



A Rockwell Automation Company

Wyoming Interstate Company Wyoming Interstate Company Expansion

The Client:

Wyoming Interstate Company (WIC), a subsidiary of the Coastal Company and operated by Colorado Interstate Gas Company (CIG), operates transportation services from Rock Springs to Cheyenne Wyoming where it ties into the CIG mainlines serving Denver, Colorado Springs and the surrounding communities. Additional two CIG laterals

(Unita and Wind River) are connected to WIC compressor stations. WIC has operated at, or near, its design level in recent past. In 1997 WIC expanded its transportation system by 30% to provide additional gas for the growing Colorado Front Range communities.

The Requirement:

WIC was constructing additional natural gas compression and jumper stations for increased volume and delivery of gas.

The details of the expansion are as follows:

- New “jumper station” at Baxter; four Superior 2406 Cleanburn III reciprocal units.
- New “jumper station” at Rawlins; two Superior 2406 Cleanburn III reciprocal units.
- New mainline compressor station at Rawlins; two Dresser/Allison turbine/centrifugal units
- Additional compression at Cheyenne; one Cooper-Bessemer GMVH12 reciprocal unit.
- New mainline compressor station at Laramie; two Dresser/Allison turbine/centrifugal units.

- New CIG Wind River Lateral compressor station at Muddy Gap; two Dresser/Allison turbine/centrifugal units.

Daily operation of the most stations was to be performed locally; however, off-shift operation was to be performed remotely over a microwave wide area network. The compressor units use vendor supplied control and additional CIG configured unit and station control. Standard CIG equipment was chosen and programmed to take into the operation and the selected process equipment. Required capabilities include remote starting/stopping and operation from a central SCADA control room, on-line system changes, historical trending, reporting, and programmed safety shutdowns.

The Design Solution:

The vendor supplied compressors were delivered as complete packages and integrated into the overall station control. Hinz initially prepared a Functional Requirements Document which finalized the control system configuration and integration of the units into the station. The project scope included all control software, integration, and networking.

Hinz worked closely with CIG personnel to define the control strategies and control system architecture.

The project scope of Hinz included the design and implementation of the following tasks:

- Software design and programming for the station and local operator panels.

- Control strategy develop and generation of SAMA diagrams.
- Software design and programming for the facility Intellution FIX HMI.
- Integration testing of the control system to prove function prior to site commissioning.
- Assistance to CIG during the site commissioning of the facility.
- Preparation of an online Operators Manual specific to the control system.
- Training for CIG staff.
- Budget and schedule control throughout the project.

