

Third Thermal Ecology and Regulation Workshop

October 11-12, 2011

Located At Great River Energy, 12300 Elm Creek Boulevard, Maple Grove, MN

Sponsored by the Electric Power Research Institute (EPRI)

Call for Papers due May 15, 2011

Workshop Overview:

Eight years ago the first Thermal Ecology and Regulation Workshop was held at American Electric Power Company Headquarters in Columbus OH. Over 120 representatives from industry, regulatory agencies, academia, the legal profession, and consulting companies attended. The workshop addressed legal and regulatory perspectives associated with implementation of Section 316(a) variances, thermal physiology and effects, aquatic community balance, thermal plume modeling, monitoring and advanced cooling technologies. Three years ago, a second workshop was held at Tri-State Generation & Transmission Association, Inc. near Denver, CO, where more than 30 papers and posters were presented. Since that time many new issues have emerged in the field of thermal ecology including climate variation considerations, water availability concerns, more stringent thermal discharge requirements, and the interrelationship between 316(a) and 316(b). To address these issues and other new developments, a third workshop, hosted by Great River Energy at their headquarters in Maple Grove, MN is now scheduled.

Invitation:

The Workshop Steering Committee is soliciting papers for presentation at the Third Workshop. Since the workshop planning is still in its formative stages, accepted papers will help shape the workshop agenda. All presented papers will be published in a Proceedings. The workshop will consist of a single session, so all papers will be heard by all attendees. Preliminary topics identified to date are shown below. If you are interested in submitting an abstract, please follow the instructions below. Submissions must be received by May 15, 2011. You will receive notification as to whether your paper has been accepted and follow-up instructions by June 15, 2011. If there are too many good submissions to present within available time slots, then some authors will be invited to contribute posters to a session to be held near the end of the first day.

Preliminary Agenda Topics:

- Regulatory perspectives on 316(a): how have they changed in the last four years?
- What approaches have been taken recently by regulatory agencies in re-evaluating ambient temperature water quality criteria?
- What accounts for the discrepancies between lab results and field observations with respect to fish response to elevated temperatures? In ecological assessments of fish response to thermal discharges, how should one account for acclimation and recovery?
- How will re-evaluation of steam electric power effluent guidelines impact thermal discharge policy?
- What research areas regarding thermal response are most in need of funding? Why?
- What has been the experience in using thermal modeling tools? How might the utility of these tools be increased?
- Since 2007, what have we learned about ecological response to temperature? What don't we know?
- How might water availability constraints influence generation/thermal load management?
- In a nation whose aquatic systems are being forever changed by invading exotic species, how do we assess compliance with "preserving balanced, indigenous populations"? Are 316(a) guidelines still appropriate?
- How may climate variation affect the ecology of rivers and lakes?
- What new cooling technologies are emerging and what might be the environmental impacts associated with their use.
- How might remote sensing and fish tagging provide useful knowledge in environmental assessments of thermal discharges?
- With respect to hydroelectric facilities, what is known about downstream effects of temperature modification? How can this be managed?

- What opportunities exist for beneficial uses of thermal discharges?
- What thermal-related issues loom for siting new generation?

What studies on any of the above topics have been completed over the last 5 years?

Questions?

Please contact Bob Goldstein at rogoldst@epri.com or 650.855.2154.

Submittal Instructions:

Email proposed presentations as attached word files to Christine Lew (Christine.Lew@tetratech.com). Submissions need to be received by May 15, 2011. Proposals should include title, names of authors and their organizations, name of principal contact with contact information, and abstract not to exceed 400 words. Presenters are required to submit a written manuscript within six weeks after the workshop. The manuscripts will be published in the Workshop Proceedings.

Registration:

There is no registration fee, but all attendees must register [here](#).

Steering Committee:

Chuck Coutant, *ORNL (Retired)*

Doug Dixon, *EPRI*

Bill Garrett, *(Southern Company)*

Bob Goldstein, *EPRI*

R. Duane Harrell, *Duke Energy*

Chantell Johnson, *Tri-State Generation & Transmission Association, Inc.*

Christine Lew, *Tetra Tech*

David Michaud, *We-Energies*

Bill Mills, *Tetra Tech*

Rob Reash, *American Electric Power*

Erik Silvola, *Great River Energy*

John Thiel, *Dairyland Power*

John Veil, *Argonne National Laboratory (Retired)*

Electric Power Research Institute

3420 Hillview Avenue, Palo Alto, California 94304-1338 • PO Box 10412, Palo Alto, California 94303-0813 USA
800.313.3774 • 650.855.2121 • askepri@epri.com • www.epri.com

© 2011 Electric Power Research Institute (EPRI), Inc. All rights reserved. Electric Power Research Institute, EPRI, and TOGETHER... SHAPING THE FUTURE OF ELECTRICITY are registered service marks of the Electric Power Research Institute, Inc.