

Damage From Bottom Ash Ponds Will Not Be Mitigated By Options 1 Through 4a

1. U.S. EPA's Office of Water has documented extensive damage to groundwater and surface water from bottom ash.

In EPA's Environmental Assessment for the Proposed Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category (April 2013) *available at* http://water.epa.gov/scitech/wastetech/guide/steam-electric/upload/Steam-Electric_EA_Proposed-rule_2013.pdf, the Office of Water summarized groundwater and surface water damage from CCR in Tables A-4 through A-7 in Appendix A. *See* pages A-11 to A-38. In these tables, EPA specifically documented the contribution of bottom ash at specific damage case sites.

In sum, the majority of waste units that EPA identified as causing damage to groundwater and surface water contain bottom ash. Specifically, EPA documented damage from bottom ash impoundments and landfills as follows:

- (a) Groundwater damage from CCR surface impoundments: At least 50 percent (36 of 72) of the impoundments that have contaminated underlying groundwater contain bottom ash. This percentage likely underestimates the contribution of bottom ash, because nearly 10 percent of the sites were listed as containing "unspecified" CCR. *See* Table A-4.
- (b) Surface water damage from CCR impoundments: At least 66 percent (25 of 38) of the impoundments that have contaminated surface water contain bottom ash. *See* Table A-6.
- (c) Groundwater damage from CCR landfills: At least 44 percent (34 of 78) of the landfills that have contaminated underlying groundwater contain bottom ash. This percentage likely underestimates the contribution of bottom ash, because nearly 13 percent of the sites were listed as containing "unspecified" CCR. *See* Table A-5.
- (d) Surface water damage from CCR landfills: At least 76 percent (22 of 29) of the landfills that have contaminated surface water contain bottom ash. *See* Table A-7.

2. EPA's CCR Rule does not require existing bottom ash ponds to be lined.

According to EPA's new CCR rule, existing unlined bottom ash ponds can operate indefinitely and are not required to retrofit with liners or leachate collection systems. While the rule establishes conditions under which an owner/operator of a bottom ash pond must close or retrofit the pond, some event or circumstance must precede this requirement, such as a determination of groundwater contamination or failure to comply with locational restrictions. Barring these circumstances, more than 100 existing bottom ash ponds, mostly unlined, will continue to operate indefinitely. Even when the CCR rule requires

closure of ponds, the rule provides for generous extensions of the closure deadlines, potentially allowing owner/operators to extend the life of their ponds for over a decade. Consequently, it is critical that the ELG require dry handling for bottom ash to ensure that bottom ash ponds do not continue to be a source of groundwater and surface water damage.

3. **EPA did not conclude that bottom ash is less dangerous than other types of coal ash.**

Nowhere in the CCR rule did EPA conclude that bottom ash poses less of a hazard to human health and the environment than other forms of coal ash. Throughout the rule, bottom ash ponds are subject to exactly the same requirements as fly ash and FGD ponds. There is no discussion in the preamble or in the EPA's risk assessment for the CCR rule, which includes chemical analysis of different types of coal ash, that supports the premise that bottom ash ponds pose reduced risk. *See* U.S. EPA, Human and Ecological Risk Assessment of Coal Combustion Residuals (December 2014).