

# Robert D. Bartholomew, P.E.

Associate



## EXPERIENCE

### Associate

2001-Present

### Senior Engineer

1986-2001

## EDUCATION / CREDENTIALS

### Bucknell University

B.S. Chemical Engineering

### Professional Engineer (P.E.)

Alabama, Maryland, Pennsylvania,  
South Carolina, Virginia

### Awards

10-year teaching certificate in the area of Recovery Boiler Water Treatment from the TAPPI in 2012.

2009 International Water Conference  
Recipient of the Paul Cohen award.

### Publications

Has authored or co-authored over 50 technical publications including a number of EPRI guidelines

## MEMBERSHIPS

- American Institute of Chemical Engineers (AIChE)
- Technical Association of The Pulp and Paper Industry (TAPPI)
- Power Plant and Environmental Chemistry Committee.

Mr. Bartholomew has provided service to the power, cogeneration, pulp and paper, steel, sugar, and other industries. The following sections highlight some of his areas of experience.

**Boiler Tube and HRSG Tube Deposition and Damage Investigations.** Mr. Bartholomew reviews and interprets metallurgical reports and deposit weight and composition analyses results. He also has assisted in performing root-cause investigations in response to tube failures, presented a seminar on boiler tube failures, and has participated in routine BTF (boiler tube failure) prevention meetings for some of our client facilities. He was chair of the project to develop the 2014 ASME guide on tube sampling and analyses.

**Chemical Cleanings.** Mr. Bartholomew routinely assists in the technical planning for chemical cleaning. This includes determining the need to clean, selecting solvents, developing procedures, timelines, and specifications, evaluating hydraulics for the cleaning, and performing bid reviews. Mr. Bartholomew also provides onsite shift consulting to help track the cleaning process and troubleshoot problems which may arise. He assisted with the Electric Power Research Institute (EPRI) chemical cleaning projects from 1988 through 2001 and was the project manager and a primary author of the Heat Recovery Steam Generator (HRSG) Chemical Cleaning Case Studies (2006), the Supercritical Boiler Chemical Cleaning of Waterwalls for Removal of Duplex Oxides Formed by High Temperature, Insitu Oxidation of Ferritic Steels (2010), and the Chemical Cleaning Guidelines for Fossil Fuel Fired Power Plants (2015).

**Internal Inspections.** Throughout his career Mr. Bartholomew has performed visual inspections of water and steam side surfaces of boilers, heat recovery steam generator (HRSG) evaporators, deaerators, and condensers. He also has been involved to a lesser extent with the inspection of turbines, feedwater heaters, heaters and coolers. At the August 2017 Power Plant and Environmental Chemistry meeting he provided a presentation on inspecting the steam side surfaces of condensers.

**Makeup Water Treatment.** Mr. Bartholomew has provided makeup water treatment assessments, developed and reviewed specifications for a number of facilities. He also reviews makeup data and has provided onsite and offsite troubleshooting services for pretreatment and demineralization plants. Mr. Bartholomew authored sections in past EPRI makeup water treatment guidelines and rewrote several sections for the 2010 guidelines.

**Steam/Water Cycle Chemistry.** Mr. Bartholomew routinely reviews condensate, feedwater, evaporator/boiler, and steam chemistry data, sample conditioning, chemistry monitoring systems, chemistry test procedures, and provides guidance on treatment programs. He provides tailored seminars to clients on steam/water cycle chemistry.

**Cooling Water Treatment.** Mr. Bartholomew was extensively involved in cooling and heating water treatment during his first five years at STPA and has been intermittently involved in service water, mill water, and open and closed cooling systems since then.