REPORT TO OUR

Roane County Neighbors

JUNE 2009

TVA

To Our Roane County Neighbors:

TVA has been part of the Kingston and Roane County community since 1951. The people of this community are our neighbors, and we deeply regret the spill of fly ash that occurred on December 22, 2008. We are working to restore conditions here, and we are continuing to reach out to the people affected by the spill and by our remediation work.

We want to make sure you have the information you need and that you know TVA is committed to doing a first-rate job of fixing the problems caused by the spill. The information here provides an update on our outreach to the community, environmental quality in the area, and progress in the recovery work itself. We hope you find this information of interest.

As this work progresses, we will continue to stay in touch with you, and we will continue to focus on the health and safety of the public and our employees and the quality of life in your community.

Sincerely,

Tom Kilgore
President & CEO
Tennessee Valley Authority

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For more information, please visit www.tva.com or call 865-632-1700.
To report property damage for insurance purposes, please call 800-257-2675.

Community Outreach

TVA's Outreach Center in Kingston has now worked with almost 750 families to address their questions, concerns, and property damage claims.

This outreach to local residents began when the ash spill occurred in the early morning of Monday, December 22, 2008. At that time, members of the Roane County Office of Emergency Management and Homeland Security (EMHS) responded immediately, along with TVA, and we appreciate their skill and professionalism. TVA's first priority at Kingston was to help the people directly impacted, especially the three families whose homes were severely damaged. We ensured that they were safe and that they had temporary housing, meals, and other necessities.

We established teams of TVA employees and retirees to provide a single point of contact for each family affected to ensure their needs were met and their concerns addressed. The five community outreach teams began visiting 10 to 15 homeowners each day and attended meetings with homeowner and community groups to answer their questions.

On January 6, TVA opened the Outreach Center at 509 North Kentucky Street in Kingston where TVA staff members continue to be available to respond to residents' inquiries. TVA activated a phone number, 800-257-2675, for property owners to call if they need an assessment of damages. Claims adjustors and field staff were provided by a national claims management company at the Outreach Center to conduct on-site damage assessments.

Following the spill, TVA participated in public meetings hosted by Roane County and the cities of Kingston and Harriman to provide information and answer questions. TVA hosted a public open house with representatives from key state and federal agencies on January 15 at Roane State Community College where local residents could pose questions to experts and obtain information. A second open house was held March 30.

TVA representatives also have attended several other homeowner and community meetings and public forums to provide updates and answer questions.

TVA representatives answer Roane County residents' questions at a public open house.

Residents can obtain the latest information on recovery site operations at www.tva.com.

Health Questions

To address potential health issues, residents with medical issues that they believe are associated with the ash spill are referred to the local office of the Tennessee Department of Health (TDH) at the Roane County Health Department. TVA also has contracted with Ridgeview Psychiatric Clinic for those individuals in the affected area who would like to talk with a mental health professional about what they have experienced.

TVA is developing a plan to respond to individual health concerns, including a process for determining whether there are health effects that may be related to the ash released from Kingston. We have contracted with Oak Ridge Associated Universities (ORAU) to provide community members and the local medical community with access to medical and toxicology experts who have experience and knowledge in the health effects related to contaminants in the ash. ORAU is a consortium of 100 universities that collaborate to advance scientific research and education. It has expertise in public health communication, design of medical monitoring programs, and independent verification of the cleanup of contaminated sites. Details on how to access these medical experts will be coming soon from ORAU.

TDH and the Tennessee Department of Environment and Conservation (TDEC) have informed the Kingston community that public and private water supplies are currently not impacted by the ash, that the amounts of particulate matter and metals in the air meet all standards and are below levels of health concern, and that occasional exposure to the coal ash should not be a health hazard. Please see the TDH Fly Ash Release fact sheet, updated February 13, 2009, posted on the TDH Web site at www.tn.gov/health.

Property Purchases

TVA has worked first with the property owners most affected by the Kingston ash spill. We are working hard to be responsive and responsible as we address property owners' claims, and we appreciate the patience of the property owners as we have worked through this process.

The released ash covered about 300 acres, of which eight acres were privately owned lands, not owned or managed by TVA. Within the first month, TVA began purchasing affected properties using appraisals by state-certified residential and general appraisers. Offers were made based on the higher of two independent appraisals. The appraisals are based on property values as of December 20, 2008, before the spill.

TVA has purchased more than 100 properties to date. TVA may purchase additional property that is directly affected by the remediation efforts moving forward.

TVA is committed to ensuring that Roane County property tax revenues will not be negatively affected by the purchase of these properties.

Recreation

Water-based recreation on the Clinch and Tennessee Rivers should continue as usual this season, without impact from the ash spill.

While the Emory River is open, navigation is limited in the area near Kingston Fossil Plant, and that area will continue to be a construction site for the foreseeable future. Recreational boaters should avoid the construction area.

The TDH fact sheet contains the following statement about recreation: "We are aware that many people are concerned about boating, swimming and fishing. People are advised to avoid contact with the ash, which is in the lower Emory River. At this time, recreation on Watts Bar outside the lower Emory River impact zone has not changed from the condition that existed before the ash spill. It is safe to swim, boat and eat most kinds of fish. Please see the TDEC Web site at www.tn.gov/environment for more information about already existing fish consumption advisories. Monitoring will continue and decisions about appropriate activities will be continually assessed using the current sampling data."

Aquatic birds and other forms of wildlife make use of the area's waterways.
Recreation opportunities continue as usual this summer on the Clinch and Tennessee Rivers and Watts Bar Reservoir.

Local Roadways

TVA has coordinated efforts with the Roane County Highway Department, and we appreciate its work on roads affected by the spill. Hassler Mill, Swan Pond Circle, and Swan Pond Road are all now open to the public. The rail line initially covered by the ash spill was cleared in January.

TVA appreciates the hard work of the Roane County Highway Department to rebuild and repave affected local roads following the ash release.

Environmental Quality

Environmental sampling and testing show that air and water quality continue to meet government standards.

Air

More than 44,000 mobile air monitoring samples taken by TVA as of mid-May confirm the TDH finding that "the particulate matter and metals measured in air near the site are below national and state standards or are less than any levels of concern." There is no indication of health concerns for area residents or workers. TVA, along with TDEC and the U.S. Environmental Protection Agency (EPA), has recently added additional stationary air monitors.

Water

EPA Region IV, TDEC, and TVA crews have been conducting water sampling and assessing the quality of public drinking water supplies, private wells, river water (both near the ash slide and at multiple downstream locations), and local springs. Each agency is using certified laboratories for their analyses. All EPA, TDEC, and TVA water treatment facility sampling results from Rockwood, Harriman, Cumberland, and Kingston continue to meet water quality standards for drinking water. All of the more than 100 private groundwater wells tested by TDEC also meet drinking water standards.

Ash

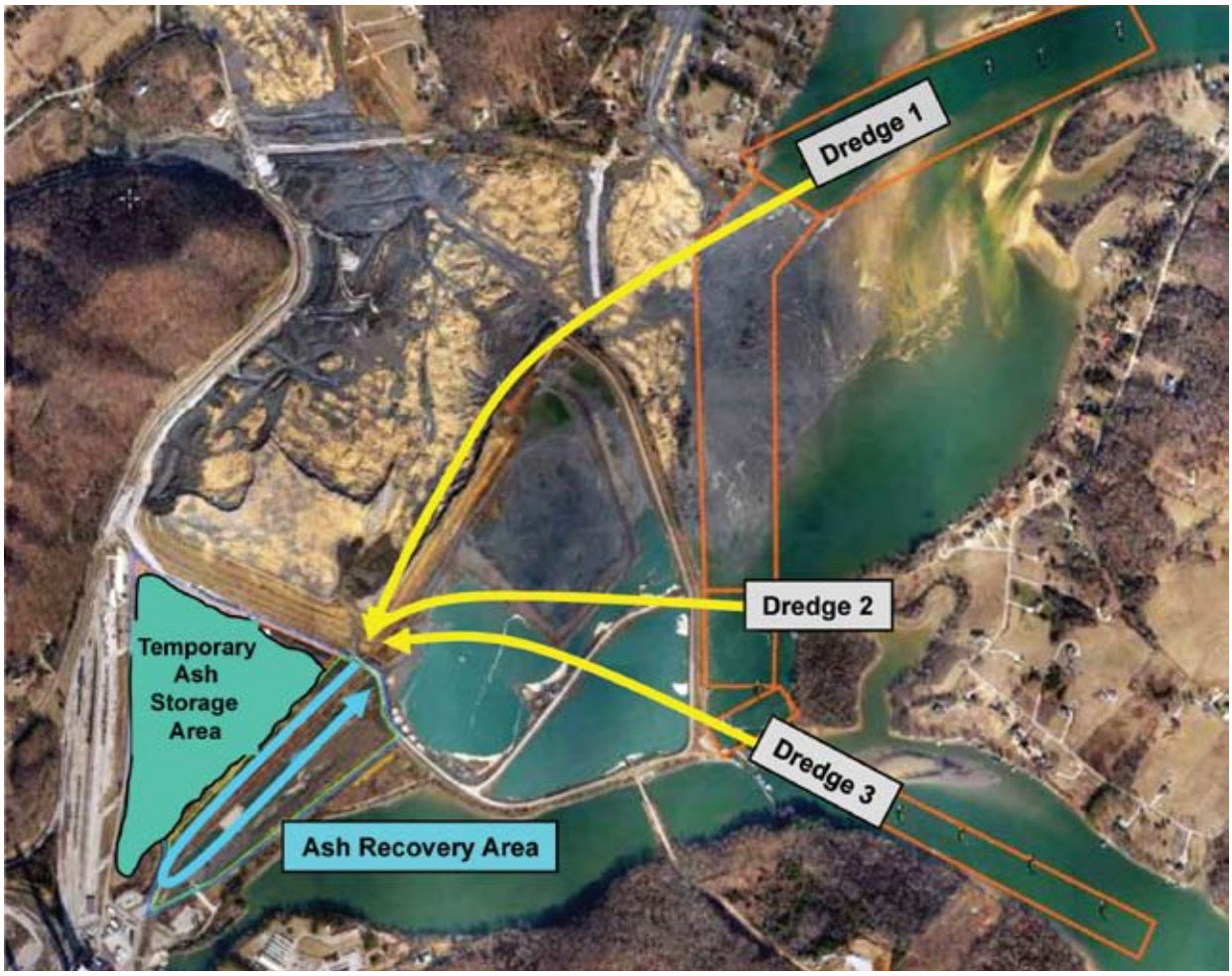
Extensive nationwide studies of coal ash in recent decades have provided a body of scientific literature that gives the expected ranges for concentrations of metals in the ash. Testing of the Kingston ash samples shows that such concentrations are well below the limits for classification as a hazardous waste. The data shows that the concentrations of most metals in the ash are within the range of concentrations found in natural soils in Tennessee or background levels in soils in the local area. Much of what TVA has found falls in the low end of those ranges and is more like Tennessee soil. The only exceptions are that two of the 47 samples collected by TVA had thallium levels slightly higher (by about 10 percent) than the range found in Tennessee soils. The overall average for thallium in the ash falls right in the middle of the range for that element in Tennessee soil.

Ash samples, as well as a sample of soil from an unaffected area, were taken on December 29 and 30 in the Kingston area and analyzed for radioactivity. The final analysis confirms the conclusion that the radioactive material present is mostly naturally occurring and is similar to what would normally be found in soil in the Tennessee Valley area. It is also representative of what would be expected in coal ash.

Aerial Views of Site

Before the spill

December 23, 2008



April 2009

The aerial views above show the Kingston site before the ash spill, immediately afterward, and as of April 2009. Three dredges are now removing ash from the Emory River. That ash/water mixture flows through long pipes (shown in yellow) into the channel (shown as blue line with arrow) in the ash recovery area. The water is routed back to the ash pond, and the ash is removed from the channel and transferred to the temporary ash storage area for drying before being removed from the site.

Sediment Sampling

In order to determine if there were issues with historic river sediment, samples of the sediment were taken prior to the start of TVA's dredging activities. The U.S. Department of Energy (DOE), at TVA's request, collected core samples of sediments at eight locations in the Clinch River immediately downstream of the mouth of the Emory River and at two locations in the Emory River. Those samples were analyzed for 23 metals, PCBs, and chlordane. Because the goal was to find out if PCBs were present in older, deeper sediments, DOE segmented the cores into six-inch sections, beginning six inches below the point where the surface deposits stopped and historic deposits began. Then they tested each segment of the core.

DOE detected PCBs in the historic sediment from the Emory River at mile 0.5. Consequently, TVA performed additional random sampling of surface sediments (0 to 6 inches in depth) at eight locations between Emory River miles 0.3 and 0.8.

TVA chose to analyze only the surface samples since those are the most likely sediments to be disturbed by dredging operations if TVA were to dredge that part of the Emory River. At this time, there is no plan to dredge downstream of Emory River mile 1.5. Results for PCBs in the eight surface samples at mile 0.5 were all less than the reporting limit of 0.033 milligrams per kilogram. There were several instances of detection of PCBs at extremely low levels (0.010 mg/kg or less). Therefore, if recovery efforts were to disturb surface sediments, legacy PCBs do not appear to be a problem.

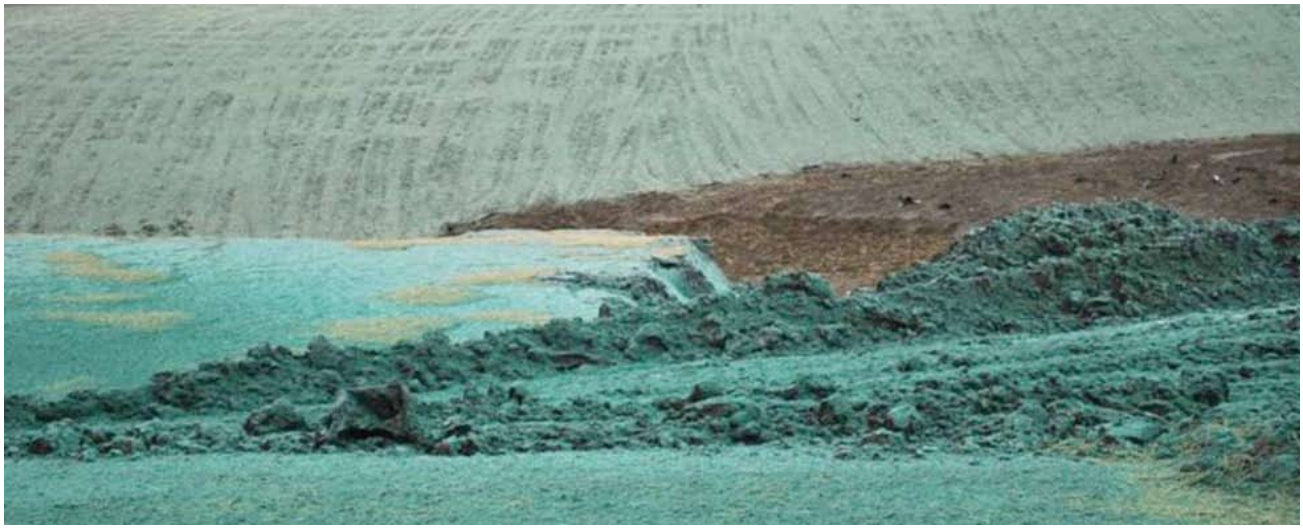
Dust Suppression

Breathing fly ash for short periods of time, similar to breathing dust, is unlikely to be a health concern. Breathing particulates (fly ash or any other airborne particulates) over long periods of time can irritate the respiratory system.

TVA is taking measures to reduce the amount of airborne dust that may arise from the ash. To minimize dust and erosion, the undisturbed portion of the ash cell is being treated with Flexterra, a liquid dust suppression agent, composed primarily of wood fibers. This is a temporary measure for controlling dust and erosion while long-term recovery efforts continue.

Emory and Clinch Rivers

Kingston Fossil Plant is located on the Emory River, which feeds into the Clinch River. To keep the ash in the Emory River from flowing further downriver, TVA built a temporary underwater rock weir, or dike, in the Emory River just north of the plant's existing intake skimmer wall. The weir, 650 feet long, is designed to contain the ash while allowing the water to continue flowing. A second rock weir, approximately 1,450 feet long, was built to retain the ash in the Swan Pond Creek embayment area and keep it from entering the river during the dredging process.



TVA has applied Flexterra to more than 290 acres since January to reduce airborne dust from the site.

Recovery Progress

With oversight provided by EPA and TDEC, TVA is making progress toward full recovery of the Kingston site. Throughout this long-term project, TVA will coordinate with federal, state, and local agencies.

Initial Response

Immediately after the ash spill occurred, TVA put its Agency Emergency Response Plan into place, recognizing that the ash spill was the type of event that would require integrated agency action. Agencies on site included TVA, EPA Region 4, TDEC, Roane County EMHS, Tennessee Emergency Management Agency (TEMA), and TDH. These agencies also opened a Joint Information Center to provide information updates to the news media.

The initial results of all environmental sampling and updates on the response activities were communicated to the public through media briefings at the Joint Information Center. Other information and test results were posted on www.tva.com, which continues to be updated daily.

On March 2, TVA submitted its Corrective Action Plan to EPA and TDEC for the recovery efforts. That comprehensive plan outlines how TVA will proceed with planning and implementing all work needed to restore the site of the ash spill while maintaining public health and safety. TVA is conducting recovery activities under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) in order to ensure that the area is restored in a manner that protects public health and the environment. CERCLA processes are rigorous and transparent with opportunities for public input.

On May 11, EPA and TVA announced an EPA Order and Agreement documenting the relationship between EPA and TVA in managing the ash-spill cleanup and ensuring that TVA will meet all federal and state environmental requirements in restoring the affected area. While TVA will retain its status as a lead federal agency, it recognizes EPA's specialized expertise in responding to large-scale environmental

U.S. Environmental Protection Agency
www.epa.gov

Tennessee Department of Environment & Conservation
www.tn.gov/environment

Roane County EMHS
www.roanegov.org/rcema.htm

Tennessee Emergency Management Agency
www.tnema.org

Tennessee Department of Health
www.tn.gov/health

Dredges have removed more than 156,000 cubic yards of ash from the main channel of the Emory River.

cleanups. EPA will approve all TVA work plans and schedules going forward.

Dredging

An important step in the recovery of the Kingston site is Phase I dredging to remove ash from the Emory River channel. TVA's Phase I dredging plan was submitted to TDEC and EPA and approved by both agencies on March 19, 2009.

A pilot study was conducted during Phase I dredging to determine the processing capacity for full-scale dredging, how the ash would move during the process, and the effectiveness of TVA's dredging strategies. Dredging officially began on March 19, and more than 156,000 cubic yards of ash have been removed from the Emory River as of mid-May. The primary equipment used in the dredging process is hydraulic dredges. Mechanical clamshells are also being used to remove debris from the water. Both types of equipment are being operated in a way that minimizes water turbidity, or cloudiness. Continuous water quality monitoring and routine water sampling and analyses will continue to be conducted throughout the dredging process.

Temporary Ash Storage

Both dredged ash and the ash from daily plant operations are being dewatered and processed on-site, which will minimize the amount of ash entering the ash pond.

The ash is dewatered in the ash recovery area and then moved to a temporary storage area on-site for further drying. Potential off-site locations for permanent ash disposal are being identified and investigated. Final locations will be reviewed and approved by the appropriate regulatory agencies.

Dredging Sampling Plan

By its very nature, dredging has the potential to disturb ash and river water. When TDEC approved TVA's Phase I plan for dredging, it asked that TVA submit a sampling plan before the start of the work to ensure that the dredging operations do not affect the health and safety of the public and workers at the site, or the health of the river and its natural resources.

The Phase I dredging is not intended to disturb the riverbed sediment. Only the ash that has flowed into the river channel from the Kingston site is being dredged during Phase I.

During dredging, TVA and its contractors continue to perform extensive sampling and testing to ensure the work progresses in a way that minimizes any adverse effects on the river and natural resources.

TVA is performing additional sampling of the ash in the river to understand all of its chemical characteristics.

Ash removed from the channel is brought to this temporary storage area to dry.

The ash is being tested to determine whether the metals in it are in a form that plants, animals, or aquatic life may absorb, called bioaccumulation. Standardized tests for toxicity and bioaccumulation are used that are accepted by EPA and state agencies.

Boats are used to take samples from the plume of turbidity in the water. These samples are tested for a variety of characteristics, including alkalinity, total hardness, total suspended solids, total dissolved solids, mercury, and total dissolved metals.

TVA will continue to sample and analyze water from five fixed locations on the Emory River, four locations on the Clinch, and one or two locations on the Tennessee River. Samples from these locations have been monitored three times a week by TVA since the week of December 22, 2008. TDEC will also continue its surface-water monitoring independent of TVA.

Based on the results of the monitoring, TVA will use several different methods to ensure turbidity levels remain within acceptable limits. These include reducing the pace of dredging, deploying turbidity curtains in the river, and moving the dredge to a different area.

Left: A barge with hydraulic dredging equipment removes ash from the river through the pipe supported by the orange buoys shown here. Top right: Ash and water are pumped though this pipeline. Bottom right: A relay pump operates in the middle of the pipeline.

Cenosphere Collection

The residue often seen floating atop the bodies of water around Kingston consists of cenospheres, which are hollow balls of sand-like material that are created in a coal-fired boiler when molten silica solidifies around a bubble of flue gas to form a sphere. The gas bubbles cause the cenospheres to be so lightweight that they float on water. They are typically collected by skimming the surface of an ash pond. Cenospheres by themselves are not harmful to the environment, but they can mix with other debris and materials. TVA will further test and study the cenospheres to assess any materials that may be bound to the inert spheres. The size of the particles ranges from about 20 to 600 microns, which is about the same range of sizes as is found in the diameter of human hair.

TVA has used a variety of methods to remove the cenospheres from the water. Skimmer booms have been placed in the water to contain the particles on the surface of the water. Vacuum trucks on

barges, backhoes, and hand tools have then been used to remove the cenospheres from the water surface. Trucks transport the recovered cenospheres to holding cells adjacent to the settling pond on the Kingston plant site.

These lightweight, rigid, waterproof materials are useful in a variety of products, primarily as fillers. TVA sells the censopheres harvested from ash ponds at its Kingston, Bull Run, Johnsonville, and Widows Creek plants for use in manufactured products such as ceramic tile, cement, flooring, epoxy fillers, bowling balls, golfing equipment, flotation devices, and cosmetics.

Cenospheres are collected through a hose connected to a vacuum truck.

Root Cause Analysis

In early January 2009, TVA retained a global engineering firm with substantial experience in the design, construction quality management, and forensic failure analyses of dikes, containment ponds, and landfills to conduct an independent root cause failure analysis (RCA) of the Kingston dike failure. Data from the analysis is being shared with EPA, TDEC, and the TVA Office of the Inspector General. Results from the root cause analysis are expected this summer.

Project Costs

TVA does not have a complete cost schedule for the recovery and remediation, but based on the dredging and other identified tasks ahead, the agency estimates that it will cost between $675 million and $975 million (not including litigation, penalties, or settlements) depending on methods of disposal and other variables. TVA is evaluating several potential sources for funding the recovery. These include insurance, using a portion of a trust fund established for the retirement of non-nuclear assets, using debt for funding over a longer period, and recovering some of the costs directly through rates.

Looking Ahead

This summer, we will reach some additional key milestones in the recovery effort. Dredging of the Emory River continues, and we will soon begin transporting the ash off-site to an approved Class 1 landfill. With the help of area residents, we will develop a Community Involvement Plan.

This Plan will provide the framework for how TVA will involve the public in decisions relating to the cleanup of the ash release on land and in the Swan Pond embayment, and the eventual use of the land after the cleanup. The Roane County Long-Term Recovery Committee has played an important role in representing the community's interests over the past five months. We thank them for working with us, and we look forward to even more progress in the coming months.

We also will be providing additional reports like this one to keep you informed as our work proceeds.

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