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Ash Slide at TVA Kingston Fossil Plant

On December 22, 2008, a dike failed at the TVA Kingston Fossil Plant in Roane County, Tennessee. More than 5.4 million cubic yards of coal ash spilled from an on-site landfill, covering more than 300 acres of surrounding land and water. While there were no immediate injuries, local citizens and the area's physical and natural environment were all impacted. The Tennessee Department of Environment and Conservation has been actively engaged in both the immediate and long-term response to the release – working with the U.S. Environmental Protection Agency to oversee a wide-range of sampling and cleanup activities.

Enforcement

Both TDEC and EPA issued enforcement actions in response to the TVA Kingston coal ash spill, and continue to work in cooperation to ensure the provisions of each action is appropriately addressed.

The Tennessee Department of Environment and Conservation issued an [Emergency Commissioner's Order](#) to TVA on January 12, 2009 outlining the steps TVA must take to remediate the Emory River and surrounding property. The Order calls for TVA to:

- Contain release and minimize downstream migration (COMPLETE);
- Assist TDEC in determining the cause of the dike failure (COMPLETE);
- Support TDEC assessment of current and future impacts of release (ONGOING);
- Develop and implement Corrective Action Plan (DEVELOPED AND BEING IMPLEMENTED);
- Restore natural resources damaged by the release (ONGOING);
- Assume financial responsibility for TDEC expenses (ONGOING); and
- Review all TVA coal ash impoundments in Tennessee (COMPLETE).

On May 11, 2009, EPA signed an enforceable Administrative Order on Consent with TVA under CERCLA to oversee the removal of coal ash at the TVA Kingston Plant, making EPA the lead agency overseeing the river dredging and final remedy at the site. The state of Tennessee welcomed this action and continues to work in partnership with EPA to ensure the cleanup in Roane County is thorough and protective of public health and the environment. Learn more at [EPA's Kingston Update](#) page. Both EPA and TDEC's enforcement actions are fully enforceable.

On June 14, 2010, TDEC issued a [Commissioner's Order](#) to TVA assessing \$11.5 million in penalties in response to the coal ash release for violations of the *Tennessee Water Quality Control Act* and the *Tennessee Solid Waste Disposal Act*. The \$11.5 million is to be paid, as follows:

- \$2.5 million to TDEC by July 15, 2010 (PAID);
- At least \$2 million in Supplemental Environmental Projects to benefit the environment must be proposed by TVA by Dec. 31, 2010 and approved by TDEC (TIMELY SUBMITTED and APPROVED);
- \$2 to TDEC by July 15, 2011;
- \$2 to TDEC by July 15, 2012; and
- \$3 million was paid at the time of the Order issuance to reimburse TDEC's oversight costs, as required by the Jan. 12, 2009 Order, and credited toward the \$11.5 million penalty. TVA must continue to pay these oversight costs over and above this assessment, and to date, has reimbursed the department an additional \$820,000.

Cleanup

The EPA Administrative Order on Consent identified both short and long-term cleanup, which they refer to as time critical and non-time critical activities. The following aerial photo shows the time critical (red) and non-time critical (blue) breakdown by impacted area:

Time Critical Work – the time critical activities were focused on removing the ash from the Emory River by mechanical and hydraulic dredge. More than 3.5 million cubic yards of ash were removed from the river and shipped to an EPA-

Department Information

- [TDEC Kingston Home](#)
- [Results Reporting](#)
- [TVA Kingston Archive](#)

Results

- [Air Monitoring Results](#)
- [Fish Tissue Data Results](#)
- [Soil and Ash Results](#)
- [Surface Water Results](#)
- [Water Treatment Results](#)

Helpful Links

- [Roane County Government](#)
- [TVA Kingston Update](#)
- [TN Department of Health](#)
- [TN Wildlife Resources Agency](#)
- [U.S. EPA Kingston Update](#)



approved landfill in Perry County, Alabama. The dredging was completed in May 2010 and the last shipment of ash went to Perry County in December 2010, completing the non-time critical activities.

Non-Time Critical Work – these activities include removing the remaining ash from the embayments, sloughs, tributaries and ground surface, as well as closing the failed landfill.

After a robust public input process, EPA, in consultation with TDEC, chose a cleanup and closure plan for the non-time critical activities. The cleanup plan requires restoration of the Swan Pond Embayment and requires TVA to permanently store on-site all ash being removed from the embayment area in an engineered perimeter dike. The dike will be constructed in the same footprint as the failed dredge cells, but will be re-engineered and reinforced. The final height of the disposal area will be approximately 30 feet lower than the previous landfill. Once the ash disposal is completed, the site will be covered with two feet of clay, topsoil and vegetation, will be regularly inspected for stability and will undergo long-term groundwater monitoring.



Sampling

Sampling began immediately following the spill and included drinking water, private wells, surface water, air quality, ash and soil. Results are analyzed by the Tennessee Department of Health laboratory, and the department consults Health to determine any potential health effects based on the results. For more information, visit the [Results Reporting](#) link.