



**FACT SHEET**  
**STANTEC PHASE 1 ASSESSMENTS OF**  
**TVA COAL COMBUSTION BY-PRODUCTS' FACILITIES**  
**July 2009**

As a result of the December 2008 Kingston ash spill, TVA commissioned the engineering firm Stantec Consulting to rigorously inspect, evaluate and make recommendations on ash storage facilities at all its fossil plants.

While Stantec's investigation continues, TVA has already accepted and promptly acted on preliminary recommendations from Stantec, implementing maintenance and engineering changes over the past few months to ensure all TVA ash storage sites remain reliable. Stantec's work has been conducted with the approval of the Tennessee Department of Environment and Conservation, with whom TVA has been sharing Stantec's findings.

**Inspection and Evaluation Program**

TVA hired a third-party engineering firm, Stantec Consulting Services, Inc., to analyze the ash and gypsum disposal facilities at all its fossil plants across the Valley.

This comprehensive program was initiated last January and will extend into 2010. The four phases of the program are:

1. Initial site walk-downs, documentation reviews, detailed site reconnaissance using a dam safety inspection checklist and short and long-term recommendations.
2. Engineering studies and analyses to determine the structural integrity of each facility. This includes: geotechnical explorations, hydrologic/hydraulic analyses, mitigation and conceptual designs,
3. Project engineering and design support, and
4. Programmatic support; including training, annual facility inspections, and applying more rigorous safety program standards to ash and gypsum facilities.

Phase 1 is now complete; the other phases are all in process.

Five teams of Stantec employees have visited the eight TVA fossil plants in Tennessee (seven active plants and Watts Bar Fossil, which is closed), which include 33 ash ponds and stacks, as well as TVA's two plants in Kentucky and the two in Alabama.

TDEC also has independent contractors looking at our sites, and we welcome any recommendations they may have.

TVA has asked Stantec to pay particular attention to the four major contributing causes of the Kingston ash spill to ensure that combination does not exist at any other site. To date, nothing has been found to indicate that this combination exists at other TVA facilities.

## **Improvements Underway**

Stantec used an extensive checklist to inspect and evaluate all of TVA's disposal facilities, and based on that evaluation each facility was prioritized and Phase 2 work was initiated. TVA has initiated detailed engineering and field work for the following facilities:

- Johnsonville Ash disposal area
- Paradise and Widows Creek gypsum disposal areas
- John Sevier Ash disposal area
- Cumberland Ash and Gypsum disposal areas, and
- Bull Run gypsum disposal area

All of the Stantec recommendations for these facilities are already either completed or currently under way. Most of the recommendations to date relate to maintenance, including removing trees or old tree roots, vegetation management, and removing small depressions or ruts in surface areas of some dikes.

Phase 2 Test bores (geotechnical exploration) are underway or planned at every TVA site to determine the structural stability of all significant (20 feet high or more than 30 acres surface) ash and gypsum ponds and stacks. TVA is carefully monitoring the heights of all stacks while the Stantec geotechnical testing and analysis is being performed.

TVA estimates it will spend \$25 million on ash disposal facilities' improvements this year and will continue to invest the dollars necessary to make needed changes at every facility.

TVA has also put a new organization in place with a mandate to provide a focus on maintenance, remediation and upgrades of the ash and gypsum disposal facilities.

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