

We Energies' generating system



NATURAL GAS

Concord Generating Station

*The most thermally efficient
generating power plant
in Wisconsin.*



Location:

This plant occupies 150 acres of land in Wisconsin next to Concord Substation, near Watertown, Wisconsin.

Type of Plant:

Natural gas-based, peak-load plant used during hours of high demand.

Initial Cost:

\$107 million

Units:

4 units

Year in Service:

Units 1 & 2: 1993

Units 3 & 4: 1994

Generating Capacity:

Unit 1: 100 megawatts

Unit 2: 100 megawatts

Unit 3: 94 megawatts

Unit 4: 94 megawatts

Total Net Generating Capacity:

388 megawatts



NATURAL GAS

Concord Generating Station

Contribution to Total System Electric Energy Production Capability:

Less than 1 percent

Voltage:

Generator: 13,800
Step-Up Transformer: 138,000

Fuel:

Primary Fuel: Natural gas
Secondary Fuel: #2 low-sulfur fuel oil

Fuel Handling:

Natural gas: Pipeline
Transportation: Fuel oil tanker trucks
Storage: 1,500,000 gallons
Tank size: 40 ft. high and 80 ft. in diameter

Average Fuel Use:

Natural gas: 1,200,000 cubic ft. per hour per unit
Fuel oil: 9,000 gallons per hour per unit

Emission Control:

Demineralized water injection for NOx control

Storage:

1,200,000 gallons
Tank size: 2 tanks 30 ft. high and 60 ft. in diameter

Water source: Deep well

Control Room:

One operator monitors and controls all the major functions in the plant. The Ovation computer system controls start-up, operation and shutdown of the units and monitors unit conditions during all phases of operation. Start-up can be accomplished by remote control from the system control facility in Pewaukee, Wis., and from the Paris Generating Station.