

SPADEWORK

ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND

THANKS FOR THE MEMORIES!



Retirement is a term that you think about, but it really hits home when it comes your turn! Are you going to miss work? My answer is no. Am I going to miss the people? The answer is a definite yes! I appreciate everything that the people in our ROICC offices have been doing for LANTDIV since I got my job back in November of 1987. You are truly where the "Buck Stops Here", because you are our the front line to our customers and our contractors. My best times in LANTDIV were spent in the field from 1977 until 1987 and when I was lucky enough to be visiting you in my travels as LANTDIV's Construction Division Director.

Things have changed a lot since way back when and only time will tell what the ROICCs will look like in ten or twenty years. My advice I would give to everyone as I leave LANTDIV is something that my first supervisor in LANTDIV back in 1973 taught me and I have tried to live by this advice. "Try to learn something new everyday" and when it is all said and done you and your office will be better off. Warriner Atkinson told me that back when I was a Project Manager and as I have since rephrased it I search for those special "Learning Moments" that come by where you have a chance to expand your knowledge and tools in your tool bag. Change is a major part of our business and if we don't strive to be a Learning Organization we will all be left in the dust. So when that weird problem comes up and you are stumped, look at it as an opportunity not as a roadblock. You and LANTDIV will be better off for it in the long run.

Thanks again for everything you have done for me. Im looking forward to this time in my life as a career opportunity to continue to learn and enjoy life's many special moments. May God continue to bless you and your family in 2003 and for the years to come.

Gary W. Mackey,
ROICC Advocate, Retired

In This Issue

1. Thanks for the Memories by Gary Mackey
2003 ROICC Conference
2. TAB/ACAT/DALT Success Source
3. Temporary Heat Safety - Safety Corner
TAB/ACAT/DALT Success Source
4. Portsmouth Naval Shipyard utilizes Army Corps of Engineers Regional Savings
Performance Contract (ESPC)

TAB/ACAT/DALT Success Source

Past experience and recent experience highlight a primary path to *successful TAB/ACAT/DALT completion*: when the contractor conducts the Pre TAB/DALT meeting in accordance with the schedule depicted in the HVAC Testing Balancing and Adjusting Specification 15950. The Pre TAB/DALT meeting is specified to be conducted shortly after the approval of the TAB Agency Qualifications. Recent experience especially has highlighted success associated with the timely submittal of the TAB Agency Qualifications and holding the Pre TAB/DALT meeting: *on time and, even, early BOD including the completion of TAB and ACAT verifications and PVT.*

This meeting includes, at least:

- The project HVAC system installation and testing players:
- Superintendent,
- CQC
- TAB agency supervisor
- DDC controls representative
- Mechanical and sheet metal subcontractors,
- AROICC and Conrep
- Government TAB advocate, either from LANTDIV or the local ROICC office.

The purpose of the meeting is:

- To get all the players together to insure that there is a clear understanding of the DDC controls testing requirements and the TAB requirements, and their associated schedule.
- Summarizing support activities necessary for successful, timely completion of the tests and verification processes.
- Review of the project schedule to insure that milestones and actions are included in the schedule.
- Sufficient tracking of submittal status is in place as well as follow up mechanisms.
- Frequent status meetings are a real plus to insure loose ends are addressed as the installation of HVAC and control systems progress.

HEADS UP!

BALANCING VALVE Submittals with Unidentified Deviations:

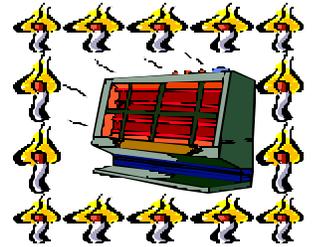
More and more recently, contractors have been submitting and installing hydronic balancing valves that do not meet contract specifications. Balancing valves are specified in Specification 15700, Heating, Ventilating, and Cooling System, (Specialty Valves, Flow Control Balancing Valves) and are specified to have an "integral pointer to indicate degree of valve opening." Contractors are submitting and the submittal reviewers (CQC's and A/E's) assigned to review submittals for compliance are approving balancing valves that do not meet this specification. Furthermore, contractors are submitting and approval has been erroneously given, for balancing valves that are not field adjustable but are "automatic" or "self balancing": the orifice of the balancing must be field adjustable. Another problem with self-balancing or automatic balancing valves is that the flow cannot be verified in the field but must be taken on faith.

Bottom Line: Early in the project, verify that the balancing valves meet the specification to avoid time delays related to last minute replacement.

From the CI52 TAB Bunch: Jim Ewing and Roger Hillers

SAFETY CORNER
By Bill Garrett, CI52

TEMPORARY HEAT SAFETY



Temporary heating devices are a vital part of being able to work effectively in cold weather. They allow temperature-critical work to continue on schedule, and provide for more comfortable working conditions. However, as a result of poor selection and careless use of portable heaters, injuries and damaging fires occur every year.

If improperly used, temporary heating equipment can lead to burns, fires, explosion, carbon monoxide poisoning, and the creation of oxygen deficient atmospheres. So, with the winter season upon us, it's important to review the many types of temporary heating devices that are available, and be sure they are used safely.

Temporary heat units can be fired either directly or indirectly. They can be electric or fueled by propane, natural gas, liquid fuels (kerosene or fuel oils) or solid fuels (wood, coal, etc.). Solid fuel heaters are the most uncontrollable and therefore most potentially dangerous. Because of the hazards associated with solid fuel temporary heaters, they cannot be used inside or within 25 feet of any building or structure. This safety requirement makes their use for most temporary heating situations impractical.

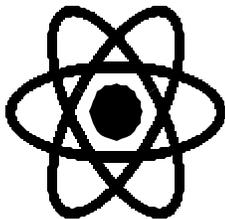
Always follow safety instructions when using temporary heating units. The most important instructions will be found on the side of the heating unit, though instructions will not be the same for all equipment. What was safe to use in one location may not be so in another. Remember the old saying, "When in doubt, read the instructions"? This is critical when using heating equipment, to avoid creating a hazard.

These are some safety tips for the use of temporary heating equipment.

- (1) Never use a "fueled" heater within 10 feet of any debris piles, temporary enclosures, tarps, combustible or flammable materials.**
- (2) Maintain a good fresh air supply, to avoid oxygen deficient atmospheres. Flames use up oxygen.**
- (3) Every heating unit must have a fire extinguisher immediately available.**
- (4) Never leave an operating heater unattended during non-working hours.**
- (5) The use of temporary heaters in confined spaces is never recommended; when they are used, sufficient ventilation and temperature control must be provided.**
- (6) Allow the heater to cool down before it is refueled.**
- (7) Always turn off the gas supply when the heater is not in use.**
- (8) Never store used or extra LPG cylinders inside. Only those in use should be present.**
- (9) Temporary heaters should be placed at least six feet away from the LPG container and not fired toward the container, unless the heater is an approved integrated unit.**
- (10) LPG cylinders must always be secured in the upright position and protected from damage.**

Never use LPG below grade. Be aware that gases such as propane are heavier than air, and will settle into any low spots, such as a basement. If there is no way for them to exit, a spark or flame can ignite and explode the concentration of gas, causing great damage and injuries.

Temporary heaters are great tools, allowing work to continue in cold and damp weather. But remember, they can be dangerous. Learn how to operate them, and don't take them for granted.



Portsmouth Naval Shipyard (PNS) in Kittery, ME, utilizing an Army Corps of Engineers Regional Energy Savings Performance Contract (ESPC), signed the first task order with Select Energy Services, Inc. (SESI), a division of Northeast Utilities (NYSE: NU), on 30 August 1999. At that time, the Energy Service Company (ESCO) SESI invested \$10.9 million to install a 5 MW combustion turbine cogeneration system for year-round electricity and steam generation, and make improvements to the Shipyard's heat distribution systems. ROICC Portsmouth coordinated the contract and provided construction oversight.

On 28 June 2002, a second task order was signed, in which SESI will invest an additional \$32 million in upgrades at the shipyard. This "design-build" Energy Cost Savings Project comprises a major upgrade of the power plant. The thrust of the Project will be to shut down the 600 psig steam system and to convert to smaller, more efficient steam sources generating at 200 psig. Back up power will be included, because the shutdown of the 600 psig steam system will necessitate the abandonment of the existing steam turbines. The Project consists of installing three major power plant components: one 5.5 MW dual-fuel combustion turbine cogeneration system, two 70,000 pph packaged boilers and two 2.2 MW diesel generators; infrastructure improvements provided by complete shutdown of the central hot water system, repairs to the compressed air distribution system and shipyard-wide lighting upgrades.

This ESPC project will:

1. Modernize the existing central power/steam plant, raise its overall efficiency, and streamline plant operations.
2. Eliminate redundancy in thermal energy distribution systems.
3. Provide needed improvements and increased reliability to power systems.
4. Eliminate in excess of \$19 Million in future required repair and replacement projects for old systems.
5. Provide annual preventative maintenance to new systems in order to maintain equipment performance and long term persistence of savings.

This project results in \$3.4 million of annual savings, which will be merged, with the investment and savings associated with Task Order #1, resulting in a project that will generate total annual savings in excess of \$5.3 million. Select Energy Services designs, installs, finances, and maintains these improvements over the 15 year contract term. Under the terms of the ESPC contract, the costs of the project will be recovered during the contract term through verified energy cost reductions. These savings come from avoided costs of energy, operations, maintenance, and equipment repair/replacement.

It is anticipated that the project will take approximately 18 months to complete.

CLOSING THOUGHTS...

"Measurement is the first step that leads to control and eventually improvement."

-Harrington

"If you are not keeping score, you're only practicing." - Schneiderman