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January 31, 2019

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Tennessee Valley Authority
1101 Market Street, BR4A-C
Chattanooga, TN 37402

Via email to arfarless@tva.gov

Re: Notice of Intent re: Environmental Impact Statement for Allen Fossil Plant Ash Impoundment Closure

Dear Ms. Farless:

On behalf of Protect Our Aquifer and the Tennessee Chapter of the Sierra Club (“Sierra Club”; collectively, “Conservation Groups”), we offer the following comments on the Tennessee Valley Authority’s Notice of Intent to prepare an Environmental Impact Statement for Allen Fossil Plant Ash Impoundment Closures (“Scoping Notice”).¹ Protect Our Aquifer and the Sierra Club care about protecting the City of Memphis and Shelby County’s clean water for the benefit of the resource, our community, and future generations. To achieve this goal, we believe that TVA must (1) clean up, not cover up, the coal ash pollution at the Allen Fossil Plant (“Allen Coal Plant” or “Coal Plant”); and (2) use a sustainable source of water to operate the Allen Combined Cycle Plant (“Allen Gas Plant” or “Gas Plant”).

The Scoping Notice addresses potential methods to close the East Ash Pond Complex, the West Ash Pond, and the Metal Cleaning Pond (collectively, “Ash Ponds”).² In the Scoping Notice, TVA indicates that it plans to consider four alternatives: (1) a no action alternative; (2) closure of the Ash Ponds by removing the ash and placing it in an off-site landfill; (3) closure of the Ash Ponds by removing the ash to a beneficial re-use facility and off-site landfill; and (4) closure of the Ash Ponds in place.³ Although the Scoping Notice does not itself identify a preferred alternative, TVA has indicated in a recent filing with the Securities Exchange

¹ Tennessee Valley Authority, Notice of Intent, Environmental Impact Statement for Allen Fossil Plant Ash Impoundment Closures, 83 Fed. Reg. 61708 (November 30, 2018) [Scoping Notice].

² *Id.*

³ *Id.*

Commission that it will propose closure by removal as its preferred alternative for the East Ash Pond Complex.⁴

As we discuss in this letter, TVA's environmental impact statement ("EIS") must include within its scope a site-specific analysis of (1) groundwater and surface water impacts based upon data collected through ongoing federal and state investigations at the Allen Coal Plant; (2) whether and how each alternative will comply with all relevant laws, including but not limited to the federal Coal Combustion Residuals Rule ("Coal Ash Rule");⁵ and (3) a reasonable range of alternatives, including various options for closure by removal and "beneficial re-use," and an analysis of the environmental impacts associated with each alternative, including environmental justice impacts. Although the Scoping Notice indicates TVA's intent to "tier" its analysis from the 2016 Final Ash Impoundment Closure EIS ("PEIS"),⁶ such tiering would be inappropriate because the PEIS lacks the site-specific analysis for the Ash Ponds required by the National Environmental Policy Act ("NEPA").

In addition, the EIS must include within its scope the ongoing operation of the Allen Gas Plant.⁷ Specifically, the operation of the Gas Plant is a connected and cumulative action. Because of TVA's current reliance on water from the Memphis Sand Aquifer, the operation of the Gas Plant has the potential to cause and/or exacerbate groundwater pollution associated with the Ash Ponds and other groundwater pollution sources. To date, TVA has not analyzed these potential groundwater quality impacts or explored alternatives, such as the use of gray water from the nearby Maxson Wastewater Treatment Plant ("Maxson WWTP"), in light of new information related both to the impacts themselves and to treatment improvements planned for the Maxson WWTP.

⁴ Att. 1, Tennessee Valley Authority, Form 10-K, Annual Report Pursuant to Section 13, 15(d), or 37 of the Securities Exchange Act of 1934 (September 30, 2018), available at <http://www.snl.com/Cache/396387482.PDF?O=PDF&T=&Y=&D=&FID=396387482&iid=4063363>.

⁵ 40 C.F.R. §§ 257.50-107; *see also* U.S. EPA, Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule, 80 Fed. Reg. 21,302, 21,312 (Apr. 17, 2015); as amended by Technical Amendments to the Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities—Correction of the Effective Date, 80 Fed. Reg. 37,988 (July 2, 2015) [hereinafter Coal Ash Rule].

⁶ Scoping Notice, 83 Fed. Reg. at 61708; *see also* TVA, Final Ash Impoundment Closure EIS Part I-Programmatic NEPA Review (June 2016).

⁷ We have previously commented that the Scoping Notice is itself deficient because it fails to include the operation of the Gas Plant as a connected action to be studied in the EIS. *See* Att. 2, Letter from Protect Our Aquifer and Sierra Club to Ashley Farless, Re: Notice of Intent re: Environmental Impact Statement for Allen Fossil Plant Ash Impoundment Closures: Request for Public Meeting re: Scoping, Extension of Public Comment Period, and Revision of Notice of Intent to Correct Deficiencies (December 4, 2018).

I. Factual Background

At the Allen Coal Plant, extremely high levels of coal ash contamination emanating from the ash ponds are the subject of at least two ongoing state investigations: (1) a remedial investigation overseen by the Tennessee Department of Environment and Conservation (“TDEC”) Bureau of Remediation,⁸ and (2) an environmental investigation being conducted pursuant to the TDEC Commissioner’s Order.⁹ A report commissioned by TVA to comply with the state remedial investigation, and subsequently published by the United States Geological Survey (“USGS”) and the University of Memphis Center for Applied Earth Science and Engineering Research (“CAESER”) in 2018, concluded that the contaminated shallow groundwater is connected to the Memphis Sand Aquifer, Shelby County’s primary drinking water source (“USGS/CAESER report”).¹⁰

In addition to these state investigations, TVA is also conducting an investigation into groundwater contamination at the East Ash Pond pursuant to the federal Coal Ash Rule.¹¹ TVA reported high levels of multiple coal ash contaminants in groundwater under the East Ash Pond in its annual CCR Rule groundwater monitoring report for 2017.¹² After determining that the contaminants did not come from a source other than its own coal ash, TVA placed the East Ash Pond in assessment monitoring under the federal CCR Rule.¹³ According to guidance issued by

⁸ Letter from Steve Goins, TDEC to TVA (July 18, 2017) (outlining requirements for remedial investigation) [hereinafter TDEC Letter re: RI Requirements].

⁹ Tennessee Department of Environment and Conservation, In the Matter of Tennessee Valley Authority, Order No. OGC15-0177, Sec. VII.A.d (Aug. 6, 2015) [Commissioner’s Order].

¹⁰ Carmichael, J.K., Kingsbury, J.A., Larsen, Daniel, and Schoefnacker, Scott, 2018 Preliminary evaluation of the hydrogeology and groundwater quality of the Mississippi River Valley alluvial aquifer and Memphis aquifer at the Tennessee Valley Authority Allen Power Plants, Memphis, Shelby County, Tennessee: U.S. Geological Survey Open-File Report 2018-1097, 66 p., <https://doi.org/10.3133/ofr20181097> [USGS/CAESER Report].

¹¹ TVA, Notice of Establishment of Assessment Monitoring Program, <https://ccr.tva.gov/Plants/ALF/Surface%20Impoundment%20-%20East%20Ash%20Disposal%20Area/Groundwater%20Monitoring/Assessment%20Monitoring/TVA%20NOTICE%20OF%20ESTABLISHMENT%20OF%20AN%20ASSESSMENT%20MONITORING%20PROGRAM%20ALF%20EAST%20ASH%20POND.pdf>.

¹² TVA, 2017 Annual Groundwater Monitoring and Corrective Action Report, Program (Allen Fossil Plant; East Ash Disposal Area), [https://ccr.tva.gov/Plants/ALF/Surface%20Impoundment%20-%20East%20Ash%20Disposal%20Area/Groundwater%20Monitoring/Annual%20Groundwater%20Report/257-90\(e\)_Annual%20Groundwater%20Monitoring%20Report_ALF_East%20Ash%20Disposal%20Area.pdf](https://ccr.tva.gov/Plants/ALF/Surface%20Impoundment%20-%20East%20Ash%20Disposal%20Area/Groundwater%20Monitoring/Annual%20Groundwater%20Report/257-90(e)_Annual%20Groundwater%20Monitoring%20Report_ALF_East%20Ash%20Disposal%20Area.pdf).

¹³ TVA, Notice of Establishment of an Assessment Monitoring Program (Allen Fossil Plant; East Ash Disposal Area), <https://ccr.tva.gov/Plants/ALF/Surface%20Impoundment%20-%20East%20Ash%20Disposal%20Area/Groundwater%20Monitoring/Assessment%20Monitoring/TVA%20NOTICE%20OF%20ESTABLISHMENT%20OF%20AN%20ASSESSMENT%20MONITORING%20PROGRAM%20ALF%20EAST%20ASH%20POND.pdf>.

the U.S. Environmental Protection Agency (“EPA”), as part of TVA’s ongoing groundwater investigation, by January 14, 2019, TVA must have made its initial determination of whether there has been detection of a statistically significant increase of an Appendix IV constituent above the relevant groundwater protection standard in the downgradient wells.¹⁴

Information obtained through all three of these ongoing investigations at the Allen Coal Plant is relevant to the question TVA seeks to address through this EIS: namely, what is the appropriate method for closing the Ash Ponds? It is also relevant to the connected question of how TVA will provide water to operate the Allen Gas Plant.

As Conservation Groups explained in comments submitted in November 2018 on the environmental investigation plan required by the Commissioner’s Order, data from the state remedial investigation and the USGS/CAESER report demonstrate that there is a current and ongoing risk of coal ash contamination entering the Memphis Sand Aquifer and McKellar Lake.¹⁵ TVA has so far refused to acknowledge these contamination risks. However, TVA can no longer avoid the issue. The environmental impact statement required by NEPA must address these impacts to groundwater and surface water quality.

In addition, the high levels of coal ash contamination emanating from the Allen Coal Plant resulted in a reversal of TVA’s decision to operate water production wells at the Allen Combined Cycle Plant that would have pulled or exacerbated the ongoing migration of contaminated groundwater into the Memphis Sand Aquifer. Instead, TVA is purchasing water from Memphis Light, Gas, & Water (“MLGW”), which in turn is extracting Memphis Sand Aquifer water from the nearby Davis well field. The analysis we submitted to TVA and TDEC in November 2018 shows that extracting Memphis Sand Aquifer water from the Davis well field will result in additional long-term drawdown of contaminated shallow groundwater under the Allen Fossil Plant into the Memphis Sand Aquifer.¹⁶

[E%20OF%20ESTABLISHMENT%20OF%20AN%20ASSESSMENT%20MONITORING%20PROGRAM%20ALF%20EAST%20ASH%20POND.pdf](#).

¹⁴ Letter from U.S. EPA to Edison Electric Institute & Venable LLP re: Coal Combustion Residuals Rule Groundwater Monitoring Requirements (Apr. 30, 2018). Arsenic, lead, and fluoride are all Appendix IV pollutants. See Appendix IV to 40 C.F.R. Part 257.

¹⁵ Att. 3, Letter from Amanda Garcia, Southern Environmental Law Center, on behalf of Protect Our Aquifer and Sierra Club to TDECorder@tva.gov, re: Tennessee Department of Environment and Conservation Commissioner’s Order: Environmental Investigation Plan, Revision 2, Allen Fossil Plant (November 28, 2018) [POA/SC Comments on EIP], submitted together with Douglas J. Cosler, Risk of Contamination of the Memphis Sand Aquifer, Allen Fossil and Combined-Cycle Combustion Turbine Plants: Review and Analysis of the Environmental Investigation Plan, Remedial Investigation, and Interim Remedial Action (November 26, 2018) [Cosler Report].

¹⁶ POA/SC Comments on EIP, 6; Cosler Report, 19-20.

We previously submitted comments to TVA demanding that the utility prepare a supplemental environmental assessment and environmental impact statement analyzing the impacts of its use of MLGW water on groundwater quality.¹⁷ To date, TVA has not responded to our letter and has not prepared additional environmental documentation under NEPA to address impacts to groundwater quality from its use of MLGW water.

Our comments on the environmental investigation plan and our comments demanding supplemental environmental analysis regarding cooling water for the Allen Combined Cycle Plant are attached and incorporated into this letter by reference.

II. Legal Framework

A. NEPA requires TVA to consider the full scope of site-specific impacts from its closure decision at the Allen Coal Plant.

NEPA is “our basic national charter for protection of the environment.”¹⁸ Other environmental statutes focus on particular media (like air, water or land), specific natural resources (such as wilderness areas or endangered plants and animals), or discrete activities (such as mining, introducing new chemicals, or generating, handling or disposing of hazardous substances). In contrast, NEPA applies broadly “to promote efforts which will prevent or eliminate damage to the environment.”¹⁹

[NEPA] has twin aims. First, it places upon [a federal] agency the obligation to consider every significant aspect of the environmental impact of a proposed action. Second, it ensures that the agency will inform the public that it has indeed considered environmental concerns in its decisionmaking process.²⁰

To accomplish its goal of informed decision-making, NEPA requires the agency proposing the action to provide a full and fair analysis of the environmental impacts of a

¹⁷ Att. 4, Letter from Amanda Garcia and Anne Passino, Southern Environmental Law Center, on behalf of Protect Our Aquifer and Sierra Club, to Ashley Farless, TVA, re: TVA Must Prepare an Environmental Impact Statement for the Allen Fossil Plant Emission Control Project (Project Nos. 2013-33 & 2015-28) to Consider New and Omitted Information Regarding Risk of Arsenic Contamination to Memphis Sand Aquifer 41 (February 21, 2018) [Letter Demanding EIS].

¹⁸ 40 C.F.R. § 1500.1(a).

¹⁹ National Environmental Policy Act § 2, 42 U.S.C. § 4321.

²⁰ *Kern v. Bureau of Land Mgmt.*, 284 F.3d 1062, 1066 (9th Cir. 2002) (quoting *Balt. Gas & Elec. Co. v. Natural Res. Def. Council, Inc.*, 462 U.S. 87, 97 (1983)) (internal quotations and citations omitted, alteration in original).

proposed action and its alternatives.²¹ In order to engage in this analysis, the agency must (1) define the purpose of its action; (2) identify alternatives that might help it achieve that purpose; and (3) describe an accurate environmental baseline against which to evaluate the impacts of the proposed action and its alternatives.²²

To the extent an agency proposes to “tier” its analysis from a programmatic EIS, such tiering is not intended to allow the agency to obscure the extent of site-specific environmental impacts or to narrow artificially the alternatives available during site-specific analysis.²³

NEPA “emphasizes the importance of coherent and comprehensive up-front environmental analysis to ensure informed decisionmaking to the end that ‘the agency will not act on incomplete information, only to regret its decision after it is too late to correct.’”²⁴ Only after fully evaluating a reasonable range of alternatives and the environmental impacts associated with each in compliance with NEPA may an agency determine its preferred course of action.

The regulations implementing the National Environmental Policy Act require “an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action.”²⁵ TVA must “[d]etermine the scope [] and the significant issues to be analyzed in depth in the environmental impact statement.”²⁶ The “scope” consists of the range of actions, alternatives, and impacts to be considered in an environmental impact statement.²⁷

One of the primary purposes of scoping is to ensure that the agency will obtain the input of the public and affected federal, state and local government entities early in the NEPA

²¹ 40 C.F.R. § 1502.14.

²² 40 C.F.R. §§ 1502.13–.16.

²³ *California v. Block*, 690 F.2d 753, 761 (9th Cir. 1982). (“The critical inquiry in considering the adequacy of an EIS prepared for a large scale, multi-step project is not whether the project’s site-specific impact should be evaluated in detail, but when such detailed evaluation should occur.”); *id.* at 763 (“The promise of site-specific EIS’s [sic] in the future is meaningless if later analysis cannot consider wilderness preservation as an alternative to development.”).

²⁴ *Blue Mountains Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1216 (9th Cir. 1998).

²⁵ 40 C.F.R. § 1501.7.

²⁶ *Id.*

²⁷ *Id.* § 1508.25.

process.²⁸ As the Council on Environmental Quality explains, “Scoping does not create problems that did not already exist; it ensures that problems that would have been raised anyway are identified early in the process.”²⁹

The Sierra Club, together with others, previously commented extensively on the fundamental inadequacy of TVA’s programmatic and site-specific analyses in the Ash Impoundment Closure EIS, the final version of which was published in June 2016 (“PEIS”). Comments we provided on the draft and final versions of the PEIS are attached to this letter and are incorporated by reference.³⁰ Below we discuss some issues that must be addressed by TVA in its analysis of each of the proposed actions identified in the Scoping Notice.

B. TVA’s preferred alternative for closure must comply with Federal and State laws governing coal ash disposal and water pollution.

In addition to satisfying NEPA, TVA’s proposal to close its coal ash ponds must comply with other state and federal laws governing coal ash disposal and water pollution.

In 2008, TVA’s mismanagement of its coal ash impoundment at the Kingston Fossil Plant caused the largest coal ash release in this country’s history—over one billion gallons of coal ash released into the community and the Emory and Clinch Rivers.³¹ TVA has spent more than \$1 billion on clean-up.³² After the Kingston catastrophe, TVA’s Board required the agency’s ash handling convert to dry storage.³³ More broadly, EPA then developed the federal

²⁸ Council on Environmental Quality, Memorandum for General Counsels, NEPA Liaisons and Participants in Scoping 3 (April 30, 1981), available at <https://ceq.doe.gov/guidance/guidance.html>.

²⁹ *Id.*

³⁰ See generally Att. 5, SELC et al., Comments on Draft Ash Impoundment Closure Environmental Impact Statement (Mar. 9, 2016) [hereinafter Comments on Draft PEIS]; Att. 6, Letter from SELC, et al., to Ashley Farless, TVA, re: TVA’s Obligation to Prepare a Supplemental Environmental Impact Statement for Draft Ash Impoundment Closure Environmental Impact Statement, Part I-Programmatic NEPA Review, and Part II, Site-Specific NEPA Review (“DEIS”) (Originally published December 2015); TVA’s Continuing Refusal to Disclose and Properly Analyze Key Environmental Impacts in the DEIS (May 23, 2016); Att. 7, SELC, et al., Comments on Final Ash Impoundment Closure Environmental Impact Statement (July 8, 2016).

³¹ Duane Gang, *Five years after coal ash spill, little has changed*, USA Today (December 23, 2013), <http://www.usatoday.com/story/news/nation/2013/12/22/coal-ash-spill/4143995/>.

³² *Id.*

³³ DEIS Part I at 2.

Coal Combustion Residuals Rule (“Coal Ash Rule”),³⁴ which establishes nationwide minimum standards for coal ash disposal to protect the public and the environment from adverse effects of coal ash pollution, including contamination of groundwater, surface water, air and soil.³⁵

The adverse effects of coal ash contamination are well-documented. In the risk assessment justifying the Coal Ash Rule, EPA determined cancer risks from arsenic contamination were significantly above levels of concern.³⁶ EPA also found non-cancer risks to be above levels of concern.³⁷ Moreover, it found that health and environmental damage cases “were primarily associated with unlined units.”³⁸ EPA concluded that these risks warranted regulation of coal ash under the federal Resource Conservation and Recovery Act.³⁹

As the Coal Ash Rule recognizes, location matters. The Coal Ash Rule requires new and existing impoundments, as well as new landfills, to comply with five location restrictions: ash generally must not be stored in (1) the uppermost aquifer; (2) wetlands; (3) fault areas; (4) seismic impact zones; or (5) unstable areas.⁴⁰ A coal ash storage unit in any of these settings must close if it does not meet specified requirements.⁴¹ The Rule’s restriction on storing ash in unstable areas applies to existing landfills as well as the other categories of covered units.⁴²

³⁴ 40 C.F.R. §§ 257.50-107; *see also* U.S. EPA, Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule, 80 Fed. Reg. 21,302, 21,312 (Apr. 17, 2015); as amended by Technical Amendments to the Hazardous and Solid Waste Management System; Att. 3, Disposal of Coal Combustion Residuals from Electric Utilities—Correction of the Effective Date, 80 Fed. Reg. 37,988 (July 2, 2015) [hereinafter Coal Ash Rule].

³⁵ 40 C.F.R. § 257.1 (purpose of Coal Ash Rule is “for determining which CCR landfills and CCR surface impoundments pose a reasonable probability of adverse effects on health or the environment...”); *id.* § 257.50 (Coal Ash Rule establishes “minimum national criteria”); Coal Ash Rule, 80 Fed. Reg. at 21,313–30 (discussing EPA’s risk assessment justifying regulation, including finding cancer risk from arsenic contamination above levels of concern and damage cases indicating contamination of groundwater in unlined impoundments and landfills); *id.* at 21,326 (variation in state programs “strongly supports the need for federal requirements to establish a consistent national standard of groundwater and human health protection”).

³⁶ Coal Ash Rule, 80 Fed. Reg. at 21,326.

³⁷ *Id.*

³⁸ *Id.*

³⁹ *Id.*

⁴⁰ 40 C.F.R. §§ 257.60–.64.

⁴¹ *Id.* § 257.101.

⁴² *Id.* § 257.64.

The Coal Ash Rule also requires new landfills and impoundments to install liners between the ash and the underlying surface.⁴³ Among other requirements, existing landfills and impoundments are subject to ongoing groundwater monitoring requirements and corrective action if monitoring demonstrates exceedances of certain coal ash pollutants.⁴⁴

In its risk assessment supporting the Coal Ash Rule, EPA found that “disposal of CCR wastes in unlined surface impoundments and landfills presents the greatest risks to human health and the environment.”⁴⁵ EPA also found that disposal of coal ash in unlined pits was responsible for the vast majority of damage cases based on groundwater and surface water contamination.⁴⁶

In addition to the Coal Ash Rule, TVA’s coal ash disposal is regulated by the federal Clean Water Act, which seeks to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”⁴⁷ To accomplish this goal, the Clean Water Act prohibits discharge of any pollutant except in compliance with a National Pollutant Discharge Elimination System (“NPDES”) permit.⁴⁸ The Clean Water Act is a strict liability statute. Each violation of a NPDES permit, and each discharge that is not authorized by the NPDES permit, is a violation of the Clean Water Act.

TVA’s coal ash disposal is also regulated by state water pollution and solid waste laws. The State of Tennessee has asserted that its solid waste laws may require more stringent regulation of coal ash disposal than the Coal Ash Rule.⁴⁹ Indeed, in its Commissioner’s Order dated August 6, 2015, the Tennessee Department of Environment and Conservation specifically

⁴³ *Id.* §§ 257.70–.72.

⁴⁴ *Id.* §§ 257.91–.98.

⁴⁵ U.S. EPA, RIN 2050-AE81, Human and Ecological Risk Assessment of Coal Combustion Residuals, at ES-7 (Dec. 2014).

⁴⁶ 80 Fed. Reg. 21,452, 21,361.

⁴⁷ 33 U.S.C. § 1251(a).

⁴⁸ *Id.* §§ 1311, 1342.

⁴⁹ Commissioner’s Order at 2, *In re Tenn. Valley Auth.*, No. OGC015-0177 (Tenn. Dep’t of Env’t & Conservation Aug. 8, 2015), https://tn.gov/assets/entities/environment/attachments/TVA_Order_8-6-15.pdf.

asserts jurisdiction and supervision over TVA's selection of closure methods for coal ash ponds, including at the Allen Coal Plant.⁵⁰

Neighboring states and utilities have recognized clean closure—removal of coal ash for recycling and/or to a dry, appropriately lined landfill—as the appropriate remedy for groundwater contamination at existing impoundments.⁵¹ In South Carolina, for example, all of the utilities have committed to close their ash ponds by excavating the ash and removing it to dry, lined storage. In Georgia, Georgia Power has committed to excavate 39 million tons of coal ash from its ponds.⁵² Most recently, the Governor of Virginia gained bipartisan support, along with support from the state's monopoly utility, Dominion Energy, for legislation that would require Dominion to excavate coal ash from all of its leaking, unlined pits.⁵³

III. The scope of the EIS must be broadened to include connected actions, site-specific considerations, a reasonable range of closure alternatives, and environmental justice impacts.

The scope of a proposed action “consists of the range of actions, alternatives, and impacts to be considered in an environmental impact statement.”⁵⁴ “The scope of an individual statement may depend on its relationships to other statements.”⁵⁵ Actions that should be included in a single EIS include connected actions, such as interdependent actions, and cumulative actions.⁵⁶ TVA's implementing regulations require a scoping notice to “briefly describe the action,

⁵⁰ *Id.* at 7.

⁵¹ Consent Agreement, *In re Duke Energy Progress, Inc., Robinson Steam Elec. Plant*, No. 15-23-HW (S.C. Dep't of Health & Env'tl. Control 2015); Sen. Larry Martin & Rep. Davey Hiott, *Rules Change for Coal Ash was Needed*, Greenville Online (Feb. 29, 2016), www.greenvilleonline.com/story/opinion/contributors/2016/02/29/rules-change-coal-ash-needed/80937280/.

⁵² See <https://www.georgiapower.com/content/dam/georgia-power/pdfs/company-pdfs/1601738-ashpond-closures.pdf>; <https://www.prnewswire.com/news-releases/georgia-power-updates-ash-pond-closure-plans-for-plants-branch-and-bowen-300705118.html>; https://www.georgiapower.com/content/dam/georgia-power/pdfs/company-pdfs/plant-bowen/20180927_clospln_bow_ap_amended_final.pdf.

⁵³ Laura Vozzella, *Coal ash cleanup bill wins bipartisan backing in Virginia*, The Washington Post (January 24, 2019), https://www.washingtonpost.com/local/virginia-politics/coal-ash-clean-up-bill-wins-bipartisan-backing-in-virginia/2019/01/24/99c2a798-1ff4-11e9-8e21-59a09ff1e2a1_story.html?noredirect=on&utm_term=.e671397e654e.

⁵⁴ 40 C.F.R. § 1508.25.

⁵⁵ *Id.*

⁵⁶ *Id.* at § 1508.25.

reasonable alternatives thereto, and potential environmental impacts associated with the action.”⁵⁷ If the agency does not define the scope of the EIS adequately, the public and public agency stakeholders cannot provide meaningful input into the development of the EIS, including key action alternatives, significant environmental issues to be addressed in detail, and related environmental documents.⁵⁸

A. The EIS must consider a reasonable range of closure alternatives, including various options for closure by removal, and carefully consider the environmental justice and other impacts associated with each one.

In the Scoping Notice, TVA identifies four alternatives, including (1) no action; (2) closure by removal of the Ash Ponds to an off-site landfill; (3) closure by removal of the Ash Ponds to a “beneficial re-use facility” and an off-site landfill; and (4) closure in place of the Ash Ponds.⁵⁹ The EIS should include additional alternatives that consider a range of transportation options for closure by removal and locations for “beneficial re-use” or recycling. In addition, the EIS should carefully consider the environmental justice, worker safety, and other environmental impacts associated with each alternative.

1. TVA should consider a reasonable range of transportation options and locations for closure by removal.

The scope of the EIS should include three types of alternatives, including a no action alternative, “other reasonable courses of action,” and mitigation measures not in the proposed action.⁶⁰

Two of the alternatives identified by TVA include moving ash to an off-site landfill. With respect to hauling coal ash off site to an existing, off-site permitted landfill, TVA should consider a reasonable range of options, including: (1) transportation by rail; (2) transportation by barge; (3) varying distances to potential landfills; and (4) various routes for any trucking alternatives.

In addition, the Scoping Notice refers to an alternative that would include “closure of the Metal Cleaning Pond and closure-by-removal of the East Ash Pond Complex, the West Ash

⁵⁷ TVA NEPA Procedures, § 5.4.3.

⁵⁸ See TVA NEPA Procedures, § 5.4.3 (describing required outcomes of the scoping process).

⁵⁹ Scoping Notice, 83 Fed. Reg. 61708.

⁶⁰ 40 C.F.R. § 1508.25.

Pond, and the CCR surrounding the Metal Cleaning Pond to a beneficial re-use facility & offsite landfill location....”⁶¹ However, the Scoping Notice includes no detail regarding the beneficial re-use facility. In the EIS, TVA must include information that (1) identifies the type of “beneficial re-use” proposed (encapsulated or unencapsulated); (2) the proposed methods of storage of coal ash at the proposed re-use facility; and (4) potential locations for the proposed facility (e.g., whether TVA is considering constructing the facility on-site, in Frank Pidgeon Park, or elsewhere in Memphis). TVA must consider a reasonable range of alternatives associated with any beneficial re-use facility, including the same range of transportation options it considers for the off-site landfill alternatives.

2. TVA must consider the environmental justice, worker safety, and other environmental impacts associated with each alternative.

TVA must also consider the environmental justice implications of the selection of a particular site for coal ash disposal. In the aftermath of the Kingston coal ash failure, TVA transported ash to the Arrowhead Landfill in Perry County, Alabama, a landfill in an environmental justice community that had already been subjected to repeated violations of pollution laws.⁶² In September 2016, the United States Commission on Civil Rights issued a report finding that the decision to move coal ash to the Arrowhead Landfill was primarily based on technical considerations, including cost, and did not properly take into account environmental justice concerns.⁶³ This must not happen again. TVA must ensure that any disposal location for its coal ash, including any “beneficial re-use facility,” complies with laws designed to protect people from pollution, and takes into account disproportionate impacts on communities that are already burdened.

⁶¹ Scoping Notice, 83 Fed. Reg. at 61708.

⁶² Kristen Lombardi, *Welcome to Uniontown: Arrowhead Landfill Battle a Modern Civil Rights Struggle*, NBC News (Aug. 5, 2015), <http://www.nbcnews.com/news/nbcblk/epa-environmental-injustice-uniontown-n402836>. Arrowhead Landfill is listed on the 2015 Public Notice of Significant Non-Compliance for Significant Industrial Users. See ADEM, Public Notice of Significant Non-Compliance for Significant Industrial Users (Feb. 2016), <http://www.adem.state.al.us/newsEvents/notices/feb16/2snc.htm>.

⁶³ U.S. Commission on Civil Rights, *Environmental Justice: Examining the Environmental Protection Agency’s Compliance and Enforcement of Title VI and Executive Order 12,898*, 65-69 (September 2016), http://www.usccr.gov/pubs/Statutory_Enforcement_Report2016.pdf.

In addition, TVA's history with the Kingston coal ash remediation raises concerns about the safety of clean-up workers and the communities where the coal ash is recycled or disposed.⁶⁴ In November 2018, a jury found that TVA's contractor for the Kingston clean-up failed to adequately protect workers from exposure to coal ash contamination.⁶⁵ More than 30 workers have died and more than 300 are sick.⁶⁶ This, too, must never happen again. In the EIS, TVA must commit to following all laws, regulations, and best practices for worker safety and require its contractors to do the same. TVA must explicitly address concerns about worker safety to gain the confidence of the Memphis community with respect to any of the available alternatives.

Finally, as discussed in Section III.B, below, TVA must fully disclose and analyze other environmental impacts associated with each alternative, including potential groundwater and surface water quality impacts.

B. The EIS must include site-specific analysis of groundwater and surface water quality impacts, including information from the ongoing investigations at the Allen Coal Plant.

As described in Section I above, TVA currently is engaged in three ongoing and interrelated groundwater contamination investigations at the Allen Coal Plant. TVA must incorporate information obtained through these investigations into the analysis of groundwater and surface water impacts in the EIS.

1. With respect to groundwater impacts, existing data from the investigations indicate a current and ongoing risk of contamination of the Memphis Sand Aquifer from the Ash Ponds.

The key finding of the USGS/CAESER report is that the contaminated alluvial aquifer and the Memphis Sand Aquifer are hydraulically connected.⁶⁷ Nevertheless, to date, TVA's

⁶⁴ Jamie Satterfield, *Kingston coal ash spill: Roane County leaders push for testing of children's sports complex*, Knox News (December 14, 2018), <https://www.tennessean.com/story/news/crime/2018/12/14/kingston-coal-ash-spill-roane-county-workers-memorial-tva/2242929002/>.

⁶⁵ Jamie Satterfield, *Jury: Jacobs Engineering endangered Kingston disaster clean-up workers*, Knox News (November 7, 2018), <https://www.knoxnews.com/story/news/crime/2018/11/07/verdict-reached-favor-sickened-workers-coal-ash-cleanup-lawsuit/1917514002/>.

⁶⁶ Jamie Satterfield, *Kingston coal ash spill: Judge orders TVA contractor to negotiate with sickened workers*, Knox News (January 14, 2019), <https://www.knoxnews.com/story/news/crime/2019/01/14/tva-coal-ash-spill-jacobs-lawsuit-mediation/2523080002/>.

⁶⁷ USGS/CAESER Report, 44 ("The aquifer-test results indicate that the MRVA and Memphis aquifers are hydraulically connected in the TVA plants area.").

public-facing position has that there is no risk of coal ash contamination migrating to the Memphis Sand Aquifer.⁶⁸ To date, TVA has also failed to accurately characterize the extent of the existing coal ash contaminant plume by selectively including only data for arsenic, fluoride and lead, and by failing to take into account additional indicators of downward groundwater flow at the site.⁶⁹ The EIS can and must disclose and analyze this ongoing risk to the City of Memphis and Shelby County's drinking water source.

Specifically, our independent review of the data from the investigations and the USGS/CAESER report support the following key findings:

- There is a hydraulic connection between the Mississippi River Valley Alluvial ("MRVA") Aquifer and the Memphis Sand Aquifer;
- The areal extent of the breach in the confining layer that is causing the hydraulic connection may be much larger than the USGS-CAESER report initially indicated;
- The degree of hydraulic connection, based on pumping-induced water-level reductions in the MRVA Aquifer, may be much stronger than the USGS-CAESER report initially indicated;
- There are significantly elevated concentrations of boron and sulfate, CCR indicator constituents, deep in the MRVA Aquifer at the Allen Plant;
- These boron and sulfate tracer concentration distributions indicate that long-term downward groundwater flow has been occurring in the Alluvial aquifer in the Allen Plant area;
- Shallow and deep vertical hydraulic gradients within the MRVA Aquifer, as well as significantly higher hydraulic heads in the MRVA aquifer compared to the Memphis Sand, also indicate downward groundwater flow;
- Age dating of groundwater (e.g., tritium analyses by USGS, 2018) and elevated sulfate concentrations in Memphis-Sand Production Well 5 indicate that mixing of MRVA

⁶⁸Stantec, Draft TVA Allen Fossil Plant-East Ash Disposal Area-Remedial Investigation Report, ES-i (March 6, 2018) [RI Report] ("The north and south areas of affected groundwater are not impacting the Memphis aquifer or the public drinking water supply.")

⁶⁹ *Id.*, ES-i ("Sampling confirmed the highest concentrations of arsenic, fluoride and lead were limited to the north and south areas, primarily within the upper 40 feet of the shallow Alluvial aquifer. The aquifer is over 100 feet thick. Groundwater flow in the aquifer is essentially horizontal and is not moving downward.")

Aquifer groundwater with Memphis Sand Aquifer water is occurring in the vicinity of the Allen Plant and that potential ongoing transport of CCR constituents from the MRVA into the Memphis Sand Aquifer is occurring; and

- TVA's extraction of Memphis Sand Aquifer groundwater from the Davis well field will result in long-term drawdown in the Memphis Sand under the Allen Plant and increase downward vertical hydraulic gradients from the MRVA to the Memphis Sand.

These site-specific findings, based on TVA's own data and the analysis provided by independent experts in the USGS-CAESER report, must be disclosed and analyzed in the EIS.

2. With respect to surface water impacts, existing data from the investigations indicate a current and ongoing risk of pollution of McKellar Lake and other surface water from the Ash Ponds.

Data presented in the ongoing investigations and the USGS/CAESER report strongly indicate that coal ash pollution is moving from the East Ash Pond and groundwater beneath the East Ash Pond into McKellar Lake. To date, TVA has underestimated the transport rate of coal ash pollution into McKellar Lake because it does not properly characterize the groundwater flow. In addition, at least one of the investigations describes historic and current seeps through the berms of the East Ash Pond and West Ash Pond.⁷⁰

Despite these data, TVA has stated that it is not planning to undertake investigation of surface water or sediment impacts in McKellar Lake or other surface water bodies, including Nonconnah Creek.⁷¹ TVA's primary justification for omitting investigation of the potential surface water impacts its coal ash pollution is having on McKellar Lake is that the lake is polluted by many sources.⁷² The fact that McKellar Lake may be polluted by other sources does not give TVA a free pass to add more arsenic, lead, boron and other coal ash contaminants to its pollutant load.

NEPA requires site-specific disclosure and analysis of all potentially significant impacts in the EIS. This includes impacts that are cumulatively significant.⁷³ TVA must disclose and analyze the surface water impacts associated with its coal ash pollution.

⁷⁰ TVA, Environmental Investigation Plan, Revision 2, Allen Fossil Plant, p. 24, Sec. 3.42 (West Ash Pond); pp. 29-31, Sec. 3.5.5 (East Ash Pond) (July 20, 2018) [EIP].

⁷¹ EIP, pp. 62-67.

⁷² *Id.* at 63-64.

⁷³ 40 C.F.R. § 1508.25(c).

C. The EIS must include within its scope, as a connected action, the operation of the Allen Gas Plant.

The Scoping Notice fails to include within the scope of the proposed action TVA's decision to purchase water from MLGW, even though the withdrawal of water from the Memphis Sand Aquifer at the Davis well field to cool the Allen Gas Plant is a connected and cumulative action that must be studied in this EIS. Indeed, TVA previously identified construction of the Allen Gas Plant as a cumulative action in the West Pond EA.⁷⁴ The operation of the Gas Plant is also a connected action.⁷⁵ Connected actions include actions that are "interdependent parts of a larger action and depend on the larger action for their justification."⁷⁶ Here, the closure of the Ash Ponds is part of TVA's larger action of retiring the Coal Plant and constructing and operating the Gas Plant.

In a previous environmental assessment, TVA considered the retirement of the Coal Plant and the construction and operation of the Gas Plant together.⁷⁷ One of the issues addressed in the Environmental Assessment was the source of water needed to operate the Gas Plant. Because the Gas Plant captures the hot exhaust from burning gas and uses the captured condensed steam to run another turbine,⁷⁸ the Gas Plant needs millions of gallons of water, also known as "cooling water," to function.⁷⁹

In the August 2014 Final Environmental Assessment, TVA selected as its preferred alternative using gray water ("recycled water") for cooling the Gas Plant.⁸⁰ TVA defined "gray water" as "non-potable treated wastewater . . . [that] has 98 percent of waste removed."⁸¹ In response to public comments on the 2014 Environmental Assessment, TVA confirmed that it

⁷⁴ West Pond EA, 48.

⁷⁵ 40 C.F.R. § 1508.25.

⁷⁶ *Id.*

⁷⁷ Att. 8, TVA, Allen Fossil Plant Emission Control Project Final Environmental Assessment, 1 (Aug. 2014) [hereinafter "Final EA"].

⁷⁸ "How a Combined Cycle Power Plant Works" (TVA), <https://www.tva.gov/Energy/Our-Power-System/Natural-Gas/How-a-Combined-Cycle-Power-Plant-Works>.

⁷⁹ See Att. 9, TVA, Finding of No Significant Impact, Allen Fossil Plant Emission Control Project–Groundwater Wells (Apr. 29, 2016) [hereinafter "2016 FONSI"].

⁸⁰ Final EA, at §§ 2.1.2.2.2, 2.5.

⁸¹ Final EA at 11.

planned to use recycled gray water from its neighbor, the Maxson Wastewater Plant, for condenser cooling water.⁸² In fact, TVA described its decision to use the recycled water as “an opportunity to reduce the use of natural resources in the Memphis area,” because, according to TVA, “The proximity of the proposed facility to the Maxson WWTP makes the use of gray water feasible for all uses that are currently fulfilled by McKellar Lake water.”⁸³ TVA therefore left no doubt in the public’s mind that TVA’s plan was viable. Indeed, the Gas Plant requires only a small fraction of the available recycled water generated each day at Maxson:

The proposed gas plant would use approximately 4-8% of the gray water available from the WWTP. TVA would treat the gray water as necessary for use in the gas plant and would return approximately 1-2% of the treated water back to the WWTP. Currently the WWTP produces over 100 million gallons per day (MGD). The maximum that TVA would use is approximately 7-10 MGD.⁸⁴

In 2016, TVA changed course. While using gray water was still technologically feasible, a consultant hired by TVA concluded that using recycled wastewater would be more expensive than potable water.⁸⁵

Revisiting its available alternative sources for cooling water, TVA issued a Supplemental Environmental Assessment (“SEA”) in 2016, without public notice or opportunity for comment.⁸⁶ The SEA evaluated three alternatives to supply the cooling water for the Gas Plant:

1. “No Action,” under which TVA would obtain gray water from, and discharge waste water to, the Maxson Plant, as proposed and described in the 2014 Environmental Assessment;
2. Installation of five wells into the Memphis Sand Aquifer; and
3. Purchasing potable water from Memphis Light, Gas & Water.⁸⁷

Without disclosing or analyzing groundwater contamination at the nearby Allen Coal Plant or the vulnerability of the Aquifer in the vicinity of the Plant, TVA determined that the use

⁸² Final EA at 223.

⁸³ *Id.*

⁸⁴ Final EA at 223.

⁸⁵ Kiewit Study, “KP-TVA-0225 - TVA Allen Water Treatment Study.”

⁸⁶ Att. 10, TVA, Allen Fossil Plant Emission Control Project Supplemental Environmental Assessment, 11 (Apr. 2016) [hereinafter SEA].

⁸⁷ 2016 FONSI, 1.

of groundwater extraction wells, which would withdraw water from the Memphis Sands Aquifer, would have no significant environmental impacts.⁸⁸

Less than a year later, in July 2017, TDEC disclosed to the public that groundwater under TVA's coal ash pond was exceeding groundwater protection standards by more than 300 times.⁸⁹ Alarmed by the extraordinarily high levels of a cancer-causing toxin, TDEC required TVA to perform a remedial investigation, with a particular focus on the potential for the contaminated groundwater to be pulled into the Memphis Sand by TVA's freshly-drilled gas plant wells.⁹⁰

Remarkably, even after the disclosure of arsenic contamination and the vulnerability of Shelby County's drinking water source, TVA has continued to insist that it might operate its Gas Plant water wells.⁹¹ Under pressure from the public and area local, state, and federal elected officials, TVA eventually agreed not to operate the wells until the investigation was complete.⁹² However, TVA still has not surrendered its permits.

Even purchasing water, which would induce the local utility to withdraw millions more gallons of water per day from just three miles away from the Coal Plant, threatens to pull coal ash-contaminated water from beneath the Coal Plant into the Memphis Sand Aquifer.⁹³ TVA has not analyzed the groundwater quality impacts associated with its decision to purchase water from MLGW and must do so here because the action is (1) connected to the retirement of the Coal Plant and the operation of the Gas Plant; and (2) cumulative to the closure options for the coal ash ponds at the Allen Fossil Plant. Moreover, TVA's use of MLGW water could pull contaminated groundwater from other industrial sources, including those TVA identified in its

⁸⁸ *Id.*

⁸⁹ TDEC, TVA Allen Fossil Plant –Site Information: Discovery of Arsenic in Ground Water Monitoring Wells, 3 (July 11, 2017) [hereinafter Allen Fossil Plant-Site Information]. At the same time, TVA was defending its groundwater well permits before the Shelby County Groundwater Board and in court.

⁹⁰ Letter from Steve Goins, TDEC to TVA (July 18, 2017) (outlining requirements for remedial investigation) [hereinafter TDEC Letter re: RI Requirements].

⁹¹ August 23, 2017 Letter from TVA to TDEC re “Allen Fossil Plant CCR Constituents in the Upper Most Aquifer and Use of Cooling Water Wells Installed into the Memphis Sands Aquifer” (“TVA does not plan to utilize ACC cooling water wells for plant operations until we have additional data to support safe use.”).

⁹² November 27, 2017 Letter from TVA to TDEC re “Allen Combined Cycle Plant (ACC) – Use of Production Wells” (“TVA will not use the production wells at the Allen Combined Cycle Plant before the completion of the Remedial Investigation, and TVA will rely on the results of the Remedial Investigation to guide TVA's actions thereafter.”).

⁹³ Cosler Report, 19-20.

remedial investigation, such as the sewage sludge unit associated with the Maxson WWTP.⁹⁴ For all of the reasons set forth in our previous letter demanding an EIS, this EIS should analyze reasonable alternatives to the use of MLGW water, including the use of gray water from the nearby Maxson wastewater treatment facility.⁹⁵

D. The EIS cannot tier from the 2016 Programmatic EIS or otherwise rely on TVA's 2016 analysis of closure options for the West Ash Pond.

In the Scoping Notice, TVA asserts that its analysis of closure alternative in the EIS will “tier” from the analysis in the PEIS.⁹⁶ As explained at length in comments on the PEIS, that document provides no site-specific analysis of groundwater and surface water impacts. Moreover, the PEIS concludes that capping a coal ash unit in place is a reasonable alternative where coal ash is buried in and contaminating groundwater.⁹⁷ However, that conclusion is directly contrary to the federal Coal Ash Rule.

The PEIS also fails to include meaningful, site-specific analysis of a reasonable range of clean closure alternatives, such as:

- Excavation and recycling;
- Excavation and removal by rail; and
- Excavation and removal by barge.

The PEIS includes a site-specific Environmental Assessment for the West Pond at the Allen Coal Plant (“West Pond EA”).⁹⁸ In the West Pond EA, TVA determined that closure in place was its preferred alternative.⁹⁹ In the Scoping Notice, TVA does not indicate whether or how it plans to incorporate its analysis from the West Pond EA into this EIS; however, like the

⁹⁴ RI Report, 7.7-7.10 and Appendix J.

⁹⁵ Letter Demanding EIS, 37-41.

⁹⁶ Scoping Notice, 83 Fed. Reg. at 61708.

⁹⁷ TVA, Final Ash Impoundment Closure EIS Part I-Programmatic NEPA Review 65 (June 2016); *see also id.* at Part I, Chapter A.2 Response to Comments at 27 (admitting coal ash is submerged in groundwater at seven of the ten impoundments considered in Part II of the PEIS); TVA, Record of Decision, Ash Impoundment Closure Final Environmental Impact Statement Part I Programmatic Review and Part II Site Specific Review of 10 Impoundments 10 (July 28, 2016) (selecting closure in place at all ten impoundments notwithstanding having admitted ash is buried in groundwater at seven of them).

⁹⁸ TVA, Final Ash Impoundment Closure EIS Part II, Allen Fossil Plant (June 2016)[hereinafter West Pond EA].

⁹⁹ *Id.* at 15.

programmatic component of the PEIS, the West Pond EA similarly provides inadequate site-specific analysis of groundwater and surface water impacts, particularly in light of the new information regarding groundwater contamination and hydrogeology available for the Allen Coal Plant.¹⁰⁰ The West Pond EA similarly does not include meaningful, site-specific analysis of a reasonable range of clean closure alternatives.¹⁰¹

For all of these reasons, in addition to the reasons set forth in Environmental Groups' comments on the PEIS, TVA cannot permissibly tier to the PEIS or rely on the West Pond EA to comply with its NEPA obligations.

E. The EIS must provide a site-specific analysis of whether and how each alternative will comply with *all* state and federal laws governing coal ash disposal.

In the Scoping Notice, TVA states that the purpose of the EIS is “to support the implementation of TVA’s goal to eliminate all wet CCR storage at its coal plants by closing CCR surface impoundments across the TVA system, and to assist TVA is complying with the [federal Coal Ash Rule].”¹⁰²

With respect to the federal Coal Ash Rule, EPA has made clear that closure of surface impoundments in place is not a permissible option if the owner/operator cannot demonstrate compliance with the performance standards that apply to closure in place under the Rule.¹⁰³ These standards include, among other things: a closure plan proposing to cap a coal ash unit in place must, among other requirements, “discuss how the final cover system will achieve the performance standards specified in paragraph (d) of this section.”¹⁰⁴ Paragraph (d), in turn, includes three sets of performance standards relevant to closure in place: (1) environmental and public health standards; (2) drainage and stabilization standards; and (3) final cover standards.¹⁰⁵

¹⁰⁰ Comments on Draft PEIS, 50-58.

¹⁰¹ *See id.*

¹⁰² Scoping Notice, 83 Fed. Reg. at 61,708.

¹⁰³ EPA, Relationship Between the Resource Conservation and Recovery Act’s Coal Combustion Residuals Rule and the Clean Water Act’s National Pollutant Discharge Elimination System Permit Requirements, “Closure Requirements,” <https://www.epa.gov/coalash/relationship-between-resource-conservation-and-recovery-acts-coal-combustion-residuals-rule#Closure> (accessed January 29, 2019) [hereinafter EPA Closure Requirements].

¹⁰⁴ 40 C.F.R. § 257.102(b).

¹⁰⁵ *Id.* § 257.102(d).

If a unit cannot satisfy the performance standards, the operator must “clean close” the unit, which means removing the coal ash and decontaminating the area.¹⁰⁶

A discussion of how the closure of a particular impoundment will meet these standards must necessarily be site-specific. Indeed, EPA counsels:

Whether any particular unit or facility can meet the performance standards is a fact and site-specific determination that will depend on a number of factual and engineering considerations, such as the hydrogeology of the site, the engineering of the unit, and the kinds of engineering measures available.¹⁰⁷

Such a discussion must be site-specific because the conditions at each impoundment vary, in terms of the underlying geology and hydrogeology, the history of construction of the dikes, and other features of the impoundment. The closure plan should reference and incorporate the site-specific information provided in the accompanying stability assessments and history of construction, along with any other site-specific technical analyses required to define the features of the site and demonstrate how the closure will meet the performance standards in light of those features. A technically thorough discussion of these site-specific conditions, and how they will affect issues such as releases to ground and surface water, the potential impoundment of water, and stability, is crucial to enable citizens and decisionmakers to evaluate whether an owner/operator’s plan satisfies the performance standards in the Rule, and therefore, whether the alternative is reasonable for purposes of NEPA compliance.

In contrast to TVA’s recent statements to the Securities Exchange Commission, TVA’s CCR Rule closure plan for the East Pond indicates that its preferred alternative for the East Pond is closure in place, “pending further environmental review [under NEPA].”¹⁰⁸ Thus, to the extent

¹⁰⁶ EPA Closure Requirements; *see also* 40 C.F.R. § 257.102(c) (describing performance standard for closure by removal of coal ash).

¹⁰⁷ EPA Closure Requirements.

¹⁰⁸ Stantec, Closure and Post-Closure Plan, East Ash Disposal Area, EPA Final Coal Combustion Residuals Rule, Tennessee Valley Authority, Memphis Tennessee (October 12, 2016), [https://ccr.tva.gov/Plants/ALF/Surface%20Impoundment%20-%20East%20Ash%20Disposal%20Area/Closure%20-%20Post-Closure%20Plan/Closure%20Plan/257-102\(b\)_Written%20Closure%20Plan_ALF_East%20Ash%20Disposal%20Area.pdf](https://ccr.tva.gov/Plants/ALF/Surface%20Impoundment%20-%20East%20Ash%20Disposal%20Area/Closure%20-%20Post-Closure%20Plan/Closure%20Plan/257-102(b)_Written%20Closure%20Plan_ALF_East%20Ash%20Disposal%20Area.pdf). We note that this statement in TVA’s CCR Rule closure plan appears to be inconsistent with a statement that TVA has made to the Securities Exchange Commission that it “would identify closure by removal as the preferred alternative for the Allen Fossil Plant east impoundment.” Tennessee Valley Authority, Form 10-K, Annual Report Pursuant to Section 13, 15(d), or 37 of the Securities Exchange Act of 1934 (September 30, 2018), available at <http://www.snl.com/Cache/396387482.PDF?O=PDF&T=&Y=&D=&FID=396387482&iid=4063363>.

that TVA intends its EIS “to assist TVA is complying with the [federal Coal Ash Rule],” the EIS must include the robust, site-specific analysis required by the CCR Rule. This analysis must be informed by the significant new information TVA has obtained through the ongoing state and federal investigations and the USGS-CAESER report.

In a letter dated October 18, 2016, EPA informed TVA of the utility’s obligation to provide the site-specific analysis required by the Coal Ash Rule in order to comply with NEPA:

If the TVA is unable to meet the requirements of the CCR Rule or any requirements from the states for the preferred alternative [closure in place], the EPA recommends that the TVA consider re-opening the NEPA process and potentially re-evaluating its preferred and selected alternatives for any of the specific impoundments that may be in question.¹⁰⁹

Further, as discussed in comments on the PEIS, TVA must select an alternative that complies with *all* of the laws and regulations that apply to its coal ash ponds and disposal areas, not just the Coal Ash Rule. These laws and regulations include the federal Clean Water Act and state water pollution and solid waste disposal laws in addition to the federal Coal Ash Rule.¹¹⁰ TVA’s acknowledgement of its obligation to comply with *all* of these applicable laws and regulations is particularly important here, because TVA has taken the position that the Coal Ash Rule does not apply to the West Ash Pond or the Metal Cleaning Pond.¹¹¹

F. The EIS must disclose and analyze any cumulative actions and cumulative impacts associated with future economic development projects on the Allen Coal Plant property.

In the Scoping Notice, TVA states that an additional purpose of the proposed action is to “make the ALF closure area land available for future economic development projects in the greater Memphis area.”¹¹² NEPA requires TVA to include within the scope of the EIS any cumulative actions, as well as cumulative impacts associated with the proposed action.¹¹³

¹⁰⁹ Letter from G. Alan Farmer, Director, Resource Conservation and Recovery Division, EPA Region 4, to Amy Henry, TVA, re: Letter of Clarification on Ash Impoundment Closures (October 18, 2016) (attached to this letter via Sharefile).

¹¹⁰ See Section II, Legal Framework, above.

¹¹¹ TVA, Allen Coal Combustion Residuals, <https://www.tva.gov/Environment/Environmental-Stewardship/Coal-Combustion-Residuals/Allen>.

¹¹² Scoping Notice, 83 Fed. Reg. at 61708.

¹¹³ 40 C.F.R. § 1508.25(a)(2); (c).

Publicly-available information indicates that TVA may be aware of specific economic development plans for the Coal Plant property. A newspaper article published in 2017 indicated interest from the Memphis-Shelby County Port Commission in developing a transloading facility on the Coal Plant site.¹¹⁴ To the extent TVA is aware of “future economic development projects” planned for the Coal Plant site, such cumulative actions and cumulative impacts must be disclosed and analyzed in the EIS.

Thank you for the opportunity to comment on this Scoping Notice.

Sincerely,



Amanda Garcia
Senior Attorney
Southern Environmental Law Center

/s with permission
Ward Archer
President
Protect Our Aquifer

/s with permission
Scott Banbury
Conservation Program Coordinator
Tennessee Chapter Sierra Club

CC via email to:

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¹¹⁴ Wayne Risher, *Coal-burning plant site could unlock harbor access for Port of Memphis industrial park*, Commercial Appeal (November 21, 2017), <https://www.commercialappeal.com/story/money/industries/logistics/2017/11/21/coal-burning-plant-site-could-unlock-harbor-access-memphion-mckellar-lake-eyed-memphis-port-expansio/880200001/>.

Attachments

Att. 1, Tennessee Valley Authority, Form 10-K, Annual Report Pursuant to Section 13, 15(d), or 37 of the Securities Exchange Act of 1934 (September 30, 2018), available at <http://www.snl.com/Cache/396387482.PDF?O=PDF&T=&Y=&D=&FID=396387482&iid=4063363>.

Att. 2, Letter from Protect Our Aquifer and Sierra Club to Ashley Farless, Re: Notice of Intent re: Environmental Impact Statement for Allen Fossil Plant Ash Impoundment Closures: Request for Public Meeting re: Scoping, Extension of Public Comment Period, and Revision of Notice of Intent to Correct Deficiencies (December 4, 2018).

Att. 3, Letter from Amanda Garcia, Southern Environmental Law Center, on behalf of Protect Our Aquifer and Sierra Club to TDECorder@tva.gov, re: Tennessee Department of Environment and Conservation Commissioner's Order: Environmental Investigation Plan, Revision 2, Allen Fossil Plant (November 28, 2018), submitted together with Douglas J. Cosler, Risk of Contamination of the Memphis Sand Aquifer, Allen Fossil and Combined-Cycle Combustion Turbine Plants: Review and Analysis of the Environmental Investigation Plan, Remedial Investigation, and Interim Remedial Action (November 26, 2018).

Att. 4, Letter from Amanda Garcia and Anne Passino, Southern Environmental Law Center, on behalf of Protect Our Aquifer and Sierra Club, to Ashley Farless, TVA, re: TVA Must Prepare an Environmental Impact Statement for the Allen Fossil Plant Emission Control Project (Project Nos. 2013-33 & 2015-28) to Consider New and Omitted Information Regarding Risk of Arsenic Contamination to Memphis Sand Aquifer 41 (February 21, 2018).

Att. 5, SELC et al., Comments on Draft Ash Impoundment Closure Environmental Impact Statement (Mar. 9, 2016).

Att. 6, Letter from SELC, et al., to Ashley Farless, TVA, re: TVA's Obligation to Prepare a Supplemental Environmental Impact Statement for Draft Ash Impoundment Closure Environmental Impact Statement, Part I-Programmatic NEPA Review, and Part II, Site-Specific NEPA Review ("DEIS") (Originally published December 2015); TVA's Continuing Refusal to Disclose and Properly Analyze Key Environmental Impacts in the DEIS (May 23, 2016).

Att. 7, SELC, et al., Comments on Final Ash Impoundment Closure Environmental Impact Statement (July 8, 2016).

Att. 8, TVA, Allen Fossil Plant Emission Control Project Final Environmental Assessment, 1 (Aug. 2014).

Att. 9, TVA, Finding of No Significant Impact, Allen Fossil Plant Emission Control Project-Groundwater Wells (Apr. 29, 2016).

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Att. 10, TVA, Allen Fossil Plant Emission Control Project Supplemental Environmental Assessment, 11 (Apr. 2016).

Att. 11, Wayne Risher, *Coal-burning plant site could unlock harbor access for Port of Memphis industrial park*, Commercial Appeal (November 21, 2017).