



Memorandum from the Office of the Inspector General

September 23, 2025

Robert Bryan Williams

**REQUEST FOR FINAL ACTION – EVALUATION 2025-17549 – GALLATIN ASH POND
COMPLEX CLOSURE AND RESTORATION**

Attached is the subject final report for your review and final action. Your written comments, which addressed your management decision and actions planned or taken, have been included in the report. Please notify us when final action is complete. In accordance with the Inspector General Act of 1978, as amended, the Office of the Inspector General is required to report to Congress semiannually regarding audits that remain unresolved after 6 months from the date of report issuance.

If you have any questions, please contact Lisa H. Hammer, Director, Evaluations – Projects, at (865) 633-7342. We appreciate the courtesy and cooperation received from your staff during the audit.

Greg Stinson
Assistant Inspector General
(Audits and Evaluations)

JLM:KDS

Attachment

cc (Attachment):

TVA Board of Directors
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OIG File No. 2025-17549



Office of the Inspector General

Evaluation Report

To the Senior Vice
President, Generation
Projects and Fleet Services

GALLATIN ASH POND COMPLEX CLOSURE AND RESTORATION

Evaluation Team
Jessica L. Monroe
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Evaluation 2025-17549
September 23, 2025

ABBREVIATIONS

CCR	Coal Combustion Residuals
Gallatin Ash	Gallatin Ash Pond Complex Closure and Restoration
GAF	Gallatin Fossil Plant
PCR	Project Change Request
PRB	Project Review Board
SPP	Standard Programs and Processes
TDEC	Tennessee Department of Environment and Conservation
TVA	Tennessee Valley Authority

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MEMORANDUM DATED SEPTEMBER 17, 2025, FROM R. BRYAN WILLIAMS
TO GREG STINSON



Evaluation 2025-17549 – Gallatin Ash Pond Complex Closure and Restoration

EXECUTIVE SUMMARY

Why the OIG Did This Evaluation

In 2015, the Environmental Protection Agency issued the Coal Combustion Residuals (CCR) rule,ⁱ which included requirements for addressing the risks from coal ash disposal. The Tennessee Valley Authority (TVA) updated the program funding for its CCR management program in 2015 to address compliance with the CCR rule and in 2017 began developing a site-specific project to address coal ash at Gallatin Fossil Plant. The Gallatin Ash Pond Complex Closure and Restoration (Gallatin Ash) project activities include (1) construction, operation, and closure of on-site lined landfills; (2) excavation and disposal of approximately 14 million cubic yards of CCR from Gallatin Fossil Plant; and (3) closure of the legacy ash site and coal yard, along with other site restoration work. The Civil Projects organization unit under the Generation Projects and Fleet Services business unit is responsible for the project.

The project was first approved for implementation by the Project Review Boardⁱⁱ in February 2018 with a total estimated project cost of approximately \$899 million. As of July 2024, the total estimated project cost had increased to approximately \$1.64 billion, an increase of approximately 82 percent.

TVA Standard Programs and Processes (SPP) 34.000, *Project Management*, contains requirements for cost management that include development of the project cost estimate and monitoring and controlling of project costs. The project cost estimate is based on the project's scope of work and deliverables. Project change requests (PCRs) document changes to the approved project scope, cost, and/or schedule. The project manager is required to maintain a log, with the disposition of all submitted PCRs.

Because of the costs associated with this project, we scheduled an evaluation to assess the management of project costs. The objective of this evaluation was to assess the management of project costs.

ⁱ Environmental Protection Agency CCR Rule [40 Code of Federal Regulations 257, Subpart D] published on April 17, 2015.

ⁱⁱ The Project Review Board provides oversight for TVA projects and serves as a control for project authorization approvals.



Evaluation 2025-17549 – Gallatin Ash Pond Complex Closure and Restoration

EXECUTIVE SUMMARY

What the OIG Found

We determined cost management for the Gallatin Ash project needed improvement related to the development of the project estimate and monitoring and tracking of PCRs. Specifically,

- The project estimate (1) did not include the complete scope of work and (2) was not developed using definitive costsⁱⁱⁱ as required by TVA-SPP-34.000, *Project Management*. As a result, the initial implementation project estimate was significantly understated.
- Some PCRs submitted by contractors lacked adequate detail to determine if project cost increases were reasonable. In addition, PCRs were not prepared for cost increases resulting from inaccurate project estimates.

During the review, we identified confidential contractor information that was shared by TVA project management with another contractor, creating reputational and liability risks for TVA.

What the OIG Recommends

We recommend the Senior Vice President, Generation Projects and Fleet Services, (1) take actions to address issues with project estimation and PCR management and (2) work in conjunction with the Office of the General Counsel to address risks associated with sharing confidential contractor information.

TVA Management's Comments

TVA management agreed with the OIG's recommendations and provided planned actions for the areas of project estimation, PCR management, and sharing of confidential contractor information. See the Appendix for TVA management's complete response.

Auditor's Response

We agree with TVA management's planned actions.

ⁱⁱⁱ According to TVA's Enterprise Project Management Office's *Cost Estimating Guide*, definitive costs are supported by construction design drawings, final approved work packages, contractor proposals, and detailed construction schedules.

BACKGROUND

In 2015, the Environmental Protection Agency issued the Coal Combustion Residuals (CCR) rule,¹ which included requirements for addressing the risks from coal ash disposal. The Tennessee Valley Authority (TVA) updated the program funding for its CCR management program in 2015 to address compliance with the CCR rule and in 2017 developed a site-specific project to address coal ash at Gallatin Fossil Plant (GAF). TVA subsequently entered into an agreement with the Tennessee Department of Environment and Conservation (TDEC) in June 2019 to further define the requirements for ash removal at GAF.

The Gallatin Ash Pond Complex Closure and Restoration (Gallatin Ash) project was initiated in November 2017 and first approved by the Project Review Board² (PRB) for implementation in February 2018 with a total estimated project cost of approximately \$899 million. As of July 2024, the total estimated project cost had increased to approximately \$1.64 billion, an increase of approximately 82 percent. The project activities include (1) construction, operation, and closure of on-site lined landfills; (2) excavation and disposal of approximately 14 million cubic yards of CCR from GAF; and (3) closure of the legacy ash site and coal yard, along with other site restoration work. The Civil Projects organization unit under the Generation Projects and Fleet Services business unit is responsible for the project.

TVA Standard Programs and Processes (SPP) 34.000, *Project Management*, contains requirements for cost management that include development of the project cost estimate and monitoring and controlling project costs. The project cost estimate is based on the project's scope of work and deliverables and is developed by the project manager for the project. Project change requests (PCRs) document changes to the approved project scope, cost, and/or schedule. In addition, the project manager is required to maintain a log with the disposition of all submitted PCRs.

Because of the cost increases associated with this project, we scheduled an evaluation to assess the management of project costs.

¹ Environmental Protection Agency CCR Rule [40 Code of Federal Regulations 257, Subpart D] published on April 17, 2015.

² The PRB provides oversight for TVA projects and serves as a control for project authorization approvals.

OBJECTIVE, SCOPE, AND METHODOLOGY

The objective of this evaluation was to assess the management of project costs for the Gallatin Ash project. Our scope included project estimates for February 2018 through July 2024, and PCRs from November 2017 through April 17, 2025. To complete the evaluation, we:

- Reviewed TVA-SPP-34.000, *Project Management*, and TVA's Enterprise Project Management Office's *Cost Estimating Guide*³ to gain an understanding of cost management requirements.
- Conducted interviews with Gallatin Ash project management to understand development of the project estimate, updates to the estimate, and methods of monitoring and controlling costs.
- Evaluated the February 2018, December 2020, and July 2024, project estimates to identify changes in scope and cost.
- Reviewed a judgmental selection of 33 of 184 PCRs (as of April 17, 2025) representing approximately \$35.8 million out of \$45.8 million to determine if changes were supported by documentation.
- Obtained input from TVA's Office of the General Counsel and reviewed TVA's *Code of Conduct* to determine employee responsibilities for protecting confidential information.

This evaluation was conducted in accordance with the Council of the Inspectors General on Integrity and Efficiency's *Quality Standards for Inspection and Evaluation*.

FINDINGS AND RECOMMENDATIONS

We determined cost management for the Gallatin Ash project needed improvement related to the development of the project estimate and monitoring and tracking of PCRs. Specifically,

- The project estimate (1) did not include the complete scope of work and (2) was not developed using definitive costs as required by TVA-SPP-34.000, *Project Management*. As a result, the initial implementation project estimate was significantly understated.
- Some PCRs submitted by contractors lacked adequate detail to determine if project cost increases were reasonable. In addition, PCRs were not prepared for cost increases resulting from inaccurate project estimates.

³ TVA's Enterprise Project Management Office's *Cost Estimating Guide* provides a consistent, effective, and standardized approach for developing cost estimates at TVA and contains principles and processes that align with project management best practices and industry standards.

During the review, we identified confidential contractor information that was shared by TVA project management with another contractor, creating reputational and liability risks for TVA.

IMPROVEMENTS TO PROJECT ESTIMATION

A key component of cost management is the development and accuracy of the project estimate. According to TVA-SPP-34.000, *Project Management*, the project estimate is based on the project's scope of work and deliverables. The implementation estimate⁴ should be based on definitive costs⁵ and should be accurate within 10 percent.

Between February 2018 and July 2024, the Gallatin Ash project cost estimate increased from \$899 million to \$1.64 billion. Table 1 below outlines the scopes of work and cost changes for the project.

Scope of Work	2018 Estimate (millions)	2024 Estimate (millions)	\$ change (millions)
Landfill construction, operation, and closure	\$212.79	\$285.99	\$73.20
CCR excavation and disposal	\$300.92	\$891.99	\$591.07
Coal yard closure	Not Included	\$6.72	\$6.72
Additional nonregistered site* closure and associated operations and maintenance	Not included	\$199.99	\$199.99
Office Center Complex	Not included	\$11.54	\$11.54
Escalation	\$210.74	\$210.55	(\$.19)
Other**	\$174.30	\$32.44	(\$141.86)
Total Estimated Project Costs	\$898.75	\$1,639.22	\$740.47
<p>* The nonregistered site is a legacy ash storage site, spanning approximately 65 acres.</p> <p>** Other costs include permitting and pre-construction activities, environmental, legal/regulatory, work orders prior to 2018, and miscellaneous operations and maintenance.</p>			

Table 1

We identified incomplete project scope and not using definitive costs as required by TVA-SPP-34.000, *Project Management*, as the two primary causes for the inaccuracies in the estimate.

- Incomplete project scope – When the February 2018 estimates were developed, the Gallatin Ash project included two primary scopes of work: (1) landfill construction, operation, and closure; and (2) the excavation and disposal of the CCR. In the updated estimate for 2024, three other scopes of work were added: (1) work related to the closure of the legacy site, (2) closure of the coal yard, and (3) construction of an office center complex.

⁴ The implementation estimate is the final estimate before project execution begins and is the cost baseline for performance measurement.

⁵ According to TVA's Enterprise Project Management Office's *Cost Estimating Guide*, definitive costs are supported by construction design drawings, final approved work packages, contractor proposals, and detailed construction schedules.

The three additional scopes of work increased the estimate by \$218.25 million.

- Not using definitive costs – For the Gallatin Ash project, TVA contracted with an engineering firm to develop conceptual project estimates based on assumptions for each scope of work. The TVA project manager relied on the engineering firm's information to develop the total estimated project costs. However, the conceptual estimates did not meet the TVA-SPP-34.000, *Project Management*, requirements to be used as definitive costs in project implementation estimates. While many of the estimates provided by the engineering firm were significantly understated, it was TVA using the conceptual information instead of definitive costs that resulted in an inaccurate estimate.

Recommendation – We recommend the Senior Vice President, Generation Projects and Fleet Services, establish steps to verify implementation estimates include the complete scope of work and are developed using definitive costs.

TVA Management's Comments – TVA management agreed with the recommendation and will ensure that TVA processes are developed to support and monitor definitive estimates for Phase 3 approvals. In addition, TVA management noted the Gallatin project was not a typical project and did not follow the traditional phase approval process. Management will ensure that any non-typical projects going to PRB include documentation regarding any project cost estimate risks due to incomplete scope at the time approval is being requested. See the Appendix for TVA management's complete response.

Auditor's Response – We agreed with TVA management's planned actions.

MONITORING AND TRACKING OF PROJECT CHANGE REQUESTS NEEDS IMPROVEMENT

According to TVA-SPP-34.000, *Project Management*, PCRs are the primary mechanism for monitoring and controlling changes to the approved project scope, cost, and schedule baseline. Project managers are required to maintain a log of all PCRs and their disposition to support performance baseline changes and reauthorizations by the PRB. For the Gallatin Ash project, the monitoring and tracking of PCRs could be improved. Specifically, we identified some PCRs lacked adequate detail to determine if the cost increases were reasonable and PCRs were not created for cost increases resulting from inaccurate estimates.

Approved PCRs set the maximum amount the contractor can bill related to the project changes. We reviewed a sample of 33 PCRs to determine if the increased costs were supported by the documentation provided. While most of the sampled PCRs had adequate support, we determined approximately \$4 million of \$12.5 million from five PCRs did not have adequate detail to determine if the requested increases were reasonable. As of July 2025, TVA paid contractors \$2.47 million of the \$4 million.

We also found PCRs were not prepared for most estimate revisions. TVA's Enterprise Project Management Office's *Cost Estimating Guide* states that, if an estimate revision is required, the project managers should use a PCR to document this change. Project management indicated they are not creating PCRs for revisions to project estimates. We found approximately 94 percent of project cost increases were not documented in a PCR. When PCRs are not properly managed, it hinders the ability to manage project costs.

Recommendations – We recommend the Senior Vice President, Generation Projects and Fleet Services:

- Obtain additional support for the five PCRs with insufficient details to determine if the approval amounts should be revised.
- Take steps to reinforce the (1) need for adequate support before approving PCRs and (2) requirement for PCRs to document project estimate revisions.

TVA Management's Comments – TVA management agreed with the recommendations and stated (1) the project team will work with the contractor to ensure sufficient detail of itemized additional scope and cost to verify approved amounts and (2) management will review and work with Supply Chain on any unverified amounts. In addition, management will reinforce the need for adequate support prior to approving PCRs and ensure the PCR log documents project revisions. See the Appendix for TVA management's complete response.

Auditor's Response – We agreed with TVA management's planned actions.

PROPOSAL INFORMATION SHARED BETWEEN CONTRACTORS

During our review, we identified some confidential contractor information, including pricing terms, was shared by TVA project management with a contractor on the Gallatin Ash project. The contractor that was provided the information is a competitor of the contractor whose information was shared and the two could compete against each other for future TVA or other utility work. According to CCR project management, it is common practice for TVA project management to share contractor information with other contractors. However, TVA's *Code of Conduct* indicates TVA employees are responsible for protecting customers' or business partners' confidential information, which includes financial information that is not public. We discussed the issue with the Office of the General Counsel and they agreed this is an issue that should be addressed. Project management sharing of confidential contractor information could result in reputational and liability risks to TVA.

Recommendation – We recommend that the Senior Vice President, Generation Projects and Fleet Services, in conjunction with the Office of the General Counsel, educate the appropriate individuals on the importance of not sharing confidential contractor information.

TVA Management's Comments – TVA management agreed with the recommendation and is working with the Office of the General Counsel and Supply Chain to educate employees on TVA's Code of Conduct to ensure that the contractor's confidential information is not shared with potential competitors. See the Appendix for TVA management's complete response.

Auditor's Response – We agreed with TVA management's planned actions.

September 17, 2025

Greg Stinson, WT 2C

MANAGEMENT RESPONSE – DRAFT EVALUATION 2025-17549 GALLATIN ASH POND
COMPLEX CLOSURE AND RESTORATION

This is in response to your memorandum dated August 27, 2005. First, we want to thank your team for the professional manner in which this audit was conducted. After review of the draft evaluation, we are providing our response to the Recommendations regarding the Gallatin Ash Pond Complex Closure and Restoration project.

Recommendations

1. We recommend the Senior Vice President, Generation Projects and Fleet Services, establish steps to verify implementation estimates include the complete scope of work and are developed using definitive costs.

Response

TVA management agreed with the recommendation and will evaluate how to incorporate into the new Enterprise Estimating organization to ensure that TVA processes are developed to support and monitor definitive estimates being used at Phase 3 approvals.

Management also notes that the Gallatin Restoration project is not "typical" and did not follow the traditional phase approval process.

- The Order of Magnitude estimate from AECOM was used to support TVA recording the financial liability associated with the August 2017 Order which was issued in relation to the lawsuit brought by conservation groups alleging violation of the Clean Water Act and TVA committed to "remove all CCR material from the Gallatin site and place in a lined landfill."
- This project was developed to implement the activities to comply with the August 2017 Order and taken to TVAs Project Review Board (PRB) for Phase 3 approval based on the Order of Magnitude AECOM estimate.
- The project included multiple distinct scopes of work that were in various project phases, from phase 0 to phase 3 with activities scheduled out over 20 years.

Management will ensure that any non-typical projects going to PRB include documentation regarding any project cost estimate risks due to incomplete scope at the time approval is being requested.

2. We recommend the Senior Vice President, Generation Projects and Fleet Services:
 - Obtain additional support for the five PCFs with insufficient details to determine if the approval amounts should be revised.
 - Take steps to reinforce the (1) need for adequate support before approving PCRs and (2) requirement for PCRs to document project estimate revisions

Greg Stinson
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Response

TVA management agreed with the recommendations

- The project team will work with the contractor to ensure sufficient detail of itemized additional scope and cost to verify approved amounts. Management will review and work with Supply Chain on any unverified amounts.
 - Management will reinforce the need for adequate support prior to approving any PCR's (2) ensure the PCR log, along with any other project estimate changes to document the project revisions prior to any rebaseline through PRB.
3. We recommend the Senior Vice President, Generation Projects and Fleet Services, in conjunction with the Office of the General Council, educate the appropriate individuals on the importance of not sharing confidential contractor information.

Response

TVA management agreed with the recommendation and are working with both OGC and TVAs Supply Chain to educate employees on TVA's Code of Conduct to ensure that the contractor's confidential information is not shared with potential competitors.

Thank you for allowing us to provide these comments. If you need additional information, please let us know.



R. Bryan Williams
Senior Vice President
Generation, Projects and Fleet Services
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