

### INSTRUCTORS

#### Al Jarvis – Senior Associate

Al Jarvis has over 40 year's experience in the nuclear industry. In 21 years with Structural Integrity/Finetech (Finetech was acquired by Structural Integrity in 2015), his main responsibilities include a variety of utility-direct and EPRI projects, assessments and conceptual designs related to water chemistry (for both BWR and PWRs), source term (for both BWRs and PWRs), condensate polishing, reactor water cleanup, radwaste processing, and makeup water. Al worked at the FitzPatrick power plant for 14 years in the Chemistry Department as the Senior Engineer and Chemistry Manager. Additional plant roles included Shift Outage Manager and Refuel Floor Coordinator. Al has a BS in Chemical Engineering.

#### Drew Odell – Associate

Drew Odell has over 40 year's of experience in the nuclear industry. He joined Structural Integrity in 2021 after retiring from Exelon (Constellation) after 39 years. His main areas of responsibility within Exelon included being assigned to the role of BWRVIP Integration Committee Chair for 7 years and being the Mitigation Committee Chair for a number of years prior to that. While at Exelon, Drew held various positions including: test engineer, results engineer, Chemistry Manager, Work Week Manager and BWR Technical Lead. Drew has visited many stations during his career, has authored papers for international conferences and has 2 US patents. Drew has a BS in Chemical Engineering and a MS in Environmental Engineering.

#### Dan Miller – Senior Consultant

Dan has over 40 year's of experience in the nuclear industry. He joined Structural Integrity in 2018 after retiring from Talen Energy working at the Susquehanna Power Station. Dan held various positions at Susquehanna during his 17 years including Chemistry Support Supervisor and Senior Chemist. While at Susquehanna Dan served the BWRVIP as the Mitigation Committee Technical Chair. Prior to Susquehanna, Dan worked for PSEG at the Hope Creek and Salem stations. While there he performed oversight and support for both Salem and Hope Creek's chemistry programs. Dan has a BS in Chemistry.

### 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, condensate chemistry, 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 Boiling Water Reactor 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 reactor water, condensate and processing equipment used in BWR water chemistry operations.

### EVENT DETAILS

**Event Date:** Monday May 6<sup>th</sup> - Friday May 10<sup>th</sup>

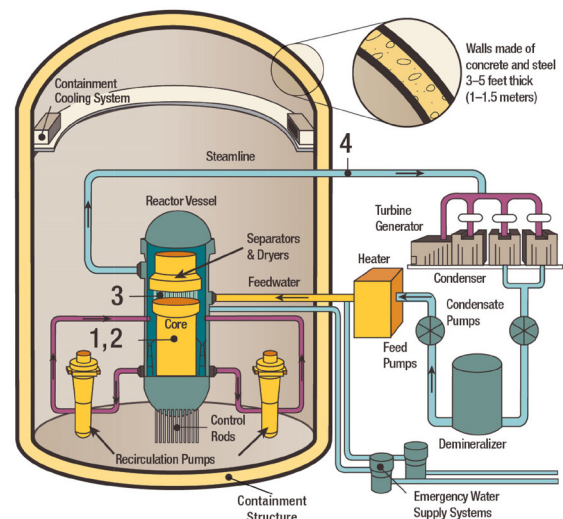
**Duration:** 8:00 a.m. to 4:30 p.m.; Friday 8:00 a.m. to 12:00 p.m.

**Individual Price:** \$2,400 (Includes light breakfast and lunch)  
Includes BWR Operational Chemistry Handbooks

**Location:** Structural Integrity Associates, Inc.  
11515 Vanstory Drive, Suite 125  
Huntersville, NC 28078

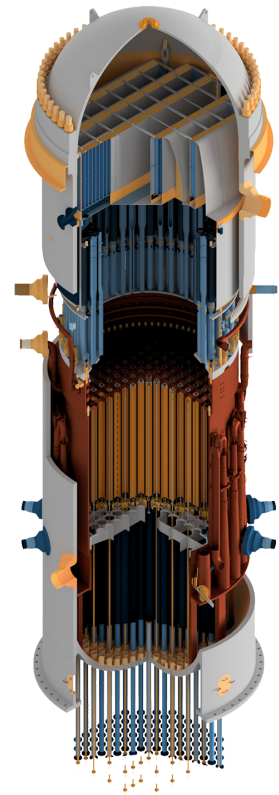
### REGISTRATION

[www.structint.com/bwr-operational-chemistry](http://www.structint.com/bwr-operational-chemistry)



## 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
- HWC and OLNC
- Shutdown and Startup chemistry practices
- Fission products and activation products
- Fission, fission yield, and fission decay chains
- BWR Systems including RWCU and Condensate
- Resin properties, structure, and performance evaluation
- Resin performance topics
- Fuel defects, the types of defects, and effects on radionuclides
- Gas removal in BWRs
- Factors that influence corrosion
- Impurity influence on corrosion
- Water and steam properties as they relate to steam generation
- Transient conditions



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