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The Honorable Eddie Bernice Johnson
Subcommittee on Water Resources and the Environment
U.S. House of Representatives
2165 Rayburn House Office Building
Washington, DC 20515

Re: The Tennessee Valley Authority's Kingston Ash Slide: Potential Water Quality Impacts of Coal Combustion Waste Storage

Ms. Chairwoman Johnson, Ranking Member Boozman and distinguished members of the committee:
Thank you for the opportunity to appear before this Committee and discuss the Tennessee Valley Authority coal ash spill in Harriman, Tennessee that occurred on December 22, 2008.

I am a seventh generation resident of Harriman, Tennessee. My relatives have lived at Adkisson Farm, a 40-acre Emory riverfront property since 1802. I am also an active member of the Tennessee Coal Ash Survivors Network, a local community group that helps residents cope with this disaster and publicize the need for federal regulation to prevent similar disasters in the approximately 156 coal communities nationwide. Earlier this year, I came to Washington to speak with my congressional representatives and several House and Senate committees about the Tennessee Valley Authority (TVA) spill. I am pleased to testify before you today on behalf of the Harriman community.

In this testimony there are two main points I want to express to this committee with a plea for help. First, our concerns have fallen entirely on the deaf ears of the TVA. We need more information and communication from them and any other involved government agency. Secondly, TVA must be held accountable for the damage they have caused. They must create and make public a plan that will make our rivers safe again, while being considerate of the health, safety and daily lives of the community.

TVA has failed to effectively communicate with the community
Prior to December 22, 2008, we lived under a false sense of security. TVA is major employer and an integral aspect of our community. I drove past the retention impoundment almost daily and I never assumed that these facilities were dangerous. The spill changed that perspective and left my neighbors and me scared and confused. We have received little information from TVA and the discrepancies in recent studies leave us unaware of the risks to our health and homes.

Since the coal ash spill, I have received only four documents from TVA about the status of the contamination and the cleanup efforts. There is some email traffic from TVA, but many residents do not have email access. Immediately after the spill, residents could call the TVA Kingston Steam Plant to report problems related to the coal ash; however, this quickly became an answering machine and calls are never returned. Residents who were "immediately impacted" by the spill were contacted by TVA about their losses and concerns. Other residents were instructed to file claims with the Outreach Center and the P&C Company; as of today, there has been little or no response or follow up on these claims, forcing residents into legal avenues for help. Even more troubling are the residents who have not hired an attorney and silently wait for answers. TVA held a series of public meetings and one open house. Unfortunately, these meetings do not communicate clear answers and most of our information is drawn from second hand accounts or hearsay. Only TVA, themselves, seems to know about their cleanup plans and this is a problem for everyone involved. The communication between TVA and residents must improve; for the health and safety of the entire community we desperately need our concerns addressed.

Community perspective on the TVA dredging plan

TVA must rectify the disaster they have created and pay for the damages they caused. We agree that the coal ash must be removed from the Emory River, but we are concerned about several aspects of TVA's most recent dredging plan. We fear that dredging the river will cause more hazardous particulates from coal ash to be released into the air and significant leaching of toxic metals into the water. We expected that the community would have had an opportunity to express their opinions on the cleanup actions, but that has not been the case. Further, there are too many inconsistencies between the TVA dredging report, *Phase 1 Emory River Dredging Plan Kingston Fossil Plant Ash Recovery Project* released February 2009 and independent testing regarding predicted environmental risks caused by this cleanup plan. We cannot support this plan until the community is presented with facts, backed up by studies, about the risks and hazards of removing the sludge from the Emory River.

So far as we can tell, the current safety of the dredging is incomplete. The coal ash will be trucked from the river to a temporary location, where it will remain until a permanent site is identified and a facility can be built. Without federal regulation, there are not consistent guidelines for coal ash storage. We therefore have no guarantee that this time TVA will provide a facility that is truly designed for permanent storage of industrial hazardous waste and that such a facility will be properly lined, capped, sealed and maintained.

One of our biggest concerns is public safety. There has been an influx in the number of dump trucks and other work vehicles traveling throughout Roane County. Furthermore, it is expected that about 600 to 700 trucks will be necessary to remove the coal ash as part of the dredging efforts. These trucks track coal ash out from the loading site and if they are not rinsed off completely, the trucks will release coal ash into the air and track it into neighboring communities. Since the disaster, there have been minimal efforts to rinse coal ash off trucks. TVA built a one wheel washing station, which is not substantial enough to clean the hundreds of trucks currently in use.

Harriman is a small community with just over 6,000 residents. We are worried that this increased traffic is not just an inconvenience, but will inevitably cause injury or deaths. The additional

trucks will add to the continual degradation of local roads – roads our tax dollars pay to keep up. Already, just three months after the incident, many residents' automobiles are now needing new tires and requiring realignment due to the poor road conditions. TVA must be accountable for these damages and further costs to the community.

Environmental contamination and inconveniences to daily life

We are a community that hunts, fishes and swims in the rivers. We need the facts about the contamination to our natural places so that we can make personal determinations as to whether it is safe for our families to recreate in and around the rivers. Will dredging the river release more contaminates and heavy metals into the ecosystem? We fear bioaccumulation will put our health and that of our ecosystem at risk. The ash is in the water, in the air and on the ground. It is consumed by fish, birds, game and our livestock. As the birds eat the fish and the game eat the birds, toxins accumulate in these animals. We question whether we are at risk for illness as the contamination worsens as it moves up the food chain.

Several fish populations were decimated by the ash and estimates reveal that these species will not resume their original populations for at least 20 years. Harriman is home to residents who rely on fish they catch for their meals. Because of the significant lack of information from the authorities, many of these neighbors continue to eat fish from the Emory River despite the spill. We worry that the fish may not be safe for consumption.

TVA must respond to the community's concerns. We have the right to know what pollutants are in our air and water, at what level these pollutants are occurring and at what point they have the potential for harm. However, each successive study contradicts the previous one. We need to know why there are discrepancies and which reports are the most accurate. We don't know who to trust.

Numerous studies on samples taken from the Emory, Clinch and Tennessee Rivers since the disaster found high levels of toxic levels of heavy metals in coal ash. There are unsafe levels of heavy metals including: antimony, aluminum, arsenic, beryllium, boron, cadmium, iron, lead, manganese, radium, selenium, thallium and uranium. According to the Agency for Toxic substance and Disease Registry, there are many short-term and long-term effects caused by exposure to these heavy metals. Below are just some of the potential health risks:

- Studies on antimony found it to cause lung, liver, heart and kidney diseases when inhaled at high levels. Antimony can also cause eye irritation, hair loss and fertility problems.
- Breathing arsenic can lead to sore throats or lung irritation. Arsenic is also linked to nausea and vomiting, abnormal heart rhythm, damage to blood vessels and a "pins and needles" sensation in hands and feet. Exposure to high levels of arsenic can lead to death.
- Lead targets the nervous system in adults and especially in children. Exposure to high levels of lead results in brain and kidney damage, and can ultimately cause death. In pregnant women, exposure to lead may induce a miscarriage. High level exposure in men can damage sperm production. In children, exposure may result in blood anemia, severe stomachache, muscle weakness, brain damage and hinder physical growth. Unborn children can be exposed to lead through their mothers, causing premature births, smaller babies, decreased mental ability, learning difficulties, and reduced growth in young children.

- Boron exposure causes temporary irritation to the nose, throat, and eyes.
- Some people develop sensitivity to beryllium, which can result in an inflammatory reaction in the respiratory system. This condition is called chronic beryllium disease (CBD), and occurs years after exposure to elevated levels of beryllium. This disease causes weakness, exhaustion, and difficulty in breathing. It may also result in anorexia, weight loss, and heart disease and heart defects in advanced cases.

The community must be given full disclosure about exactly which chemicals and heavy metals are in the air and the water, and we need to know how these contaminates can harm us and our environment. TVA, and the Tennessee Department of Environment and Conservation must continue to monitor the waterways and provide residents with updates about the safety of our environment.

The coal ash has inevitably been in the air prior to the spill, but the problem has increased exponentially since then. TVA initially promised to distribute sprinklers to all residents and water the coal ash to keep it moist. Instead they dropped sprouted rye grains and straw from helicopters in the middle of January when the outside temperature was around 15 degrees. While TVA is now using Flex Terra to cover the ash, it is not enough. The human body is the most sensitive air monitoring system, and since the spill, too many residents have been experiencing similar respiratory symptoms and other ailments. We believe these health impacts are directly related to coal ash contaminated air. We are already aware that the states air monitoring only focused on larger particles and neglected the small particles which are known to cause serious respiratory illness. As spring approaches, drier weather puts us at risk for further inhalation and dust storms, similar to the one recorded on February 3, 2009. Many residents are already experiencing increased amounts of dust in their homes. We are greatly concerned about the air quality and what can be done once the fly ash is airborne.

Independent groups trying to assist us must be granted access to private properties, with the consent of the owner, to conduct air testing. It is inappropriate and unjustified for these groups to be harassed and in some cases detained for conducting air and water tests. Watchdog groups are the only ones looking out for the health and safety of my neighbors and me.

A significant portion of the Harriman population has experienced illness since the spill. While the median household income of Harriman is just over $23,000, barely half that of the rest of the country, TVA refuses to pay for medical testing these residents need. Residents living within a ten mile radius of the disaster site experience various health impacts including: upper respiratory impacts, asthma, sinus infections, nosebleeds, bleeding from the ear, ear infections, nausea, vomiting, skin rashes, blisters, fatigue, anxiety, and depression. Many sought medical attention from local doctors or hospitals. A number of doctors have written evacuation notices for their patients after documenting health impacts directly related to airborne coal ash. Other doctors are prescribing breathing machines, steroid inhalers, and strong antibiotics to combat these symptoms. Primarily, we are worried about our children. Our kids are sick with chronic illnesses that are passed off as merely asthma. Parents don't know where to go for answers and are struggling to pay for the medical bills they are acquiring.

For many community members, the worries about finances, property values, their health and their futures are more than they can bear. Many are realizing that TVA will never buy their

property because they live outside of the "immediately impacted" area according to the TVA lawyers. This disaster has caused the most intense stress most of us have ever dealt with and some are experiencing psychological affects as a result. These individuals need to see counselors for assistance coping with these tragedies and TVA should support these people through compensation for such medical attention.

We are very worried that TVA is not actively helping sick individuals and has not contacted us about the immediate or long term health risks of exposure to coal ash. We have a right to know why we're sick and what is making us ill. TVA has a responsibility to disclose this information. Neither the Tennessee Department of Health, TDEC nor the TVA has taken substantial steps to help relocate residents choosing instead to educate the local health practitioners about the safety of coal ash.

Fear and the lack of communication from TVA are causing our community to deteriorate. To date, TVA has purchased 46 residential properties affected by the spill. Several other residents have already left Harriman in fear of the health implications and other concerns. Neighborhoods are breaking down and the spill is slowly eroding away at our once close knit community.

We are concerned about the ability to sell our land without financial losses. Even if the coal ash did not intrude onto every property, many doubt they will find a buyer for their property, especially with the increased fly ash in the air. The spill also caused property values to decline drastically further than they had already declined under the current economy. Property taxes are expected to increase as a result of TVA' property ownership. TVA is not required to pay the same property taxes as individual citizens, thus real estate taxes will be raised to recoup the lost revenue. Add these increases to our cost of living the additional cost of the evacuation of Harriman.

TVA announced their plans to file for immunity in court on February 26, 2009 and they are planning to file a motion to dismiss all the lawsuits on this basis on April 17. We are outraged. The polluter must be held accountable for their wrongdoings. Congress has the ability to prevent this action by clarifying the purpose of the Tennessee Valley Authority Act and by pressuring TVA to refrain from raising immunity claims. The Tennessee Valley Authority Act is a broad waiver of governmental immunity, which says that TVA can sue and be sued. TVA is planning to claim that the release of over 5 million cubic yards of coal ash is a type of "discretionary function," which they can conduct with immunity as a governmental agency. We need Congress to intervene on the behalf of the Harriman community.

The spill has stolen our trust, our environment and recreational places, our health and our community. TVA must take action to restore our lives and compensate us for damages. We are now ground zero for the coal industry and I would never wish this experience on any other community. We simply must act now to ensure that a coal ash spill never takes another community by regulating coal ash containment and legally defining coal ash as a hazardous waste.