



Crystal River Unit 3 Nuclear Energy Complex DHV-3 Repair

MPR Designs Solution for Valve In-situ Repair, Saving Plant Over \$10 Million, Receiving Top Industry Practice (TIP) Award

CHALLENGE

The Crystal River 3 Nuclear Energy Complex, in Citrus County, Florida, was experiencing chronic leakage in an un-isolable valve in the decay heat removal system. The valve is an integral part of the closed-loop coolant system and shutting down the reactor to make the repair would have cost the plant millions of dollars. Repeated unsuccessful attempts were made to repair the valve and prevent further leakage.

SOLUTION

MPR analyzed the situation and developed a detailed design solution to repair the valve in-situ. We provided detailed technical direction for tooling development of the custom equipment and hardware, and designed a mock-up testing program to ensure effective installation and performance.

RESULTS

The repair hardware was successfully installed in place with reactor coolant in the valve. MPR's repair solution was implemented on schedule, the first time, and was completely successful in stopping leakage — saving the plant over \$10 million. MPR's unique solution was recognized by the Nuclear Energy Institute with a Top Industry Practice (TIP) Award.

