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## Cooling Water Withdrawals and Long-Term Pollution From Fossil Fuel Extraction and Combustion

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## Cooling Water Withdrawals and Long-Term Pollution From Fossil Fuel Extraction and Combustion

## CONFERENCE REPORTS

### AMERICAN BAR ASSOCIATION 33RD ANNUAL WATER LAW CONFERENCE: WATER AND ENERGY: COOLING WATER WITHDRAWALS AND LONG-TERM POLLUTION FROM FOSSIL FUEL EXTRACTION AND COMBUSTION

Denver, Colorado

June 4, 2015

At the America Bar Association's 33rd Annual Water Law Conference, Sherina Maye, the Commissioner of the Illinois Commerce Commission, moderated the first panel, which featured three speakers addressing the connections between energy production, water pollution, and consumptive use.

The first speaker was Charles D. Case, a partner at Hunton & Williams LLP. Mr. Case spoke about electric power generation, the management of coal ash, rules recently put in place in North Carolina, and rules implemented nationally by the U.S. Environmental Protection Agency ("EPA"). To familiarize the audience with the topic, he listed common elements of coal ash, or coal combustion residue ("CCR"). CCR is comprised of fly ash, typically captured by an electrostatic precipitator atop a coal furnace; bottom ash; slag; flue gas desulfurization residue, a byproduct of systems that remove the sulfur-oxygen compounds from power plant exhaust that otherwise would contribute to acid rain; and selective catalytic scrubber reduction residue.

Mr. Case gave a brief history of coal use for electric power generation. He noted that coal production nearly doubled between 1970 and 1990, when the United States produced nearly one billion tons of coal. He further explained that coal use only recently started to decline due to increased alternative fuels use, such as natural gas, and increasing penetration of renewables in the United States' energy mix. United States production of CCR peaked between 123 and 131 million metric tons in 2007 and 2008.

Mr. Case next gave a procedural overview of the history of the EPA's CCR assessment program, which began in 2009. That program published its final rule ("rule") on April 17, 2015. The rule treats CCR as a solid waste under the Resource Conservation and Recovery Act ("RCRA") for the first time. The rule classifies CCR as non-hazardous waste under Subtitle D of RCRA, but the EPA has reserved the right to revisit that classification if it determines that CCR is hazardous. Mr. Case asserted that the possibility of reclassification has caused industry uncertainty, which may lead the U.S. Congress to address the issue legislatively.

Mr. Case explained how the rule addresses the leaching of contaminants into groundwater, release of contaminants into the air as dust, and the possible catastrophic failure of surface ash impoundments, but exempts beneficial use and re-use. He emphasized the importance of this exemption, because CCR is

widely used as a concrete admixture.

Mr. Case continued to describe that the rule is self-enforcing through citizen suits or state action, yet contains no permitting requirements. The requirements include location restrictions relative to groundwater sources, wetlands, and seismic zones, as well as, liner and structural integrity criteria. The rule also contains specific requirements for groundwater monitoring and provisions for corrective action to remediate groundwater contamination. Facilities that do not comply with the rule regarding location restrictions, groundwater contamination, or structural integrity requirements must close within three years.

Mr. Case concluded his remarks by discussing the North Carolina coal ash management statute, commonly called CAMA, passed in 2014. He detailed some of the differences between the EPA rule and CAMA. For example, CAMA does not regulate landfills, but directly addresses seepage. CAMA also prescribes facility closure based on risk, and regulates beneficial use.

The next speaker was Frank Holleman, a Senior Attorney at the Southern Environmental Law Center ("SELC"). He gave a talk titled, "Cleaning up the South: The Legacy of Coal Ash." He began by stating that he considers the current methods of storing coal ash to be "dangerous, risky . . . and illegal." To illustrate his point, he asked the audience to imagine that a long-time client came into the office and said he wanted to dig a big, unlined pit, on some property next to a major river, and fill it with millions of tons of industrial waste containing arsenic, uranium, radon, lead, molybdenum, and hexavalent chromium. The client would then fill the pit with water. To protect drinking water, the client would build a leaky earthen dyke. Mr. Holleman asserted that no lawyer would allow the client to make such a pit, but contended that is what utilities in the southeast have been doing for years.

Mr. Holleman showed a map with sixty-one coal ash facilities in the southeast United States, twenty-five of which the SELC is currently suing. Mr. Holleman pointed out that most ash facilities are on major rivers. He discussed SELC's strategy, which employed South Carolinian law to bring suit against coal ash impoundment operators forcing clean up actions. SELC then moved to North Carolina where it discovered every site in the state violated state law, federal law, or both.

Mr. Holleman discussed two high-profile coal ash spills, one at the Tennessee Valley Authority's ("TVA") Kingston site in Tennessee, and another at Duke Energy's Dan River site in North Carolina. Both spills helped increase public awareness and action. Due to the increased publicity, the spills resulted in criminal charges filed against TVA and Duke Energy, the CAMA statute enacted in North Carolina, and all utilities in South Carolina agreeing to clean up their ash lagoons.

Mr. Holleman concluded with his view that the operation of an unlined coal ash pit can be criminal, even if the regulator permitted the activity. He stated that the EPA CCR rule is not a safe harbor. Rather, it is a bare minimum because an operator may still be open to criminal or civil liability even after achieving compliance.

The final speaker of the panel was Kelly Love, a Senior Attorney with the TVA. Her talk was titled, "River Management: Balancing Multiple Uses to

Create Value.” Ms. Love gave a detailed talk of the design of power plant intakes to reduce impingement and entrainment of aquatic creatures as required by Section 316(b) of the Clean Water Act. She discussed various technology options, such as reducing the intake flow by implementing closed-loop cooling, exclusion through low-velocity screens, or using traveling screens that collect fish and return them to the river. These technology options have their trade-offs; for instance, closed-cycle cooling is low-use, but high consumption, because there is no return flow to the river.

The moderator, Commissioner Maye, asked the panel questions to conclude the session. The first went to Ms. Love on the impact of Section 316(b). Ms. Love replied she thought the overall impact would be low because of the variety of technology options available other than closed-loop cooling. Mr. Case added that Section 316(b) has site-specific provisions to balance fish impacts with increased water usage. Commissioner Maye then asked Mr. Holleman and Mr. Case about a coal ash lagoon operator’s potential criminal exposure. Mr. Case responded that most industrial activities have some criminal and civil liability if they are done improperly. He disagreed with Mr. Holleman’s view that operation of a coal ash pit is independently illegal. Mr. Holleman responded by stating that almost every site he has seen is not necessarily criminally operated, but is at least civilly illegal. He said he had seen some seepages clearly visible from Google Earth, and that a knowing or negligent violation of the Clean Water Act is a criminal offense.

A final questioner asked whether there was a risk of contaminant leaching from concrete made of ash. The panel confirmed, based on EPA studies, leaching from concrete is very low. Mr. Holleman said that beneficial re-use of ash has to be managed in ways that do not backfire on the industry, for example, coal ash re-use in agriculture. Mr. Holleman warned that agricultural re-use would be inconsistent with the growing business of many grocery stores in natural and organic products. With that, Commissioner Maye thanked the speakers and closed the session.

*Chris Ainscough*

**COLORADO SUPREME COURT WATER COURT COMMITTEE  
MEETING: LOOKING AHEAD TO EFFICIENCY AND  
CONSISTENCY**

Denver, Colorado

October 26, 2015

*The University of Denver Water Law Review would like to thank Retired Justice Gregory Hobbs for his help in preparing this piece.*

Members of the Colorado Supreme Court’s Water Court Committee focused their discussions on ways to improve efficiency and consistency among the State’s seven water divisions. Supreme Court Justice Allison Eid, chair of the committee, presided over the meeting. A permanent standing committee since 2009, the Water Court Committee works to “[identify] possible ways