

CUSTOMER SUCCESS STORY

AN EXAMPLE OF HOW GE HELPS CUSTOMERS IN THE OIL & GAS INDUSTRY

GE Modular, Multi-Function Calibrator Saves Time and Cost While Improving Up-Time in French Nuclear Power Station

The EDF Group, one of the leaders in the European energy market, is an integrated energy company active in all areas of the business: generation, transmission, distribution, energy supply and trading. The Group is the leading electricity producer in Europe.

PROBLEM

France derives about 75% of its electricity from nuclear energy and Electricité de France (EDF) is the country's main electricity and distribution company, managing 59 nuclear reactors. Two of these are located at Tricastin in the South of France. As with all nuclear plants, this facility features a wide range of instrumentation, measuring and monitoring pressure, temperature and electrical outputs. Much of this instrumentation is located within the reactor section of the plant and is consequently subject to low-level, radio-active radiation. Like all instrumentation, it needs to be calibrated on a regular basis, both for safety and process efficiency reasons. Similarly, the calibration instruments themselves also need calibration at intervals and previously this involved sending the complete calibrator away for de-contamination before calibration could take place. This involved significant time and cost and could also mean that back-up calibrators had to be brought into service, increasing the plant's inventory.

SOLUTION

The Tricastin nuclear plant up-graded to GE's hand-held, DPI620 and DPI620Genii, both of which offer multi-function and pressure calibration functionality. All instruments in the DPI620 series are modular and pressure calibration is provided by a uniquely flexible pressure system. This comprises an array of 32 high accuracy pressure measurement modules with ranges from 25 mbar to 1000 bar and three pressure-generating stations, eliminating the need to carry gas bottles and regulators and greatly simplifying the priming of hydraulic systems. The modules feature digital characterization and a simple screw fit to allow interchangeability in a matter of seconds with no need for tools, set-up or calibration. Whenever a module needs calibration, it is a simple matter to replace it with a new module—with no need to take the complete calibrator out of service.

"The DPI620Genii provides continuous, accurate and reliable calibration while saving on instrument inventory as we need only replace the screw-in pressure modules when the instrument itself requires calibration."

-- Christophe Galliot, Metrology Manager, EDF Centrale Nucleaire de Tricastin.



PAYBACK

The French nuclear plant is now saving the significant time and cost which was involved in the calibration of its calibrators, and its calibrators are now always ready for duty. This has provided savings in inventory, as there is no need for back-up instruments. The instrument technicians are also very pleased with the expanded functionality and ease-of-use of the new calibrators, especially with the intuitive swipe-screen technology of the DPI620Genii and the HART communication capabilities, which allow configuration and commissioning of instrumentation, as well as calibration.

BENEFITS

The introduction of the DPI620 and the DPI620Genii has provided EDF with significant benefits:

- Savings in the time and costs involved in sending calibrators away for calibration
- Ever-ready availability of calibrators
- Ease-of-use
- Reduced calibration instrument inventory
- Ability to interchange pressure modules between plants
- A single calibrator with the comprehensive functionality to meet virtually all calibration requirements
- HART-enabled to allow configuration and commissioning as well as calibration.

