

Johnsonville Fossil Plant



NEW JOHNSONVILLE, TENNESSEE



QUICK FACTS



EPA CCR Rule Groundwater Monitoring for 2019

This fact sheet summarizes groundwater monitoring conducted by TVA for the Johnsonville Fossil Plant, as required by the U.S. Environmental Protection Agency (EPA) Coal Combustion Residuals (CCR) Rule for the 2019 calendar year. The EPA published the CCR Rule on April 17, 2015. It requires companies operating coal-fired power plants to study whether constituents in CCR have been released to groundwater from active, inactive and new CCR impoundments, as well as active and new CCR landfills.

The CCR Rule establishes multiple phases of protective groundwater monitoring including baseline sampling, Detection Monitoring and Assessment Monitoring. Corrective action may be necessary at the completion of this process. For more information on the CCR Rule Groundwater Monitoring requirements, refer to the Executive Summary that can be found by clicking on the following hyperlink www.tva.com/ccr.

Johnsonville CCR Rule Groundwater Monitoring Network

In addition to ongoing groundwater monitoring required under State regulations, TVA established a monitoring well network for Active Ash Pond 2 consisting of “background,” or upgradient, wells in locations that were not expected to be affected by the management of CCR and wells around the edge of the areas where CCR is managed. These wells are sometimes referred to as “downgradient wells” and placed in locations to monitor for releases to groundwater. This CCR Rule groundwater monitoring well network is monitored in accordance with the CCR Rule during the baseline, Detection Monitoring, and Assessment Monitoring phases. The locations of the wells are shown on the figure on the next page.

Commissioning Date: 1955

Site Plans: Ten coal-fired turbine units are retired and in the process of being decommissioned.

CCR Units Closed: 154 acres

TVA Wide CCR Conversion Program Total Spend:
Approximately \$1.3 Billion



2019 Johnsonville Fossil Plant CCR Rule Assessment Monitoring Results

The Assessment Monitoring results are contained in the **2019 Annual Groundwater Monitoring and Corrective Action Report***. The report can be found on the CCR Rule website at www.tva.com/ccr.

For the 2019 assessment monitoring sampling events, no new statistically significant levels (SSLs) above the groundwater protection standards (GWPS) were observed at monitoring wells. As identified in the 2018 Annual Groundwater Monitoring and Corrective Action Report, there continue to be SSLs above GWPS for cobalt at monitoring wells 10-AP3 and JOF-103.

*The results in this report reflect quality of groundwater beneath the CCR unit and are not necessarily an indication of impacts beyond TVA property. Local utilities are required to test public drinking supplies to ensure that they are safe for consumption. Monitoring data consistently shows that surface water quality is not being adversely impacted by TVA's operations of its coal plants, including ash management practices.

The following table shows the reported statistical exceedances of GWPS, as reflected by the red dots. Out of the six wells sampled, two wells contain SSLs for a single constituent, cobalt. Refer to Appendix A – Statistical Analysis Report of the 2019 Annual Groundwater Monitoring and Corrective Action Report for more information.

2019		GROUNDWATER QUALITY MONITORING WELL LOCATIONS					
		Background Wells		Active Ash Pond 2			
Constituent	GWPS mg/L	B-9	JOF-101	JOF-103	JOF-104	10-AP1	10-AP3
Antimony	0.006	●	●	●	●	●	●
Arsenic	0.01	●	●	●	●	●	●
Barium	2	●	●	●	●	●	●
Beryllium	0.004	●	●	●	●	●	●
Cadmium	0.005	●	●	●	●	●	●
Chromium	0.1	●	●	●	●	●	●
Cobalt	0.006	●	●	●	●	●	●
Fluoride	4	●	●	●	●	●	●
Lead	0.015	●	●	●	●	●	●
Lithium	0.04	●	●	●	●	●	●
Mercury	0.002	●	●	●	●	●	●
Molybdenum	0.1	●	●	●	●	●	●
Rad226+228	5 pCi/L	●	●	●	●	●	●
Selenium	0.05	●	●	●	●	●	●
Thallium	0.002	●	●	●	●	●	●

Color Coding Key

- Monitoring data results are below groundwater protection standards (GWPS)
- Monitoring data results are below GWPS, but results are 65% or more of the GWPS
- Monitoring data results exceed GWPS (TVA has initiated and completed assessment of corrective measures report)

Next Steps for Johnsonville Fossil Plant CCR Rule Groundwater Monitoring

TVA will continue to monitor and evaluate the groundwater at the Johnsonville Fossil Plant site. TVA has completed an Assessment of Corrective Measures Report to analyze the potential effectiveness of potential corrective measures. This report was posted on the CCR Rule website on August 14, 2019. As a final groundwater remedy has not been selected for Active Ash Pond 2, a Semiannual Report on the Progress of Remedy Selection was prepared and posted on the CCR Rule website on February 14, 2020.