PZR Repair & Replacement

Improve the condition of your pressurizer for safe long-term operation

The challenge
Primary Water Stress Corrosion Cracking (PWSCC) phenomena affect Alloy 600 base material as well as Alloy 182/82 welds that can be found on pressurizers. Depending on designs, these issues can be found in locations such as:
- Upper spray, relief and safety nozzles
- Instrument nozzles
- Surge nozzles
- Heater sleeves

The pressurizer heaters can also suffer from different aging-related failures such as sheath stress corrosion cracking and electrical malfunctions.

Following the condition assessment of these components, a repair or replacement strategy needs to be put in place in order to justify the long-term operation of pressurizers.

The solution
AREVA can propose mitigation, repair and replacement solutions to address both Alloy 600 and heater-related issues:
- Nozzle and heater penetration repairs
- Pressurizer replacement
- Heater replacement

AREVA Technical Tools and Solutions

Upper Nozzles
- Full replacement of susceptible material (Alloy 600)
- Full Structural Weld Overlay (FSWOL)
- Optimized Weld Overlay (OWOL)
- Replacement of thermal sleeves

Instrumentation Nozzles
- Full replacement of susceptible material (Alloy 600)
- Half nozzle repair with Outside Diameter (OD) pad
- J Groove weld replacement
- Thermocouple removal and replacement

Heater Penetration
- Susceptible material when required
- Half nozzle repair with OD pad
- Half nozzle repair with Inside Diameter (ID) weld

Surge Nozzles
- Full replacement of susceptible material (Alloy 600)
- FSWOL
- OWOL
Your benefits at a glance

- Recognized expertise to support your pressurizer mitigation, repair and replacement optimization decision-making process
- A leading-edge portfolio of techniques adapted to all pressurizer repair and replacement needs