

### **Process Computer System Replacement**

The Monticello Nuclear Generating Station and C3-ilex are engaged in a project to replace the existing GEPAC Plus Process Computer with new technology using a phased migration strategy. The project implement's C3-ilex TREK system software along with OSIsoft's Visualization tools to provide a modular phased migration approach that minimizes outage impacts and large capital expenses and maximizes plant personnel participation in the implemented solution. This project will accomplish the following:

- Maximize use of the existing OSIsoft PI and Process Book displays to replace an obsolete display system in the control room.
- Transfer the data acquisition from a non repairable legacy product to a current industry standard DAS only when DAS modules fail to maximize the current investment.
- Produce a system built on world class data management tools and a modern programming environment to facilitate future modifications and additions.

C3-TREK is a high performance Transient Recording and Event Knowledge system residing on a standard Server or PC. C3-TREK interfaces with high speed data acquisition systems and uses OSIsoft Corporation's powerful ECHO Historian to process large amounts of high speed data. Used in conjunction with our Data Acquisition System Importer / exporter (DASie), the C3-TREK system provides the ability to communicate with a variety of data acquisition system sources and translate the incoming data streams to ones that can be accessed by network addressable computers. For the Monticello application, the C3-TREK / DASie platform will provide:

- Retention of 1 ms resolution of Transient Recording capabilities, while providing Process Monitoring functionality.
- Replace the existing User Interface and obsolete CRT Monitors in the control room with PI ProcessBook and C3-TREK views displayed on 40 inch flat screens and desktop monitors.
- Add the ability to acquire data from new DAS, while retaining the existing DAS and Data Processing capabilities.
- Add interfaces for OPC and other industry standard interfaces.
- Enhance the ability to provide data retention storage and accessibility.

### **About Monticello and C3-TREK**

The Monticello Nuclear Generating Plant is owned by Xcel Energy and located near Monticello, Minnesota along the Mississippi River. Monticello is a GE Boiling Water Reactor (BWR-3) in operation since 1971 and has a rated capacity of 600 MWe (a Power Uprate program is underway to increase capacity to approximately 670 MWe). In 2006 The NRC granted Monticello a twenty year license extension is now licensed to operate until 2030. In Monticello's ongoing charter to improve operational performance and sustain long-term safety and reliability, it has embarked on a program to replace and enhance outdated plant process computer system components. The procurement and installation of C3-ilex's C3-TREK and DASie platform components is an integral part of this program.

### **About C3-ilex**

C3-ilex specializes in the delivery of high quality products and services for the power generation, power transmission and distribution, and process industries. C3-ilex develops, manufactures, and markets state-of-the-art, real-time monitoring and control products and systems for industrial, commercial and government applications. C3-ilex also provides a wide range of complementary engineering and consulting services.