

# Groundwater and Coal Combustion Residuals Regulatory Issues

## COAL COMBUSTION RESIDUALS AND GROUNDWATER CONTAMINATION SOLUTIONS

An educational information-exchange conference from the American Ground Water Trust  
Atlanta, Georgia ~ Wednesday, January 16, 2019 ~ 8:45am-4:30pm  
State Bar of Georgia, 104 Marietta Street NW, Suite 100, Atlanta, GA 30303



Convened and organized by American Ground Water Trust  
Supporting organization: Air and Waste Management Association

### What the program will discuss:

- Overview of federal CCR regulations, recent changes, and future possible modifications
- Local state and federal authority for regulatory intervention – State programs and delegation from EPA
- Overview of current litigation and liability review
- Schedule for compliance dates and revisions of effluent limitations guidelines
- Extent of economic and ecological impacts on water resources
- Techniques to distinguish between disposal site leachate and background chemical signatures
- The economics of engineering/technology options for containment, removal and treatment
- Installation and operation of water treatment technologies for “legacy” CCR disposal sites

### BACKGROUND:

The primary sources of coal combustion residuals (CCR) are coal-burning power stations. CCR include fly ash, bottom ash, boiler slag, and flue gas desulfurization material and scrubber residues. There are close to 250 facilities in the US that generate CCR and approximately 700 places where combustion residuals are stored in landfills, disposal sites and ponds. CCR may contain complex suites of heavy metals in addition to other contaminants of concern. An added complexity is that many of the CCR constituents of concern also occur naturally in the environments where CCR is stored. In previous decades CCR were perceived simply as solid waste, and states had differing regulations about pond and landfill construction.

An impetus for more comprehensive CCR disposal regulation resulted from two major CCR impoundment failures in the US, (2008 and 2014) and the associated environmental impacts to surface water. Citizen concern and environmental group pressure and litigation have brought focus on the water quality (pollution) aspects of dealing with contamination from legacy disposal sites and in creating operational protocols for residuals from operating power plants. There has been an uneven and mixed regulatory response to water quality concerns with ongoing uncertainty about how best to provide water resources protection. The Federal Government issued a CCR Rule in 2015 and has recently delegated to states the task of developing programs for future implementation.

The motivation for this conference is AGWT's education mission to provide objective information to inform management and regulatory decisions leading to source water protection. Groundwater resources in America are limited and therefore understanding potential threats to groundwater resources is imperative.

The conference will provide transparency in information with free exchange of legal, hydrological, regulatory and technical opinions. A collegial dialog among all parties concerned in finding solutions can help provide realistic expectations for strategies to remediate the effects of past practices and to develop economically feasible regulatory protocols.

### PARTICIPATION:

The program is of particular relevance to attorneys, regulatory authorities, the power generation industry, consultants and engineers in the front line of resolving CCR problems. The conference will provide an opportunity for water utility managers, environmental organizations and elected representatives in areas affected (or potentially affected) by CCR contamination to gain an informed perspective on the issues. Innovative solutions to groundwater analysis and remediation at CCR impoundments will also be discussed. It is anticipated that conference attendance will also include, environmental organizations, groundwater industry professionals, water engineers and government entities at city, county, state, and federal level.

### FORMAT:

The conference will be strictly conducted in a non-confrontational and non-commercial information-exchange format. Presenters include scientists, water providers, water regulators, attorneys, and electricity generation professionals. Following each presentation, and at the end of the program, there will be time for Q&A among all participants.

### PRESENTERS:

All presenters have been asked to share technical expertise and to provide information, advice, guidance and insight in an inclusive, generic and non-commercial information-exchange format.

8:00 – 8:45 REGISTRATION

8:45 - 9:00

SOURCE WATER PROTECTION PRIORITIES – THE ROLE OF OBJECTIVE INFORMATION & EDUCATION

Andrew Stone, Executive Director, American Ground Water Trust. Concord, NH

9:00 – 9:35

EPRI RESEARCH ON COAL COMBUSTION PRODUCTS: ENVIRONMENTAL ISSUES AND BENEFICIAL USE

Bruce Hensel, Senior Technical Leader, Electric Power Research Institute, Palo Alto, CA

9:35 – 10:10

VARIATIONS IN GROUNDWATER SIGNATURES TO DISTINGUISH BETWEEN NATURALLY OCCURRING CHEMICAL SIGNATURES AND CONTRIBUTION FROM CCR IMPOUNDMENTS

Andrew Ashton, PG, Project Manager/Hydrogeologist, Sanborn, Head & Associates, Inc. Concord, NH

10:10 – 10:45

HORIZONTAL WELL USED FOR COAL ASH BASIN DEWATERING

David Bardsley, PG, Vice President, Directed Technologies Drilling, Inc., Bellefonte, PA

10:45 – 11:00 BREAK

11:00 – 11:35

STATE OF GEORGIA: RULES RELATED TO GROUNDWATER AND SURFACE WATER PROTECTION FOR COAL COMBUSTION RESIDUALS

John W. W. Sayer, P.G. Environmental Monitoring Unit Manager, Solid Waste Management Program, Georgia DNR Environmental Protection Division, Atlanta, GA

11:35 – 12:10

ENERGY INDUSTRY PERSPECTIVE ON CURRENT AND LIKELY FUTURE FEDERAL CCR REGULATIONS AND HOW STATES WILL ADDRESS OVERSIGHT AND COMPLIANCE

Josh More, JD, Attorney, Partner, and Daniel Deeb, JD, Attorney, Partner, Schiff & Hardin, Chicago, IL

12:10 – 1:10 LUNCH (provided)

1:10 – 1:45

CASE STUDIES AND CASE LAW ON LIABILITY AND LITIGATION RELATED TO CCR GROUNDWATER QUALITY IMPACTS AND IMPACTS FROM POND FAILURES

Douglas Henderson, PhD, JD, Attorney, Partner, Troutman Sanders, Atlanta, GA

1:45 – 2:20

GROUNDWATER CONTAMINATION ACROSS THE U.S.: STATISTICAL OVERVIEW OF GROUNDWATER QUALITY DATA GENERATED BY THE CCR RULE, AND LESSONS FOR MANAGEMENT.

Abel Russ, JD, Senior Attorney, Environmental Integrity Project, Washington DC

2:20 – 2:55

OVERVIEW OF CURRENT GROUNDWATER REMEDIATION OPTIONS FOR CCR UNITS

Herwig Goldenmund, PhD, Senior Scientist, Geosyntec, Kennesaw, GA

2:55 – 3:10 BREAK

3:10 – 3:55

PROGRAM MANAGEMENT AND CORRECTIVE MEASURES APPROACHES FOR SITES WITH AFFECTED GROUNDWATER

Graham Crockford, CPG, CCR Program Manager, TRC, Ann Arbor, MI

3:55 – 4:30

WILL THE CHANGES TO CCR REGULATIONS PROTECT THE ENVIRONMENT AND ARE THEY WORKABLE FOR INDUSTRY?

FINAL Q & A and DISCUSSION Panel - Coordinator: Russ Abell, PG, Vice-President, Sanborn Head, Concord, NH

4:30 ADJOURN

Conference Sponsors:



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**REGISTRATION FORM**  
**CCR Conference – Atlanta, GA – January 16, 2019**

~Or register on-line - [agwt.org/events](http://agwt.org/events)~

<b>REGISTRATION PRICING</b>	
General Registration	\$436
Employees of AGWT Corporate Members and GA Air & Waste Mgmt Assn Members	\$356
Government employees (local, state or federal)	\$356
Full-Time Student (ID required at registration)	\$80
PDF of Presentations (Post Conference) – Attendee Pricing	\$30

(Registration includes lunch and breaks)

Total \$ \_\_\_\_\_

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[agwt.org/events](http://agwt.org/events)

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**TEL:** (603) 228-5444

**? QUESTIONS:**  
 (800) 423-7748  
 9:00am-4:00pm (Eastern Time)

