI Transmitter

JULY 2012 NEWSLETTER

- INSTRUMENT INSTALLATION
- TECHNICIAN SERVICES
- UL PANEL FABRICATION

INSTRUMENTATION ENGINEERS AND CONTRACTORS

Inside This Issue:



The Importance Of Filling Gaps

On today's technical renovation projects and upgrades, increased call for cost control has caused a shift in project planning and design. Budgets have changed, but needs haven't, and as a result, projects plans often cut corners in design and are often lacking in intricate details. Customers are finding that their choice of contractors is more important than ever.

Nowadays, it is commonplace for project designs to outline only big-picture needs, while skirting the all-important small details. Myriad technical needs - UPS, generator power, ATS, control wiring, building automation systems, vendor control panels and interconnections, teledata, fiber optics, general alarm, electrical and control coordination, etc. – are frequently overlooked, and it is left up to the contractors to fill in these voids in design. And with even more belt tightening and budget constraints, this practice of overlooking design detail is, unfortunately, only increasing.

Obviously, choosing contractors that are not up to the task of handling these design gaps can wreak havoc on a project. These challenges also exacerbate the age-old problems that occur when contractors fail to communicate and work together. A lesser contractor, especially one whose main mission is to get in, get out, and get paid, can really throw a wrench into this type of project. At startup, nothing works, and everyone scrambles around, pointing fingers at one another, and declaring "it wasn't on the drawings!"

Always opt for a capable technical contractor that can thoroughly assess your project, ask all the right questions, and round out the missing project details. Also, try to choose one highly qualified contractor that can handle all of the technical disciplines (instrumentation, controls, electrical and teledata), rather than four separate contractors. Remember: too many cooks spoil the broth, just as too many contractors can spoil a project.

Omni is an excellent choice to handle all of your technical needs on your next renovation or upgrade project.
Please call us at 908-412-7130.

OMNI INSTRUMENTATION SERVICES, INC.

Omni
112A Sylvania Place
South Plainfield, NJ 07080
PH - 908.412.7130
FX - 908.412.7131
www.omniinst.com

The OMNI Transmitter

JULY 2012 NEWSLETTER

- INSTRUMENT INSTALLATION
- TECHNICIAN SERVICES
- UL PANEL FABRICATION

INSTRUMENTATION ENGINEERS AND CONTRACTORS

OMNI TECH TALK: Multiple Benefits For Upgrading Networks

Omni is involved with several projects where customers are implementing new technology and tools to upgrade networks and increase flexibility. The incentives are numerous: to save on equipment costs, remove possible points of failure, increase reliability, help plant personnel troubleshoot and diagnose problems, and decrease downtime.

Technology is always rapidly changing. Customers, users and IT managers are seeing what is available and implementing these changes to improve their process systems. Some in the industry are adding Ethernet switches that have the capability to be addressed with separate LANs so they can run PLC networks and HMI networks on the same switch. This reduces the amount of Ethernet switches in the field, and reduces maintenance and hardware costs in their plant. Where Ethernet runs fall out of spec as a result of being too long, fiber optics are being used to connect plant systems. This allows customers to connect to equipment more efficiently.

Many customers are taking the opportunity to centrally connect to treatment skids, weigh transmitters, chemical feed systems, boilers, HVAC systems, and stand-alone PLCs located throughout a facility, as well as main switchgear, UPS, and many other systems. This enables plant techs to troubleshoot problems from a central location, rather than having to drag laptops and hardware to multiple locations throughout a facility. Field techs can easily communicate with the controls engineer to help troubleshoot any issues in the field. Because programs for various equipment is located in a central database, the original program can be downloaded into the new equipment if there is a failure in the field and hardware is replaced, reducing downtime to a minimum.

by: Al Hastie

Technology is constantly changing and improving, and upgrading networks is certainly a wise choice. To find out more, contact me, Al Hastie, at 908-412-7130 or alh@omniinst.com

TECH TIDBIT: Network Dx

Problems with your network?

Likely causes are: excessive network runs; problems with grounding, shields, or drains; intermixing of high and low voltage cables; loose connections; segment overload; incompatible instruments; damaged cables or connectors.

The OMNI Safety Corner

Safety is our #1 priority. As part of our continual commitment to training, compliance, and improvement, we updated our safety manual for Spring 2012.

Omni has participated in numerous OSHA VPP projects, and we are ISNetworld approved.

Omni : 112A Sylvania Place South Plainfield, NJ 07080 : PH - 908.412.7130 : FX - 908.412.7131 : www.omniinst.com

The OMNI Transmitter

JULY 2011 NEWSLETTER

- INSTRUMENT INSTALLATION
- TECHNICIAN SERVICES
- UL PANEL FABRICATION

INSTRUMENTATION ENGINEERS AND CONTRACTORS

FROM THE PANEL SHOP: Ventilation and Cooling

By Craig Drabyk

Ventilation and cooling are important considerations when designing a control panel cabinet or cabinet enclosure. Because a control panel cabinet is enclosed and contains equipment that generates heat – VFDs, starters, contactors, relays, PLCs, etc. – temperatures can rise to critical levels, and a hostile external environment can further contribute to excessive heat. Overheating conditions can also develop as more equipment is added over time and panels become overcrowded. The resulting high temperatures can cause tripped overloads, damaged circuit boards, erroneous readings, component failure (PLCs begin to fail at about 105F), and shortened life span.

Many manufacturers have built-in cooling systems for equipment that generates heat (VFDs, etc.) but custom cabinets may need to have cooling provided, and there are several types available. DX and Venturi systems are sometimes used, but vortex cooling systems are most common. This low-cost method both purges and cools the enclosures using a vortex tube that creates cold air from ordinary compressed air. Different grades of vortex coolers are available depending on the conditions and demands of the environment.

If you would like to find out more about control panel cooling, contact Omni at 908-412-7130.

Omni : 112A Sylvania Place South Plainfield, NJ 07080 : PH - 908.412.7130 : FX - 908.412.7131 : www.omniinst.com