

November/December 2011

Historic Flood

Flash

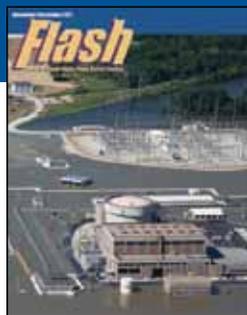
News for Omaha Public Power District Families



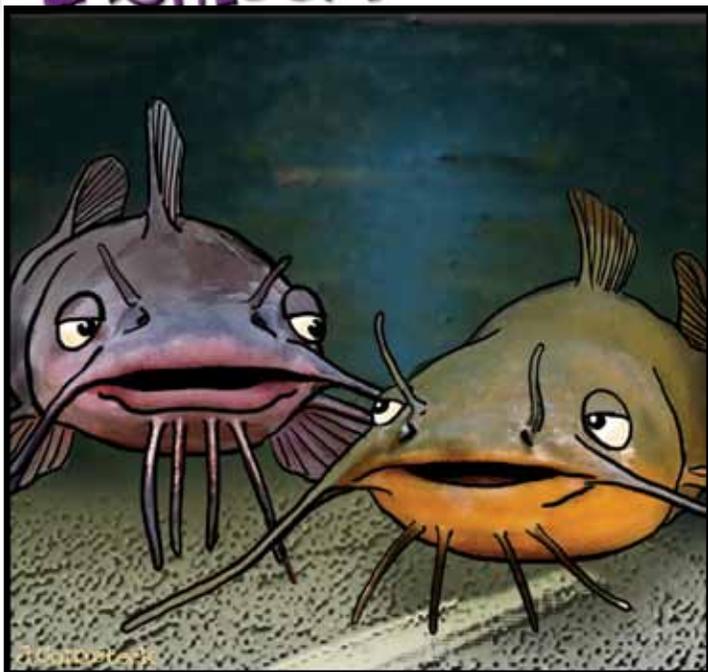
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Fort Calhoun Nuclear Station shown on June 15.



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Published bimonthly by the Corporate Communications Division, *Flash* magazine provides OPPD employees and retirees with strategic industry- and job-related news, and human-interest articles about associates and their families. *Flash* is one of several tools that comprise our communication strategy. Employees and retirees can access timely OPPD news weekdays via OPPD News online.

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Flood Fight is One for the History Books

The flood of 2011 clearly made its marks along the Missouri River banks from Montana to Missouri, and the story of how the flood was fought will be told for decades to come.

"This was as close to being at war as we could ever be," said Gary Gates, OPPD president and CEO. "We were at war with the river. We had people doing physical activity, and people on the front lines making sacrifices. We had a supply group and a strategy group, and others were coordinating with cities, counties, customers and other entities.

"As CEO, I felt like a general at times," Gary said. "We had an incredible amount of work to get done. I was asking so much of people, and they were giving it. I felt proud, but incredibly responsible for their welfare and for the welfare of our customers."

Too much water

In more than a century of record-keeping, the Missouri River had never coped with more water than it did this past spring, according to the Army Corps of Engineers.

To relieve pressure caused by historic late-May rainfalls and abundant snowmelt, the corps had to increase releases from Gavins Point Dam, located on the river four miles south of Yankton, S.D., from mid-June through mid-August.

There was nowhere for all that extra water to go but over the river banks and onto property owners' land. That meant historic flooding at OPPD's three baseload power plants along the river, and at and around critical substations and transmission and distribution lines nearby.

OPPD wasted no time fortifying its more than \$3 billion in assets that were in harm's way and ensuring that electricity continued to flow to its more than 346,000 customers.

- Employees and contractors performed a wide array of flood-protection tasks.
- OPPD implemented its Corporate Incident Command team in early June to coordinate communication and resources across the company and to help prioritize issues.
- In August, OPPD set up a Business Continuity Flood Recovery Team to oversee and coordinate the flood-recovery phase.

Through mid-October, OPPD had incurred about \$61.6 million in costs related to the flooding, according to Vice President and Chief Financial Officer Edward Easterlin. These costs include about \$36.6 million for flood-protection measures and \$25 million on replacement power.

Balancing Act

"The balancing act of managing a flood and day-to-day operations required well-orchestrated planning and communication between senior managers and their division managers, managers and employees in their business units," said Gary.

Work groups across the utility found themselves prioritizing work, and at times, accomplishing feats that normally would have taken much longer.

For example, once management understood the magnitude of what was about to occur at Fort Calhoun Station (FCS), Information Technology personnel had to move the server from the FCS administration building to Energy Plaza in downtown Omaha. The server essentially is the data center for the nuclear plant.

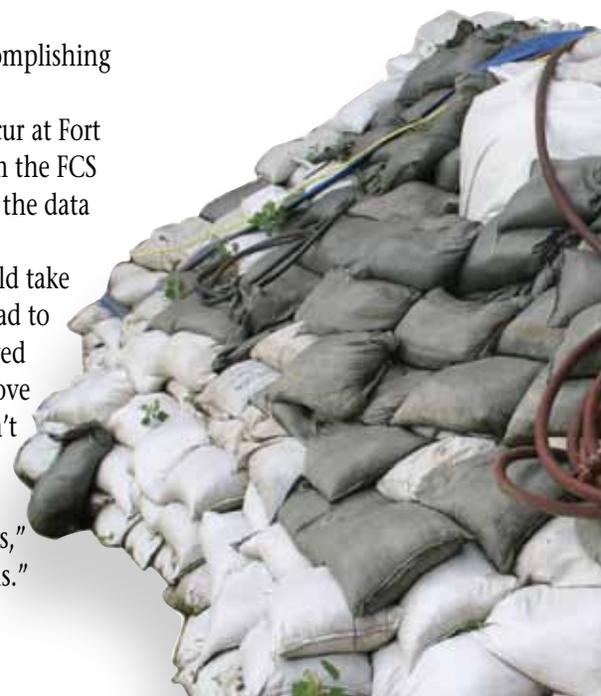
"Under normal circumstances, we would do considerable planning and the task would take weeks," said IT Division Manager Steve Schmitz. "We had very little time because we had to get the equipment out before the aqua berms went up and blocked our access. We moved some equipment into the protected area temporarily to keep them running, but the move was done the weekend of June 3. When it was reassembled downtown, employees didn't miss a cable when it was hooked back up, which says a lot for our employees."

Similar acts of heroics were repeated all across the district.

"Flood-protection efforts worked well, and so have our ongoing flood-recovery efforts," said Gary. "Employees pulled together the way families do in the midst of a family crisis."

"We were at war with the river. We had people doing physical activity, and people on the front lines making sacrifices. We had a supply group and a strategy group, and others were coordinating with cities, counties, customers and other entities."

- Gary Gates
President and CEO



Safety First

When all else is unpredictable, we can predict our actions.

At OPPD, safety is a core value. Every meeting opens with a safety briefing. Crews have regular safety meetings. The Safety & Technical Training Division ensures OPPD employees have the knowledge, skills and desire to be free from injury 24/7, on the job, on the road, and at home. Safety matters.

And then Mother Nature opened the floodgates, literally. Safety training and communication, in the traditional sense of an electric utility, were immediately redefined and expanded. It's a matter of safety.

According to Kevin McCormick, division manager of Safety and Technical Training, with the magnitude of the flood and number of people working in unfamiliar conditions, OPPD learned a lot and improved safety performances.

"The flooding posed new challenges and new hazards," said Kevin. "But we adjusted because the foundation on which we work is built around safety – a foundation that reminds us to be aware, to respond quickly, yet cautiously, and to minimize risk by asking questions and reviewing our actions. No matter the situation, it's still safety first."

From the onset, employees and customers were working fast and furious, yet smart, in the summer heat to protect homes and businesses. People found themselves performing new tasks in unfamiliar surroundings. Employees were learning to operate different types of equipment, such as amphibious vehicles, needed for flood preparation. Those with desk jobs often volunteered to help with sandbagging on the front lines.

Safety communication became priority and safety personnel used many outlets for their

messaging: the *Flood Update* and *Flood Recovery* newsletters, OPPD news online and staff meetings.

Some messages were inherent to our industry – stay away from downed power lines or don't operate electric-powered tools and equipment around water. However, flood conditions, coupled with the summer heat, drove home the need for other safety-related tips.

Tips included, but were not limited to:

- Taking steps to avoid heat-related illness
- Recognizing signs of heat stroke, in yourself or others, should it happen
- Using personal protective equipment, such as hard hats and safety glasses – and in this case, flotation devices
- Wearing proper work attire, like sturdy work shoes and long pants and long-sleeve shirts to combat mosquitos
- Operating equipment, only if properly trained and qualified to do so
- Lifting properly, using your legs and keeping your back straight
- Holding pre-job briefings, self-checking, peer-checking and three-way communication
- Being aware of surroundings, from where you step to what could be floating in waters
- Getting tetanus shots for protection from contaminated waters
- Washing hands and showering often, due to waters being potentially filled with sewage and chemicals

By September, OPPD's focus turned to flood-recovery efforts. The worst was over. "The outcome is truly a testament to OPPD's commitment to safety," said Kevin. "Employees at OPPD are engaged. That translates to an environment where people care not only about their own well-being, but that of their co-workers."

By Laurie Zagurski



Workers formed an assembly line to build a sandbag barrier to protect the substation at FCS.

BCP Springs from Y2K to Save the Day in 2011

What do the years 2000 and 2011 have in common? Although more than a decade apart, one year impacted the other in ways that no one at OPPD could have predicted.

The year 2000, or Y2K as it was commonly known, created worldwide chaos, as businesses became concerned about what impact the roll-over to a year ending in two zeroes would have on computer operations. For many computer programs, years had always been represented with two digits.

Businesses across the world were concerned that their computer systems would crash when the year rolled over to double zeroes, possibly being misread as 1900 and resulting in loss of data and functionality.

There were concerns the power grid would fail to recognize the computer programs that sustain them and shut down, causing black-outs around the world. Special teams were formed at many organizations worldwide to ensure the rollover would not impact precious business computer systems.

OPPD was no exception. A Y2K team was formed to ensure that when computer clocks rolled over to 00, the lights stayed on, and it was business as usual. That's the tie that binds the years 2000 and 2011.

That Y2K team formed years ago served as the foundation for the business continuity team that exists today at OPPD. The Y2K business continuity plan (BCP) enhanced OPPD's emergency planning capabilities, which helped OPPD successfully combat the flood of 2011.

"Y2K prompted OPPD management to develop a comprehensive plan to ensure business would continue to operate as usual," said Mary Finley, who retired last year as manager of Emergency Preparedness & Business Continuity.

Fast-forward to the most devastating flood in OPPD's history, and it turns out that was a smart decision. Thanks to the team quickly organizing in May of 2011, the team was able

to coordinate the procurement of supplies and resource requirements for the entire company. The team also prioritized needs and formulated and followed up on mitigation and recovery action plans.

Initially, Mary was brought back to provide support since her replacement, Dennis Snook, had just joined OPPD a month before the flood hit.

Ken Roth, division manager of Production Engineering & Technical Support, served as the initial incident commander. Jim Foley, Greg Kreiser and Ron Johansen also shared that role. The floodwaters didn't hold back though, and the team was meeting daily to centralize the protection efforts, even as it was being formed.

In the end, through those daily meetings, the team was able to successfully direct the protection and recovery phases and helped procure hundreds of thousands of items needed to protect OPPD's \$3 billion in assets. At one point, the team was even tasked with securing amphibious vehicles so employees could get around the Fort Calhoun plant site.

Who would have guessed the sting of the Y2K bug would prove so beneficial years later?

By DJ Clarke

June 27, 2011

The Bond Buyer

"This is why they're an Aa1-rated credit. These are the types of things you expect from a highly rated entity: advanced planning, having replacement contracts in place, anticipating that something could go wrong, and having a plan to address it."

John Medina, public power analyst, Moody's Investors Service

OPPD used six amphibious vehicles during the flood.





The Flood of 2011 Chronology

May 2011

May rainfalls up north add millions of acre-feet of water to the Missouri River dam system reservoirs, taking space the Army Corps of Engineers had reserved for melting snow.

May 21

FCS plant workers begin taking steps to mitigate potential flooding while refueling outage activities continue. Steps include sandbagging designated areas, positioning floodgates for rapid installation, and staging equipment, such as dewatering pumps.

May 28

OPPD receives information from Corps of Engineers announcing water releases: "The situation in the Missouri River basin continues to deteriorate due to heavy rain in eastern Montana and western North Dakota, necessitating higher releases from the Missouri River dams and reservoirs to evacuate stored floodwaters."

May 31

OPPD President Gary Gates reviews corps' projections and OPPD implements flood preparations.

June 1

Corps of Engineers officially announces increased flow rates.



Energized Workers Protect their Power Plants



This crew helped sandbag the North Omaha Station access road in early June. At left, the river escapes its banks near Nebraska City Station, shown on June 15. Storage ponds in the photo are not flood-related.

There was a common mantra among the hundreds of employees fighting the flooding earlier this year according to Jon Hansen, vice president of Energy Production & Marketing: plan for the worst, and hope for the best.

And that's exactly what was done at the utility's three main baseload power plants: Nebraska City Station, North Omaha Station and Fort Calhoun Station. All three plants sit on the Missouri River, and as such, all three required swift and strategic action this summer to protect the sites from floodwaters.

There was plenty to do, and not always enough time in the day to get it done. But

employees worked long days, and they took on tasks they probably never imagined they'd have to do – like inspecting levees for rodent holes, setting up aqua berms, and shooing waders out of contaminated floodwaters that had spilled onto land outside of North Omaha Station.

"We have great employees," said Jon, who has been with OPPD for nearly 29 years. "Everybody pitches in. When they see a need, they rush to fill the need. I can't say enough good about the men and women who have kept the coal-fired stations and peaking units online, and the employees in the nuclear orga-

Baseload Plants

Fort Calhoun Station

Nuclear plant

478.6 megawatts

Began operation in 1973

Nebraska City Station Unit 1

Coal plant

651.5 megawatts

Began operation in 1979

Nebraska City Station Unit 2

Coal plant

684.6 megawatts

Began operation in 2009

North Omaha Station (five units)

Coal and natural-gas plant

638.2 megawatts

Unit 1 began operation in 1954, four more units added by 1968

Megawatts as of June 2011

June 2

Business Continuity Team activates Command Center to centralize OPPD flood operations.

Senior management team and Business Continuity Team begin daily meetings to keep abreast of flood activities.

OPPD issues initial *Flood Update* newsletter to communicate flood-related news and safety information to employees, public officials, community leaders, large customers and the media. Issued daily at first, the publication later was issued on as-needed basis.

At North Omaha Station, personnel build a barrier to protect the access road to the plant.

OPPD completes survey of transmission lines along the river. T&D looks at how to protect structures that may be subjected to high water and current, investigates critical distribution facilities, and works to ensure safe disconnect/reconnect process is in place.



Throughout Early June

Workers build dirt berm around electrical switchyard at Fort Calhoun Station.

Contractor starts raising railroad tracks at Nebraska City Station to maintain coal deliveries. Workers also begin installing 3,000-pound sandbags to protect NCS rail system.

June 3

Fort Calhoun Station suspends outage work and plant restart activities to focus on flood protection. A return to power operation is delayed indefinitely. (FCS went offline for scheduled refueling outage April 9.)

Efforts in progress to evaluate and sandbag critical substation buildings and plug distribution ducts into the sub buildings to help seal out water. T&D and Substation employees begin identifying critical distribution loads for service alternatives or potential to de-energize. Plan calls for customers to be de-energized to ensure safety if water levels dictate.

A team of Information Technology employees spends the weekend moving the Fort Calhoun Station data center to Energy Plaza in downtown Omaha.

nization who dealt with numerous challenges, and others who provided vital support – like the power traders and marketers, T&D and Substation, and Engineering.”

Thanks to these efforts, OPPD kept power flowing to customers and kept the interconnections of the grid intact.

Fort Calhoun Station

While the flooding affected all three plants, Fort Calhoun Station grabbed the most attention because floodwaters there rose so high that the well-fortified structures looked like islands from the air.

In fact, the amount of flooding experienced at FCS was unprecedented in the U.S. nuclear power industry, and it attracted the attention of national and international news media, the chairman of the Nuclear Regulatory Commission and countless others.

“One thing history will show is that FCS employees care deeply about the plant, and they did whatever it took to protect the plant,” said Tim Nellenbach, division manager of Nuclear Operations and plant manager. “There were so many obstacles and challenges. Employees found ways to overcome the obstacles, and they met challenge after challenge.”



These floodgates were installed on the FCS Intake Structure in early June.



Employees at FCS had just completed making several adjustments to its flood-protection plan, based on Nuclear Regulatory Commission recommendations. In fact, ironically, the 2011 flooding delayed the inspection of the NRC flood-related action item. The flooding also forced nuclear managers to temporarily suspend the plant’s refueling outage June 3, so workers could instead focus on flood-protection efforts. The outage work resumed Sept. 6, but only after flooding subsided following an action-packed, high-stress summer.

The list of other actions taken at the nuclear plant is lengthy, including the following:

- Personnel deployed aqua berms for additional protection.
- The plant was protected to 1,014 feet, with aqua berms, earthen berms and sandbags. (Water reached 1,006 feet, 10 inches.)

June 4

The Corps of Engineers begins increasing releases from Gavins Point Dam from 85,000 cubic feet per second (cfs) in increments, eventually peaking at 160,000 cfs in mid-June.

At Fort Calhoun Station, personnel begin deploying aqua berms for additional protection to plant facilities and assets.

June 6

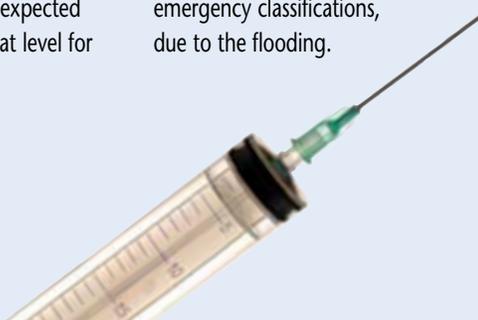
OPPD declares a Notification of Unusual Event (NOUE) at Fort Calhoun Station. This is the least-serious of four emergency classifications standard in the U.S. nuclear industry. OPPD declares the NOUE because Corps of Engineers projects Missouri River level will reach 1,004 feet above mean sea level later in the week, and is expected to remain at or above that level for more than a month.

June 7

OPPD declares an Alert at Fort Calhoun Station at 9:40 a.m., due to a fire in an electrical switchgear room at the plant. An Alert is the second of four emergency classifications established by the Nuclear Regulatory Commission. At 1:15 p.m., FCS returned to the NOUE, the least-serious of four emergency classifications, due to the flooding.

Due to a high number of low-flying aircraft over the site, Fort Calhoun Station requests that the Federal Aviation Administration (FAA) remind pilots of the Notice to Airmen (NOTAM), in effect since Sept. 11, 2001, restricting the air space over all nuclear plants. The FAA responds to request by issuing a NOTAM restricting aircraft from flying within a two-mile radius and below 3,500 feet near FCS.

OPPD partners with Alegen Health to provide TDAP injections (tetanus, diphtheria and pertussis) to employees working near floodwaters. By the end of August, 971 shots are given.





At Fort Calhoun Station, aqua berms were used to keep floodwaters away from buildings. Aqua berms are large thermoplastic tubes filled with water. The dams at FCS were filled with floodwater. Raised walkways were built to get employees around the flooded site.

OPPD took comprehensive, aggressive actions to fully assess – and then correct – the flood’s impact on FCS operations.

As detailed in the Flooding Recovery Plan, submitted to the NRC in August, OPPD’s effort started with comprehensive assessments of systems, structures and components, and then continued with detailed plans for repair and restoration. They asked others in the industry to do independent reviews of the plan.

The detailed plan serves as a roadmap for the successful restart of the plant, which has been shut down since April 9, when the plant’s scheduled refueling and maintenance outage started.

As the work at FCS transitioned from flood-mitigation to flood-recovery, OPPD ensured plant operations remained focused on nuclear safety, while assuring the health and safety of the public and employees.

“Our employees were excited to see the river finally receding, and we are all anxious to get the plant started up and producing again for OPPD,” noted Vice President and Chief Nuclear Officer Dave Bannister. “However, we have a lot of work ahead of us to check and double-check that it is safe to do so. We will not compromise on nuclear safety.”

June 16, 2011

WOWT.com

“The Fort Calhoun Nuclear Facility is an island right now, but it is one that authorities say is going to stay dry. They say they have a number of redundant features to protect the facility from floodwaters that include the aqua dam, earthen berms and sandbags.”

June 20, 2011

New York Times

“We think they’ve taken all the necessary precautions and made the appropriate arrangements to deal with the flooding conditions.”

Victor Dricks, Nuclear Regulatory Commission spokesperson

June 28, 2011

Omaha World-Herald

“The risk is really very low at this point that anything could go wrong.”

Gregory Jaczko, chairman of the Nuclear Regulatory Commission

- Workers built raised walkways to get workers around the site.
- Many employees were relocated offsite as the site flooded.
- Information Technology personnel moved the FCS computer server offsite.
- Personnel monitored barriers and dams for leakage.
- OPPD declared a Notification of Unusual Event (NOUE) according to NRC guidelines due to high floodwaters. A fire in the electrical switchgear room prompted that to be elevated to an Alert for a few hours on June 7.
- OPPD held a press conference to dispel nuclear plant rumors, and fielded hundreds of media questions.

As the Missouri River floodwaters receded,

June 8

OPPD works with the city of Omaha on contingency planning regarding Eppley Airfield.

In Bellevue, efforts continue to ensure continued service to Offutt Air Force Base by working to protect substations that feed the base.

Coordination between OPPD and other utilities along the Missouri River continues for monitoring transmission assets along the river. Contingency plans made to address structural issues that may arise.

Because of flooding at the site, some Fort Calhoun Station employees begin relocating to the Elkhorn Center, old Omaha Center and Energy Plaza. They work offsite until flooding subsides and site is cleaned up.

At Nebraska City Station, 24-hour sandbagging efforts begin and around-the-clock monitoring of facilities begins.

OPPD activates and repurposes its storm blog as a flood and outage information blog, which is updated daily through flood event.

June 10

Workers begin filling rodent holes in levee at Nebraska City Station.

OPPD begins running radio ads that focus on flood safety and community resources for flood victims.

June 13

OPPD making plans to secure substations north of downtown Omaha to ensure transmission reliability.

Aqua berms are staged around main plant buildings at Nebraska City Station.

June 16

OPPD Board of Directors authorizes management to initiate the procurement of materials, equipment and services as needed to restore or prevent damage to existing equipment, without normal sealed bid process. Measure intended to ensure OPPD can acquire whatever it needs as quickly as possible to protect equipment and personnel, and to avoid delays in restoring service.



Nebraska City Station

At Nebraska City Station, the primary levee was the main protection for the site.

“We had to understand the levee construction and strengthen it,” said Jon Hansen. “We worked with HDR, the Corps of Engineers and Kiewit. Employees inspected the levee and surveyed the

entire site for threats and vulnerabilities. They made repairs where needed.”

Workers hauled a significant amount of dirt from a neighboring farm to build a secondary levee.

Another major effort at Nebraska City Station involved raising the railroad tracks so that coal trains could continue to get through. Tons of ballast rock was used to raise a two-mile stretch of the track an average of three feet, with tracks raised five feet at one point.

“We had to do whatever we could to keep NC1 and NC2 running, especially when FCS was down,” Jon said.

“Employees took quick action, and we had quick mobilization from contractors,” said NCS Plant Manager Jeff Karloff. “Water came close to going over the levee, but we took the right measures and essentially protected NCS the way North Omaha Station was protected after the flood of 1952.”

When Jeff recalls the past several months, he feels great pride.

“No one imagined this magnitude of flooding could happen here, but teamwork at NCS and across the district was outstanding. In future planning, we will have a bigger view of the ‘what-ifs’ because of our experience with the flood,” said Jeff, who has been with OPPD for 21 years.

North Omaha Station

A different flood story unfolded at North Omaha Station (NOS).

Sandbags line the access road to North Omaha Station.



June 17

Sand boils are identified at Nebraska City Station site, and work begins to repair them.

OPPD President Gary Gates and VP and Chief Nuclear Officer Dave Bannister hold news conference on situation at Fort Calhoun Station, as well as other OPPD generating facilities, and to answer questions from reporters.

June 23

A helicopter surveying transmission lines from the air has mechanical problems and crash-lands. The pilot and an OPPD employee on board were not injured.

June 24

Personnel complete sandbagging around the Emergency Operations Facility (EOF) Building at North Omaha Station to an elevation of 994 feet.

June 27

Nuclear Regulatory Commission Chairman Gregory Jaczko visits Nebraska and tours Fort Calhoun Station to get a first-hand look at flooding conditions along the Missouri River and efforts to protect plant site. Jaczko says he is satisfied with safety measures taken at FCS. He does not believe plant poses a danger to health and safety of public.

Nebraska’s congressional delegation and media are also briefed and tour FCS separately, getting an up-close look at site and effectiveness of flood-protection measures.

June 28

OPPD temporarily shifts focus of oppd.com home page to primarily reflect flood-protection efforts due to prolonged effect of flooding.



"They weren't as threatened by the flooding," said Jon. "That goes back to 1952, when the site was being prepared for construction of unit 1. The dams were being built upstream, and the flood of 1952 hit."

During the '52 flood, OPPD employees worked hard fortifying Jones Street Station at 6th & Jones in Omaha.

That situation gave OPPD foresight to further elevate the plant site to avoid the kind of flooding that threatened Jones Street. Because of that, NOS was largely spared from the 2011 flooding.

Workers at NOS had to sandbag along the access road and at the Emergency Operations Facility building, and the plant did have a few interruptions with coal shipments, due to flooding in a nearby rail yard.

"The area that took the brunt of the flooding at North Omaha was Power Park ball fields," said Dave Wetrosky, North Omaha Station plant manager, who had only been in that role for a few months and was in the process of learning the plant. Dave had spent 31 years in various roles at Nebraska City Station.

"The extent and duration of the flooding are noteworthy," Dave said. "It's hard to keep up your defenses for that long. It kind of wears on you."

"We were able to be flexible enough in the daily planning to do all this extra flood work to minimize the effect on North Omaha Station."

By Paula Lukowski

Staying on Track

It took specialized equipment and 88,300 tons of rock to raise the railroad tracks and keep them from being flooded out at Nebraska City Station. This was critically important to maintaining the plant's coal supply.

During a typical summer, Union Pacific keeps Nebraska City Station and North Omaha Station stocked with fresh low-sulfur coal by running roughly 30 coal trains to NCS and 16 trains to NOS each month.

With a hot summer and Fort Calhoun Station unable to complete its refueling outage and go back online due to the flooding, keeping our coal-fired baseload plants supplied with fuel became more important than ever.

But at Nebraska City, employees were dealing with flooding problems of their own. One of the biggest issues was preventing floodwaters from overtopping the tracks on the roughly eight-mile rail spur used for coal deliveries.

Two miles of the track are closest to the river and low enough that they were in serious jeopardy. As part of that effort, workers raised the elevation of the tracks about 30 inches on average over the entire two miles. The maximum raise was nearly 70 inches, and the tracks were raised more than five feet over 2,500 feet of track.

By Terry Zank



A tamper vehicle uses its "claws" to grab and lift a section of rail/ties, while using vibrating "paddles" to compact the new ballast under the track, effectively raising the rails.

July 7

The corps announces that the total system volume of water is falling. OPPD employees continue diligent work to monitor all flood-protection efforts that have been done at power plants, along the T&D system and at substations. Personnel also have been working hard to ensure customers remain operational.

OPPD reports that since June 2, oppd.com has received 95,360 hits on its home page, which included an array of flood information. The rumor page had received 21,160 hits, and the flood blog had 23,200 visitors during that period.

July 26

Coal train derailed at North Omaha Station, due to flood-saturated ground under a section of track. Rail service restored July 30 after track repairs made.

July 27

Nuclear Regulatory Commission holds public meeting in Omaha to discuss ongoing flood-protection actions and post-flood recovery plans for Fort Calhoun Station.

July 28

OPPD names Clint Zavadil and Tom Larsen as flood-recovery managers, and names leads for T&D/Substations, Nuclear, Nebraska City Station and North Omaha Station. Teams continue numerous flood-protection, flood-recovery and flood clean-up efforts through August, September and October.



July 31

Through July, OPPD incurs about \$44.5 million in costs related to flooding, and that number rises as the utility incurs additional flood expenses. Finance employees work to recover as much disaster-relief and insurance reimbursements as possible.

August 10

OPPD submits its Fort Calhoun Station Flood Recovery Plan to the Nuclear Regulatory Commission.



Challenges

OPPD workers in the transmission, distribution and substation areas are used to Mother Nature challenging them. Ice, hail, lightning and high winds come with the territory, and workers know how to respond to the damage caused from above. But this threat didn't come from the sky, it came from the river.

"This was a new threat to all of us," said Mo Doghman, vice president – Power Grid & Energy Delivery. "But our OPPD team proved that we can adapt and respond to new challenges. We came together as a team and successfully protected OPPD's assets."

That coming together brought out the best in people, according to Mo, with an effort that was inspiring.

"I didn't hear anyone say, 'It's not my job'," said Mo. "Everyone did what they could to help. We had workers putting in 16-hour days for 16 days straight."

The largest challenge faced came from the fact the system is so spread out. The river threatened important

Floodwaters encroached on this 345-kV line to Brownville, Neb.

August 19

Crews at Fort Calhoun Station disassembling aqua berms and three-fourths of the raised walkways have been taken down.

August 22

HDR engineering crews start geotechnical surveys at Fort Calhoun Station to determine impact of flood-water on soil, buildings and other structures.

August 29

OPPD exits NOUE at Fort Calhoun Station as water recedes.

Sept. 2

NRC sends OPPD a 113-page Confirmatory Action Letter (CAL) – the next step toward recovery.

Sept. 6

FCS retarts its refueling outage organization.

Sept. 15

OPPD issues its final flood newsletter, directing readers to oppd.com for continuing flood-recovery updates.

Sept. 21

OPPD holds meeting with Federal Emergency Management Agency (FEMA). OPPD has 60 days from this meeting to identify all known property damage and all potential damage for potential FEMA reimbursement.

Throughout October

Teams continue flood-recovery and flood clean-up efforts through October.

Oct. 15

Equipment purchased to fight the flood, that was deemed unnecessary to keep, sold at OPPD vehicle and equipment auction.

from a New Direction

T&D, substation and communications facilities and structures from Sioux City to the Missouri border. Some plans were in place to protect the substation at Fort Calhoun Station, but for the rest, plans had to be developed quickly.

“We had to determine our priorities, which facilities were most vulnerable yet crucial to reliably keep electricity flowing,” said Tim Nissen, division manager – Substation Operations.

“The regional grid, including OPPD’s system, is of utmost importance. We were in frequent communication with Regional Transmission Organizations, such as Southwest Power Pool and other entities, to develop contingency plans and ensure the integrity of the grid,” said Mo.

While storms generally do the most damage to the distribution system – the lines, transformers and switches from substations to customers – the river was providing a very real threat to the transmission system and to substations. Without them, it would be difficult to get power to the distribution system.

Tim notes that the T&D/Substation Flood Team reached out to other utilities that had experienced flooding and used their advice as they came up with solutions on the fly.

“We were doing multiple real-time design-procure-build projects as we rapidly protected 10 substations, distribution facilities and other critical infrastructure all along the river,” said Tim.

The rising waters brought to the surface the importance of substations. Without them, high-voltage electricity can’t be sent where it is needed. Losing a substation is like losing an interchange on the Interstate system: traffic stops.

The Fort Calhoun substation was vital to provide power to the plant, which was shut down at the time. The FCS sub also provides a path for outside power to reach the OPPD system from the north. The Nebraska City substation not only was putting power from those two units onto the grid, it also was a key location for bringing outside power into the OPPD system from the south. Each of OPPD’s substations

that connect with neighbor utilities was critical during the hot summer months to transport power into OPPD while FCS was off-line.

At FCS an earthen berm, sandbags, pumps, plugged cable ducts, and water sensor alarms were used to protect the substation. At Nebraska City, sandbagging equipment inside the substation came first, with a decision to place a secondary site earthen berm around the entire sub coming later.

Other distribution was protected or reconfigured as customers such as Eppley Airfield, TD Ameritrade Park and the Blair Waterworks needed a steady supply of power to keep lives from being even more disrupted by the flood.



Flood Time

Through September, employees had charged about 118,500 work hours to flood-mitigation efforts and about 5,000 hours to flood-recovery work.

Designers took on tasks such as finding ways to supply power to massive pumps in downtown Omaha to pump storm runoff into the river once the floodgates were closed. They also determined ways to provide electricity to run the pumps for 70 new wells drilled at Omaha’s airport to keep groundwater from closing the runways.

“There was an intense effort to keep the distribution system operating to the College World Series, the CenturyLink Center, and other downtown businesses,” said Blaine Dinwiddie, division manager – Transmission & Distribution Operations. “We wanted events like the CWS and the Red Sky Music Festival to go on so people could continue

An earthen berm surrounds an Offutt Air Force Base substation. It is one of five Offutt substations that OPPD personnel fortified.

September 22, 2011

Omaha World-Herald Public Pulse Kudos to the flood fighters

My heartfelt thanks goes to all of the dedicated, hardworking public employees who helped keep floodwaters out of Omaha this summer and fall. Many worked long and hard, putting in much more time than their typical workweeks, so we remained safe and could go about our business.

I traveled through Omaha several times, attended the College World Series and flew out of Eppley Airfield twice during the flooding, without any delays or problems. Thanks.

Jim Wilkinson, Denton, Neb.

their normal lives as much as possible."

Workers from different parts of the company helped sandbag. Cooperation crossed divisional and business unit lines.

"Everybody was working together," said Mo.

Given the long hours, heat and humidity, and the fact that much of the work took place near energized facilities, the safety record of no serious T&D/Substation injuries stands out as a credit to those putting in the work, both Tim and Mo say.

"I was noticing the emergence of new leaders during the efforts," said Mo.

"I saw many leaders develop during this effort, especially young employees. Employees at all levels were taking charge and working together to get the job done."

That's something OPPD will have for the future. Another takeaway is a large number of new plans for similar situations in the future.

"Beyond our inspection/maintenance plans to detect any small problems, we also worked hard on contingency plans so we would be ready in

case the worst happened," said Tim.

Plans were developed and laid out to bring power to Fort Calhoun from a more distant substation in case the plant's substation was lost. Other plans were drawn up to bypass Nebraska City Station and to bring power from North Omaha Station to downtown in case the Omaha levee breached and substations in the North Omaha flood area were swamped. In some cases, OPPD purchased material for the projects to have on hand, just in case.

Now the task turns to bringing all the new plans and lessons learned into OPPD's T&D Emergency Response Plan, while distribution reconnects customers displaced by the flood as their property becomes livable again.

One final takeaway from the flooding stands out in Mo's mind.

"Confidence in our team," he said. "This successful effort to protect OPPD's assets strengthens the fact that OPPD has a highly skilled and committed team to tackle any future challenges and prevail."

By Jeff Hanson



With 24,000 baseball fans in the stadium and millions more watching on television or over the Internet, OPPD worked hard to keep the electricity flowing in the downtown area around the new TD Ameritrade Park during the College World Series.

OPPD Supports Customers Affected by Flooding

While OPPD had problems of its own with the historic flooding, helping customers remained a top priority.

"Our account executives, electrical service designers and field employees worked with customers who also needed to keep their operations intact during the flooding," said Vice President Tim Burke. "Customers like the Omaha Airport Authority, CenturyLink Center and TD Ameritrade Park had much at stake, as their operations impact thousands of people. The same was true for others, like Cargill and the Blair Waterworks."

At Eppley Airfield, for example, additional protection measures were taken to protect 2,700 acres of airport infrastructure worth thousands of dollars. The airport serves more than 4.2 million passengers a year. OPPD Account Executive Wyndle Young spent many hours helping in that effort, as did others.

"OPPD employees kept the lights on this summer in the midst of historic flooding, even with a string of summer storms, one that brought a several-minute-long shower of baseball-size hail," said Tim. "We are proud of that effort."

Counting the Cost

Tracking and categorizing flood-related costs in pursuit of FEMA reimbursement is a huge task.

When serious storms cause extensive damage to OPPD's transmission and distribution systems, a federal disaster declaration will enable OPPD to pursue partial reimbursement for its restoration costs from the Federal Emergency Management Agency (FEMA).

When floodwaters caused damage and forced mitigation measures related to OPPD T&D assets as well as power plants, the FEMA-reimbursement process became more complex.

Summarized below are two key reasons why obtaining flood-related FEMA funding is more involved, as explained by Larry Kaipust, financial analyst in Corporate Accounting. Larry has worked with FEMA on storm-related reimbursements for 14 years.

Insurance

Insurance is normally not involved when it comes to most storm-related damage because OPPD's T&D lines are not insured.

OPPD holds two major property and casualty insurance policies: one covers Fort Calhoun Station physical assets and the other covers basically all other physical assets except T&D lines.

Before applying to FEMA for flood damages, OPPD has to file claims with its two major insurers. Both policies have a \$2.5 million deductible. Any FEMA reimbursement will be based on OPPD's losses after reimbursements.

Experience

The Nuclear Business Unit, Production Operations and other areas dealing with flood-related costs are not normally involved with storm damage. In addition, nobody at OPPD had worked on documenting this type of disaster, so there was a learning process throughout the company.

Creating a timeline of the event and including details of damage and remediation work play big roles. Building OPPD's case for reimbursement has taken considerable coordination among many people companywide, and it has not been easy.

"We've had great support from everyone who

has been providing us information on costs due to the flood. They've done a great job of responding to all of our questions," Larry noted.

For example, numerous employees have gathered vendor invoices related to flood-related work and purchases, and others have reviewed those invoices and provided additional background. Not all invoices provide the level of detail required by FEMA.

As another example, employees had to document the hundreds of pumps OPPD bought to fight the flood, then make a decision about which ones would be retained and which would be sold at OPPD's annual vehicle and equipment auction. Equipment that OPPD is retaining is not eligible for FEMA reimbursement because it's being put to long-term use.

Larry, along with Moses Fernandez, managerial accountant, and Dave Thiele, manager of Asset Accounting & Tax Compliance in Corporate Accounting, express their thanks to everyone who helped track down details and provided supporting documents for this process.

By Terry Zank

Natural Disasters Costly, Damaging

Cleaning up after Mother Nature comes with the territory when you operate an electric utility. Tangled wires. Mangled trees. Ice-covered lines. Flooded grounds. OPPD employees have had their fair share of picking up the pieces and rebuilding its systems over the years.

The following chart highlights the top natural disasters, including the number of customers affected by outages at the height of the event and the cost to repair. As for the flood of 2011, rather than outages, the issue involved 583 customers in low-lying areas who had to be disconnected due to unsafe conditions with water levels. These areas remained unsafe for months. With the flood clean-up still under way, costs may rise further.

Impact of Major Natural Disasters on OPPD

Date	Cause	Outages	Cost
Summer 2011	flood		\$36.6 million*
October 1997	snowstorm	130,000	\$13.6 million
June 2008	wind storm	126,000	\$11.3 million
July 1993	wind storm	80,000	\$2 million
October 1991	ice storm	80,000	\$3-4 million
July 1988	wind storm	75,000	\$2 million
July 2003	wind storm	60,000	\$1 million
December 1982	ice storm	50,000	\$1 million
June 1980	two wind storms	70,000	\$3 million
August 2011	hail storm	40,000	approx \$3.8 million
May 1975	tornado	35,000	\$1 million

*Flood-protection measures

Arming Employees to Fight

Supplies and equipment were brought in from near and far.



From the left, Dave Perez, Ed Jackson, Rissa Conner and Jim Ramirez of Material Management kept busy procuring materials to help fight the flood.

There is no way of knowing just how to fight a 500-year flood. There's no "Flood-Mitigation For Dummies" book, no recipe to tell you how many tons of sand are needed to protect a base-load generating plant and no way of knowing how long this slow-motion disaster will last. The only thing that is certain is that it will take a lot of teamwork, communication and hard work.

After a long Memorial Day weekend, OPPD employees returned to work to find that Missouri River waters were breaking their banks from Kansas to South Dakota and threatening to flood OPPD power stations and facilities. Swift action was needed, which included equipping OPPD employees with the tools necessary to fight the flood.

"Our first order of business was to get vital inventory and equipment away from areas threatened by the water," said Dave Perez, manager of Material Control & Warehousing in Material Management. "It took nearly 24 hours to get the necessary items moved to higher ground at Fort Calhoun Station and nearly three days at Nebraska City Station."

Forklifts and pallets were used in an attempt

to raise material and equipment so it would be out of reach of the encroaching water. Additional material was evacuated by the truckload and stored in portable storage units and at various other OPPD facilities.

Calls poured in to the Material Management Division with requests for flood-mitigation supplies and equipment. These supplies were critical to protecting OPPD's more than \$3.1 billion in assets, as well as public safety. It was a race against the clock.

"There was so much competition in the area for supplies because people from Kansas all the way to South Dakota had the same needs," said Ed Jackson, division manager of Material Management. "Our immediate need was to find sandbags. We bought 50,000 sandbags from the city of Council Bluffs, for example, but that was all they could afford to give, as they had needs of their own."

A connection in St. Louis put Ed in touch with a sandbag supplier in Houston, Texas. Ed hired a trucking company that overnighted the sandbags to OPPD. These kinds of connections were critical for Material Management employees to secure necessary supplies.

the Flood



In the end, OPPD used more than 870,000 sandbags.

The division also coordinated with local businesses. Hy-Vee supplied water and new business relationships were formed with suppliers, such as Bass Pro Shop and Scheels. "We bought everything from mosquito nets for hard hats to air conditioning units," said Ed. Coordination was key. "We got after-hours numbers from our vendors and often called them during nighttime and weekend hours," he added.

Eventually, many OPPD facilities were surrounded by floodwater, protected only by aqua berms and sandbags. Boats and amphibious vehicles were procured and used to bring pumps, lights and other equipment to employees working to protect buildings and infrastructure.

"We received a request one day for hip-high waders," said Rissa Conner, manager of corporate purchasing & inventory control in Material Management. "It wasn't long after that when we received a call requesting chest-high waders.

"None of us had any idea how big this flood was going to be," Rissa added. "It was little things like this that made me wonder when it was going to end."

As the Missouri kept rising, flood-mitigation efforts evolved. "Over time, we informally put together teams and established connections at each station," said Dave. "We were in touch every day to understand their needs. It was a great company-wide effort."

Coordination and communication with suppliers and fellow employees were critical. The Elkhorn storeroom was eventually used for loading, unloading and staging recently purchased equipment. It was also where transportation would tag equipment for tracking before it went out to the field.

While OPPD employees implemented flood-mitigation efforts, there was still a business to run. Mother Nature showed no mercy, with two major storms causing widespread damage during the course of the flood.

"The storms were definitely disheartening," said Rissa. "Fortunately, we have a lot of experience dealing with storms. We know what to expect, what to order and who to call to get it. The flood was a different story. None of us had ever experienced a disaster that was so ongoing."

But eventually, the floodwaters did recede and where water once stood were muddy parking lots and grassless fields. Material Management was left with a surplus of flood-mitigation supplies.

"We rented a lot of equipment, such as portable lighting, but in many cases it was cheaper for us to buy equipment instead of rent it," said Ed. "We auctioned off much of that equipment, such as pumps, ATVs, and amphibious vehicles. The maintenance required wouldn't be worth keeping them."

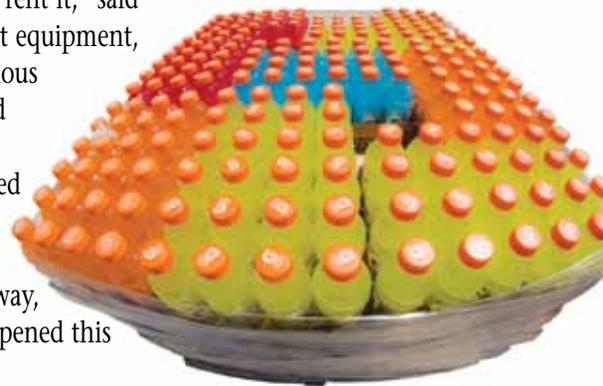
In all, the list of materials required for OPPD to successfully fight the flood was huge. (See list at right.)

Now that cleanup is well under way, employees can reflect on what happened this summer.

"OPPD faced a huge challenge when the Missouri River started to flood. It's amazing what we went through," said Ed. "We overcame it together, with teamwork, communication and a lot of hard work. Because of that, we are an even stronger organization than we were before."

Flood Materials

- 361 life vests
- 126 flotation rings
- 374 boots
- 464 waders (both hip- and chest-high)
- 1,584 mosquito-repelling Bitebands
- 813 cans of bug spray
- 607 mosquito nets for hard hats,
- 1,895 pallets
- 65,400 bottles of water and Gatorade
- 4,000 pounds of ice
- 8,683 linear feet of aqua berms
- 350 pumps
- 138,984 tons of sand
- 870,025 sandbags
- six amphibious vehicles



Keeping employees hydrated as they worked outside during hot summer days meant buying extra water and Gatorade.

By Althea Pietsch



The Little Dam that Could

Gavins Point Dam served as a critical gate to help contain the Missouri River that threatened OPPD for more than three months.

The Missouri River begins in southern Montana in the Rocky Mountains, first flowing north then generally southeast across the heart of the United States, ending at the Mississippi River, just to the north of St. Louis, Missouri. It is the longest river in the United States, stretching 2,500 miles.

Photo courtesy of Army Corps of Engineers.

There are six dams on the Missouri River along its winding route from Montana downstream toward Omaha and points south. The lakes formed by the three dams farthest upstream hold about 85 percent of the water in reservoirs used for recreation and flood control.

The smallest of the six reservoirs nestles almost-forgotten behind the Gavins Point Dam near Yankton, S.D. Not only is Gavins Point the smallest, but it's the dam closest to Nebraska –

and the OPPD power plants along the Missouri between Fort Calhoun Station and Nebraska City.

Yet Gavins Point played an out-sized role in preventing worse damage than occurred during the epochal flood of 2011, equaling or surpassing the role of any of the others in the Missouri River Mainstem Dam System, said OPPD's Russ Baker, manager – Environmental & Regulatory Affairs.

“Ultimately, Gavins Point controlled the impact of the flooding downstream,” Russ said. “The bigger dams control the vast majority of the water, but Gavins Point served as a gate to regulate the flow of water downstream. Who knows what would have

happened without Gavins Point?”

Think of the little Dutch boy with his finger in the dike, and you have a simple, but dramatic picture of the job left to little Gavins Point Dam. The dam hadn't been constructed in 1952, when the last major flood threatened to overwhelm downtown Omaha and Council Bluffs. If not for Gavins Point, floodwaters might have surpassed the 1952 levels this year.

Despite months of massive flooding, the worst was avoided as Gavins Point functioned as a critical checkpoint to regulate the flow of rushing water. “The system minimized the impact of the catastrophic event we might have had in late May,” Russ said.

With a heavy winter snowpack followed by heavy May rains, the Missouri River reached its most threatening stage over the Memorial Day weekend. It was then that the Army

Corps of Engineers announced an impending rise in river levels of six to eight feet. In the next couple of days, OPPD launched intensive measures to protect its power plants by ordering aqua berms, sandbags and other equipment. As the flood peaked, the corps dramatically increased the release of water at Gavins Point to a record 160,000 cubic feet per second, a level that was maintained most of the summer.

Fortunately, OPPD's extensive preparations proved sufficient to prevent widespread damage to its infrastructure.

The corps has released a more in-depth picture of this year's flooding.

“It is staggered what could have happened,” Russ said.

Perhaps the role of Gavins Point Dam will be seen in historic perspective as the little dam that could.

By Chris Cobbs

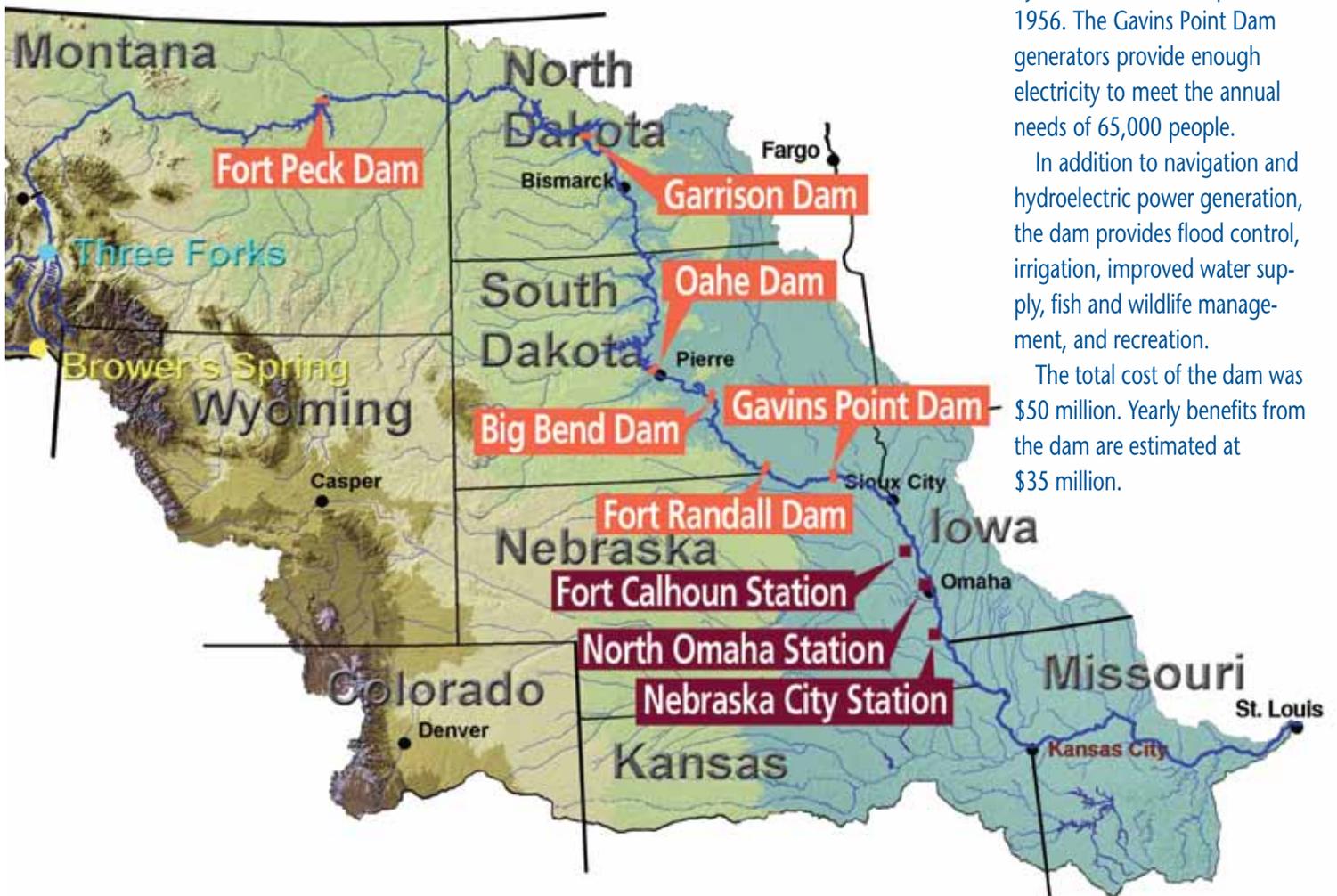
Historical Highlights Of Gavins Point Dam

Gavins Point Dam was authorized by the Flood Control Act of 1944, commonly called the Pick-Sloan Plan. Under this plan, Gavins Point was designed primarily to provide a steady out-flow of water to assist navigation on the lower Missouri River. Located four miles west of Yankton, S.D., ground was broken at the damsite on May 18, 1952.

Water released from the five upstream dams is used at Gavins Point Dam for production of hydroelectric power. The power plant began producing electricity for customers in September 1956. The Gavins Point Dam generators provide enough electricity to meet the annual needs of 65,000 people.

In addition to navigation and hydroelectric power generation, the dam provides flood control, irrigation, improved water supply, fish and wildlife management, and recreation.

The total cost of the dam was \$50 million. Yearly benefits from the dam are estimated at \$35 million.





Flooding destroyed Jay Cate's home near Honey Creek, Iowa. Jay works at Fort Calhoun Station.

Flood's Hardships Can't Dampen Spirits

Sense of family – and humor – bolster OPPD employees amid property loss, lengthy commutes and months of stress.

Jay Cate, 48, Supervisor in System Engineering, Fort Calhoun Station, 25 years with OPPD

Thanks to extraordinary protective measures, OPPD's infrastructure suffered relatively little damage in this year's flood.



But for longtime employee Jay Cate and his fiancée, the outcome was far more severe. The flood totaled their home and guest house near Honey Creek, Iowa. Jay didn't have flood insurance because he couldn't imagine the river ever becoming a threat to their property about 15 feet above and 50 yards away from the normal level of the Missouri River. He knew if the water ever reached their home, floodwaters would also be over the interstate, and he didn't believe that would ever happen.

Jay was at work on the evening of May 29-30 when reality set in. Already aware

of the rising water, he logged on to the Army Corps of Engineers website and learned of the enormous planned releases from Gavins Point Dam. "I could see the roads would become inaccessible and we would have to move," Jay said. "It was pretty rough."

When Jay got home from work on the morning of June 1, he discovered his fiancée's 1976 Chevy Blazer that they were planning to use



Jay and Dawn Cate bought this home, located on several acres near Crescent, Iowa.

to haul belongings through the floodwaters had been stolen from an access road near their home. While it was difficult to imagine at the time, the theft ultimately proved to be a very positive development. Jay's fiancée, Dawn, surfed Craigslist to rent a large military truck for moving their belongings. She found an individual who volunteered to haul several loads of furniture to a storage building he owned.

To salvage the rest of their property as the floodwaters encroached, Jay spent the next six days moving furniture by boat, tractor and truck to their new friend's storage building. He was assisted by Dawn, along with several family members and friends.

Jay and Dawn spent part of the summer in a rental house owned by the man who'd provided the truck for hauling their furniture and belongings. To complete the circle begun by the theft of the Blazer, the couple ultimately bought a home on 22 acres in the hills near Crescent, Iowa, about 10 miles from their flooded riverfront home. The seller was the new friend they'd found through Craigslist.

"We scraped together the down payment for our new house by going deep into our savings," said Jay. The "new" house is actually an older home that needs some restoration. Jay has begun work on the kitchen, which they want to complete by Thanksgiving. Once the kitchen is done, he will move on to a bathroom and other parts of the house.

"We had just finished remodeling the house on the river about the time of the flood," said Jay. As if nature hadn't inflicted enough damage, a late-summer hailstorm knocked out 10 windows in four vehicles belonging to Jay and family members, and heavily damaged the roof, siding and windows of their new home.

Despite the stress of the last few months, life hasn't been without its blessings. Even before the floodwaters receded, Jay and Dawn joined thousands of others on a motorcycle outing to Sturgis, S.D. Not long after their return, they were married Sept. 10 and enjoyed a week-long honeymoon in Jamaica.

"We had just finished remodeling the house on the river about the time of the flood."

- Jay Cate
System Engineering

**Dennis Snook, 38, Manager,
Emergency Preparedness & Business
Continuity – Finance, five months
with OPPD**



Dennis Snook had been involved with his share of disasters, including Hurricane Katrina, the Von Maur shootings and Little Sioux tornado. At the time of those events, he managed the Behavioral Health Emergency response for Omaha and five surrounding communities. Even those experiences, however, did not fully prepare him for the multiple extended challenges he faced this summer as manager, Emergency Preparedness & Business Continuity – Finance.

Dennis had been at OPPD only three weeks when the Missouri River began overtopping its banks and the Corps of Engineers began releasing record flows from Gavins Point Dam. There had been barely enough time to acquaint himself with the Business Continuity Plan and other documents pertaining to management of storms and other emergency events. Recent retiree Mary Finley returned for two weeks as a contract employee to help get him up to speed.

Still, neither Dennis nor anyone else at the company could have been fully prepared for a three-month flood that posed a massive threat to

"I was so proud to see a quick demonstration of OPPD's response as a family."

- Dennis Snook,
*Emergency Preparedness
& Business Continuity*

Muddy floodwaters proved destructive, and Rod Hunter of Information Technology lost his mobile home that was located near the Missouri River.



OPPD's infrastructure and operations. When the scope of the flood presented itself, Dennis suddenly was thrust into 70-hour weeks as head of a team of 58 individuals charged with protecting OPPD's ability to deliver power reliably and safely to more than 346,000 customer-owners.

The first significant task was his assignment by President Gary Gates to acquaint the managers and decision-makers across the utility's service territory with the fine print of the Business Continuity Plan. "Early in the crisis, the communication piece – getting everyone on same page – was difficult," he said. "Until that was done, there was a greater potential for mistakes. But it only took a couple of days, really. I was so proud to see a quick demonstration of OPPD's response as a family."

From a personal standpoint, Dennis was unable to attend a variety of summer activities involving his three sons, ages 8, 9 and 12. Starting work at 6 a.m. and sometimes continuing until midnight deprived him of time with family. To help cope with the prolonged absences and demanding schedule, Dennis drank lots of pop and tried to lighten the inevitable stressful moments by sharing a quip and encouraging

others to join in with a little joke. "I've found that keeping it light in an appropriate way helps build camaraderie," he said.

**Rod Hunter, 54, supervisor –
Software Engineering Projects,
Information Technology Division,
29 years with OPPD**



For the past 27 years, Rod Hunter maintained a mobile home on a recreational spot with a boat ramp on the Missouri River about 45 minutes north of Council Bluffs. The mobile home, about 18 miles from his residence, served as a weekend getaway spot for Rod, his wife, three sons and friends.

"It was a summer place for boating," Rod said. "We didn't do much fishing, but we enjoyed tubing, skiing and taking in the scenery along the river."

The mobile home was not lavish by any standard. It had a kitchen, one bedroom, couch, table, stove and refrigerator, and it was dated. Still, it was a familiar and comfortable spot for the family until this summer's flood filled it with five feet of water and washed away the dirt under its foundation.

Rod was able to salvage most of the belongings from the mobile home, but the structure itself was a total loss. "It was maybe a loss of \$4,000 to \$5,000," he said. "We were better off than many others. We knew friends who had invested maybe \$15,000 to \$20,000 on a deck and screened porch for their places."

He might invest in a used recreational home to replace the lost property. However, he isn't certain if the leased land where his trailer stood will be cleared of fallen trees and the boat ramp cleared of mud and repaired by next summer. Yet, it's hard for him to contemplate not getting back on the Missouri next year. After all, he's had a boat since 1977.

If there is a positive note for Rod, it's that his commute to work is back to normal. During the flood, road closures caused him to take detours that added at least 15 minutes each way to his normal 40-minute drive. "There was a two-lane road, so there was no passing and everyone had to play follow the leader," he said. "But I feel fortunate because I know so many other people suffered a lot worse during the floods."



Mike Fitzpatrick, 48, manager, EMS Operations, 25 years with OPPD



Mike Fitzpatrick was spared the agony of wondering if his home would be flooded this summer. His home is located in the hills above Missouri Valley, so he didn't have to place sandbags around his property, or move belongings to higher ground.

The flood didn't threaten his home, but it altered his drive to work in Omaha. His commute nearly doubled in length, from about 35 minutes one-way to 55-60 minutes.

It wasn't just the longer drive, but the overcrowded two-lane road that had the most impact on Mike. "It was definitely more stressful than driving on the interstate," he said.

"Being on a two-lane road with lots of traffic in both directions, you have to be more aware of what you are doing and watch out for impatient drivers. You also have to pay attention to deer and turkeys. I saw a lot of them."

While Mike was at work, his wife volunteered her time, providing tech support for the Red Cross, which was housed in temporary quarters at Missouri Valley Community School.

Joy Hall, 58, administrative clerk, Nebraska City Station, 25 years with OPPD



Since the onset of the flood in early June, Joy Hall has been working four 10-hour shifts in her job as administrative clerk at Nebraska City. Previously, she had worked "standard" eight-hour shifts, five days a week.

But don't believe for a moment the flood hasn't had an impact on her life and work. Washed-out roads forced her to take detours from her home east of Percival, Iowa, to Nebraska City. The circuitous routes added up to 90 minutes of driving each way on her daily commute.

Arising at 3:30 a.m., she showered, dressed and put together a bag lunch before leaving home at 5 a.m. She allowed a little extra time in order to reach Nebraska City at 7 a.m. Ten hours later, she departed for the 90-minute home-bound trip. For dinner, Joy and her husband

munched popcorn and maybe ate a salad. They were just too tired to fix anything more elaborate.

Despite the long commutes, Joy isn't one to complain. "I was grateful for the opportunity to work four 10-hour days, which gave me three days to catch up on shopping, housework and other things," she said.

"More important, we didn't lose our home to the terrible flooding."

David Hume, 54, Service I/C Tech, Nebraska City Station, 8 years with OPPD



The Missouri River didn't come close to David Hume's home in the hills of Tabor, Iowa. But the Mighty Mo still forced him to find a new place to live for several months.

The reason for his relocation was the closure of Highway 2 in mid-June. With the road flooded, David faced a commute of more than an hour to his job in Nebraska City.

Rather than spend the extra time driving, he joined an old high school friend, Randy Moreland, at a campground in Nebraska City.

As many as 40 people from Iowa and Missouri took refuge at the campground. "We call ourselves the boat people," David said.

David and his pal eventually moved into roomier quarters in the back of Randy's furniture store in Nebraska City. David's plan was to continue living there until the reopening of Highway 2.

Meanwhile, David's wife, Nancy, continues to live in Tabor, commuting daily to her job in Papillion. David and Nancy see each other on weekends. "Nancy is very self-reliant and has lots of friends in Tabor," he said.

By Chris Cobbs



"Being on a two-lane road with lots of traffic in both directions, you have to be more aware of what you are doing and watch out for impatient drivers. You also have to pay attention to deer and turkeys. I saw a lot of them."

**- Mike Fitzpatrick
EMS Operations**

Many employees encountered longer drives to work due to extensive flood damage. Below is a section of I-680.

It didn't take OPPD communicators long to develop a communication plan once they learned how the inevitable flooding would impact OPPD and many of its customers.

The Corps of Engineers notified OPPD on May 28 of "deteriorating" conditions and its need to increase the amount of water being released from the Missouri River basin reservoir system. With that information, OPPD senior managers and others quickly crafted flood-mitigation plans that they would have to implement alongside their regular day-to-day duties.

With so many parts to this evolving crisis, and so many audiences to keep informed, a mix of communication vehicles was critical.

Corporate Communications Division Manager Lisa Olson, Executive Communication Manager DJ Clarke and Jeff Hanson, manager of Public Information & Community Relations, built a plan that included the following communication vehicles:

- *Flood Update/ Flood Recovery* newsletters
- Intranet messaging for employees and retirees
- Internet messaging for customers and other curiosity- and information-seekers
- Flood blog and videos
- Social media messaging via Twitter

"I was extremely proud of the work the Corporate Communications team did during this historic event," added Lisa.

News of Flood Spread Across Globe

OPPD communicators used many tools to disseminate information, squelch rumors and keep flood fighters on the same track.

Flood Creates Waves of Media Attention

If you worked in Corporate Communications Media Relations, it seemed like the telephones would never stop ringing. The calls came at all hours of the day and night, even on weekends, people hoping for information or the latest

Calhoun Station. As a result, no plant drew more media attention.

The scrutiny had started in April on the heels of the earthquake disaster in Fukushima. The event, which damaged several nuclear plants there, prompted many to ask, "Could what happened in Japan happen here?" As water levels on the Missouri River slowly rose, so did the questions about Fort Calhoun.

By June, the trickle of questions turned into a torrent when the plant suspended all other activities, including a nuclear refueling outage, to focus on flood protection, and three days later, declared a flood-related emergency.

The volume of calls jumped from two or three daily to

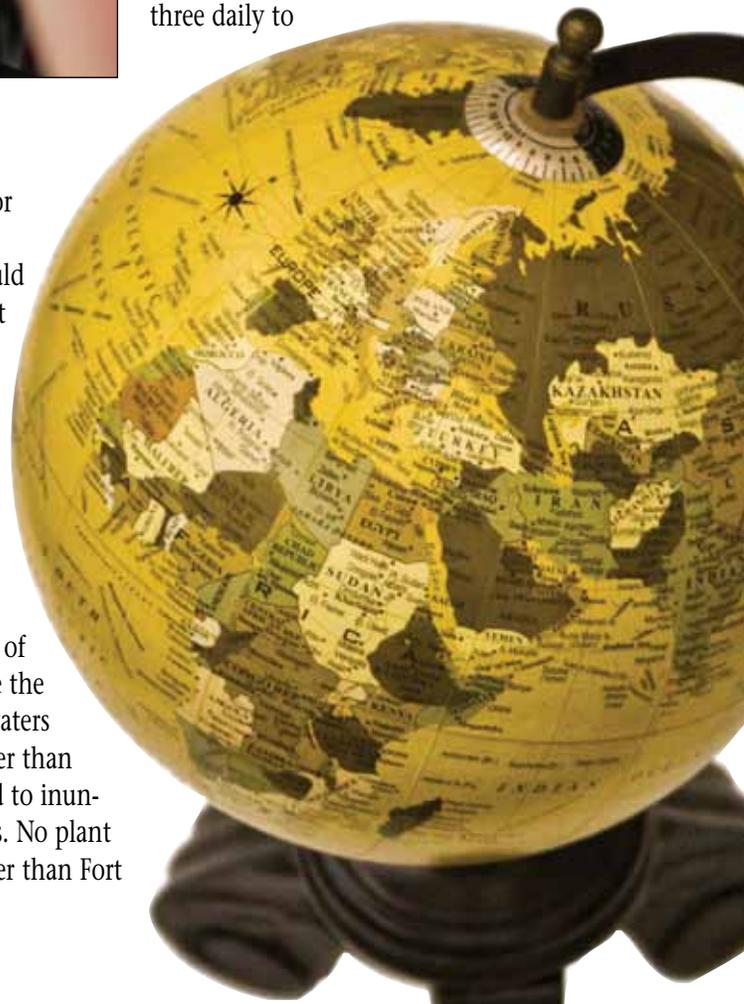


Nuclear Regulatory Commission Chairman Gregory Jaczko toured FCS on June 27.

update. The situation persisted not for days, not for weeks, but for months.

As OPPD President Gary Gates would tell a gathering of the district's largest customers just a few months later, "We were suddenly once again in the national spotlight." However, the spotlight had never shone like this.

The calls came from reporters, editors, columnists, bloggers, talk show hosts and others. They were local, national and international. The level of attention was unprecedented because the situation was unprecedented. Floodwaters on the Missouri River had risen higher than anyone had ever seen and threatened to inundate major OPPD generating facilities. No plant found itself surrounded by more water than Fort



more than three dozen once the flood emergency was declared. One day later, the numbers shot up even further when a small electrical fire occurred in a switchgear room. The duration of the fire was short, but it was enough to cause the plant to issue an Alert for the first time in 19 years.

Media inquiries ballooned to more than 100 over the next few days. In addition to local reporters, those with questions came from New York, Atlanta, Los Angeles, Chicago, Houston, Sacramento, Washington and places outside the U.S., such as Canada, Great Britain, Germany, Mexico and Japan. False reports and rumors about a radiation leak (not true) also began to spread as far away as Pakistan and Russia, prompting even more calls for interview requests, explanations, additional information and responses.

By the end of June, the persistent news reports convinced Chairman of the Nuclear Regulatory Commission Gregory Jaczko to tour Fort Calhoun for a firsthand look at the situation. The visit served to ratchet up media attention even more. Among national correspondents following Jaczko's visit were those from CNN, MSNBC, ABC, the *New York Times* and Associated Press.

Others would make their way to Omaha in the days that followed, including reporters from Fox News, the Weather Channel, and even two of Japan's largest news-gathering organizations.

Jaczko wrapped his tour by noting he was satisfied that Fort Calhoun Station was not a safety risk. He also said, "It's certainly clear that this is not an issue that is going to go away any time soon." His words proved prophetic.

Outside of the flurry of activity surrounding Jaczko's visit, Corporate Communications would field more than 200 media contacts in June alone. That number does not include those reporters who chose to follow the situation by visiting OPPD websites or turning to social media.

Even after the flood had been declared officially over, the media attention seemed unwilling to fade away. In mid-October, a publication

in Great Britain announced plans to do an article about the flooding at Fort Calhoun Station and how it was handled. The request is a demonstration that the memory of the summer of 2011 will be with us for a very long time.

I can still hear the phones ringing.

By Mike Jones

Flood Newsletters Kept Audiences Updated

Corporate Communications issued its initial *Flood Update* newsletter on June 2, the same day that the utility activated its Business Continuity team to centralize flood operations.

"Even though we have publications that we use to communicate with employees, we felt we needed a special-purpose one to focus solely on flood-related information," said Vice President Tim Burke. "We also wanted to expand the distribution of this beyond employees and retirees, sending it to community leaders, government officials and the media. The publication also had to be produced and distributed quickly so it would be timely."

In most instances, PDF versions of the newsletter were emailed to readers. Print versions were distributed on a few occasions, such as at special meetings and county fairs. Issues also were posted on the intranet for employees and retirees to access.

Seven Corporate Communications employees were assigned "beats," and these employees checked daily with key sources in those areas and then reported important details. The beats included Fort Calhoun Station, Nebraska City Station, North Omaha Station, Transmission & Distribution and Substation, Safety, Corps of Engineers, Corporate Incident Command team, Washington County and Media. The newsletter also included important messages from OPPD President Gary Gates and talking points for employees, when warranted.

"We appreciate our sources keeping us in the loop, sometimes when they were in the midst of dealing with multiple crises in their areas. There were several eleventh-hour phone calls to them to verify details at deadline time, but everyone came through for us," said Tim.

These efforts paid off. The Nebraska Emergency Management Agency cited the newsletter as a best-practice. Corporate Communications received favorable feedback from employees, government contacts, reporters and community leaders.

The newsletter was distributed daily initially, then on as as-needed basis. By Aug. 12, the newsletter name changed to *Flood Recovery* to make it clear to readers that it had shifted to a recovery effort. The final issue on Sept. 15 directed readers to oppd.com for continued updates.

In all, 23 flood newsletters were published between June and September.

By Paula Lukowski



Flood Information Floods the Internet

June 24, 2011

CNN.com

"People are getting scared by a lot of misinformation. It's primarily coming from Internet bloggers rather than the mainstream media. None of them have bothered to check with us."

Victor Dricks, Nuclear Regulatory Commission spokesperson

Social media is a growing tool used to turn online communication into an interactive dialogue. It can take many forms, including blogs and microblogs (e.g., OPPD's Outage Information blog and Twitter), content communities (e.g., YouTube), and social networking sites (e.g., Facebook). In today's business world, these tools are key to communicating with customers.

This year's flooding posed safety risks and forced OPPD to disconnect some customers. OPPD created a dialogue with customers using social media and oppd.com. This enabled OPPD to communicate safety, flood and outage information; address flood rumors; and better understand the needs and concerns of customers.

OPPD.com: OPPD's website is its primary online tool for communicating with customers. To communicate flood information, the home page was used to display links to pages containing safety and flood-recovery information, video interviews with President Gary Gates and other employees, frequently asked questions and more. From June 1 to

Captured on Video

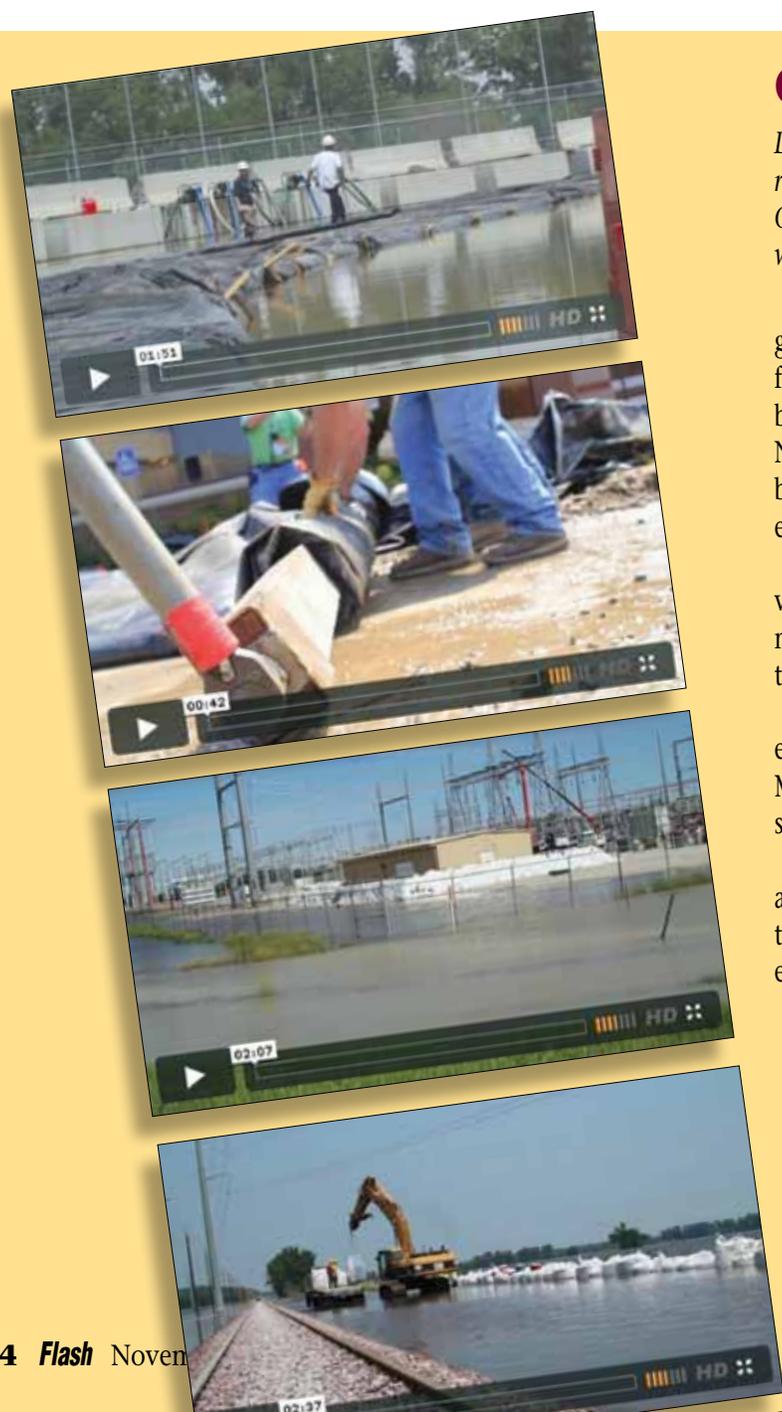
Documentation of flood-related efforts was important to keep record of OPPD history. Django Greenblatt-Seay (Corporate Communications) explains the division's part in the company's wide-scale effort to capture the events of the summer.

Corporate Communications captured more than 200 gigabytes worth of photos and video from this summer's flood. We documented the filling and placement of aqua berms at Fort Calhoun Station, the raising of the rails at Nebraska City Station, and the construction of an earthen berm around the FCS switchyard, among many other key events.

We were able to provide the local media with several video updates for their newscasts, without the need to make frequent arrangements for their video personnel to tour the site.

Images captured from the event are being used in an effort to retrieve federal emergency reimbursement funds. Many employees have also used them as content for presentations made both inside and outside the company.

In the future, when we look back on this event, we'll be able to use that data to better understand what we went through and how it stacks up against other significant events in OPPD's history.



From a bird's-eye view, Django Greenblatt-Seay captured the flooding in photos and video.

Aug. 15, oppd.com received nearly 600,000 pageviews.

Rumors surrounding the safety and condition of OPPD facilities were widespread during the course of the flood. To combat those rumors, OPPD initiated a rumor control page on oppd.com. This page received 22,428 hits throughout the course of the flood.

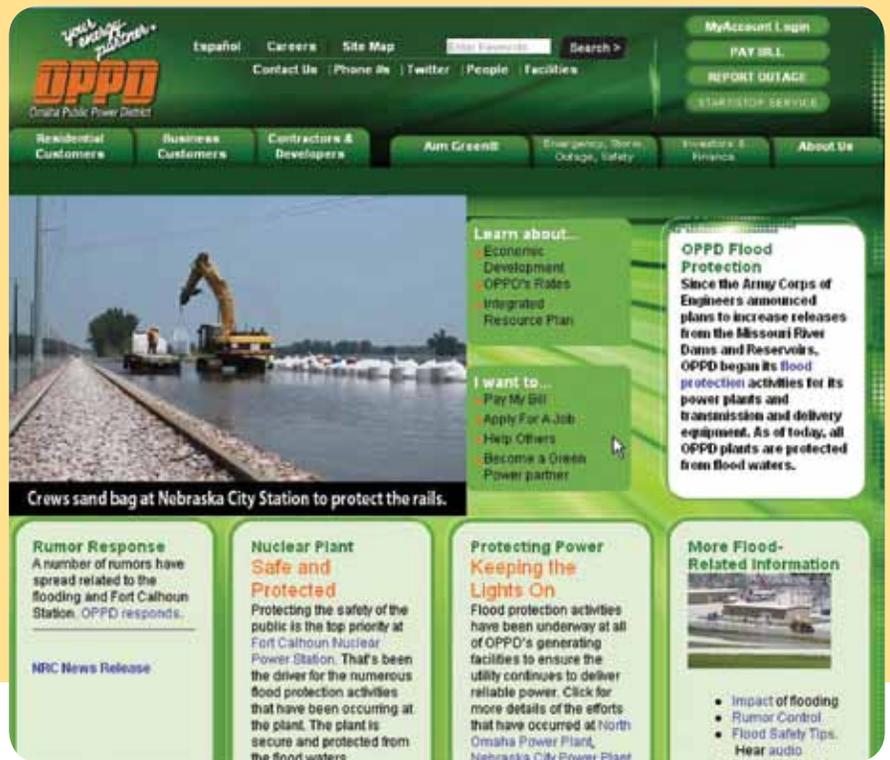
Outage Information Blog, OPPDStormInfo.blogspot.com: OPPD's Storm & Outage Information blog is used to give customers a quick look at power outage and restoration information. During the flood, the blog was retooled to give customers and media up-to-date information on flood-mitigation and power-restoration efforts, as well as photos of impacted OPPD facilities.

In the month of June alone, the OPPD Storm blog received more than 22,000 hits. Over the course of the flood, the blog attracted readers from more than 88 countries, using 74 languages.

Twitter, Twitter.com/OPPDcares: OPPD used Twitter throughout the course of the flood to expel rumors and to provide safety tips and credible sources of flood information.

"There were a lot of rumors flying around Twitter," said Kim Wear, energy management representative in Corporate Communications. "By using OPPDCares, we were able join the conversation and provide people with facts."

Since June 1, OPPD has increased its Twitter followers by 16 percent.



communicating with this audience quick and easy.

"In today's world, information flows very, very fast," said Kim. "We have to be able to pick up on rumors and respond to them quickly. These online tools make that possible."

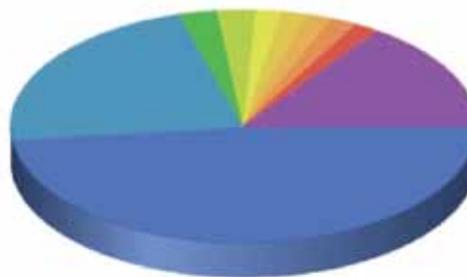
By Althea Pietsch

Because of prolonged effects of flooding, OPPD temporarily shifted the focus of its Internet homepage to primarily reflect flood-protection efforts. Below left, OPPDCares' tweets were viewed throughout the world.



Customers tweeted in OPPD's defense, and OPPDCares joined the conversation, as shown above.

OPPD gained a global audience during the course of the flood. These online tools made



Region	Clicks
Germany	48.2% (54)
United States	22.3% (25)
European Union	2.7% (3)
Japan	2.7% (3)
Australia	1.8% (2)
Switzerland	1.8% (2)
Austria	1.8% (2)
Azerbaijan	1.8% (2)
France	1.8% (2)
Others	15.2% (17)



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