

### **Appendix III: History of Failures in the Regulation of Coal Combustion Waste**

**\*\*Congress enacts 1980 Solid Waste Disposal Act Amendments** declaring that EPA will report back to Congress about whether CCW and other large volume industrial wastes such as cement kiln dust and mining waste should be designated as hazardous wastes to be managed with mandatory federal requirements and oversight under subtitle C of RCRA and issue regulatory determinations about how these wastes should be managed.

**\*\*1988, EPA issues a Report To Congress on nonmanaged CCW** finding that it does not warrant regulation as a hazardous waste. This is a small subset of CCW that is managed by generators separately from most CCW which is managed with other power plant wastes, some of which are listed hazardous wastes.

**\*\*1993, EPA makes a Regulatory Determination not to regulate nonmanaged CCW as a hazardous waste under subtitle C** finding that state regulation under landfill regulations will be adequate but conceding concerns that the metals in CCW can contaminate water supplies if the CCW isn't managed properly.

**\*\*1999, March, Seventeen years after the deadline set by Congress, EPA issues a second Report to Congress on Waste from the Combustion of Fossil Fuels** that covers managed CCW (nearly all CCW -- both from conventional and FBC plants and utility as well as other industrial generated CCW), and wastes from natural gas and oil-fired power plants. This report finds that none of this waste warrants regulation as a hazardous waste under subtitle C of RCRA.

**\*\*2000, March, EPA posts a Regulatory Determination on its web site that reverses its findings in the 1999 RTC based on the public comments presented on this RTC** documenting the damages being caused by CCW. The Determination declares that all CCW (managed and nonmanaged CCW, but not the oil or gas fired plant wastes) will be managed as a "contingent hazardous waste." EPA will develop national regulations for management of CCW and give states the option to implement the regulation or do so itself if states refuse to implement the regulations.

**\*\*2000, May, Under intense pressure from the electric power industry and its numerous political friends, EPA reverses itself again and issues a Final Regulatory Determination** declaring that CCW will be managed as a solid waste under subtitle D of RCRA which establishes nonmandatory regulatory guidelines and regulations that states can follow at their discretion. EPA commits to developing regulations under subtitle D in this Determination for CCW landfills and surface impoundments and working with OSM to develop regulations for the mine filling of CCW. Although they will not be mandatory for states to follow, the regulations will further define "open dumping" that is prohibited under RCRA for all wastes and thus provide citizens with standards they can enforce to stop open dumping of CCW regardless of whether their state decides to implement the regulations.

\*\*2000 - 2008, EPA under the Bush Administration shelves almost all of the funding and effort to develop the national regulations promised in the 2000 Determination. Instead EPA embarks on a dialogue with industry (through the Utility Solid Waste Activities Group, USWAG), to develop voluntary guidelines for management of CCW surface impoundments that USWAG proposes. These guidelines would have utilities who opt to follow them, agree to monitor their surface impoundments and report the data to regulators, establishing the monitoring within several years if the surface impoundments are within a mile of a drinking water well.

Some 125 groups file a petition in February 2004 asking EPA to begin emergency rulemaking under RCRA to prohibit placement of CCW in groundwater and surface water. The EPA never responds to the petition in violation of RCRA. Lead by Earthjustice and Clean Air Task Force the groups then draft and submit a proposed national CCW rule to EPA in February 2007 in the absence of any progress by EPA to develop the national regulations promised in the 2000 Determination. The proposed rule would phase out surface impoundments within 2-3 years.

\*\*May, 2006, The National Research Council within the NAS issues a Report, Managing Coal Combustion Residues in Mines, which culminates a two year study of minefills mandated by Congress. Despite repeated intensive pleas against any federal regulation of CCW in mines from state mining regulators and industry, the NRC study panel finds unanimously that national regulations are needed to set "minimum enforceable safeguards" for all states to follow to protect the environment, water supplies, and public health from the placement and disposal of CCW, a nonmining generated waste, in surface coal mines.

\*\*March, 2007, The Office of Surface Mining, Reclamation and Enforcement issues an Advance Notice of Rulemaking asking for public input on the safeguards needed in a national minefill regulation. EPA offers one page of comment on these safeguards despite the NRC Report's call for a close collaboration by EPA and OSM on the regulation to ensure that the purposes of RCRA to prevent contamination from CCW, are not contravened by it. Members of the NRC panel comment that the Advance Notice does not heed the NRC recommendation to encourage beneficial uses of CCW such as in the manufacture of wall board, pavement and cement or propose any new safeguards other than what is already in OSM regulations for mining. There is subsequent communication by EPA with OSM over the rule after the public objects to the lack of collaboration of OSM with EPA. A draft of the rule is sent to the Office of Management and Budget from the Department of Interior in November, 2008 and leaked to the outside interest groups in the first week of 2009 but still has not been published in the federal register. Citizen groups have asked the incoming Obama Administration to send the draft rule back for redrafting to consider input from citizens living around minefill sites as well as environmental groups equally with input from state mining regulators and industry from the ground level up in the drafting of this rule.

\*\* August 2007, EPA issues a Notice of Data Availability in the Federal Register, asking for public input on 1) a Risk Assessment it has performed on CCW; 2) a Report it has jointly produced with the Department of Energy that attempts to say that states and utilities are voluntarily improving their CCW regulations and management by surveying approximately 50 new disposal units recently built; and 3) an expanded list of "damage cases" that it has generated since the 2000 Regulatory Determination. The NODA also officially recognizes the voluntary approach proposed by USWAG and the national regulation proposed by Earthjustice, Clean Air Task Force, Environmental Integrity Project, Sierra Club and many other citizen and environmental organizations.

Public input on the NODA is very lopsided, with approximately 9,000 - 10,000 comments calling for EPA to develop a national CCW regulation. The comments also decry the EPA/DOE report for completely ignoring the vast majority of existing and closed CCW dump sites that have little or no safeguards such as liners, monitoring or cleanup requirements, the growth in "beneficial use sites" such as coal mines and quarries where CCW is dumped often directly into groundwater with little or no controls and continued efforts in statehouses to relax what little state regulations there are of CCW sites. The comments point out that EPA's list of 60 plus damage cases is ignoring dozens of sites where damage from CCW has been documented by state and federal enforcement actions, lawsuits and monitoring data. Ignored sites include the Coalstrip site in Montana, the Gambrills Quarry in Maryland, and the Shumway Arroyo in New Mexico where dozens of offsite drinking water wells and springs were contaminated by CCW, lawsuits were filed and people harmed by the contamination.

The comments criticize EPA for ignoring the substantial work in two reports completed in 2006-2008 by EPA's research staff at Research Triangle Park, North Carolina, showing greatly increased toxicity from modern CCW due to emission controls and the use of more competent leach tests that vary disposal conditions to mimic the conditions at disposal sites.

The 2000 Determination explicitly promised to reconsider a hazardous designation for CCW if new information emerged about the toxicity of CCW from added emission controls at power plants.

Finally the comments note the extremely high cancer and other health risks to people and wildlife around unlined CCW disposal sites. The risk assessment reports human cancer risks from arsenic exposure being as high as 1 in 100 individuals exposed to arsenic in drinking water contaminated from unlined surface impoundments (which is what the impoundment that collapsed at TVA's Kingston Plant is). This risk level is as high as the risk level that was modeled in a draft risk assessment on CCW never published by the Clinton Administration. It is one thousand times higher than the cancer risk considered acceptable by the Bush EPA. Yet the Risk Assessment completely fails to take into account the heightened risk from cumulative exposure to multiple metals and other contaminants in CCW, and its risk calculations are based on the CCW being placed in

disposal units that are above the water table. At most minefills and quarries, CCW is being dumped directly into water tables.

So, today, 29 years after the Solid Waste Disposal Act amendments were passed mandating that EPA address CCW under RCRA, dozens of contaminated sites have occurred all over the US and EPA has admitted that many more probably exist but have not been discovered due to the lack of any monitoring at most sites. In all there are approximately 2,000 CCW dumps in America, 600 operating landfills and surface impoundments, 750 closed dump sites, 400-500 minefills, and hundreds of largely unknown structural fills. Most are ticking time bombs with citizens living around them unaware of any danger -- like lab mice in some never-ending experiment.