Ash Ponds Kill Recycling:
HR 2273 Will Promote the Continued Use of Ash Ponds.

HR 2273 is fundamentally anti-coal ash recycling and anti-jobs. This bill will eliminate EPA's authority to require that states phase out ash ponds. **Ash ponds kill recycling of coal ash.**

Legitimate Recycling. To legitimately recycle coal ash, in other words, to use fly ash, bottom ash, boiler slag or FGD residual as a feedstock in making a product or material for a product, one needs to maintain the greatest purity possible of these CCWs. That is done by storing each one of these wastes streams -- bottom ash, boiler slag, fly ash, and FGD sludge – separately. Mixing them together with plant waste water, storm water and/or other materials in an ash pond effectively preempts the use of bottom ash as an ingredient in asphalt shingles, boiler slag as a sand blasting material, fly ash as an additive in Portland Cement or FGD residual to make wallboard.

Ponding kills recycling. Ponding CCW mixes these waste streams at the power plant and slurries them to an ash pond as the cheapest way to manage all the CCW a power plant produces. Usually, the slurry includes low volume wastes generated at the power plant, such as blow down (the residual of impurities that are cleaned off of the walls of pipes and boilers that water evaporates from in the plant), boiler cleaning solvents, used oils and plant waste water because this is the cheapest way to handle these wastes also. This fills the ash pond with more impurities rendering the CCW in it even more worthless for legitimate recycling.

Figure 1. Little Blue Run Coal Ash Surface Impoundment, Greene Township, PA. Photo credit: Environmental Integrity Project (2010).

Boiler slag is used for a sand blasting grit and bottom ash is used in asphalt shingles due to the larger particle sizes of these CCWs. While initially these waste streams may be wet managed, once their dumped in an ash pond with other CCW and power plant wastes and waste waters, it is cheaper to mine sand for these purposes than sieve these wastes out the pond for such uses.

Fly ash used as an additive in Portland Cement needs a certain amount of calcium. When ash is dumped in a pond, its calcium dissolves into the pond water. That is why ash pond water is often very alkaline - because the lime or calcium oxide (CaO) in the fly ash has dissolved into the water. It would be cost prohibitive to retrieve the fly ash anyway, but the loss of calcium makes the attempt even more nonsensical.

One also does not want carbon in the fly ash, if it is to be used in Portland Cement. A lot of ashes have too much carbon to be used for this type of recycling. When you dump ashes from multiple coals burned at a power

plant and other CCW into an ash pond, you pollute all of this waste with carbon further marginalizing use of the CCWs such as fly ash dumped there in cement.[i]

Ponding also ruins FGD sludge for use in gypsum wallboard. First, the objective in recycling FGD residual into wallboard is to dehydrate it. Most FGD residual destined for this use is already wet. It needs to be dried, not dumped into more water, much less the highly polluted water in an ash pond. Gypsum is calcium sulfate, CaSO4. To make wallboard, FGD sludge needs to be pure CaSO4. If FGD waste is dumped into an ash pond, the carbon from other CCW and/or other power plant wastes in the pond will contaminate the material. Bacteria will eat the carbon, oxidizing it and reducing the sulfate in the CaSO4 to sulfite and sulfide. Eventually hydrogen sulfide would off-gas from such impure wallboard in homes where it is installed, making people sick.[ii]

Ponding Only Enables Sham Recycling. The continued indefinite use of ash ponds discourages legitimate recycling. The only type of "recycling" option that remains for ash slurried to an ash pond is to retrieve the ash and dump it in mines, quarries or in low areas as "structural fill," activities which have contaminated water supplies around the country and are often more dangerous than landfills. Between 2001 and 2008, American Coal Ash Association figures indicate the use of fly ash in concrete products, grout and cement grew by only 2.8% in the US. In contrast, the use of coal ash in structural fills and mine filling grew by 151% and by 871% respectively in this period.[iii]

The promoters of HR 2273 are afraid of a coal ash regulation that will stop these kinds of "recycling" that are in reality, dumping with no safeguards, often right into water tables, that parade under the fig leaf of 'recycling' or 'beneficial use'. If the electric power industry cared about jobs from the legitimate recycling of coal ash, it would be insisting that ash ponds, structural fills, and mine fills be phased out, not lobbying to prohibit EPA from regulating these activities.

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[i] Ladwig, Ken, "RE: use of CCPs from dry vs. wet handling," Email to John Sager and Jana Englander, Materials Recovery and Waste Management Division, US Environmental Protection Agency, Washington, DC, October 6, 2009.

[ii] Norris, Charles, GeoHydro, Inc, Denver, CO, Telephone Communication, August 30, 2011.

[iii] American Coal Ash Association, "Coal Combustion Product Production & Use SurveyReport" (2008). http://acaa.affiniscape.com/associations/8003/files/2008_ACAA_CCP_Survey_Report_FINAL_100509.pdf . & American Coal Ash Association, "Coal Combustion Product Production & Use" (2001), http://acaa.affiniscape.com/associations/8003/files/2001_rev_svy_11-02.pdf.

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