

# Williams Northwest Pipeline

**LOCATION:**

Oregon City, Oregon

**APPLICATION:**

Reciprocating Compressor Engines

**ENGINE/COMPRESSOR:**

Ingersol-Rand KVS412

**DISTRIBUTOR/REP:**

Coastal Ignition and Control, Scott Robinson

**ALTRONIC PRODUCTS:**

GOV-10 Electronic Fuel Valve

**OVERVIEW:**

Looking to replace antiquated hydraulic fuel valves, butterfly valves, and control systems on both of their Ingersoll-Rand KVS412 engines, Williams NW Pipeline was introduced to the Altronic GOV10 during a training event for the Altronic CPU-2000 ignition system. The event instructor, Mike McCloskey of Coastal Ignitions and Controls (CIC), described the benefits of an electronic fuel valve versus hydraulic fuel valves, and distributed product line brochures.

The first GOV10 was installed on Unit 2 in order to determine if this was a good fit for the application.

After monitoring the performance of the GOV10 on Unit 2 for 6 months, Williams found noticeable improvement, and moved forward with the installation of a GOV10 on Unit 1. The first installation took five days



*Altronic GOV10 and CPU-2000 Controllers*

from start through commissioning. Michael McCoy, Altronic Regional Manager, and Scott Robinson of CIC were both on hand to assist with system. The second installation (approx. 8 months later) was accomplished in-house and took only four days using notes from the previous install and some phone support.

During the first install, it was determined that an isolated power supply was needed due to the fact that a floating ground system was employed. Initially, wiring the GOV10 into the control system caused a number of ground faults. Installing the isolated power supply resolved these issues.

The commissioning of the GOV10's went well on both units. After initial post-install safety checks, fuel line



*Flexible fuel line installed*

pressure regulation changes, and programming of the control module on both units, start up was achieved and minor adjustments were made to the individual unit controllers to fine tune the GOV10's to their respective engines.

There was one small issue with a wire inside of the GOV10 that was landed on the wrong terminal which caused a day's worth of troubleshooting. Altronic Tech Support verified which wire was supposed to be landed on the terminal in question. With Altronic's permission, the wire was landed on the correct terminal and everything worked great.

The GOV10 electronic fuel valve stopped the constant modulation of the old hydraulic fuel valve system, which had caused a ramping of the engine RPM's and poor fuel economy. With all of the linkages on the hydraulic system, any controller set point adjustment resulted in a lot of hysteresis which impacted the physical output of the hydraulic fuel valve. The old system's constant "hunting" for position caused a number of issues with fuel economy, torque and horsepower calculations.

Automatic engine starts have been far more consistent with the GOV10.

According to Michael R. Hails, Operations Technician IV of Williams NW Pipeline's Eugene District, "These GOV10's were originally purchased by another district. However, certain station-wide restrictions prevented them from

being used in that system. Fortunately, we were able to procure the GOV10's for our application.

We received excellent support on this project from Altronic's Michael McCoy, and from CIC's Scott Robinson. There were a couple of 'think outside the box' moments during both installs where Michael and Scott helped us to maintain a smooth integration. Scott will also provide training on several Altronic product lines, including the GOV10, at our Oregon City Compressor Station. These installations have generated a great deal of interest from technicians in other districts, and several want to attend the training session."



**GOV10 installed**