

NUCLEAR APPLICATION

Hydrogen Detection during Cask Welding Improves Process and Eliminates Stoppages



“H2scan’s HY-ALERTA™ 500 was very reliable, easy to use, and improved our cask welding process.”

- Steve Flood, Reactor Maintenance, Columbia Generating Station, Energy Northwest

TECHNICAL BACKGROUND

At Energy Northwest in Richland, WA an argon purge during the cask welding process was the result of a procedural change, requiring nuclear facilities to purge with an inert gas during the welding operation. As almost all combustible gas sensing technologies require oxygen to operate correctly, they cannot be implemented in the argon purged/inert environment, required for this application.

THE H2SCAN SOLUTION

H2scan’s HY-ALERTA™ 500 Handheld Hydrogen Leak Detector does not require oxygen to operate making it the ideal solution for monitoring for hydrogen build up during the welding process. The Model 500 was used to sample for hydrogen every 10 minutes for the entire time between starting the argon purge until the lid-to-shell weld is 100% complete.

PROJECT BENEFITS

Without the H2scan Model 500 it would not be possible to detect a hydrogen build up during the cask welding process. A flash or burn-through is not only dangerous, it would cause a stoppage of the entire facility. Implementing H2scan’s analyzer allowed operators to closely monitor the hydrogen concentration in real time and preemptively halt the welding process if hydrogen was present before a costly stoppage occurs.



HY-ALERTA™ 500
Handheld Hydrogen Leak Detector