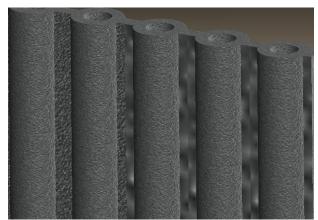


# Waterwall Working Group (WWG)



Rendering of seamless welded waterwall section in a coal plant

## **Key Research Question**

EPRI has supported fundamental research for the understanding of corrosion and related waterwall boiler tube failures consequent of low NOx combustion at coal-fired utility boilers for several decades. To augment recent program research activities, EPRI has initiated the formation of a Waterwall Working Group (WWG) to provide a forum where experiences and research topics can be shared and discussed.

# **Objective**

The goal of the WWG is to share current waterwall design, performance, and operational experiences and assess various options for areas requiring further R&D.

# **Approach**

The WWG will meet once a year and conduct periodic webcasts to discuss and stay current on waterwall related issues. The WWG will identify R&D areas for further research by EPRI. Current topics planned for the 2019 meeting may include:

- Impact of waterwall cleaning
- In-situ corrosion measurement technologies
- Short- and long-term impacts of cyclic operation
- Waterwall corrosion and other concerns (circumferential cracking)
- Material solutions specification and quality control, and periodic testing

- Tech transfer forum to inform participants of current waterwall impact assessment advances
- Increase knowledge on recent operating experiences
- Discuss potential solutions and best practices during operational challenges
- Short- and long-term assessments of protective coatings
- Impact of fuel blending, including natural gas co-firing
- Low temperature operations including ramping and longterm periods at lower loads

In addition to the annual meeting, selected topics may be chosen for more detailed webcasts.

# **Research Value**

Working group participants will gain insights during meeting attendance and shared presentations.

### **Deliverables**

Deliverables from this working group include a report on meeting minutes and webcast slides for participants.

# **Price of Project**

The cost to participate in this working group is \$15,000 per year. This project qualifies for Tailored Collaboration (TC) and Self-Directed Funding (SDF).

# **Project Schedule**

The next meeting/webcast is planned for summer 2019. Webcast topics and the 2020 meeting information will be decided by group participants.

#### **Who Should Join**

Power companies with coal boiler waterwalls may be interested in joining this working group to maximize performance, improve reliability, and reduce costs.

## **Contact Information**

For more information, contact the EPRI Customer Assistance Center at 800.313.3774 (askepri@epri.com).

## **Technical Contact**

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