

REPORT TO OUR  
**Roane County Neighbors**

FALL 2009



## Contents

Major Accomplishments and Action Steps	1
Ash recovery and disposal	1
Economic recovery and development	1
Voluntary medical screenings for Kingston residents	1
Recent Facts and Figures on Kingston Recovery and Site Restoration	3
Progress: Disposal of recovered ash	3
Progress: Health and safety	3
Progress: Monitoring and protecting the environment	3
Other information to report	4
Recently released information	5
Coming soon	5

For more information, please visit [www.tva.com](http://www.tva.com) or call 865-632-1700.

To report property damage for insurance purposes, please call 800-257-2675.

# To Our Roane County Neighbors:

This is our second Report to the Community about progress, plans, and challenges related to the December 22, 2008, ash spill and subsequent cleanup at the Kingston coal-fired plant in Roane County. The TVA team has learned a lot over the course of managing the cleanup and site-restoration effort at Kingston.

This report is about communication — sharing information about what we've done and what we plan to do in the months ahead. I hope you'll invest a few minutes in reading and considering what follows, because it's information based on what we are most frequently asked about the Kingston situation. There's a good chance many of your questions are answered here.

A lesson learned is the importance of listening. Communication is a two-way process. We continue to partner with federal and state authorities to listen to our Roane County neighbors, whether through comments and conversations at our formal public meetings, through community leaders, through the Roane County Long Term Recovery Committee, or through the newly established Roane County Community Advisory Group that's been organized to provide another channel for your questions and inquiries about the Kingston site. (I encourage you to learn more about this group of citizens at [www.roanecag.org](http://www.roanecag.org)). And underlying these formal listening channels, TVA also engages in direct citizen inquiries and conversations every single day. The input we collect comes in the form of questions, ideas, and suggestions, with our neighbors sometimes helping us identify potential problems we may not have recognized or anticipated. Listening will remain a priority.

Thank you for your patience over the past 11 months. While the scale and scope of the recovery operations obviously create inconveniences for many people who live in the immediate vicinity of the site, the progress we're making in restoring the entire area to normal is significant. We're now better at the logistics, and we're leveraging resources in a way that translates into significant efficiencies. The sooner site recovery and restoration are complete, the sooner the impact on the community and Roane County will diminish and end.



Best regards,



Steve McCracken  
General Manager, Kingston Ash Recovery Project  
Tennessee Valley Authority

---

### About Steve McCracken

---

Steve McCracken, who has managed three extensive environmental recovery and remediation projects for the Department of Energy, joined TVA in September as general manager of the Kingston Ash Recovery Project. McCracken most recently served as the DOE assistant manager for environmental management in Oak Ridge, where he managed a multibillion-dollar program that included decontamination and demolition of large industrial facilities, groundwater and surface water monitoring and treatment, and land restoration. He is a native of Oak Ridge and a civil engineering graduate of the University of Tennessee.

---

# Major Accomplishments and Action Steps

## Ash recovery and disposal

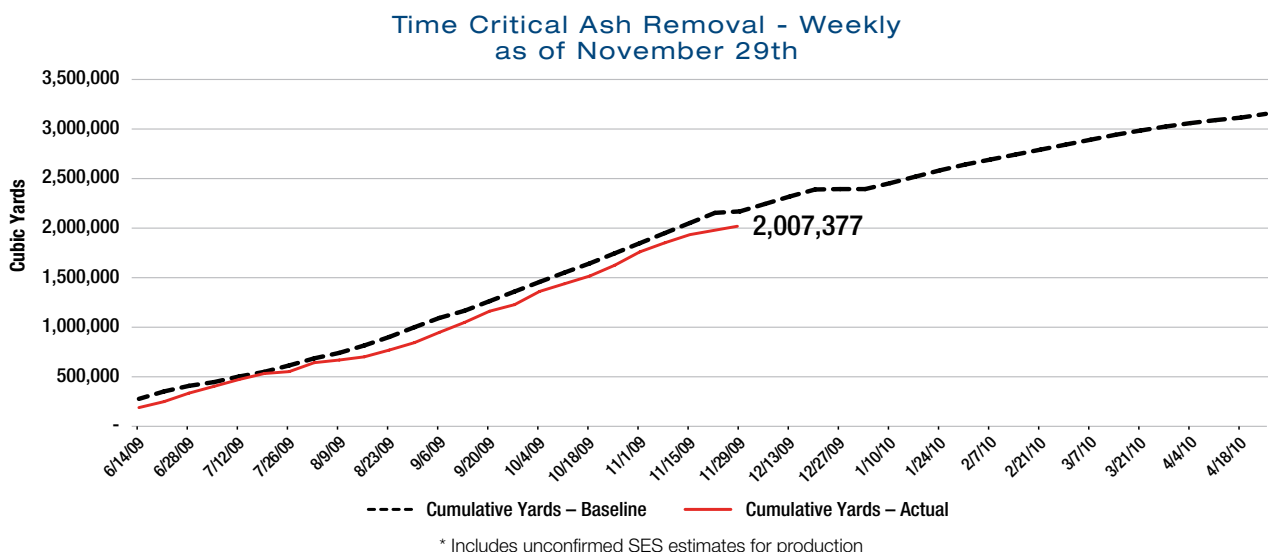
TVA recovery operations have removed about two-thirds of the ash spilled into the Emory River and related bays and sloughs east of Dike 2. That amounts to more than two million cubic yards removed from the river, and the operation is averaging a rate of 15,414 cubic yards per day. Ash recovery from the river's main channel and from the waters directly east of the ash-storage area is a priority (we call it "time-critical") because the faster we remove it, the less chance there is that some of the ash will move downstream, especially during the customarily rainy winter months. For weekly progress updates, visit [www.tva.gov/kingston/weekly/](http://www.tva.gov/kingston/weekly/).

## Economic recovery and development

TVA provided a \$43-million grant to the newly established Roane County Economic Development Foundation to help offset the potentially negative impact of the spill and the site-recovery operations. Roane County elected leaders and TVA representatives serve as the foundation's board and will set criteria for considering requests for the funding of locally originated projects to foster economic growth and job creation. For more information, please go to [www.tva.gov/kingston/moreinfo.htm#edfunds](http://www.tva.gov/kingston/moreinfo.htm#edfunds).

## Voluntary medical screenings for Kingston residents

TVA announced in June that Oak Ridge Associated Universities (ORAU) had agreed to design, plan, and conduct medical screenings for Kingston-area residents who believe their health may be affected in some way by the December 22 ash spill. While state health authorities and the Environmental Protection Agency (EPA) tell us they haven't seen evidence that the ash spill presents health problems for nearby residents, we think it is prudent to provide these screenings as a precaution. ORAU, working with physicians from Vanderbilt University, reports that more than 260 residents have signed up for screenings. In September, a medical toxicologist from Vanderbilt briefed Roane County physicians who are performing the initial data collection using X-rays, blood work, pulmonary function tests, etc. Screenings began on September 10. The week of September 28, a Vanderbilt toxicologist began examining residents and reviewed laboratory data. Resident exams will continue until all who wish to be seen have been accommodated. ORAU has also talked to the Knoxville Academy of Medicine and the Roane-Anderson Medical Society about educational opportunities available to them. Independence and confidentiality matters are being strictly addressed. For more information, visit [www.tva.gov/kingston/orau/](http://www.tva.gov/kingston/orau/).







**The recovery work on the east embayment has been substantial.**



**The recovered Church Slough is a model for the entire site after recovery.**

# Recent Facts and Figures on Kingston Recovery and Site Restoration

## Progress: Disposal of recovered ash

- As of November 30, more than 106 trains have left the site with more than 970,000 tons of ash recovered from the Emory River, headed to the Arrowhead Landfill in Perry County, Alabama.
- To accommodate the disposal process, two new rail spurs were built near the temporary ash-processing area.
- Careful loading, handling, and transportation procedures and special rail-car liners, coupled with the right ash-moisture content, ensure ash dust does not become a problem for nearby residents or those along the rail route.

*SPECIAL NOTE: The high level of rail activity means that Swan Pond Road is sometimes blocked during each day. As a safety precaution, electronic signs are positioned to notify traffic when the road ahead is blocked, and TVA Police are stationed to guide traffic.*

## Progress: Health and safety

There are four critical programs that help ensure the safety of site-recovery and restoration personnel.

- The Site Wide Safety and Health Plan, which combines Occupational Safety and Health Administration (OSHA) and TVA safety requirements with recognized best practices related to specific activities and processes across the work site.
- Health and safety training, which includes general safety training, site-specific safety orientation, craft- or role-related training, and Hazardous Waste Operations and Emergency Response Standard training. The latter is a 40-hour session required for people who work in exclusion zones or restricted areas on CERCLA sites (as defined in the Comprehensive Environmental Response, Compensation, and Liability Act).
- Pre-task planning using a Job Safety Analysis (JSA). The JSA process enables recovery personnel to evaluate each job or task before

acting by identifying potential hazards and the best controls to accomplish the task safely.

- Safety Observation Reports (SORs), which are the mechanism for workers to report any unsafe working conditions or unsafe acts they might see around the site.

A management safety team and a site-worker safety team have been formed. Both teams review all incidents and near-incidents that occur at the site.

*SPECIAL NOTE: The Emory River remains closed from river mile markers 1.5 to 3.0 as a safety precaution. With three sizable dredges sometimes working around the clock, recreational boating and swimming in that stretch don't make good safety sense. The river closure will be reevaluated periodically as the situation changes.*

*ON A SAD NOTE: The TVA and site-recovery team of contractors were reminded on July 21 of the importance of safe practices in all facets of the project. A truck driver, Larry LaCroix of Iowa, was delivering a heavy load of materials for a subcontractor and was fatally injured when the load became unstable as it was unstrapped. This tragic event was a somber reminder to all of us that safety must be the first consideration in every task. We are redoubling our focus on individual and team safety.*

## Progress: Monitoring and protecting the environment

TVA, in cooperation with the EPA and the Tennessee Department of Environment and Conservation (TDEC), continues to monitor air and water in the Kingston area to ensure minimal risks to residents, wildlife, and the environment all of us depend on.

Here's what we've done over the past few months:

### Air monitoring

- TVA has five fixed-location monitoring stations around the perimeter of the plant and spill site,

and one off-site monitor collecting background levels. These monitoring stations measure and distinguish between total suspended particulates, particles smaller than 10 microns, and particles smaller than 2.5 microns.

- All air samples collected through EPA-approved methods indicate air quality is better than the National Ambient Air Quality Standards (NAAQS).
- Some monitoring stations collect samples that are sent for chemical analysis by qualified laboratories. These samples are analyzed for things known to be in coal ash, with arsenic being a primary indicator. To date neither arsenic nor other potentially damaging materials have been detected at harmful levels.
- EPA and TDEC are conducting air sampling concurrently with TVA, and data and testing results from all three agencies have been consistent.
- Within a few days of the spill last December, TVA began air monitoring with portable hand-held instruments, measuring particulates smaller than 10 microns. Up to 400 readings are collected daily with the portable instruments, and more than 139,000 measurements have been collected within five miles of the site. While there is no standard for comparison for these “instantaneous” readings, TVA typically compares the results to NAAQS, which is a 24-hour average. All daily averages have been better than NAAQS.



Over 139,000 air samples have been taken, with no EPA 24-hour exceptions.

## Water monitoring

- EPA, TDEC, and TVA continue to collect and assess water samples from public drinking-water supplies, private wells, river water near the ash spill, and at multiple locations downstream, as well as from local springs. All drinking-water test results from Rockwood, Harriman, Cumberland, and Kingston continue to meet drinking-water quality standards. Additionally, while river-water samples do not have to meet stringent drinking-water standards, sampling results indicate that they do.

## Other information to report

Two incidents over the past couple of months have contributed to our lessons learned on the subject of communications.

- **First**, a test was conducted at the Kingston plant in September to determine which types of coal can be cleanly burned in conjunction with the new emission scrubbers (flue gas desulfurization systems) now being installed at the plant. On September 18, the final test day, conditions in the plant stack were cooler, and as a result materials that are typically gaseous condensed in the stack and emerged as snow-like flakes. In some instances these flakes eventually settled on neighboring properties. The flakes were about 80 percent fly ash and related materials. TVA had not notified the community of its plan to conduct the test, and this caused alarm among nearby residents who observed the temporary emissions. Based on the duration and limited amount of material released, no health impacts are likely. The lack of communication in this situation was completely avoidable; communication and listening will improve even further.
- **Second**, another visible emission occurred a few weeks later when TVA began testing scrubber equipment. The scrubber was not operating. However, once again, TVA did not notify area residents or TDEC of the planned test, and as a result, some residents were concerned by the water-vapor emissions that day. Although the emissions were not harmful, TVA learned once again it must continually communicate with



regulators and our neighbors near the Kingston plant. Once in operation, these scrubbers will bring state-of-the-art air-emission controls to the Kingston plant, helping it remain competitive and environmentally cleaner for many years to come.

### Recently released information

- **The overlook on Swan Pond Road** – After considering everyone’s comments about the overlook, TVA has decided that it will not be open for general use by the public. It will be used for operational purposes and scheduled visits only. There is a gate that will be kept closed and locked. The drive and parking area will be a gravel surface, and there will be a wood deck overlooking the site on which people can stand to view the work being done.
- **A draft Community Involvement Plan** that outlines TVA’s plan for working with local residents will provide input into the Kingston Recovery activities, plans, and alternatives. A public comment period is now open and will remain so through December 20.
- **The Engineering Evaluation/Cost Analysis Work Plan** describes options on how non-time-critical work (primarily on spilled ash that’s not in the river) will progress. A public comment period is now open and will remain so, also through December 20. These documents may be viewed at the TVA Outreach Center, the Kingston Public Library, the Harriman Public Library, or online at [www.tva.gov/Kingston](http://www.tva.gov/Kingston). Written comments on either of these documents can be sent to TVA at P.O. Box 40, Kingston, TN 37763-0040; or, comments can be sent via e-mail to [kingstoncomm@tva.gov](mailto:kingstoncomm@tva.gov).
- **New scrubber operational** – Kingston Fossil Plant’s scrubber will begin operating in the near future. When it does, what you will see is a white plume rising from the new stack above the plant. That plume is a sign of progress. TVA has installed new clean-air technology at Kingston that will lower sulfur-dioxide emissions (SO<sub>2</sub>) by more than 95 percent. The equipment we’ve installed is called a scrubber, and it works by mixing limestone and water with flue gas. The limestone

mixture converts the SO<sub>2</sub> to gypsum, which will be stored on-site. The white plume that will rise from the scrubber is water vapor emitted by the scrubbing process. The installation of this scrubber at Kingston is just one part of TVA’s overall air-quality program. Since 1977, TVA has spent more than \$5 billion on clean-air technology at several fossil plants across the Tennessee Valley, which results in cleaner air for everyone.

### Coming soon

- **Utility work will be under way** soon as TVA repairs and enhances the City of Kingston and Harriman Utility Board water, gas, and effluent lines that were affected by the spill. The utility repair work will take place along Swan Pond Road from Highway 70 past the plant and on parts of Hassler Mill Road. This will increase the reliability of residents’ utilities. The work is expected to begin in late December, and an overall schedule for the project will be determined once the contractor is selected. Part of TVA’s requirement in the contract for this work will be a commitment to minimize any adverse impact to traffic flow.
- **Dike C on the ash recovery work site will be strengthened.** Earlier this year, TVA commissioned the engineering firm Stantec Consulting to rigorously inspect and evaluate the structural integrity of all the ash-storage facilities at its fossil plants. After reviewing the Kingston site, Stantec recommended that TVA build a buttress on Dike C, which surrounds the ash-collection pond and the stilling pond, in order to improve the overall safety of the dike. TVA will add layers of sand, stone, and Class B riprap along Dike C. This addition of thickness and weight will increase resistance to movement and strengthen the dike. Trucks began hauling materials to the Kingston site in early November, and construction on the dike was scheduled to begin later in the month. Phase 1 work on Dike C is expected to take three months. During that time, six to eight trucks will deliver a total of about 50 loads of rock per day. TVA appreciates the patience and cooperation of our Roane County neighbors as we perform this important work.

**Tennessee Valley Authority**

400 West Summit Hill Drive  
Knoxville, TN 37902

PRESORTED STANDARD  
U.S. POSTAGE PAID  
TENNESSEE VALLEY  
AUTHORITY

**Outreach Center**

509 North Kentucky Street, Kingston, TN 37763  
Phone: 865-632-1700 E-mail: [tvainfo@tva.com](mailto:tvainfo@tva.com)

Open Monday through Friday, 2 - 6 p.m.



**[www.tva.com](http://www.tva.com)**