



Kingston Monthly Update

November 13, 2009

The Tennessee Department of Environment and Conservation (TDEC) is compiling a monthly update as an additional tool to provide the community with information related to TDEC's role in the ongoing monitoring and cleanup at the TVA Kingston site. We welcome feedback from the community regarding this report and its usefulness so we may evolve it to meet the community's needs. The newsletter will be available the middle of each month on TDEC's TVA Kingston Update Web site at www.tn.gov/environment/Kingston. Interested parties may also request an email copy by contacting Ask.TDEC@tn.gov and including "TVA Kingston Monthly Newsletter" in the subject line.

NEW SCRUBBER STARTUP

The scrubbers being installed at the Kingston Fossil Plant are scheduled to come online in the coming weeks. They will undergo testing under a number of operational situations, so sometimes, the community may see a plume from the tall stacks at the plants, and sometimes it may be from the scrubber stacks.

Scrubbers use large amounts of water to remove sulfur dioxide. When this water comes into contact with the hot flue gases from the boilers, much of it evaporates and becomes water vapor. A water vapor plume is different in appearance from a smoke plume in that it is a very bright white color and cotton-like in appearance. There will be a point in which the water vapor dissipates.

The appearance of a water vapor plume will vary according to the weather conditions. Cooler temperatures and higher humidity will make it more pronounced. On very cold days, the point of water vapor dissipation may be very far away. Also, the number of boilers being served by the scrubber will affect the water vapor plume appearance.

The scrubber operation should significantly improve fine particulate air quality locally, in the Greater Knoxville Area and should improve visibility in the Great Smoky Mountains National Park. The job of the scrubbers is to remove sulfur dioxide formed from the burning of coal that can react to form into sulfates and cause these emissions.



This photo shows the newly completed scrubber in operation at the TVA Bull Run Steam Plant in Anderson County. Notice the bright white water vapor plume and how there is a definite end to it. A faint, blueish-white plume of emissions trails on after the point of dissipation.

BOILER MAINTENANCE

Some boilers will be taken off line to assist in the ash spill clean-up. TVA wants to get the ash spill resolved and is taking steps to minimize the generation of new ash to keep the cleanup progress moving forward. Plus, mild weather and current economic conditions have decreased demand on electricity. Because of these two factors, TVA has notified TDEC that it will be oil firing its boilers for a brief period of time in mid-November to dry out portions of the boilers and to treat the water within them to minimize corrosion during the outage. This procedure will be visible at Stack 1 and cover Units 1-5.

The procedure will take approximately 6-8 hours per unit and will result in a visible plume that is darker than normal. The continuous opacity monitoring system already in place will keep watch on the emissions to ensure that they do not exceed the quarterly opacity limits imposed on TVA. Opacity is a term used to describe how dense a plume appears. If you see nothing at all, the plume is zero percent opacity. If you cannot see anything at all through the plume, the plume is 100 percent opacity. Some of these maintenance activities are scheduled for Tuesday, November 17, and TVA is in the process of notifying the public that this effort will put out visible smoke from one of its stacks.

SEPTEMBER 18 DEPOSITION INVESTIGATION

TDEC received the full report on the September 18 deposition event at the Kingston facility on October 20. It can be found on the department's TVA Kingston Update page under the "Ash Deposition Event" header or by direct link at http://www.tn.gov/environment/kingston/ash_deposition_event.shtml. TVA has also submitted its quarterly in-stack opacity monitoring data.

The department has carefully reviewed the report and the quarterly opacity monitoring data. The report presents a plausible explanation for the deposition and the department has communicated to TVA that we expect special precautions be taken in the future when starting up a multi-unit stack that has been operated at reduced capacity over a prolonged period. The department has also reviewed the quarterly opacity monitoring data and did not find a violation of permit conditions, though the incident of September 18 is of concern to both the community and the department.

The department has outlined its findings in a letter to TVA, which can be found on TDEC's Web site on the page listed above.

LONG TERM RECOVERY PHASE

As communicated previously, the Emory River ash removal is referred to as a "time critical" action under EPA's Administrative Order. The next, or "non-time critical," phase will focus on removing the remaining ash from embayments, sloughs, tributaries and ground surface and also closing the failed landfill. TDEC has communicated to TVA the department's expectation that ash removal and restoration of the waters of the state will continue without interruption during the transition from time critical to non-time critical actions.

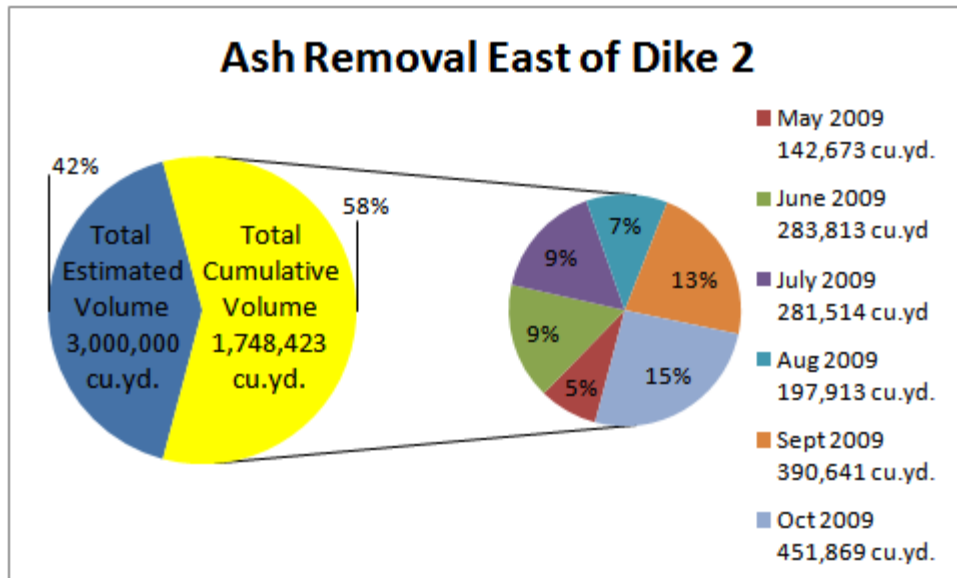
On October 21, EPA published the Engineering Evaluation and Cost Analysis (EE/CA) work plan that describes the remedy alternatives. The document is currently available for public review and comment, as is the Draft Community Involvement Plan. Please refer to EPA's Web site, www.epakingstontva.com, for a copy the documents and instructions for making formal comments to the plans. They can be found in the "Document Libraries" section under "Non-time Critical Removal."

SITE STATISTICS UPDATE

More than 1.7 million cubic yards of the estimated three million cubic yards of the ash released into the Emory River and Swan Pond Embayment has been recovered and removed from the water. River dredging operations and excavating from dry areas continues on-site. Approximately 754,000 cubic yards has been shipped off-site by rail for disposal in an approved landfill in Alabama.

Time Critical Ash Removal

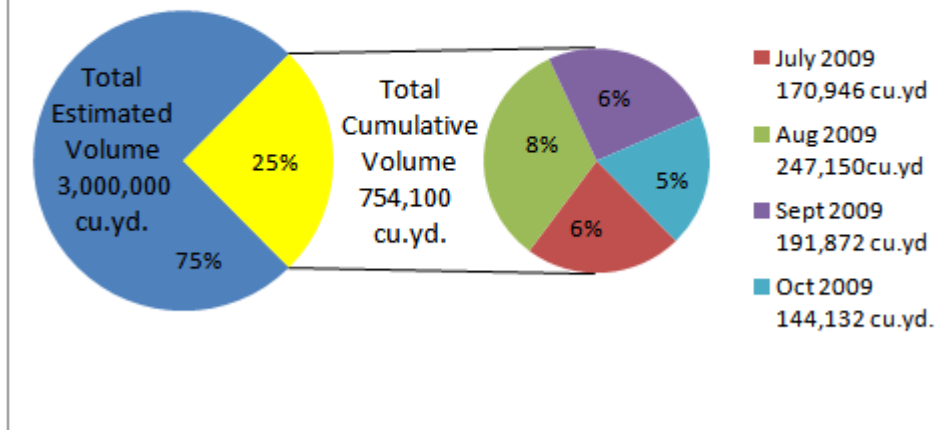
Goal = 3 million cubic yards by Spring 2010 at 15,000 cubic yards/day removal rate
10/31/09 (YTD) = 1,748,423 cubic yards (1,200,944 from river and 547,479 from embayment)
10/1-31/09 = 451,869 cubic yards removed in 26 workdays = 17,380 cubic yards daily average



Time Critical Ash Disposal

Goal = 3 million cubic yards disposed off-site by Fall 2010 at 10,000 cubic yards/day shipping rate
10/31/09 (YTD) = Shipped 754,100 cubic yards
10/1-31/09 = Shipped 144,132 cubic yards in 26 work days = 5,544 cubic yards daily average (below goal due to wet weather)

Monthly Ash Disposal



Recovered Ash Disposal

TVA continues to ship the ash recovered from the spill and plant process ash to an off-site disposal site in Perry County, Alabama. Currently, there are no plans to ship this material to any landfills in Tennessee. While TDEC has granted permission for TVA to conduct disposal tests at several landfills in the area that meet the construction and control criteria for this type of waste, no tests are being considered at this time.

COMMUNITY ACTIVITIES

TDEC continues to attend and participate in the Long Term Recovery Committee and the Community Action Group meetings along with EPA and TVA. A schedule of community outreach events for the Kingston Ash Recovery Site in which TDEC participate is as follows:

November 5 – Community Advisory Group – 6:30 p.m. - Harriman Community Center

November 10 – Public Availability Session – 5:30 p.m. TVA Outreach Center

November 18 – Long Term Recovery Committee – Kingston Courthouse

December 3 – Community Advisory Group – 6:30 p.m. - Location TBD

December 8 – Public Availability Session – 5:30 p.m. TVA Outreach Center

CONTACT INFORMATION

If you have any questions or need additional information, please feel free to call TDEC's On-scene Coordinator at the Kingston Recovery Site, Barbara Scott. You can reach her at 865-230-1211, or by email Barbara.scott@tn.gov.

TDEC has additional information and monitoring data on the department's TVA Kingston Update Web page at www.tn.gov/environment/kingston.