


 Search

[Home](#) / [About Us](#) / [Energy Facilities](#)
[My Account](#) [Save Energy](#) [Employment](#) [Energy Education](#) [Economic Development](#) [Services](#) [Newsroom](#) [About Us](#)

Cooper Nuclear Station



POWR4 20MOR (Power for 20 More)

NPPD's website designed to provide stakeholders with up-to-date information on the license renewal process for Cooper Nuclear Station.

About CNS

Cooper Nuclear Station (CNS) operates the largest single unit electrical generator in the state. Support services are provided by [Entergy Nuclear Nebraska](#) through 2029.

CNS, which has performed safely since it was first put into operation in July of 1974, generates 810 megawatts of electricity. This would be enough power to supply the Lincoln and Grand Island areas during their highest summer usage period.

Nebraska Public Power District (NPPD) owns and operates CNS; however, it has contracts to share a portion of the electricity it generates with other utilities. The remainder of the power is used by NPPD or marketed to other utilities. Around 20 percent of NPPD's total annual generation comes from CNS.

The facility is named after Humboldt, Neb., natives Guy Cooper, Jr., and Guy Cooper, Sr., in recognition of their contribution to public power in Nebraska.

Operations

CNS, which has a net generating capacity of 791 megawatts of power, is a steam-electric plant. Steam turns a turbine-generator, which produces electricity. Unlike traditional fossil fuel plants that burn coal, oil or gas in a boiler, at CNS the water is heated by the fission of nuclear fuel in a nuclear reactor.

A radiation monitoring program at CNS continually measures radiation levels in samples of air, soil, vegetation, milk, river water, well water and wildlife in the vicinity of the power plant. There have been no adverse environmental effects ever recorded at CNS.

The Nuclear Advantage

There are three major advantages to using nuclear fuel to produce electricity:

- Nuclear fuel is a more compact, yet longer lasting fuel. CNS uses only six pounds of uranium, about the size of a deck of cards, to generate 791 megawatts of electricity for 24 hours. Refueling is needed about every 18 months. In comparison, it would take 10,000 tons of coal or one million gallons of oil to match this output.
- Uranium, processed into fuel, is found naturally in the ground in many areas. Using uranium fuel reduces the need for mining and drilling, and conserves the nation's supplies of oil, gas and coal.

- And, nuclear power helps to keep the air clean because the fissioning of uranium atoms produces no emissions. Since 1974, CNS has helped to keep the air clean while generating electricity needed by Nebraskans.

CNS is one of 104 nuclear plants in the United States, which produce 20 percent of the nation's power.

Qualified Personnel

CNS is also home to Cooper Nuclear Station Learning Center which provides comprehensive training for employees. The National Nuclear Academy evaluates CNS training programs every four years to assure they meet current standards.

CNS reactor operators are licensed by the Nuclear Regulatory Commission and the operators must periodically update their licenses. A specially-designed simulator of the power plant's control room, located in the Learning Center, assists in training NPPD personnel to operate the plant in both normal and emergency conditions.

In addition, the NRC carefully regulates and tests the validity of CNS's Emergency Plan, designed to protect public health and safety in the unlikely event of an incident.

High training standards and well-qualified staff demonstrate NPPD's commitment to ensure that the physical environment of Nebraska and surrounding states is safe for all residents and that generated energy at CNS helps NPPD provide low-cost electric power to customers.



[About Us](#) | [Contact Us](#) | [Site Map](#) | [Privacy Policy](#) | [Legal Notice](#)
© 1996-2010 Nebraska Public Power District. All rights reserved.
E-mail: webeditor@nppd.com. Toll Free: 1-877-ASK-NPPD (275-6773)

 [Become a Fan](#)

 [Follow Us](#)

 [Visit Our Channel](#)