Structural Integrity Associates, Inc.®

PWR OPERATIONAL CHEMISTRY

TRAINING | NOVEMBER 7TH - 11TH, 2022

COURSE DESCRIPTION

This course provides practical, hands-on information and techniques for personnel responsible for operational chemistry analysis, corrosion prevention, and system diagnostics. Attendees are encouraged to bring plant data for group discussion and analysis. Common topics will be covered as well as reactor coolant chemistry and radiochemistry, steam generator and balance of plant chemistry, demineralizer and filtration performance, start up and shutdown chemistry, corrosion concerns, and data evaluation techniques.

WHO SHOULD ATTEND

Chemists and Engineers who desire a practical knowledge of primary and secondary operational water chemistry. This core course is designed for chemistry personnel that have a basic understanding of plant operation and plant systems, focusing on the essentials of primary and secondary operational water chemistry.

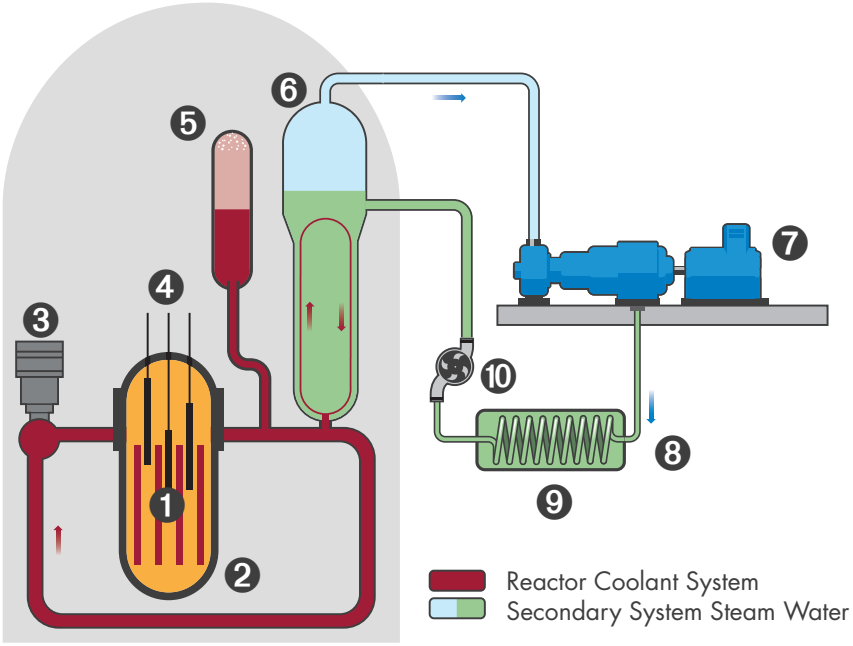
EVENT DETAILS

Event Date: *Monday, November 7th - Friday, November 11th, 2022*
Duration: *8:00 a.m. to 4:30 p.m. Friday 8:00 a.m. to 12:00 p.m.*
Individual Price: *$2,200 (Includes light breakfast and lunch)*
Includes PWR Operational Chemistry Handbooks
Location: *Constellation Cantera Corporate Office*
4300 Winfield Rd, Warrenville, IL 60555

REGISTRATION

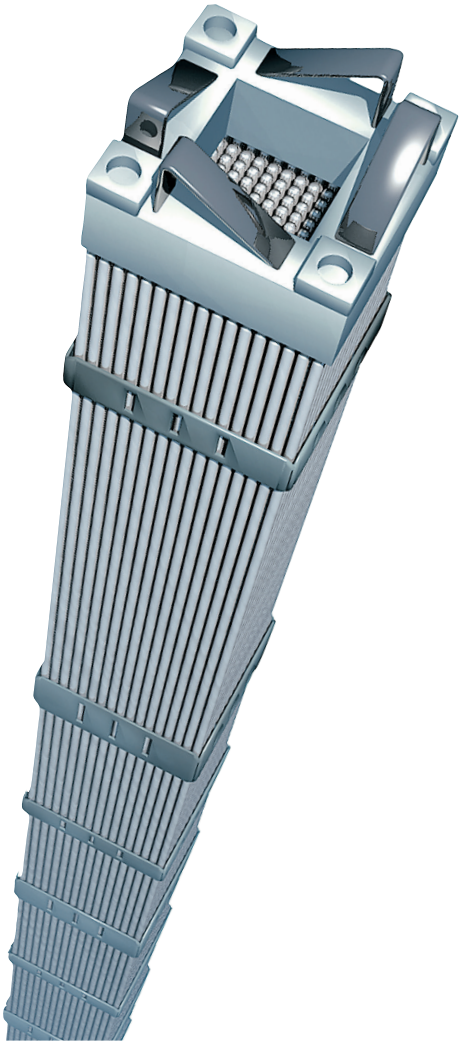
www.structint.com/pwr-operational-chemistry

❶ Reactor Core
❷ Pressure Vessel
❸ Primary pump
❹ Control Rods
❺ Pressurizer
❻ Steam Generator
❼ Generator
❽ Condenser
❾ Cooling Water
❿ Feedwater



COURSE TOPICS

- Radiochemistry fundamentals
- Primary system overview
- RCS metallurgy
- RCS corrosion mechanisms
- RCS chemistry environments
- EPRI guidelines and requirements for RCS chemistry
- Corrosion product formation
- RCS pH chemistry
- RCS oxygen and oxygen ingress sources as it relates to the transport of corrosion products
- Shutdown and Startup chemistry practices
- Fission products and activation products
- Distribution of fast and slow neutrons, fission yield, and fission decay chains
- Letdown System Clean up general flow and components
- Resin properties, structure, and performance evaluation
- Resin performance topics
- Decontamination factor and measurement
- Fuel defects, the types of defects, and effects on radionuclides
- Secondary system overview
- PWR steam generator corrosion and corrosion mechanisms
- Factors that influence corrosion
- Secondary cycle conditions and corrosion control
- Impurity influence on corrosion
- Water and steam properties as they relate to steam generation
- Steam Generator design characteristics
- Amines usage, properties of amines, and effects of amines within the system
- Water and steam cycle real time measurements
- Hideout and hideout returns occurrence, measurement, calculation, trending



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