Hooper Corporation OnSite
Spring 2015
Electric Power • Mechanical • HVAC

Chilled Water Plant Expansion Connects Mechanical Group at Hooper, GHAC

The University of Wisconsin- Madison continues to keep us guessing as to which buildings are new and old. With the expansion of construction projects throughout Dane County, there are so many unique projects that incorporate renovations and modern updates to existing buildings. Although this renovation may not be as highly publicized as some other buildings on campus, an addition to the West Campus Cogeneration Facility was recently completed, adding a rainbow of colors for passersby and a seamless design to meld old and new. In the existing facility, most of the piping is hidden in dimly lit rooms and behind brick walls. However, with the recent addition to this building, giant windows, bright lighting, and colorful piping were important aspects of the overall plan, creating an environment where the piping became part of the building's design. With a unique twist on standard practices, this project is sure to be a nice addition to campus for more reasons than one.

Hooper Corporation and General Heating and Air Conditioning (GHAC) provided services from all five of the mechanical departments: fire protection, process piping, sheet metal, plumbing, and HVAC. This project included a 42,500 GSF addition to the existing West Campus Cogeneration Facility (WCCF) chilled water plant that will house future equipment for expansion of the University's chilled water system. The addition is sized to handle a total chilled water capacity of 30,000 tons. The project also included extension of 54" chilled water distribution piping from the new expanded facility to the campus chilled water distribution system. The addition was extended north from the existing WCCF facility to cover the open site area that was intended for this purpose. Construction began in April 2013 and was substantially completed in January 2015.

The Process Piping Department at Hooper Corporation was the largest participant of our departments throughout the course of this project. Due to the large scope of this job and the amount of pipe that had to fit into the new space and connect to existing pipe, it was very important for the Hooper designers to use BIM modeling early on in the planning stages to allow for proper projections and sequencing of installation.

Continued on page 6.

Inside Stories

From the President

A Casual Introduction: Getting to Know Dave Orr, Hooper Corporation's Eighth President

Dear Friends:

It is a real honor to serve as the eighth President of Hooper Corporation. After serving on the Corporation's board for many years, I am familiar with the role our company has as one of the leaders in our industry. I understand our people and the opportunity we have for continued success.

My background extends to 1982 when I came to General Heating and Air Conditioning (GHAC). As GHAC was subsequently acquired by Hooper in 1994, I became part of the Hooper culture during that time frame, joining the board of directors in 2000.

I grew up in Madison and graduated from the University of Wisconsin-Madison. Since I spent some time away from Wisconsin, working for Carrier Air Conditioning Company, I always felt fortunate to be able to return to this area. Over the course of my career, it has been rewarding to see the tremendous growth and development taking place in and around our community.

On the personal side, I come from a family of five children. As the second youngest (I like to think of it as the fourth oldest), I had the same formative experience that many Madisonians had growing up in the 1960s and 1970s. My parents lived (and still do) in the Orchard Ridge neighborhood, and I attended Madison Memorial High School.

Active in outdoor sports, my youth included participation in football, wrestling, and even a little soccer and baseball. I continue to be very active in many pursuits with probably an inordinate amount of time spent fishing for our Wisconsin state fish, the mighty Muskellunge.

My wife, Ann, and I presently live in Merrimac, alongside the Wisconsin River. Ann's career was as an elementary teacher, teaching kindergarten for many years in Baraboo. Our daughter, Meghan, recently graduated as an RN from Edgewood College and lives and works in Madison as an emergency room nurse for the UW Hospital and Clinics.

The formative experience I had at GHAC was as a project manager. I wore many hats, but in the beginning, I used my engineering design and equipment knowledge to enhance the projects I supervised. I developed my estimating skills, management practices, and simply immersed myself in our industry. Larger projects followed in my role as vice president and later in my role as president from 2010-2014.

Dave and Jeff Hanson at the MCAA Awards Reception last year

The tremendous growth that GHAC experienced – the notable projects we successfully completed – are very satisfying to me both personally and professionally. I consider these projects as part of my record of achievements: WPS, Meriter Hospital, UW Hospital, Kohl Center, VA Hospital, Wisconsin State Capitol renovation, Overture Center, Wisconsin Institutes for Discovery, BTC Promega, Ho-Chunk Casino/Convention and Hotel, and the many efforts made at Epic.

The national safety award that GHAC received last year from the Mechanical Contractors Association of America is one of the most important achievements of distinction. It speaks to our values and to our shared commitment. As I take the helm at Hooper, I intend to build upon this commitment. Safety is – and must always be – the central defining commitment that describes and defines our shared work together; after all, Hooper's most important core value is safety.

Dave's favorite pastime: fishing

Since coming to Hooper earlier this year, I have taken a keen interest in understanding Hooper's processes and people. I've made many visits to the field to introduce myself, and I look forward to working with a new group of colleagues that similar to those at GHAC, have an unwavering commitment to teamwork and customer satisfaction. The care and attention that I see demonstrated every day in all areas of our operation is most encouraging. The people of Hooper are our most important asset.

The values that unite and inspire my efforts include about what you would imagine: teamwork, loyalty, honesty, fair treatment, and providing value and quality to our customers.

Continued on next page.

Safety Corner

HOOPER SAFETY: DEPARTMENT NEWS

Randy Thompson Retires after 26 Years

Randy Thompson, Manager of Safety Services, will retire at the end of April after 26 years of invaluable service with Hooper Corporation. Randy was hired on June 1, 1989 as the Safety Coordinator for [then] Hooper Construction, Inc. He had just completed his master's degree program in occupational safety while working for many years in the insurance industry. As the importance of safety grew through the needs and exposures of the '80s and '90s, the safety department grew as well. As Hooper's continuing concern for employee safety grew, so did the depth and capabilities of the safety department.

While other similar sized companies were contracting many of their training needs, Hooper's safety department was able to provide all industry training including pole top rescue, first aid/CPR/AED training, OSHA classes, and crane operator certification. The "one stop" department for safety needs was unique in the industry and it still is.

Through the years, as Randy's title and responsibilities expanded, he developed a team of safety experts willing and able to handle all situations with their ultimate goal being employee safety. That same caring continues today within the safety department and the Hooper organization as a whole.

From left: Fred Davie, Randy Thompson, Dave Orr, and Kevin O'Dell

Randy is well known in the safety industry and is highly regarded for his knowledge and commitment to safety excellence. Throughout his tenure at Hooper Corporation, he has served on many state and national committees and task teams representing Hooper and the construction industry. Those committees and task teams have led to a safer environment for workers across the country.

Randy is a man with many interests, including flying, motorcycling, biking and boating; a great wife Bonnie; and two grown children, Tara and TJ. Randy, you will be missed here at Hooper, but we wish you nothing but the best in your retirement years and look forward to you building upon your success.

Jeff Hanson, formerly safety manager at GHAC, joined Hooper last year to learn Randy's role and to eventually take over as safety manager upon Randy's retirement. We look forward to more thoroughly introducing Jeff in our fall newsletter.

Continued from page 2

I know that the people who build the strength of our corporation are the same people who deliver the value and quality that our customers deserve and expect.

Providing leadership to an organization as large and diverse as Hooper brings me into contact with hundreds of highly talented individuals on a regular basis. This fabric of shared relationship builds upon the network of people that I worked so closely with while at GHAC. With each new week, I seem to be discovering – or rediscovering – many of the qualities that I know makes our company so successful.

As I move forward, I've started to see a trend: it starts with respect, and ends with service. I hope these same attributes are seen in me as I work with all of you and our many customers and suppliers.

-- Dave Orr

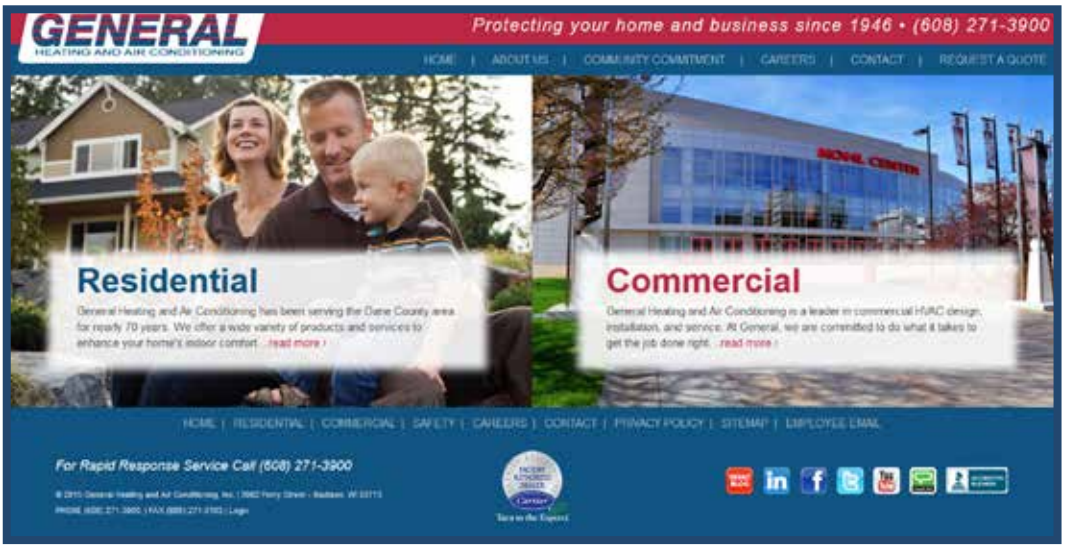
General Heating and Air Conditioning

News in General: GHAC Surpasses Two Million Hours Worked Without a Lost Time Injury

A Brand New Look for GHAC

General Heating and Air Conditioning launched their new website earlier this year and are excited to share the new design. Not only is the new website much easier for you to navigate, but it also highlights all of the residential services offered. You can still find them at www.generalheating.com, but they've created a whole new look, so check it out at your convenience.

With the upgraded website, it is easy to find information about residential and commercial services, including the Home Comfort Program and information about replacing and installing a new system. In addition, the site has some new features, including a testimonials section for past residential work and links to social media, so be sure to connect with GHAC on the web!



GHAC provides valuable resources, information, and reviews on social media, so make sure to connect with GHAC on Facebook, LinkedIn, Twitter, and Blogger

A Look into 2015

Notable Department Projects

Baldwin Hospital

Department: Plumbing & GHAC
General Contractor: Boldt Construction
Schedule: Completion summer 2016
Location: Baldwin, Wisconsin
Scope of Work: The first phase of the 95 acre site plan includes a 106,000 square foot replacement health and wellness facility.

UW Health TAC & Rehab Hospital

Departments: Plumbing & GHAC
General Contractor: J.H. Findorff
Location: Madison, Wisconsin
Scope of Work: UW TAC will start to finish up this summer, and equipment will be brought in shortly to finalize the final plumbing connections. Hooper is on schedule for the first patients in August.
The Rehab Hospital is going strong with all the in-wall and above-ceiling medical gas and plumbing being installed. The sheet rockers are hot and heavy behind us to get this job done the same time as TAC.

Epic Campus 4

Department: Fire Protection & GHAC
Owner: Epic
Location: Verona, Wisconsin
Scope of Work: Epic's fourth campus, the Wizards Academy Campus, includes 5 office buildings and a parking ramp. Epic's Campus Four sets three of the five office buildings on top of the underground parking ramp which creates a challenging construction phasing and design aspect. The fire sprinkler systems will be supplied by two 1,000 gallon per minute fire pumps.

Osage 138 kV

Department: OHL & Substation
General Contractor: IEA
Schedule: January 2015-April 2015
Location: Osage County, Oklahoma
Scope of Work: Overhead line crews assembled 23 steel monopole structures on the 138 kV line utilizing 795 ACSR conductor and spanning nearly 2 miles north of Tulsa. Due to rocky terrain, holes had to be blasted in order to set poles. The Osage Collector Substation consists of a single 138 kV line position, two 138 kV circuit breakers, two 138 kV – 34.5 kV power transformers, and a 34.5 kV GIS building.

Rosedale Substation

Department: Substation
General Contractor: Xcel Energy
Schedule: December 2014-April 2015
Location: Greeley, Colorado
Scope of Work: The existing Rosedale Substation was upgraded and expanded to include a new green field 115 kV switching station to accommodate the installation of 4 new 115 kV transmission lines to facilitate the increasing power demands in the Greeley, Colorado area. The new switching station consists of 9 circuit breakers, 23 GOAB switches, surge arresters, and metering equipment. The upgrades to the existing Rosedale Substation include retiring of old circuit breakers, switches and metering equipment, as well as the replacement of the AC/DC station service equipment and relay panels.

Denver URD

Department: UEC & OHL
Owner: Xcel Energy
Schedule: March 2014-December 2018
Location: Denver, Colorado
Scope of Work: In December of 2013, Hooper Corporation was awarded a distribution contract in the PSCO territory of Xcel Energy. Work includes cable replacement by directional boring, underground electrical feeder work, OHL pole replacement, and new OHL and UEC projects and electrical fault work. This includes both scheduled and emergency outages.

K4 Wind Farm

Department: Overhead Line
General Contractor: Mortenson
Schedule: To be finished late spring of 2015
Location: Kankakee, Illinois
Scope of Work: Construction of approximately 161 138 kV monopole steel structures spanning 13 miles. This project is part of a two phase wind farm that will provide this area with 102 turbines upon completion.

2015 Fall Conferences

We hope to see you there!

Wisconsin Healthcare Engineering Association, Green Bay, Wisconsin
EEI TD&M/Mutual Assistance, La Jolla, California

Mechanical Division

Continued from cover

Our designers also worked closely with the team at Findorff to measure piping down to the inch so that the correct amount of pipe could be ordered and installed. With the use of just-in-time and intense planning, this project allowed for a high-level of off site fabrication, which reduced field crew numbers on site, and ultimately, led to a quicker project schedule.

In addition, with close quarters on site, there was no room for site lay down or equipment storage, which meant that all site deliveries had to be coordinated for exact scheduling. Hooper partnered with local suppliers to time fabrication and just-in-time deliveries to the site for all structural steel and large stainless pipes ranging in size from 1 inch to 84 inches in diameter and up to 72 inch ducts. The use of modeling aided this effort. As pipe was ordered and installed, the modeling would show the subsequent sequence to ensure efficient ordering and on site arrival.

Two 5,000 ton chillers were placed on the chiller level with room for four more of the same size for future growth. As a comparison, 10,000 tons of cooling would cool approximately 5,000 residential homes, which typically only take about two tons of cooling, depending on size.

The Fire Protection Department also played a large role in this project by providing the wet and dry sprinkler systems. Six deluge systems were installed, allowing for flooding an area with water versus individual sprinklers in case of fire. These systems can also sense heat to trigger the valves inside the building since some equipment, such as the transformers, are placed on the exterior of the building in addition to the four cooling towers. This is important because this particular environment is not heated, and therefore, no water can be stored in the sprinkler piping.

This is the first time the fire protection team worked on this type of system, and they faced a few challenges throughout the project, including the high level of difficulty with the fiberglass cooling tower materials and ensuring a timely completion of installations while staying on a tight schedule. However, the group overcame these challenges by working together and utilizing close communication between all parties. In addition, the fire protection project team was able to complement the exterior sprinkler roof design by working with Affiliated Engineers Inc. (AEI) to re-design it. The modified design moved the pipe inside the building, where pipes can avoid outdoor elements and other complications.

The project scope for General Heating and Air Conditioning's portion of this project was quite characteristic for work on a building of this size. However, this job did present unique challenges similar to that of the other trades, including close coordination on deliveries and installation with the process piping group due to the varying sizes of pipe being installed. In the end, all new installations had to line up and tie into existing systems while also leaving room for future expansion so teams had to carefully plan and communicate throughout the project. Being able to work as a team provided for a successful and timely completion for all groups.

At a Glance:

Process Piping

- (2) 25,000 gallon per minute 1,500 HP chilled water pumps
  (2) 25,000 gallon per minute 800 HP tower water pumps
- 11 exhaust fans totaling 452,000 CFM
- 1,000+ control devices/sensors for controlling the system in conjunction with the UW campus

Fire Protection

- 1 dry, 2 wet sprinkler systems
- 6 deluge sprinkler systems
- 2 stand pipes
- 4 counter flow cooling tower sprinklers
- ~800 sprinkler heads throughout
- 9 systems total for whole project
- 13,000 feet of sprinkler pipe

Sheet Metal

- Built custom supports and roof hoods

GHAC

- 11 exhaust fans
- 452,000 CFM exhaust system
- 72" exhaust duct work

Tips, Tricks, and Tools for You and Your Family

A Different Kind of Spring Cleaning

Spring cleaning is a tradition many people uphold each year, but there are a few things that you should consider adding to your traditional list this season. The bonus? These items likely won't even add too much time to your already hectic spring cleaning schedule. But the benefits you will receive long outweigh the time you spend doing these extra tasks. Just like you typically get an annual check up, your appliances need one too.

THINK SPRING!

- Check your air conditioning and heating units before the beginning of the new season; this allows you to make sure they are in working order and that you have no surprises. Your heating appliances have been working hard all winter, and your air conditioner is about to start its busy season, so spring is a great time to check both of these out.
- Aside from just checking your air conditioner and furnace, you should replace the filters as needed, and spring is as good a time as any. Depending on the type of filter your appliance requires, this can be as often as every month or as little as two times a year.
- Carbon monoxide detectors and smoke detectors save lives; make sure your detectors are in working order by changing the batteries two times a year. An easy way to remember? Change the batteries with daylight-saving time, and then you only need to remember "spring forward" and "fall back."
- Clean out your gutters from winter debris and check to ensure there is no damage from over the winter.
- Many air conditioning units have a drainage hole at the base. To remain in prime working order, this hole should ideally be cleaned out at least once a year. It is a good idea to take a paper clip (or similarly sized material) to clear out the hole.
- After turning the power off, wash your bathroom fans. Rinse the cover in soapy water, and clean the fan blades off with something small, like a toothbrush.
- Ensure your fire extinguisher is fully charged and easily accessible. If you don't have one, now is a good time to get one.
- To keep it in prime working condition, turn off your dehumidifier, let it dry completely, and then vacuum every space you can reach.
- Check your windows to make sure they open and close easily. If they don't, there may be an issue with the weather stripping.
- If you have any pipes that are rusting, this is a great time of year to paint them to prevent additional corrosion.

Since last time...

HOOPER'S ANNUAL WHITE ELEPHANT PARTY AND ST. PATRICK'S DAY PARADE

Hooper Corporation OnSite

Spring 2015

Electric Power • Mechanical • HVAC

Contributors: Dave Orr, President | Brian Burch, Process Piping; Doug Smithback, Process Piping; Norm Rivedal, Fire Protection
Editor: Alison Van Bellinger, Corporate Communication Manager

24/7 Emergency Storm Response

For all your emergency storm response needs, look no further than the Hooper Corporation Emergency Storm Response Team. Reach our emergency line 24/7 at (877) 630.7554

OnSite is available electronically!

Please contact communications@hoopercorp.com if you are interested in receiving your OnSite newsletter electronically.

Connect with us

Hooper CORPORATION

2030 Pennsylvania Avenue
P.O. Box 7455
Madison, WI 53707-7455
608.249.0451

ADDRESS SERVICE REQUESTED