

STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES
PUBLIC NOTICE OF INTENT TO REISSUE A WISCONSIN POLLUTANT DISCHARGE ELIMINATION
SYSTEM (WPDES) PERMIT No. WI-0003239-08-0

Permittee: Dairyland Power Coop Genoa, S4651 State Road 35, Genoa, WI 54632

Facility Where Discharge Occurs: Dairyland Power Coop Genoa, S4651 State Road 35, Genoa, WI

Receiving Water and Location: The Mississippi River in Vernon County

Brief Facility Description: Dairyland Power Cooperative operates a steam-electric generating facility just south of Genoa, Wisconsin that consists of 2 units. Almost all of the wastewater discharged from the facility is screened Mississippi River water used for non-contact cooling of the boiler steam condensers. Heated river water is discharged back to the east side of the river. Roof drains are discharged to the Mississippi River with the condenser cooling water. Sanitary wastewater from the factory bathrooms is discharged to an on-site septic tank and drainfield.

Genoa Unit 2 is a nuclear reactor which ceased operation in 1987. The reactor vessel has recently been removed from the site. A condenser cooling water flow of 30,000 gallons per minute continues to be discharged for 8-10 hours/day from unit 2 at a frequency of once or twice per month to demonstrate that the cooling system is in working order. A small amount of unit 2 power plant process wastewater is discharged with the cooling water flows about once every 2 months

The other generating unit at the site, called unit 3, is a 350 MW coal-fired steam-electric power plant. During normal operation, an average of 188 Million Gallons per Day (MGD) of once-through condenser cooling water is discharged back to the river from this baseload electric plant. During about 20 days per month, about 26,000 gallons/day of low volume power plant process wastewater is added to the condenser cooling water discharge. Dairyland Power has greatly reduced the discharge of low volume process wastewater from unit 3. Bottom ash sluice water is recycled, boiler water is polished with reverse osmosis to eliminate blowdown, and metal treat water is not discharged to the river. The current low volume process wastewater discharge is from demineralization of well water to be used for boiler feed water. The demineralization wastewater consists of backwash from the green sand filter (used for removal of iron from the well water), reverse osmosis reject water from polishing well water and boiler condensate, and wastewater from regeneration of cation/anion exchange resins. Dairyland Power is planning to utilize the demineralization wastewater in the dry scrubber system that is to be installed at the site in 2009 to reduce sulfur dioxide emissions from the plant. If this is successful, the low volume power plant process wastewater will be virtually eliminated from the condenser cooling (river water) discharge back to the Mississippi River.

Permit Drafter: Jeffrey Brauer, DNR, 101 S. Webster St. PO Box 7921, Madison, WI 53707-7921, (608) 267-7643, jeff.brauer@wisconsin.gov

Basin Engineer: Julia Stephenson, DNR, 3550 Mormon Coulee Road, La Crosse, WI 54601, (608) 785-9981, julia.stephenson@wisconsin.gov

The Department has tentatively decided that the above specified WPDES permit should be reissued.

The Department has determined that a water quality-based effluent limitation (WQBEL) of 5.4 ng/L for mercury would be required in this permit based on the background concentration of mercury in the Mississippi River at Genoa. The permittee has requested a variance to this mercury WQBEL. In support of this request, the permittee has submitted an application for an alternative mercury effluent limitation, as allowed under s. NR 106.145(8), Wis. Adm. Code. The application concludes that compliance with the WQBEL using wastewater treatment technology would cause substantial and widespread adverse social and economic impacts and that source reduction activities are preferable to treatment. The permittee has committed to the development and implementation of a mercury pollutant minimization program. The Department and the permittee have mutually agreed upon an alternative mercury limitation of 12 ng/L, expressed as a daily maximum, continued influent and effluent monthly monitoring, and specific permit language requiring implementation of the mercury pollutant minimization program. The Department proposes to grant the alternate mercury effluent limitation, which represents a variance to the water quality standard used to derive the WQBEL, as provided for under s. NR 106.145(6), Wis. Adm. Code. The designated use of the receiving water will not change as a result of the variance.

Persons wishing to comment on or object to the proposed permit action, or to request a public hearing, may write to the Department of Natural Resources at the permit drafter's address. All comments or suggestions received no later than 30 days after the publication date of this public notice will be considered along with other information on file in making a final decision regarding the permit. Where designated as a reviewable surface water discharge permit, the U.S. Environmental Protection Agency is allowed up to 90 days to submit comments or objections regarding this permit determination.

A public informational hearing may be held if response to this notice indicates significant public interest pursuant to s. 283.49, Stats., or if a petition requesting a hearing is received from 5 or more persons. Requests for a public informational hearing shall state the following: the name and address of the person(s) requesting the hearing; the interest in the proposed permit of the person(s) requesting the hearing; the reasons for the request; and the issues proposed to be considered at the hearing.

Information on file for this permit action, including the draft permit and fact sheet (if required), may be inspected and copied at the permit drafter's or basin engineer's office, Monday through Friday (except holidays), between 9:00 a.m. and 3:30 p.m. Please call the permit drafter or basin engineer for directions to their office location, if necessary. Information on this permit action may also be obtained by calling the permit drafter at (608) 267-7643 or by writing to the Department. Reasonable costs (usually 20 cents per page) will be charged for copies of information in the file other than the public notice and fact sheet. Permit information is also available on the internet at: <http://dnr.wi.gov/org/water/wm/ww>. Pursuant to the Americans with Disabilities Act, reasonable accommodation, including the provision of informational material in an alternative format, will be made to qualified individuals upon request.

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