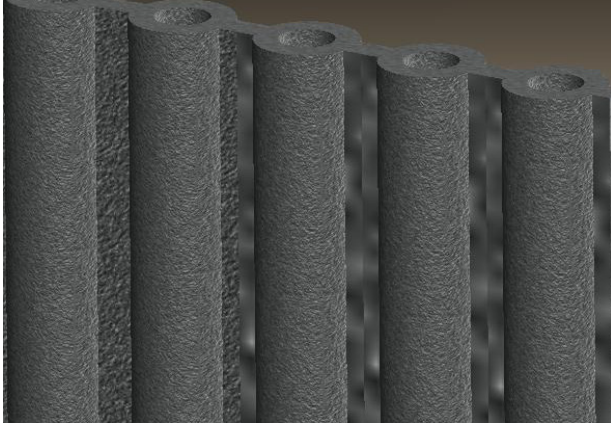


Waterwall Working Group (WWG)



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 NO_x 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 long-term 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).

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