

SPP Energy Emergency Alerts impact central and western Iowa

Utilities across the Midwest, including Corn Belt Power Cooperative, implemented load control measures and temporary service disruptions to some accounts on Feb. 15 and 16. These highly unusual control measures protected the supply and demand balance of the grid. Demand exceeded available electric generation because of extremely cold weather impacting the region over several days.

Many electric utilities across the country are members of one of nine regional transmission organizations (RTOs) and independent system operators (ISOs), also referred to as power pools. Corn Belt Power Cooperative's RTO is Southwest Power Pool (SPP). These federally regulated entities work on a regional scale to coordinate, control and monitor supply and demand on the electric grid. RTOs do not own the power grid, but they do work as "air-traffic controllers" of the grid to ensure reliable supplies of power, adequate



Fuel oil powers Wisdom Unit 2

Above | Scott Gilderhus, mechanic, Corn Belt Power Cooperative, closes the transfer valve during one fuel oil transfer of the 115 truckloads delivered to Wisdom Station between Feb. 8 and 19 amounting to 922,808 gallons. Fuel oil powered Wisdom Unit 2's continuous run while extreme arctic weather covered the Southwest Power Pool territory from Canada to northern Texas (see infographic below). A lack of natural gas led to the curtailment of Unit 1 operations. For the first time in 80 years, SPP issued level 2 and 3 Energy Emergency Alerts and implemented load curtailment measures with utilities across their territory including Corn Belt Power. Electric generation in the SPP system couldn't keep up with the unprecedented and historically high energy demand.

transmission infrastructure and competitive wholesale electricity prices on behalf of their members.

SPP issued unprecedented Emergency

Energy Alert (EEA) Level 2 and Level 3 orders to its member utilities across several states on Feb. 15 and Feb. 16, calling for high levels of electric load reduction and the curtailment to match available supply. To put it simply, there was not enough available generation supply to meet the exceptionally high electric demand.

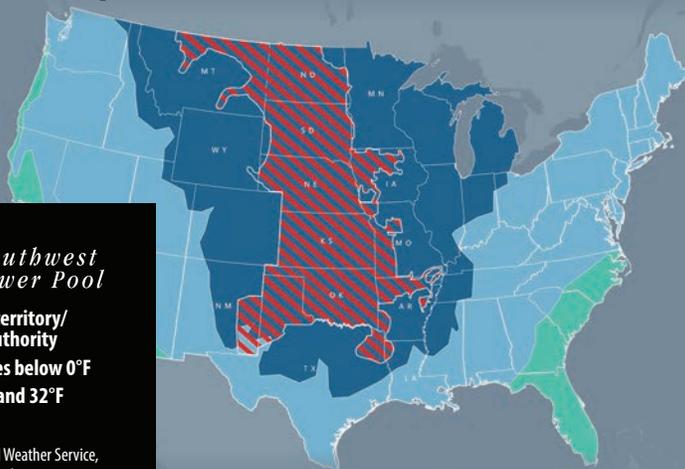
Corn Belt Power's times of curtailment included:

■ **Monday, February 15**, Corn Belt Power curtailed 5 megawatts of load for approximately 45 minutes around the noon hour. Approximately 1,500 accounts were without power.

■ **Tuesday, February 16**, Corn Belt Power was asked to curtail 24 megawatts of load between 6:45 – 10:15 a.m. Approximately 12,500 accounts were without power at some point during the event.

These outages occurred without much advanced warning as **Continued on page 2...**

Lowest temperatures forecast for Feb. 14-16, 2021



 **SPP** Southwest Power Pool

-  SPP service territory/ balancing authority
-  Temperatures below 0°F
-  Between 0° and 32°F
-  Above 32°F

Sources: National Weather Service, Global Forecast System

SPP energy alerts

Continued from page 1

SPP manages electric supply and demand minute-by-minute in real time. Corn Belt Power Cooperative had minutes to shed specific electric load levels as they complied with Level 3 orders.

Outages and load curtailment measures are necessary to protect the entire SPP grid. If electric generation cannot keep up with electric demand, grid reliability can be severely compromised. In the worst-case scenario, power plants across the SPP footprint would have been at risk of cascading outages that would have left tens of thousands of electric consumers in the dark for hours, possibly even days. When possible, electric utilities work to avoid interrupting service to critical facilities.

During the event Corn Belt Power's Wisdom Station Unit 2 ran continuously on fuel oil. Lack of natural gas led to the curtailment of Unit 1.

Jacob Olberding, vice president, power supply, Corn Belt Power, said fuel orders were made around the clock.

"As of Friday, February 19, we ordered 115 truckloads of fuel oil, amounting to 922,808 gallons for Unit 2," he said. "That total includes a one day run on Feb. 8. Our continuous run started on Friday, Feb. 12. This is certainly an unprecedented event. Wisdom Station hasn't seen this type of run on fuel oil ever. It's really a testament to our plant employees' hardwork. They worked around the clock to make sure Unit 2 stayed online and ran efficiently." ■

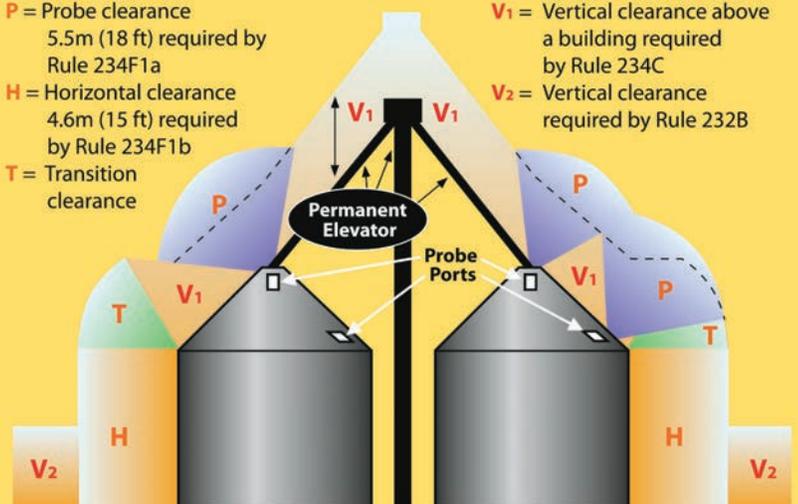


Monitoring Unit 2

Above | Mike Cowell, shift operator, Corn Belt Power Cooperative, monitors Wisdom Unit 2 fuel oil pressure gauges during rounds to ensure efficient operations.

Clearance envelope for grain bins filled by permanently installed augers, conveyors or elevators

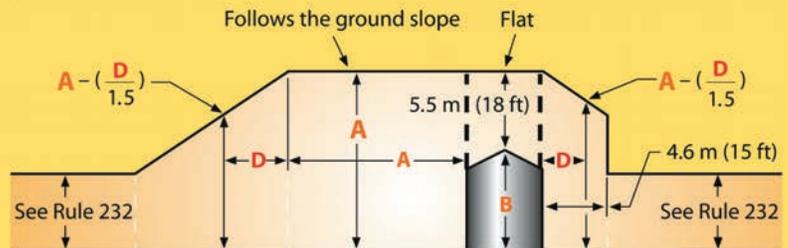
- P** = Probe clearance
5.5m (18 ft) required by Rule 234F1a
- H** = Horizontal clearance
4.6m (15 ft) required by Rule 234F1b
- T** = Transition clearance
- V₁** = Vertical clearance above a building required by Rule 234C
- V₂** = Vertical clearance required by Rule 232B



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Clearance envelope for grain bins filled by portable augers, conveyors or elevators

ELEVATION



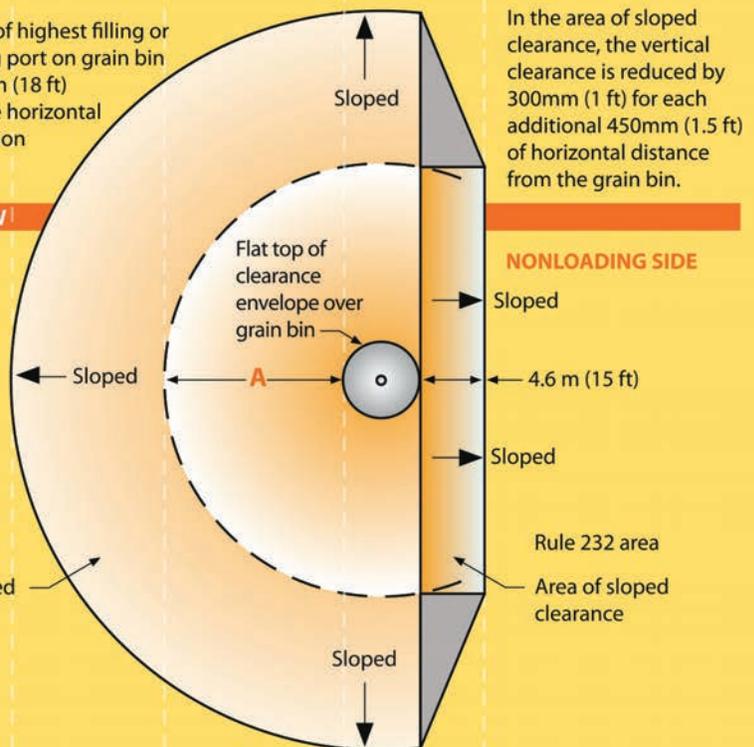
- B** = Height of highest filling or probing port on grain bin
- A** = $B + 5.5\text{m (18 ft)}$
- D** = Variable horizontal dimension

In the area of sloped clearance, the vertical clearance is reduced by 300mm (1 ft) for each additional 450mm (1.5 ft) of horizontal distance from the grain bin.

PLAN VIEW

LOADING SIDE

See Rule 232
Area of sloped clearance



NONLOADING SIDE

Rule 232 area
Area of sloped clearance

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Jack Arndt

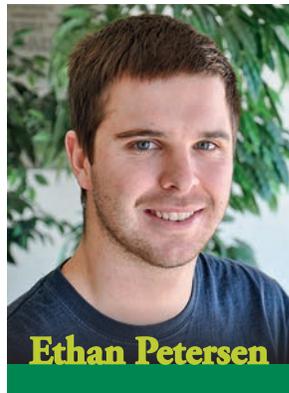
Arndt begins as apprentice lineman

James “Jack” Arndt started Friday, February 12, as an apprentice lineman on Corn Belt Power’s Emmetsburg transmission crew. Arndt attended Northwest Iowa Community College and has a Powerline degree. He is a graduate of Humboldt High School and will work with the crew until Howard Henkelvig returns from active duty. Welcome to Corn Belt Power, Jack. ■

News in brief

Petersen Transfers to Humboldt

On February 1, 2021, Ethan Petersen, apprentice lineman, transferred from Emmetsburg to the Humboldt transmission crew. Petersen joined Corn Belt Power as an apprentice lineman in January 2019. Welcome to Humboldt, Ethan.



Ethan Petersen

Shine the Light, a new statewide volunteer program

With the goal of shining the light on community volunteers across Iowa, three G&T electric co-ops have joined forces with the Iowa Association of Electric Cooperatives (IAEC) to create a new contest called Shine the Light. The cooperative principle of commitment to community is the driving force behind this collaboration among Central Iowa Power Cooperative (CIPCO), Corn Belt Power Cooperative, Northwest Iowa Power Cooperative (NIPCO) and IAEC.

“When Touchstone Energy’s national Who Powers You? contest ended in 2020, we saw an opportunity to develop a contest sponsored by the Touchstone Energy Cooperatives of Iowa to celebrate volunteers in our communities,” says Dawn Sly-Terpstra, VP of member relations at CIPCO. “Shine the Light is an organic way for Iowa’s electric co-ops to engage with member-consumers and reinforce our cooperative values.”

A judging panel will select three Iowa winners who will each receive a \$1,500 check for their local charity or organization.

The winners will be announced in the newly renovated Rastetter 4-H Building during the Iowa State Fair in August. “The building is sponsored by the Touchstone Energy Cooperatives of Iowa during the fair and this is a strategic opportunity to strengthen the brand,” says Angela Catton, manager of member relations/development at NIPCO.

Employees and member-consumers of Iowa’s electric co-ops are eligible to nominate community volunteers. “We kept the application process simple to encourage more entries,” says Ryan Cornelius, vice president, corporate relations at Corn Belt Power Cooperative. “The three winners will also be featured in the September issue of Living with Energy in Iowa magazine, which is mailed out monthly to over 54,000 co-op member-consumer households and businesses.”

IAEC will host an informational Zoom session about the contest on March 18 at 10:00 a.m. Additionally, IAEC will share promotional resources with Iowa’s electric co-ops by April, including newsletter content and social media content. For more information, contact Ryan Cornelius at Corn Belt Power, or IAEC Communications Director Erin Campbell.



Corn Belt Power annual meeting scheduled

“The Art of Resilience” is this year’s annual meeting theme.

The cooperative’s annual meeting is scheduled for Wednesday, April 7 at the Starlite Best Western in Fort Dodge.

Normally, Corn Belt Power sends invitations for its annual event in March. The cooperative will decide on or before March 10 whether or not it plans to have the event in person. Invitations will be sent if an in-person event is scheduled. If health and safety protocols cannot be met, a scaled-down event will be held virtually.

If the event is held in person, this year’s keynote speaker is retired Navy Seal Jason Redman.

Lieutenant Redman joined the Navy on September 11, 1992 and spent eight years as an enlisted SEAL.

As an enlisted SEAL Redman completed three deployments throughout Central and South America and spent two years as a training instructor before being selected for the Seaman to Admiral Commissioning program in 2000.

He attended Old Dominion University graduating Summa Cum Laude in May 2004 completing his time with the Hampton Roads Naval ROTC as Student Battalion Commanding Officer before he was commissioned as a Naval SEAL Officer.

Over the next four years, Lieutenant Redman completed combat deployments in both Afghanistan and Iraq. On September 13, 2007, outside of Fallujah, Iraq, Lieutenant Redman’s Assault Team came under heavy machine gun and small arms fire and he was severely wounded in the ensuing firefight. While recovering at Bethesda Naval Medical Center, Redman authored and hung a bright orange sign on his door, which became a statement and symbol for wounded warriors everywhere. ■

It was all hands on deck in Corn Belt Power's control center the week of Feb. 15. Here, (from left) Mike Finnegan, system electrical superintendent; Kevin Bornhoft, vice president, engineering and system operations; Jeremy Stattelmann, transmission superintendent; Jon Behounek, chief system operator; Chris Bruening, outage coordinator and system operators Tom Hanrahan and Jake McCullough manually shed load to comply with Southwest Power Pool's load curtailment directives. Read more on pages one and two.

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February Touchstone Energy Volunteer Challenge winner | Amy Howard, communications specialist, Iowa Lakes Electric Cooperative, donated her \$100 prize drawing to Estherville Post Prom.



Jim Mertz

The power of human connections

Jim Mertz, electrical maintenance foreman, Corn Belt Power Cooperative, demonstrates the Touchstone Energy value of commitment to community as a newly appointed Humboldt County School Board member.

Mertz replaced a board member in January who took on a position with the district. Jim and his wife Kerri have a son in the Humboldt school system.

Jim also volunteers for the Humboldt Zoning Board of Adjustment and the Planning and Zoning Board. He is also the secretary for the Rifle and Pistol Club and assists with coaching a youth pistol team.



CPR and First-aid certifications earned

Above | Corn Belt Power employees practice life-saving chest compressions on manikins during hands-on CPR and first-aid training at a co-op safety meeting Feb. 12.

Corn Belt Power Cooperative Watts Watt

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