

Thermal Performance Training Used to Isolate Problems Avoiding Plant Shutdown

Overview

South Texas Project, a 2700 MWe Nuclear Generating Station, had indications of a problem with their feed water heater drain valve which raised concerns of a possible tube leak.

By using the training they received from GSE TrueNorth, South Texas Project's Engineering Rapid Response Team knew how to investigate and discover the real issue in just thirty minutes—saving them from a costly plant shutdown.

Customer: South Texas Project
Plant Type: Nuclear
Solution: Thermal Performance Analysis Training



Challenge

South Texas Project Nuclear was reporting a high pressure feed water heater normal drain valve issue. The indicators included: Level high High level dump open Normal drain flow reduced Condensate flow to deaerator (DA) increased due to dumping to condenser Steam generator feed pump flow between DA and high pressure feed water heater remained constant

South Texas Project Operations then received a FWH 21B level high alarm and high level dump valve open. The normal controller output signal was demanding the valve be fully opened. Operations was concerned there was a tube leak.

Solution

South Texas Project looked back to the training they received from GSE TrueNorth and used the thermal performance analysis methods to refute the tube leak suspicion and quickly discover the true, less costly issue.

The pneumatic line between the controller and the valve had developed a leak and fell from the normal 70% to 35% open position.

Using GSE TrueNorth Thermal Performance training along with a review of computer trends, South Texas Project was able to narrow the scope to an issue with the normal level control valve.

Results

The training from GSE TrueNorth gave South Texas Project the education it needed to refute the suspected tube leak and avoid a plant shutdown.

The cracked pneumatic tubing between the controller and valve was found, replaced, and the valve was returned to full service by the next morning.

Knowing how to isolate a problem in a systematic way is critical to plant operation—saving time and money.

The training provided by GSE TrueNorth facilitates obtaining the root of the problem in a timely manner with the least amount of plant operation interruption.

GSE TrueNorth is committed to providing the best experience and training available with the goal of improving the plant's bottom line.

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