Genoa Site Update
December 2009

Power for Generations

DAIRYLAND POWER COOPERATIVE
A Touchstone Energy® Cooperative

LACBWR Fuel Storage Project Continues

Dry Cask Storage construction is underway

Dairyland will be moving the spent fuel assemblies at our shut down La Crosse Boiling Water Reactor (LACBWR) plant to a secure dry cask storage system on the south end of the Genoa Site, while awaiting the availability of a temporary or permanent centralized national repository for spent nuclear fuel. The Independent Spent Fuel Storage Installation (ISFSI) site being constructed on the south end of the Genoa Site is for the interim storage of the spent fuel.

LACBWR was shut down and its facilities placed in SAFSTOR in April 1987. Until the spent fuel at LACBWR is removed, Dairyland cannot fully decommission the facility. Although the current method for storing fuel is safe, the storage pool was not intended for long-term storage.

It currently costs Dairyland's member-owners nearly $6 million a year for security, maintenance and monitoring of this site.

About the Storage Casks

Dairyland will be utilizing the NAC Multi-Purpose Canister System. The spent fuel storage system has three major components: a stainless steel canister, transfer cask and a concrete storage cask (pictured).

The thick steel liner and reinforced concrete walls of the storage cask provide radiation shielding, physical protection and security.

Visitors to the Genoa Site may currently notice large concrete cylinders close to LACBWR. They are the storage casks or "overpacks" that will house the spent fuel canisters at the ISFSI site.

The canisters that will go inside the casks are also currently being constructed, so the overpacks will sit empty until ready for use. At that time, when canister construction and the fuel loading operations are complete, they will be transferred to a concrete pad at the ISFSI site. The "overpacks" are at their current location awaiting loading and relocating to the ISFSI site, which is not yet built. This project and the LACBWR facility are regulated by the Nuclear Regulatory Commission.

Genoa Site Entrance Moved to Enhance Safety

Visitors to the Genoa Site will find the access road approximately one-quarter mile south of the former entrance. Dairyland, the Wisconsin Department of Transportation and the Burlington Northern Santa Fe Railroad Co., collaborated and shared project costs with the purpose of enhancing site safety. The presence of the railroad so close to the former entrance was a matter of particular concern. Visibility is improved at the new entrance site and contours are smoothed.

Environmental Equipment Investments

Major projects are benefitting regional air quality

Dairyland is in the process of retrofitting our Genoa #3 (G-3) and John P. Madgett (JPM) power plants with state-of-the-art environmental control equipment to achieve significant air emission reductions. The G-3 coal-fired plant is located in Genoa, Wis. The JPM coal-fired plant is located in Alma, Wis.

Dairyland is investing approximately $400 million for emission control work. Installation of fabric filter "baghouses" to remove particulate matter from the exhaust gas stream at both the G-3 and JPM power plants has resulted in major reductions in fine particulate matter. The new baghouses are in addition to the existing, highly efficient, electrostatic precipitator particulate matter control equipment.

A semi-dry flue gas desulfurization system, or "scrubber," was completed in November at the G-3 power plant. This technology is a sorbent injection system, which sprays a limestone liquid into a chamber between the boiler and fabric filter baghouse, and is designed to remove sulfur dioxide. The limestone reagent absorbs sulfur dioxide and other acid gases in the hot gas stream. The injection of the lime slurry also cools the flue gas, thereby drying the reagent so it can be collected in the baghouse.

Installation of a scrubber is also planned for the JPM plant. Further installations of new technologies designed to reduce nitrogen oxides are proceeding at the JPM plant while mercury emissions controls are planned for both facilities. The end result of the new air emission control equipment will be the significant reduction of sulfur dioxide, nitrogen oxides, mercury and particulate matter in the river valley region.

New emission control equipment, including the "baghouse" and scrubber system, can be seen in the foreground of Genoa Station #3.

Did You Know?

Dairyland recycles the majority of the ash created by the coal combustion process at G-3, such as in the manufacturing of Portland Cement and road resurfacing material.

Dairyland Power Accessible Fishing Pier Dedicated in Genoa

Handicap-accessible fishing pier constructed at Genoa Fish Hatchery

Dairyland and the U.S. Fish and Wildlife Service dedicated a new handicap-accessible fishing dock at the Genoa Fish Hatchery in August. Dairyland donated $12,000 to fund construction of the easily accessible fishing dock, which is located on a stock fish pond at the hatchery.

"We are very pleased we could provide funding to help ensure that everyone in the beautiful Upper Mississippi River region has access to fishing and recreational opportunities. Through this partnership with the Genoa Fish Hatchery, we hope many children and adults with limited mobility will experience the happiness of spending a day fishing in the sun," said Brian Rude, Dairyland Vice President, External and Member Relations.

Dairyland's Brian Rude (center) gets ready to cut the ribbon in the rain during the fishing pier dedication in August.

LACBWR Historical Marker Updated & Relocated

Since 1976, a Wisconsin state historical marker denoting Dairyland's La Crosse Boiling Water Reactor (LACBWR) as the state's first nuclear generating station has stood just outside the gates of the Genoa Site.

A lot has changed at Dairyland since 1976, including the fact that Dairyland ceased operations at the LACBWR facility in 1987. In August, Dairyland crews erected a new, updated Wisconsin state historical marker at the wayside across Hwy. 35 from the Genoa Site. This new location resolves security concerns associated with having a public-access marker on Dairyland property.

Dairyland paid for the new marker, supplied the construction materials and erected it in compliance with Wisconsin Department of

Transportation (DOT) guidelines. The DOT supplied the plaque, and the State Historical Society worked with Dairyland on updated verbiage. The text on the plaque now indicates that the reactor operated successfully until April 30, 1987, when it ceased operations due to economic conditions. The fact that Dairyland currently operates a coal-fired power plant on the Genoa Site is also included in the new copy.

Back-up Control Center Located at Genoa Site

As a wholesale electric utility responsible for meeting the energy requirements for over a half-million people in the Upper Midwest, Dairyland must have a plan in place in the event a disaster removed our ability to operate essential systems from the La Crosse Administration Building.

Dairyland developed an Emergency Response Plan to formalize steps taken to recover from any disaster or lack of access to the Administration Building. This includes a Business Continuity Plan to detail how to re-establish core business functions at an alternative site. Therefore, a back-up control center was constructed at the Genoa Site. The small building, visible from the highway, fulfills requirements to house key personnel and re-establish business functions and communications in the event of an emergency.

Dredging Project Improves Genoa Boat Landing

Dairyland and the Town of Genoa cooperated on a dredging project at the Blask boat landing to improve boat access. The project increased the depth of the area to approximately 6 to 8 feet below the normal water level.

"Over the years, the landing area filled with sediment to the point where boaters were having trouble getting in and out of the launch area," said Brad Foss, Dairyland Environmental Biologist.

In addition to the dredging at the launch site, the dock was raised so that dredging beneath the dock could also take place. A secondary benefit of this project is the reuse of dredging material; the sediment removed from the landing will be used by the Town of Genoa as anti-skid material for roads during the winter months.

"Our core values include accountability, integrity, innovation and commitment to community. We will be good stewards of the environment."

DAIRYLAND POWER
COOPERATIVE

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Postal Patron

Who we are

With headquarters in La Crosse, Wis., Dairyland Power Cooperative is a generation and transmission cooperative (G&T) that provides the wholesale electrical requirements and other services for 25 electric distribution cooperatives and 16 municipal utilities in the Upper Midwest. In turn, these cooperatives and municipals deliver the electricity to consumers--meeting the energy needs of more than half a million people.

Dairyland was formed in December 1941. Today, the cooperative's generating resources include coal, natural gas, hydro, wind, landfill gas and animal waste. Dairyland delivers electricity via more than 3,100 miles of transmission lines and nearly 300 substations located throughout the system's 44,500 square mile service area.

Dairyland's service area encompasses 62 counties in four states (Wisconsin, Minnesota, Iowa and Illinois). Dairyland, a Touchstone Energy Cooperative, has provided low-cost, reliable electrical energy for 68 years.

Genoa Site Management

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Visit www.dairynet.com

Turn to Dairyland's website for more information on Dairyland's generating facilities.

Also, learn about conservation programs, energy efficiency and do a home energy audit.

Learn about career opportunities, renewable resources, community involvement, cooperative history, current projects and much more.

Please visit us at www.dairynet.com.