Testimony of
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Tennessee Valley Authority
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Environment and Public Works Committee
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Opening Statement

Chairwoman Boxer, Ranking Member Inhofe, and members of the Committee. Thank you for this opportunity to appear before you to discuss TVA's work on recovery and clean up of the release of ash at one of TVA's power generating plants in East Tennessee. Here with me today is Bill Sansom, Chairman of the Board of Directors of TVA.

The release followed a failure of a retention wall for a coal ash containment area at TVA's Kingston Fossil Plant.

We will diligently work to determine the cause of this failure, but as I have told the members of the public in that area and our employees, our focus right now is on cleaning up the spill. I want to assure you that TVA will do a first-rate job of remediation of the problems caused by the spill.

About TVA

As you know, TVA is a corporate agency of the United States and the nation's largest public power provider. In partnership with 158 wholesale distributors, TVA provides reliable, competitively priced electricity to about 9 million people and 650,000 businesses in seven southeastern states. TVA also provides power directly to about 60 large industrial customers and federal installations. TVA is more than a power company. When Congress established TVA in 1933, it set our mission to include managing the nation's fifth-largest integrated river system, providing environmental stewardship, and being a catalyst for economic development in its 80,000-square-mile service area. TVA is funded primarily by its ratepayers and receives no appropriations.

The incident being discussed today occurred at TVA's Kingston coal plant. The Kingston plant was built in the early 1950s, in accordance with congressional authorizations, primarily to meet the defense needs of the nation – specifically, the need to provide power for the production of atomic defense materials at Oak Ridge, Tennessee.

Currently, Kingston is one of the mix of generating resources that TVA uses to supply electricity to our region. About half of our nation's electricity supply comes from coal, and the TVA region is in a similar situation. While we are working to increase the amount of carbon-free generation we use, about 60 percent of TVA's generation comes from coal. And like utilities around the nation, we must manage the ash that is a by-product of coal-fired power production.

Kingston Fossil Plant

At the Kingston plant, ash material that remains after the coal is burned is stored in a wet ash pond. Six of TVA's eleven fossil plants use wet fly ash storage cells. The other five plants use a dry fly ash storage method. All of TVA's ash disposal sites are engineered facilities and follow the permit requirements for the states in which they are constructed. They are surrounded by dikes, and they incorporate engineered drain systems and water runoff controls.

At all of our fossil plants, these areas undergo a formal inspection annually and other inspections on a quarterly and a daily basis. The storage cells at Kingston are visually checked daily by plant personnel. In addition, TVA plant personnel inspect the cell for seepage on a quarterly basis. Annually, TVA engineering staff members perform a comprehensive inspection and document the findings and recommendations in a report. Kingston's most recently completed report is dated February 2008 for the inspection conducted in December 2007. That report is currently posted on the TVA Web site. Kingston's most recent inspection was in October 2008, and the report was being compiled at the time of this incident. Initial reports from that inspection indicated no noticeable increases in seep flow were observable during the 2008 inspection.

Outreach to the Public

In the early morning hours of Monday, December 22, I received the call about the failure of the retention wall shortly after 1 a.m. and arrived at the plant within the hour. The initial response by the Roane County, Tennessee, Emergency Management personnel, along with the Tennessee Emergency Management Agency, was excellent; and we will always be grateful for their swift and professional response. Other agencies also were notified, including the National Response Center.

Of course, our first concern on hearing the news was for the safety of the neighbors in the area around the plant. Frankly, the only good news in the week was when we learned about five o'clock that morning that there was no loss of life and no injuries that required medical attention. We also made visual inspections of the ash retention dikes at our other plants to note any changes in conditions and will continue to do so.

Our first priority was to reach out to the people immediately impacted, especially the three families who lost their homes, to ensure that they were safe and that they had temporary housing, meals, and other necessities. We established a team of TVA employees and retirees to provide one point of contact for each family impacted to ensure their needs are met and concerns addressed. These support teams are continuing to work with the families.

We also have set up a 1-800 number and a local facility that is open seven days a week for residents to go to if they have a property-damage claim, question, or concern. This is in addition to the telephone line we began staffing around the clock shortly after the incident for the public to call with any concerns, questions, or requests for the State to test private drinking-water wells.

Environmental Impacts

After seeing that our first objective – the safety of the public and our employees – was

addressed, we immediately began dealing with potential public health issues and the containment and stabilization of the ash material.

Consistent with Homeland Security Directives, we are using the National Incident Management System (NIMS) approach for the onsite emergency response. This means that an onsite Command Center with a Unified Command has been established and is staffed by federal, state, and local response organizations that sit side-by-side, share the same information, and staff a Joint Information Center where information is provided to the public in a timely and coordinated manner. A number of agencies, including the Roane County Emergency Management Agency, Tennessee Department of Environment and Conservation, Tennessee Department of Health, the Tennessee Emergency Management Agency, and the federal Environmental Protection Agency are with us at the site to respond to the event and to monitor our work. The agencies are conducting their own water, air, and soil testing, and sharing all findings among the Unified Command. I would like to discuss that testing next.

In addition to the agencies listed, the United States Fish and Wildlife Service (USFWS) also responded to this incident. Service staff surveyed the affected area and assessed effects to natural resources, mainly migratory birds. USFWS's main concerns are effects on fish and wildlife from habitat loss, suspended fly ash, and metals in the water and sediment of the Emory River.

Water Quality

Within hours of the event, TVA, the Tennessee Department of Environment and Conservation, and the Environmental Protection Agency began water quality testing. Sampling is also being done at water treatment facilities closest to the site. Each agency is using certified labs for the analyses, and the data among all agencies is consistent. The results of water sampling to-date show that municipal drinking water continues to be safe. I will note that the Kingston City Water intake is actually upstream of the confluence where any suspended ash would float by. Our River Operations staff is monitoring the water flow to maintain a positive flow in the correct direction, past the water treatment plant, in order to protect the water supply. The State is also sampling private groundwater wells within a four-mile radius of the plant.

While most of the fly ash deposited in the water sank, there was a lighter, inert part of the fly ash that floated. It is a hollow, sand-like material that is actually collected and sold for use in a variety of products, including cosmetics, bowling balls, and fillers. We have dispatched more than 12,000 feet of boom skimmers to collect and dispose of this material.

Soil quality

Our next focus was on the material deposited offsite. The ash material is not classified as a hazardous waste under the standards of the Environmental Protection Agency. It is not classified as a carcinogen and it is not combustible, but it does contain trace amounts of metals. Regardless of the inert nature of fly ash, however, it is meant to be contained, and we are committed to cleaning it up.

One of our first actions was to test and characterize exactly what was in the material that moved offsite and compare it to historic data on the content of storage cells. Preliminary

testing of the offsite soil samples shows, as was expected, that metals are well below the limits for classification as a hazardous waste. They are 10 to 100 times below the limits for metals. The trace concentrations of metals in the offsite material sampled are consistent with and generally lower than that of the historic sampling results from the storage cell. The data shows that the concentrations of most metals in the deposited ash are not dramatically different from concentrations found in natural, non-agricultural soils in Tennessee, with the exception of arsenic. Total arsenic results were above the average that occurs naturally, but well below levels found in soils that are well-fertilized and significantly below the limits to be classified as a hazardous waste.

Air Quality

Now that I've addressed the water and the soil, let me turn to the air we breathe. Breathing particulates – fly ash or any other airborne particulates – over long periods of time can, however, irritate the respiratory system. For that reason, we are taking measures to keep the ash residue damp and monitor the air quality in the area. We have begun spreading grass seed and fertilizer over the area as part of our immediate actions to minimize dust and erosion. This process is similar to the one used by highway departments to provide ground cover. Prior to this action, we began real-time, hand-held monitoring of air quality and established fixed air monitoring locations. More than 700 real-time monitoring points have been logged, and air monitoring takes place 24 hours a day at five fixed stations located in residential areas near the plant and on-site. The most recent results show that concentrations of air particulates remain below levels established by the National Ambient Air Quality Standards.

I know that technical data and monitoring equipment do not make the human emotions and the physical effects of this incident go away. But I hope that the results of the preliminary environmental data and the objectivity provided by multiple agencies and certified labs will help reassure members of the public and address their concerns. We are sharing the information with the public as it becomes available.

Recovery Efforts

On the operations side, we have moved into the important recovery phase. About 275 surface acres were impacted, and cleanup and recovery efforts are under way. These efforts are being conducted under the watch and with the assistance of other concerned Federal and state agencies.

Starting on the day of the incident, we put equipment and personnel in place to immediately begin placing barriers to minimize the movement of ash and to begin clean up. Those crews have been working around the clock since then. Each day, we make progress on removing the ash from two local roads. One road is still closed to public traffic but has been cleared sufficiently for use by construction equipment. We are creating a 100-foot buffer between the road and the remaining fly ash. The damaged rail track has been removed, and reconstruction on the track has begun.

We are also constructing two weirs, one underwater and one above water, in the affected area to let water flow continue while trapping the ash material so it does not move down stream. The first weir is underwater and is almost complete. It spans approximately 615 feet across the Emory River, just downstream of the failure, to further contain the ash. The second weir is in design and is essentially a dike; it will be

approximately 2,000 feet long and located at the site of the failure. When complete, it will confine the largest body of the ash and keep it from entering the river during the process of dredging the river. Dredging may occur wherever there is ash; the U.S. Army Corps of Engineers will approve the dredging plan while TVA is responsible for the dredging. The Corps also provides underwater river mapping contour information and has provided new contour information to us subsequent to the failure. For public safety while recovery operations are under way, the U.S. Coast Guard has closed approximately 4 miles of the Emory River to navigation, except for vessels involved in the sampling and recovery operations.

Now that we have entered the recovery phase, we are turning our attention to a long-term plan for full recovery and restoration. I cannot tell you at this point how long this might take, but we are planning to work with area residents and public officials to develop sound plans and to keep them informed as we move forward. We are beginning an independent, in-depth root-cause analysis to determine why the ash pond dike failed. And, as our work continues, public safety and the safety of our employees at work on the job are paramount.

Continuing Commitment

TVA has been part of the Kingston and Roane County community since 1951, and for its first decade of operation the Kingston plant was the largest of its kind in the world. The 300 TVA employees who live and work in the area care deeply about their community. We will continue to reach out to Roane County residents over the coming weeks, keeping them informed of our activities, and making sure they have the information they need. We will continue working, as well, with federal, state, and local elected officials and agencies, and with you and other members of Congress.

Since being established by Congress in 1933, TVA has served the people of the Tennessee Valley region and our nation, generating and delivering the electricity required for a stronger economy and brighter future.

At TVA, we take seriously our mission of providing electricity, environmental stewardship, and economic development to the Tennessee Valley region. The quality of life in the Valley region and the natural beauty of the region and its rivers are special to all of us at TVA, and we are committed to restoring and protecting these resources.

As we make progress toward restoration, we will also share information and lessons learned with those in regulatory roles and with others in our industry, for everyone's benefit.

As I stated at the beginning of my comments here, TVA will do a first-rate job of containment and remediation of the problems caused by the spill. We are going to be able to look our neighbors in the eye and say that TVA is doing the right thing.

Thank you for the opportunity to provide this report on our continuing recovery efforts, and I look forward to your questions.

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