July 2, 2026

Tennessee Department of Environment and Conservation

Division of Solid Waste Management

Submitted electronically to: TDEC.CCR@tn.gov

Southern Alliance for Clean Energy Comments on TVA Johnsonville Fossil Plant Draft Corrective Action/Risk Assessment (CARA) Plan

Dear TDEC Staff:

Thank you for the opportunity to comment on the Tennessee Valley Authority's Corrective Action/Risk Assessment (CARA) Plan for the Johnsonville Fossil Plant.

We recognize that Johnsonville is a complex legacy coal ash site and that the CARA Plan includes site-specific geological and hydrogeological analysis relevant to closure decisions. We also recognize that there are real environmental tradeoffs between closure-in-place and closure-by-removal, including excavation impacts, transportation impacts, disposal capacity, and short-term construction risks. The plan estimates that closure-by-removal of all units would require excavating and transporting more than 11 million cubic yards of coal ash and importing more than 1.5 million cubic yards of borrow soil to the West Camden Landfill site approximately 9 miles away.

We do not dispute that those impacts are real. But coal ash is legacy pollution that remains hazardous indefinitely, and short-term construction impacts should not outweigh the long-term risk of leaving coal ash beside the Tennessee River, particularly where uncertainty remains. The construction window is only a few years in comparison to long term protection. A closure remedy must hold for generations.

Active Ash Pond 2

The CARA Plan proposes closure-in-place for Active Ash Pond 2 with an engineered geosynthetic cover system together with pore water extraction and relies substantially on the site's geology and on a dye-trace study to support that decision. We acknowledge the geologic conditions described in the plan, including the low-permeability clay that overlies and confines the uppermost aquifer in the vicinity of Active Ash Pond 2. Those conditions may reduce some groundwater transport risks, but they do not eliminate long-term risk, and they do not resolve our concern about leaving roughly 4.5 million cubic yards of ash in place surrounded by the river indefinitely.

A central concern about Active Ash Pond 2 is the dye-trace study TVA relies on to support closure-in-place. In plain terms: TVA injected tracer dye into the bottom of the ash, and months later that same dye was repeatedly detected in a groundwater monitoring well beside the pond (JOF-104). An independent reviewer confirmed the detections. This demonstrates that water moves out of the ash and into the surrounding groundwater. Yet the CARA Plan tells the public

only that the dye did not reach the Tennessee River; it does not mention that the dye reached the monitoring well.

The supporting record bears this out. According to the dye-trace Sampling and Analysis Report (EAR Appendix H.9, dated April 2021) and the hydrogeology technical evaluation (EAR Appendix H, Section 2.4), fluorescein injected into the base of the ash in August 2019 was detected at monitoring well JOF-104 beginning after the November 25, 2019 sampling event, with positive detections continuing through five consecutive sampling events into February 2020. The report's Stantec Sampling and Analysis narrative counts four of these as consecutive positive signatures, ending in January 2020, and characterizes the later February and March detections as trace-level; under either characterization, the connection to JOF-104 is confirmed. The detections occurred after the laboratory switched to acid-washed carbon, distinguishing them from earlier background interference, and met all of the laboratory's criteria for a positive result. The study's independent validator, Karst Works, Inc., concluded that the JOF-104 detections were valid and that the the study was "adequate to result in a positive tracer test.". JOF-104 is one of the four downgradient CCR Rule monitoring wells for Active Ash Pond 2.

TVA's conclusion that there are no preferential transport pathways to the Tennessee River is narrower than the public summary suggests. Dye was not detected at the river or in surface water, but it was detected in the uppermost aquifer at JOF-104 — a confirmed connection between the impounded ash and the downgradient groundwater system. A decision to leave roughly 4.5 million cubic yards of ash beside the river in perpetuity should not be supported by a public summary that omits that connection.

Two further points compound our concern. First, this information was not reasonably accessible: the confirmed connection to JOF-104 does not appear in the CARA Plan or its exhibits and can be found only by locating a separate technical report within the appendices of the Environmental Assessment Report. A finding that bears this directly on a permanent closure decision should be stated plainly in the CARA Plan, not left in separate documents. Second, the dye-trace study is now several years old — the field work concluded in March 2020 and the report was finalized in April 2021. We are not aware of any follow-up tracer work, or any current evaluation of whether the connection to JOF-104 persists, has changed, or reflects ongoing migration of CCR constituents. JOF-104 is one of the four downgradient compliance monitoring wells for Active Ash Pond 2 under the federal coal ash rule, and groundwater at these wells is sampled regularly, so groundwater-quality results for that well should already exist for the years since 2020; those results should be disclosed and evaluated to determine whether the connection and any associated CCR constituents persist. A permanent decision should not rest on a single, aging snapshot.

We therefore ask that TDEC require TVA to: state plainly in the CARA Plan that the dye-trace study confirmed a connection between Active Ash Pond 2 and downgradient monitoring well JOF-104, and explain what that connection means for the long-term migration of CCR constituents; make the complete dye-trace study (EAR Appendix H.9) readily available for public review; conduct and publish current follow-up evaluation of the JOF-104 connection rather than relying on 2019–2020 data; and explain why closure-in-place would remain protective on a

permanent basis, given a confirmed connection between the impoundment and the groundwater system.

For these reasons, our preferred remedy for Active Ash Pond 2 is closure-by-removal, with the ash relocated away from the Tennessee River into a properly designed, lined landfill. We note that the plan itself proposes groundwater extraction and treatment at Active Ash Pond 2 to address cobalt above groundwater protection standards and separately identifies nickel at well JOF-103 as a groundwater finding requiring further evaluation. Either way, this confirms that the unit is already affecting onsite groundwater and is not free of contaminant concerns.

Former Coal Yard

We also have concerns about the proposed consolidation of coal-combustion residual material at the former Coal Yard. As we understand the plan, material would be excavated from the southern half of the unit and placed in the northern portion, which would then be capped with an engineered geosynthetic cover system. Consolidating contaminated material onsite may reduce some short-term construction and transportation impacts, but it does not eliminate the long-term burden of managing legacy pollution near the river. The plan also identifies arsenic, cobalt, lithium, and molybdenum above groundwater protection standards in wells at the former Coal Yard, and proposes groundwater extraction and treatment there as well.

Our preferred remedy is removal of the coal-combustion residual material from the former Coal Yard to a properly designed, lined landfill.

Boat Harbor

The Boat Harbor warrants particular attention. The plan itself flags arsenic, beryllium, copper, mercury, and selenium in Boat Harbor sediments for further evaluation, in connection with both Active Ash Pond 2 and the former Coal Yard. The presence of these constituents raises concern that legacy contamination may continue to affect sediment and surface water in this area even after closure work is complete. TDEC should require TVA to explain how the final remedy will address Boat Harbor sediment contamination, how future impacts will be detected, and what specific actions will be required if monitoring shows continued or worsening impacts.

Document accuracy and quality control

We also note a basic accuracy problem in the draft that bears on our confidence in the plan as a whole. The Executive Summary (pages vii, viii, and ix) is headed "Cumberland Fossil Plant" — a different TVA facility — even though this is the Johnsonville Fossil Plant CARA Plan. We assume this is a carryover from a template used for another site, but for a document that governs a permanent closure decision and is being put before the public, a misidentified facility in the Executive Summary is the kind of error that raises a fair question about how carefully the plan was reviewed before release. We ask that TVA correct this and confirm that no other content was carried over from another site's plan that is inaccurate for the Johnsonville site.

Long-term stewardship

Many toxic constituents of coal ash essentially never break down, which means that permanent disposal of coal ash is a “forever problem,” and carries environmental consequences for generations upon generations. We therefore urge TDEC to apply heightened scrutiny to TVA's long-term stewardship commitments and to require enforceable external oversight rather than reliance on TVA's internal assurances alone. In a June 2026 evaluation of the condition of TVA's coal plant assets (OIG Evaluation 2026-17610), the TVA Office of the Inspector General found that TVA did not assess the condition of some critical assets annually as its own procedures require, did not properly classify or track some critical assets, and had several assets in poor condition with no plan for remediation — including at Kingston and Cumberland, where 81 percent of the assets reviewed had not had their condition updated within the past year. That evaluation examined operational asset reliability at four other coal plants and did not assess the Johnsonville CARA Plan or coal ash management. But it speaks directly to TVA's follow-through on its own internal requirements, and it reinforces why long-term protection at Johnsonville should rest on enforceable, externally verifiable commitments rather than on TVA's internal assurances alone.

Conditions on any approval of closure-in-place or consolidation

If TDEC approves closure-in-place or coal yard consolidation, that approval should be conditioned on, at a minimum:

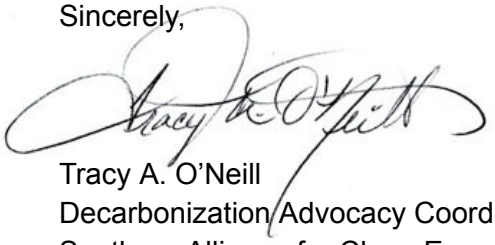
- At Active Ash Pond 2, fully resolving the dye-trace uncertainty and imposition of enforceable contingency requirements that protect groundwater, surface water, sediment, and the Tennessee River over the long term;
- At the former Coal Yard, adherence to strict construction-phase controls, continued sediment and surface water evaluation in Boat Harbor, public reporting of monitoring results, and clear corrective action triggers if contaminants increase, migrate, or remain above protective levels;
- Independent review and public documentation of the complete dye-trace study (EAR Appendix H.9), plain disclosure of the confirmed dye connection between Active Ash Pond 2 and downgradient monitoring well JOF-104, and current follow-up evaluation of whether that connection persists;
- Continued groundwater monitoring for as long as coal ash remains onsite — not an automatic end when the post-closure care period defined under TDEC Rules expire — and consideration of monitoring more frequent than the proposed semiannual interval at the downgradient Active Ash Pond 2 wells, given the confirmed connection at JOF-104;
- Continued surface water and sediment monitoring in Boat Harbor, the Intake Channel, and other affected areas;
- Clear corrective action triggers for exceedances, increasing contaminant trends, seep or Area-of-Interest concerns, cap failure, erosion, flooding impacts, or other evidence that the remedy is not performing as predicted;
- Public posting of monitoring data, inspection reports, and plain-language summaries;

- A requirement that TVA pursue additional corrective action, including removal, if closure-in-place or consolidation fails to remain protective; and
- Continued TDEC oversight for as long as coal ash remains onsite and conditions warrant.

The Johnsonville Fossil Plant may no longer burn coal, but the coal ash remains. Any final remedy must be durable enough to protect the Tennessee River, groundwater, sediment, surface water, and surrounding communities — not only during closure construction, but for generations.

Thank you for your consideration of these comments.

Sincerely,



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