

## DID YOU KNOW...

**TVA is pioneering new technology to become the industry leader in the dry storage of coal ash.**

Coal ash is the byproduct of burning coal for electricity. TVA recycles 39% of its coal ash.

Ash that cannot be recycled must be stored. TVA pioneered Intelligent Compaction technology for dry ash storage, a process where dry ash is well-compacted, similar to pavement.

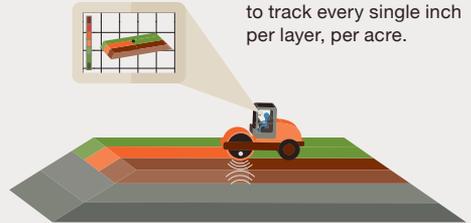


The ash is laid down, layer by layer, and compacted by roller compactors that use both weight and vibration to create a pavement-like hardness.

## Benefits of Intelligent Compaction

- Increases the stability of the CCR site
- Reduces rainwater infiltration into the CCR site
- Reduces the potential for dust

Sensors within the roller compactor allow TVA engineers to monitor the process in real time and to track every single inch per layer, per acre.

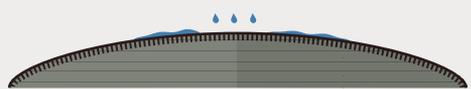


The data that the sensors detect helps to identify areas that require more compaction to reach the required density.

## Once Compaction Is Complete



Compaction of layer after layer of coal ash continues for years until the coal ash landfill reaches its final capacity.



A geomembrane is layered on top of the compacted ash. The geomembrane is a strong, impermeable cap that is welded together to prevent water from penetrating into the ash.



A drainage net is placed over the geomembrane so water can run off.



To protect the geomembrane and net, a soil layer is placed over the geomembrane and grass is planted on top.



When the process is complete, the closed structure looks like a lush, green park.



# Safe, Responsible Coal Ash Management



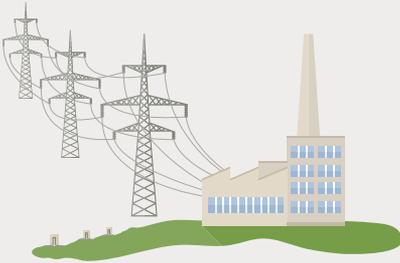
## DID YOU KNOW...

### Our Commitment to You

The Tennessee Valley is our home. We care about our neighbors and about protecting our air, land, and water resources.

TVA is committed to serving our communities through our mission of providing low-cost, reliable power, environmental stewardship, and economic development.

This commitment also includes the safe, responsible management of coal combustion residuals (CCR), or what is commonly referred to as coal ash, which is a byproduct of burning coal for electricity.



Our state-of-the-art water processing and treatment practices and robust network of groundwater monitoring wells ensure the protection of waterways and natural resources.

We use compaction technology and cutting-edge 3D technology to map each layer of coal ash that is placed into TVA's dry storage landfills to further ensure the safety and stability of our sites.



### TVA Is an Industry Leader in Safe, Secure Monitoring and Management of Coal Ash

TVA is pioneering new technology and using the best science, data, and research to ensure our coal ash sites are safe and secure.



We designed the Advanced Technology for Impoundment Monitoring (ATIM) system, which is the nation's first and only one of its kind, that monitors our coal ash storage sites 24 hours a day, 365 days a year.



### TVA Works with Regulators to Ensure Our Actions Are Safe and Effective

TVA's customized, science-based monitoring and management plans for each of our coal ash sites across the Tennessee Valley meet or exceed regulatory requirements set forth for these plans by the Environmental Protection Agency (EPA) and state regulators.

