

GRUNAU GRAM

Fall 2011

As the leaves start to turn in the cooler weather, we refocus our thoughts on the change of seasons. One change in fall is that baseball is winding down with a GREAT season for the Milwaukee Brewers. Thinking of baseball, our Grunau team in Pittsburgh helped the Pirates with fire protection for their stadium (See article on back cover).

For the change of seasons in the upper Midwest, customers also will be turning up the heat on their thermostats soon. If you have an interest to save on fuel costs and become a greener facility, Grunau can install alternatives such as geothermal or solar systems. We highlighted each on page 2 of this newsletter. Grunau has eight LEED accredited professionals on our team who can design the best system to meet your sustainability goals.

Regarding our country's more traditional energy sources, you may be interested to know that Grunau has installed fire protection at a few coal-fired power plants (See the featured article to the right).

While switching from primarily cooling to heating during this change of seasons, you may need Service on your existing HVAC system to ensure optimal performance. With more than 90 years of reputable service in mechanical systems, Grunau has the experience and professionalism to do the job right.

And finally, in our fall issue, we recognize our team. One of our team gave Grunau recognition for helping to successfully integrate his military and Grunau careers. Read about details of this Patriots Award on page 3. Also, we feature a group photo recognizing employee length of service during our 2011 Summer Picnic at the Milwaukee County Zoo. It is this internal length of service that allows us to create the external long-term relationships with our customers that are so vital to success.



Lawrence E. Loomis
President,
Grunau Company

PROTECTING THE POWER GRID

Grunau's Ohio fire protection branch put its special hazards expertise to work during a variety of uniquely-challenging jobs at local coal-fired power plants.

QUICK FIX TRANSFORMERS

The Ohio team installed deluge protection systems for two industrial transformers at W.H. Sammis Power and Harrison Power Station. Deluge systems use heat detectors to send signals to a control panel that operates the water valve, which then sprays water through a series of nozzles.

Transformer projects usually require an extremely fast turnaround, but Grunau faced an added challenge at Sammis, where one of the transformers went out unexpectedly. Grunau received Sammis' call at 10 a.m. and gathered a team by 1 p.m. to begin work. The fire protection system had to be dismantled in order to install the new transformer.

Grunau technicians worked around-the-clock for four days to complete the job. Once the new transformer was in place, they reinstalled the fire protection system using most of the existing pipes and fittings to minimize cost and fabrication labor.

Strict time constraints also were an issue at Harrison. Grunau worked over a weekend to complete the installation and testing within the client's six-day window and with live transformers on-site, Grunau employees adhered to OSHA power plant regulations.

TAKING FIRE PROTECTION TO NEW HEIGHTS

For a job at Cardinal Power Plant, Grunau removed the fire protection system from around the company's coal pipes, which developed holes over time due to age and wear. Once the coal pipes were replaced, Grunau installed a modified fire protection system around them.

In some cases, the coal piping hung nearly 60 feet in the air, so technicians

used scaffolding and lifts to complete the installation. Since multiple trades needed to work in parallel on this project, Grunau collaborated closely with others to ensure a coordinated, efficient effort.

"Project Manager Jack Carney and the Grunau team are a real class act and were great to work with."

— Doug Van Nuys, Fire Protection Supervisor at Cardinal

THE HUMAN ELEMENT

Grunau customizes fire protection systems that not only protect important equipment, but also human lives. The safety of Cardinal's workforce took priority when the company asked Grunau to swap out its CO₂ fire suppression system with a double interlock preaction system. The previous system might stop a fire, but it potentially put lives at risk by releasing CO₂ into the air, which could quickly turn toxic for anyone trapped inside.

Unlike many systems, which only require one trigger to activate, the newly-installed double interlock system requires two — either smoke or heat and loss of air pressure. This ensures the system won't fill electrical areas with water unless it's absolutely necessary.

Grunau delivered high-quality fire protection systems that protect both people and equipment.



▲ A fire protection discharge test is run at Sammis after the emergency installation of a new transformer.



GEOTHERMAL COMFORT IN CLASSROOMS

Hartford Lincoln Elementary School asked Grunau to install an environmentally friendly geothermal heating and cooling system to reduce energy costs.

While the school's previous system used conventional boilers and chillers, the geothermal loop Grunau installed takes advantage of the earth's natural core temperature, which is more stable year-round, to house the water that helps heat and cool classrooms. This type of system requires less energy to maintain a desirable temperature, whether it's winter or summer.

Grunau installed pipes in 100 wells, each approximately 200 feet deep, to house the water that is pumped to the school as part of the HVAC system. Grunau worked under a tight timeline during the 6-8 week summer period when classes weren't in session. However, some staff still occupied the building, so the team took precautions to ensure their safety and minimize disruption.

Since the school had gone through various remodels over the years, Grunau had to affix system components to three different surface materials: brick, plaster and drywall. Grunau also installed heat pumps in each classroom, allowing customized temperatures to create a comfortable learning atmosphere for students.

"This new system saves money and reduces the amount of energy expended by the school, while creating a simple way to ensure a more comfortable education atmosphere."

— Paul Lentz, Project Manager

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EMPOWERED BY SUNLIGHT

A 20-kilowatt solar photovoltaic array that Grunau installed on the roof of its headquarters in Oak Creek, Wisconsin, now converts sunlight into usable electricity, significantly offsetting the company's energy output.

"It was a chance for us to practice what we preach in terms of green building, as well as an opportunity to demonstrate our expanded electrical services," said Project Manager Kyle Falvey.

In 2009, Grunau earned Gold LEED recognition for other changes to its headquarters including more efficient plumbing fixtures, reducing water use for landscaping, and purchasing

Inverters placed in the mailroom convert sunlight to the correct electrical frequency for usage. ▶



renewable energy. Since more and more clients are turning to photovoltaic technology to save on heating and lighting costs, the solar array was a logical next step.

Grunau's roof features a rubber membrane base covered with stone. The solar panel, however, had to be placed directly on the rubber membrane, so Grunau utilized a vacuum truck to remove the stone in that area. Grunau installed a secondary drain system to improve run-off flow and to minimize

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EMPLOYEES RECOGNIZED FOR YEARS OF SERVICE

Grunau honored 30 employees for their outstanding service and commitment.

▶ Pictured Right: (Left to Right) President **Larry Loomis** congratulates **Paul Davis** of Indianapolis on his dedicated service of **30 years** to Grunau.

▶ Pictured below: (Left to Right) Front row: **Bob Brinkman (15 yrs)**, **Mark Peters (30 yrs)**, **Jim Flook (25 yrs)**, **Harry Heintl (20 yrs)**, **Mario Angiolo (20 yrs)**, and **Joe Kratz (10 yrs)**. Back row: **Al Brinkman (20 yrs)**, **Chris Green (10 yrs)**, **Steve Garbarek (20 yrs)**, **Ron Kwiatkowski (35 yrs)**, **Chuck Ashley (20 yrs)**, **Joel Matek (15 yrs)**, **Dave Ragoschke (15 yrs)**, and **Larry Loomis (president)**.

▶ Not Pictured: **Kurt Fies**, **Rick Lando**, **Mike Rotar (25 yrs)**; **Jim Cefalu**, **Bob Antczak**, **Brian Horn (20 yrs)**; **John Flick**, **Tim Reaghard**, **Joe Neal (15 yrs)**; **Brian Knapton**, **Rob Snyder**, **David Coon**, **Dayne Cypher**, **Ed Shipman**, **Shawn Dobson**, **Sarah Kannass**, **Phil Mnuik (10 yrs)**.



risk of damage from excessive snow or rain due to the solar panel's extra weight.

The electrical inverters, which convert sunlight and sync it to the correct electrical frequency, were tested to work at temperatures as low as negative five degrees Fahrenheit. However, Wisconsin winters can drop lower than that, so Grunau removed mailroom storage racks to store the inverters safely inside the building.

“Throughout the 30-year life of the American-made solar array, Grunau will:

- **Reduce emissions of CO² by 43,152 pounds**
- **Eliminate the planting of 3.3 acres of trees needed to counteract CO²**
- **Save the energy equivalent of a car that drives two times around the earth.”**

– Kyle Falvey, Project Manager

The solar array reduced Grunau's energy costs by approximately \$600 per month, based on a year-to-year comparison from 2010 to 2011. Additionally, to maximize the company's rebate from the Wisconsin Focus on Energy initiative, Grunau replaced its lighting with more efficient lamps, using 10 percent less energy. By reducing its paid energy consumption, Grunau also reduced its carbon footprint.

FALL SNAPSHOTS



Grunau Company is involved with a wide variety of projects – both large and small – on any given day. These “Project Snapshots” give you an idea of what we've accomplished on some smaller jobs.

WEYCO GROUP/OPUS DEVELOPMENT CORPORATION

Contract Amount: \$12,500

Request: Modify HVAC system to accommodate the installation of a new storage mezzanine.

Solution: Grunau raised five gas-fired unit heaters and relocated one. The team also revised the gas piping and venting and relocated the thermostats.

Result: The system was successfully modified.

– Jeff Kuhnke, project manager

AQUARIUM REPTILE CENTER CHILLER REPLACEMENT

Contract Amount: \$23,800

Request: The existing chiller could not keep the aquarium water cool and to the correct temperature. The Zoo needed a new alternative.

Solution: Grunau replaced the existing chiller with a new, larger capacity one.

Result: The Reptile Center at the Milwaukee County Zoo can now add more exotic species and have better environmental control of the aquarium.

– John Gregoriou, project manager

MEDICAL COLLEGE OF WISCONSIN

Contract Amount: \$8,950

Request: The Medical College was in need of supplemental cooling for an MRI room due to the additional heat load added to the room from the new MRI unit.

Solution: Grunau explored several options with The Medical College, such as adding a split system, a rooftop unit or a fan coil to cool the room. After investigating the capacity available on the existing rooftop unit, we found that adding a single VAV box to serve the space would provide sufficient cooling. We tied the new VAV box into the existing thermostat for the space to provide one point of control.

Result: In the end, we found an effective solution from a maintenance and cost standpoint to provide supplemental cooling to the space.

– Tyler Trotter, project manager



▶ The new chiller at the Zoo's Aquarium Reptile Center.

SUPPORTING OUR PATRIOTS

During my employment at Grunau, the organization and my boss, Chuck Neumeyer, have been exceptionally supportive through my military commitments and obligations.

With the knowledge of an upcoming six month deployment to Iraq in 2006, Mr. Neumeyer offered me a promotion to a newly created position with the understanding that Grunau would wait for my return.

Grunau Vice President and Service Manager Chuck Neumeyer (left) accepts the Patriot Award plaque from Harry Wilkinson while Donald Ford, Col. (Ret) US Army, looks on.



Approximately nine months after my return, I was sent to the US/Mexican Border to aid in the US Army/Air Force Joint Task Force, Southwest Border Security in Yuma, Arizona. Once again the organization, my boss and co-workers were supportive by stepping up to take over critical work responsibilities during my absence.

A year later in 2007, I was mobilized to Guantanamo Bay, Cuba, resulting in a leave of absence for seven months. During this time Grunau stayed in contact with me, and I was thoroughly

impressed that through an office remodel, the company did not overlook setting up a cubicle office area for me during my absence.

Grunau Company and my boss have continued to be supportive these past years, during short-term deployments for training and most recently working with me while I was filling a temporary vacancy as the acting 128th Air Refueling Wing Facility Manager until an individual could be hired permanently.

Both the Grunau Company and Chuck Neumeyer are true Patriots.

– Harry J. Wilkinson, SMSgt, 128th ARW, Civil Engineering First Sergeant



FIRE PROTECTION**KEEPING PNC PARK IN THE GAME**

Grunau recently performed much needed piping upgrades on the fire protection system at PNC Park, the Pittsburgh Pirates' Major League Baseball stadium.

Over time, natural elements and regular testing degraded the park's original thin-walled pipes, leaving them rusty and rotting after 10 years. Grunau has been doing fire protection inspections at PNC for four years and recommended changing the pipes to

ensure quality and safety. Park officials agreed and asked Grunau to replace the system's main piping, which feeds smaller lines and sprinkler heads.

The renovation included more than 700 feet of pipe throughout the club level, press level and suites. However, drywall hid some of the piping, so the Grunau team worked with a contractor to cut it open, allowing access for replacement piping before re-drywalling and painting.

hours when office employees might still be in the stadium.

Since the park remained occupied during the day, the fire protection system had to be operational. This meant Grunau could not remove all the piping at once. Technicians creatively addressed this problem by removing the pipe in small sections, cutting the new pipe onsite, and replacing the system piece-by-piece.

"Grunau has a good rapport with the Pirates and stadium personnel," said Project Manager Bill Stern. "We've serviced the ballpark for years, and our sprinkler fitters knew the building like the back of their hands."

To minimize disruptions for park staff, Grunau scheduled the renovations during the off-season and after normal 9-5 working

◀ Grunau installed a dry pipe fire protection system in several areas of the Pittsburgh Pirates' PNC Park.

Fans at PNC Park can enjoy the baseball season in safety thanks to Grunau's new fire protection system. ▶

**TECHNICAL CONTRIBUTORS**

President's Corner: Larry Loomis, *president*
Sammis, Harrison and Cardinal: Jack Carney, *project manager*; Bill Nichols, *project manager*
Hartford Lincoln Elementary School: Paul Lentz, *project manager*
Grunau Solar: Kyle Falvey, *project manager*
Patriot Award: Harry Wilkinson, *service sales representative*
Project Snapshots: See individual snapshots for contributing project manager
PNC Park: Bill Stern, *project manager*