

## **Blueprint to Safeguard the Environment, Public Health & Safety from Coal Waste**

The catastrophic waste spill at the Kingston Tennessee Valley Authority plant in Tennessee unveiled the urgent need for regulation of large quantities of solid and liquid waste generated by coal-fired power plants. For decades, the waste—known as coal combustion waste and containing several toxic materials—has spewed from coal-fired power plants and been stored without adequate regulation.

### ***Coal combustion waste***

Often mixed with water and disposed of in surface ponds or landfills, coal combustion waste is known to contain a variety of toxic chemicals and metals. A 2007 Environmental Protection Agency study, on which the EPA requested comments in August of 2007, examined 181 coal combustion waste disposal sites throughout the country and found that the waste disposal sites release arsenic, lead, boron, selenium, cadmium, thallium, and other pollutants at levels that endanger human health and the environment. The EPA report also found that unlined coal combustion waste ponds pose a cancer risk *900 times* above what the government considers "acceptable."

### ***Lack of national regulation***

Despite clear evidence showing that coal combustion waste poses serious and extensive hazards to people's health and the environment, the EPA has not regulated it as hazardous waste. In fact, the EPA has failed to set nationally applicable regulations for the disposal of coal combustion waste, resulting in an insufficient and inconsistent patchwork of lax and ineffective state regulations. In the Southeast, for example, there are at least 46 unlined coal disposal units, inadequately regulated by state or federal law (see map).

### ***Recommendations***

The EPA should establish national safeguards for the disposal of coal combustion wastes through enforceable regulations. Once established by the EPA, states must follow with regulations at least as stringent, if not more stringent than the federal regulations.

Ultimately, the Southern Environmental Law Center advocates **a complete phase-out of the type of wet coal ash storage facility that failed at the TVA plant in Tennessee**. Even with state-of-art liners, those types of facilities leave communities facing long-term hazards to human health and the environment and burdens to ensure that the liners and the facility never fail. These risks can be avoided by placing coal waste in dry, composite-lined and monitored landfills outside of floodplains.

The Southern Environmental Law Center also advocates, at a minimum, the following safeguards for all coal combustion waste sites to eliminate unreasonable risks to human health and the environment from coal waste.

- **Siting Restrictions**—Ban disposal beneath the seasonal high groundwater table (the

natural level at which water stands in a shallow well), prohibit placement of disposal units in floodplains, wetlands, fault areas, seismic impact zones, unstable areas and karst terrain.

- **Composite Liners**— Protect groundwater through required use of dual liner systems with fluid landfill waste collection and removal.
- **Covers**—Require use of covers on waste storage facilities to minimize airborne pollution from the waste, leaching and surface water pollution.
- **Comprehensive Monitoring**—Mandate consistent groundwater monitoring for all new and existing disposal units with at least one upgradient well and at least three downgradient wells. Monitoring should include comprehensive testing for constituents of coal combustion waste.
- **Corrective Action Requirements**—Mandate standards for corrective action that include selection of a remedy that is only deemed complete when water quality standards have been restored and maintained for at least a 3-year period.
- **Long-term Financial Assurance**—Ensure that the owner or operator of a disposal unit adequately plans for the future costs of closure, post-closure care and corrective action for known releases to clean up any pollution that results from placement of coal combustion waste in the environment.

