

Whitewater Generating Station



COMBINED-CYCLE
280 MW



Location: This plant occupies 71 acres of land in Whitewater, Wisconsin.

Type of plant: Combined-cycle power plant

Initial cost: We Energies purchased the power plant from LSP Whitewater in 2023 for \$75 million.

Units: 501FC+ combustion turbine and Siemens Frame SC32.4B steam turbine

Year in service: 1997

Total net generating capacity: 280 megawatts

Turbine manufacturer: Siemens-Westinghouse

Fuel: Natural gas with fuel oil backup capability

Fuel handling: Northern Natural and Guardian Pipeline

Average fuel use: 35,000 one million British Thermal Units daily

Air quality control system: The plant uses a continuous emissions monitoring system (CEMS) to

monitor nitrogen oxide (NO_x), carbon dioxide (CO₂) and dioxygen (O₂) emissions. NO_x emissions are controlled by using a selective catalytic reduction (SCR) system with aqueous ammonia injection.

Cooling system: A cooling tower is used to cool water coming into the plant. The cooling tower is a counter-flow, four-cell, forced-air unit, with two-speed axial flow fans. The source of water for the tower is from the City of Whitewater.

Control room: All major functions in the plant are controlled by operators with computer support to continuously monitor and report on pressures, temperatures, flow rates, etc. In addition, the computer aids in startup, shutdown, load adjustments and information for future reference. The plant control system uses Emerson Ovation technology for plant functions.

Safety: The facility has safety and monitoring features that minimize risks to the public and meet federal, state, local and industry standards.