



Kewaunee Nuclear Power Station

MF / RO Water System



ANDERSON-WPT



Kewaunee

Carlton, Wisconsin

SITUATION/BACKGROUND

Dominion Resources Inc. operates the Kewaunee Nuclear Power Plant at Carlton Wisconsin. The Kewaunee Nuclear is a 556 MW single unit reactor facility. In 2005, Kewaunee Nuclear contracted with Anderson Water Systems for a 214 gpm Micro-Filtration (MF) & 160 gpm Reverse Osmosis (RO) and Membrane Vacuum Degasification System for demineralization water for steam generation & process water use. This current technology all-membrane system replaced the conventional clarification-filtration-ion exchange system that was originally installed in the 1970's.

SOLUTION

Anderson designed and manufactured this water system – all according to stringent Kewaunee Nuclear specifications.

- 214 GPM
- Influent feed of Lake Michigan water
- (2) Micro-Filtration (MF) Systems, rated for 107 gpm each – (30) modules each
- (2) Pre-RO Cartridge Filters
- (2) Reverse Osmosis Systems – 3:2 array producing 2x80 gpm
- (2) Membrane Vacuum Degasifiers
- (1) MF & RO Clean-In-Place (CIP) System
- Dosing Stations
- Controls System

BENEFITS

- System delivers ultrapure make-up water
- Equipment preassembly in Anderson manufacturing facility resulted in a fast & low cost installation
- Efficient membrane system design based on over 50 years of Anderson experience with water treatment systems
- System designed & manufactured in Anderson's Dundas, Ontario facility
- Anderson – WPT provided a 'one source' solution.

