Case Study - Power Generation

Z-Temp Transmitter

Explosion Proof Transmitter w/ Digital Display

REOTEMP INSTRUMENTS

Power Generation

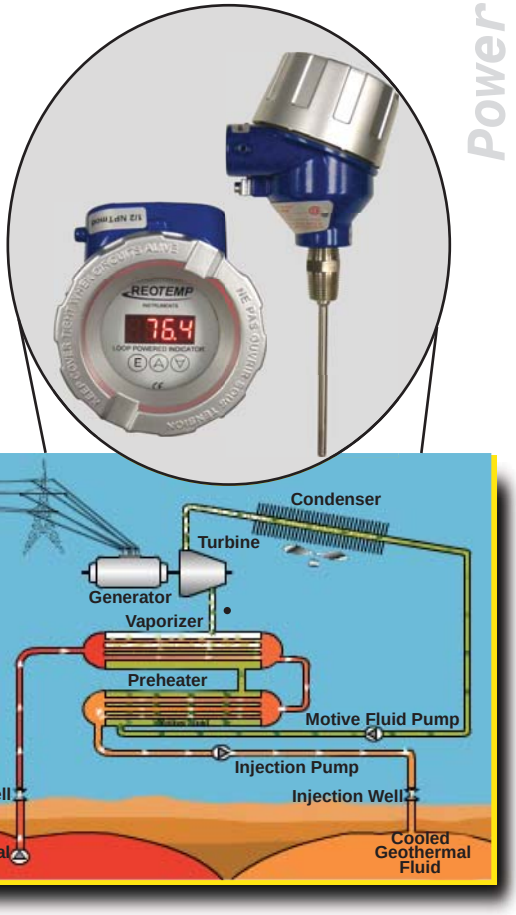
Customer:

An engineering and design firm manufacturing power units and other power generating equipment for geothermal and recovered energy-based generation. The firm is located in the Western U.S..

Background:

Geothermal power generation is the process by which heat found below the earth's surface is converted into usable electricity. The process begins with exploratory drilling which evaluates whether or not a site is suitable for production. If the exploratory drilling goes well, a plant moves forward to production.

Temperature sensors are used during the exploratory drilling phase to monitor critical components: well head, brine temperature, well head seperator, vapor temperature. They are also used during the operational phase to monitor the vaporizer, preheater, heat exchanger, condenser, and many other components.



Problem:

The customer was using "full-feature" smart temperature transmitters which were loaded with extra features not necessary in their application. These full-feature transmitters typically cost between $1,000 - $2,000 per unit. The lead time for these units was 2 to 5 weeks. The customer needed a more economical sensor that could meet their application requirements.

Application Requirements:

- Explosion proof housing
- Approvals: FM, CSA, ATEX , EExd
- Pipe mount
- **HART protocol**
- **Digital display**
- Quick lead time

Solution:

After reviewing the application requirements, REO*TEMP* identified its Z-Temp explosion-proof temperature transmitter as the best product for the job. The Z-Temp transmitter had an explosion-proof housing which met all of the approval requirements. It also had a large digital display and was available with HART protocol. REO*TEMP*'s engineers quickly designed and fabricated an equivalent pipe mount, making the product installation quick and easy. **Best of all, the Type Z maintained all of the necessary features, at roughly half the cost of a "full-feature" transmitter!**

Results:

Over 30 units have been installed at this Geothermal Power Plant since 2008. The customer was very happy to have a product that met all of their requirements, had a lead time of 3-5 days, and **reduced their costs by almost 50%!**

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