UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
1600 EAST LAMAR BOULEVARD
ARLINGTON, TEXAS 76011-4511

January 14, 2026

EAF-RIV-2025-0090

Joseph Sullivan, Site Vice President
Entergy Operations, Inc.
17265 River Road
Killona, LA 70057

SUBJECT: WATERFORD STEAM ELECTRIC STATION, UNIT 3 – AMENDED 95001 SUPPLEMENTAL INSPECTION REPORT 05000382/2025040 AND FOLLOW-UP ASSESSMENT LETTER

Dear Joseph Sullivan:

On September 25, 2025, the U.S. Nuclear Regulatory Commission (NRC) completed a supplemental inspection using Inspection Procedure 95001, “Supplemental Inspection Response to Action Matrix Column 2 (Regulatory Response) Inputs,” and discussed the results of the inspection and the implementation of your corrective actions with David Oertling, General Manager Plant Operations, and other members of your staff.

The NRC identified the need to reissue NRC Inspection Report 05000382/2025040, dated December 16, 2025 (ADAMS Accession Number ML25349A028). Specifically, the inspection report did not include the notice of violation (NOV) discussed in Inspection Report 05000382/2025091, dated June 5, 2025 (ML25149A059) in the section titled Additional Tracking Items. The notice of violation should have been included as a closed NOV to indicate that it is no longer considered as an action matrix input as of the date of the exit meeting. Also, additional wording was included in the inspection report conclusion to more clearly indicate that the associated NOV is closed.

No findings or violations of more than minor significance were identified during this inspection.

This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at http://www.nrc.gov/reading-rm/adams.html and at the NRC Public Document Room in accordance with Title 10 of the *Code of Federal Regulations* 2.390, “Public Inspections, Exemptions, Requests for Withholding.”

Sincerely,

Signed by Dixon, John
on 01/14/26

John L. Dixon, Jr., Chief
Reactor Projects Branch D
Division of Operating Reactor Safety

Docket No. 05000382
License No. NPF-38

Enclosure:
As stated

cc w/ encl: Distribution via LISTSERV

WATERFORD STEAM ELECTRIC STATION, UNIT 3 – AMENDED 95001 SUPPLEMENTAL INSPECTION REPORT 05000382/2025040 AND FOLLOW-UP ASSESSMENT LETTER DATED JANUARY 14, 2026

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ADAMS ACCESSION NUMBER: **ML26014A028** PACKAGE: **ML26014A013**

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U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report

Docket Number:	05000382
License Number:	NPF-38
Report Number:	05000382/2025040
Enterprise Identifier:	I-2025-040-0007
Licensee:	Entergy Operations, Inc.
Facility:	Waterford Steam Electric Station, Unit 3
Location:	Killona, LA 70057
Inspection Dates:	September 22, 2025, to September 26, 2025
Inspectors:	E. Tinger, Resident Inspector G. Pick, Senior Reactor Inspector
Approved By:	John L. Dixon, Jr., Chief Reactor Projects Branch D Division of Operating Reactor Safety

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting a 95001 supplemental inspection at Waterford Steam Electric Station, Unit 3, in accordance with the Reactor Oversight Process. The Reactor Oversight Process is the NRC's program for overseeing the safe operation of commercial nuclear power reactors. Refer to https://www.nrc.gov/reactors/operating/oversight.html for more information.

List of Findings and Violations

No findings or violations of more than minor significance were identified.

Additional Tracking Items

Type	Issue Number	Title	Report Section	Status
NOV	05000382/2025091-01	Emergency Diesel Generator A Failure to Run EAF-RIV-2025-0090	95001	Closed
CAPR	05000382/2025040-01	Waterford 95001 CAPR CR-WF3-2024-04960-00017 Create and Implement a Mechanical Maintenance Procedure for Replacement of the Mechanical Governor for the Emergency Diesel Generators	95001	Discussed

INSPECTION SCOPES

Inspections were conducted using the appropriate portions of the inspection procedures (IPs) in effect at the beginning of the inspection unless otherwise noted. Currently approved IPs with their attached revision histories are located on the public website at http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html. Samples were declared complete when the IP requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter (IMC) 2515, "Light-Water Reactor Inspection Program - Operations Phase." The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel to assess licensee performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards.

OTHER ACTIVITIES – TEMPORARY INSTRUCTIONS, INFREQUENT AND ABNORMAL

95001 - Supplemental Inspection Response to Action Matrix Column 2 (Regulatory Response) Inputs

The inspectors reviewed and selectively challenged aspects of the licensee's problem identification, causal analysis, and corrective actions in response to degraded performance that led to Waterford Steam Electric Station, Unit 3 being moved into Column 2 of the Action Matrix for a violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings" and subsequent White finding regarding the failure to properly develop and implement adequate maintenance instructions for the fuel linkage connection to the mechanical governor for emergency diesel generator A. The preliminary White finding is discussed in Inspection Report 05000382/2025090, dated April 9, 2025 (ML25097A205). The final significance determination and notice of violation are discussed in Inspection Report 05000382/2025091, dated June 5, 2025 (ML25149A059).

Objective: Ensure that the root and contributing causes of individual and collective white performance issues are understood.

Under this objective, the inspectors reviewed the root cause evaluation the licensee conducted for a White finding regarding the failure to properly develop and implement adequate maintenance instructions for the fuel linkage connection to the mechanical governor for emergency diesel generator (EDG) A, as documented in Final Significance Determination of a White Finding, Notice of Violation, and Follow-Up Assessment Letter for Waterford Steam Electric Station, Unit 3, dated June 5, 2025 (Report 05000382/2025091 (ML25149A059)). Their review consisted of an evaluation of the following: the licensee's identification of the issue, when and how long the issue existed, prior opportunities for identification, documentation of significant plant-specific consequences and compliance concerns, use of systematic methodology to identify causes with a sufficient level of supporting detail, consideration of prior occurrences, identification of extent-of-condition and extent-of-cause, and identification of any potential programmatic weaknesses in performance.

NRC Assessment: The inspectors concluded that this objective was Met. The inspectors determined that the licensee appropriately identified the root cause and contributing cause using systematic methodologies, considered prior occurrences and operating experience, and documented their analyses in sufficient detail.

The licensee used multiple techniques to analyze the performance issue and identified the following root cause and contributing cause:

- Root cause: Insufficient details included in the preventive maintenance job plan for EDG A. Specifically, details needed to perform work on a critical component, such as guidance on proper alignment of the lever arm, torque values, and recommendations for thread locking compounds, were not included in the preventive maintenance job plan.

- Contributing cause: An organizational performance gap in the planning department did not ensure workers were in "rule-based performance" and represented a missed opportunity for the maintenance organization to raise standards and improve performance in planning.

a. Identification. The performance issue was self-revealed and identified during a walkdown of EDG A following a mechanical overspeed trip on October 10, 2024. The inspectors did not identify any concerns with the licensee characterization of the event.

b. Exposure Time. The licensee determined that an exposure time of 94 days plus one day of repair time was applicable. The licensee concluded that EDG A would have failed to run for its 24-hour mission time starting on July 8, 2024. The inspectors determined that the licensee appropriately assessed the exposure time.

c. Identification Opportunities. The licensee identified additional opportunities for identification as follows:

- The licensee identified an opportunity for identification of the missing technical information in the EDG governor replacement work order. The licensee had previously replaced the EDG A governor in 2014. Following this replacement, system engineers provided handwritten feedback on the work order with recommendations to add steps to use a thread locking compound and include vendor specified torque values. This feedback was not incorporated into the model work order used for the governor replacement in 2024 contributing to the lack of sufficient technical information in the work order.

- The licensee identified a potential missed opportunity for identification of contact between the EDG governor lever arm and the rod end during required quarterly system walkdowns. The licensee determined that the fretting damage on the corner of the lever could have potentially been identified, but the likelihood is low due to the small area of damage that was visible.

The inspectors determined that the licensee appropriately identified missed identification opportunities for the performance issue.

d. Risk and Compliance. The inspectors determined that the licensee had identified and understood the plant-specific risk and compliance concerns associated with the performance issue. The risk included continued inoperability of EDG A, although additional alternate power sources were available for use at the time. Compliance concerns were addressed by mitigating actions taken to enhance the work instructions for replacing the EDG governor.

e. Methodology. The licensee employed systematic evidence-based causal analysis to reliably and transparently determine the root and contributing causes of the White performance issue. The methods included equipment failure evaluation, failure modes analysis, organizational and programmatic screening, common cause review, and a why staircase.

f. Level of Detail. The inspectors determined the root cause evaluation was conducted and documented to a level of detail commensurate with the significance and complexity of the issue and regulatory requirements.

g. Operating Experience. The licensee reviewed operating experience for the performance issue, and the following internal and external operating experience was relevant to the diesel linkage failure.

The licensee performed an internal operating experience search and found three applicable events related to diesel generators and inadequate work order quality. The licensee identified one event from Waterford in 2016, which described a mechanical linkage that disengaged from an auxiliary component cooling water valve due to an incorrectly installed nut. The licensee documented two applicable events from Arkansas Nuclear One. In 2016, an emergency diesel generator experienced a generator bearing failure due to inadequate lubrication caused by an oil level sight glass that was installed upside down. In 2021, a diesel generator experienced an inadvertent overspeed trip due to inadequate vendor technical information in a test procedure. These events supported the licensee's conclusion regarding the importance of work order quality for successful task completion.

The licensee determined that external operating experience identified similar events related to emergency diesel generators and fuel rack linkages.

- In 2013, the EDG at Salem Hope Creek experienced frequency oscillations during a monthly surveillance. The most likely apparent cause was determined to be mechanical binding in the fuel rack linkage.

- In 2003 at Susquehanna, the EDG fuel control linkage separated from the governor terminal shaft lever causing loading to unexpectedly decrease during a surveillance run. The bolt that attached the fuel control linkage to the governor terminal shaft lever had backed out, likely due to not being tightened adequately during maintenance.

The licensee determined that while the operating experience supported the conclusions related to the failure of EDG A, it would not have prevented the event from occurring. The inspectors determined that the licensee appropriately considered past operating experience related to the failure of EDG A.

h. Safety Culture Traits. The inspectors determined that the licensee performed a safety culture assessment and appropriately considered the safety culture traits in NUREG-2165, "Safety Culture Common Language." For the root cause, the licensee identified a weakness in the work management process of planning, controlling, and executing work activities, which led to the deficient preventive maintenance job plan for EDG A. For the contributing cause, the licensee identified weaknesses in corrective action resolution and complacency of station personnel. A weakness in corrective action resolution was identified due to the

licensee identifying multiple previous opportunities to address planning organization performance gaps prior to the failure of EDG A. The licensee identified complacency of station personnel because the preventive maintenance job plan for EDG A had been used several times prior to the failure of EDG A, and station personnel failed to identify and communicate deficiencies in the job plan. The inspectors determined the licensee established corrective actions to address these weaknesses.

i. Common Cause. Common Cause is not applicable for this report because there is only one White performance deficiency.

Objective: Ensure that the extent-of-condition and extent-of-cause of individual and collective white performance issues are identified.

Under this objective, the inspectors independently assessed the extent of condition and extent of cause evaluations that were performed in relation to the White performance issue to ensure the licensee's evaluation was sufficiently comprehensive.

NRC Assessment: The inspectors concluded that this objective was Met. The inspectors found that the licensee appropriately identified the extent of condition and, generally, appropriately identified the extent of cause for the performance issue.

The extent of condition for the performance issue identified other diesel-driven safety-related components, backup to safety-related components, and augmented quality program components that had the potential for a governor linkage to become bound or disconnected. Diesel-driven safety-related and backup to safety-related components were classified as medium risk and included the EDGs, the turbine-driven emergency feed pump, and the permanent temporary emergency diesel. Augmented quality program components were classified as low risk and included the security diesel, FLEX diesel, and diesel-driven fire pumps. The inspectors reviewed the extent of condition analysis and did not identify concerns.

The extent of cause reviewed a sample of other preventive maintenance work orders and work orders associated with both critical and non-critical components. Specifically, the extent of cause ensured the sampled work orders included the proper vendor technical information, the correct work order level, and appropriate operating experience related to the work order subject matter. During this review, the inspectors identified that the extent of cause did not specifically include a review of work orders associated with the diesel-driven components classified as medium risk in the extent of condition analysis. This is documented below as Minor Weakness 1.

Minor Weakness 1

The inspectors identified a minor weakness associated with the extent of cause review performed by the licensee. The extent of cause actions sampled work orders associated with critical and non-critical components to ensure specific technical elements were included properly. As part of the extent of cause, the licensee did not specifically review the work orders associated with the medium risk extent of condition diesel-driven components. The inspectors determined that unless a work order associated with a medium risk component was picked as part of an extent of cause sample then the work order would not be reviewed. This created a potential gap for a work order associated with a medium risk diesel-driven

component to include inadequate technical information and not be corrected. The licensee documented this weakness in condition report CR-WF3-2025-04439.

Objective: Ensure that completed corrective actions to address and preclude repetition of white performance issues are timely and effective.

Under this objective, the inspectors assessed the appropriateness and timeliness of the licensee's corrective actions.

NRC Assessment: The inspectors concluded that this objective was Met. The inspectors determined that the completed corrective actions the licensee had implemented were timely and effective.

a. Completed Corrective Actions to Preclude Repetition

The licensee has one open corrective action to preclude repetition (CAPR) associated with the root cause. This CAPR will be discussed in the planned corrective actions section below.

b. Other Completed Corrective Actions

The inspectors sampled other completed corrective actions (non-CAPRs) for the root cause and contributing cause to determine the appropriateness and timeliness of the actions to correct each cause documented in condition report CR-WF3-2024-04960. The inspectors reviewed these completed corrective actions and did not have any concerns.

Cause	Corrective Action
Root Cause	The licensee updated controlled technical documents to include vendor recommendations regarding alignment of the lever arm; updated EDG job plans to include updated vendor technical information, torque requirements, and thread locking compounds; evaluated the design of the lever and rod end to determine if a change would allow for greater clearance margin; and evaluated adding a step to the EDG pre-startup check procedure for operators to visually inspect the governor and associated linkages.
Contributing Cause	The licensee developed and implemented a teach and learn to reset and reinforce ownership and engagement in improving maintenance department performance standards and performed a benchmark to identify areas for improved planning performance.

Objective: Ensure that pending corrective action plans direct prompt and effective actions to address and preclude repetition of white performance issues.

Under this objective, the inspectors assessed the appropriateness and timeliness of the licensee’s planned corrective actions.

NRC Assessment: The inspectors concluded that this objective was Met. The licensee established one CAPR that addressed the root cause of insufficient details in the preventive maintenance job plan for EDG A. When complete, the NRC plans to inspect and assess the planned CAPR identified in Section a.

a. Planned Corrective Actions to Preclude Repetition

The licensee established one open CAPR that addressed the root cause of insufficient details in the preventive maintenance job plan for EDG A. The inspectors reviewed the plan for implementation and determined the licensee established an acceptable plan. The planned implementation date for the CAPR is December 18, 2025, and the CAPR will remain open pending further review by NRC inspectors.

Cause	CAPR
Root Cause	**Open CAPR 1:** CR-WF3-2024-04960-00017 Create and implement a mechanical maintenance safety-related continuous use procedure for replacement of the mechanical governor and governor linkage rod ends for EDGs (A and B). Ensure section 1.0 of the new procedure includes reference to this CAPR. Incorporate all vendor documents (TD-C629 series, TD-W290.0075, Woodward Manual 82340, and any other identified) including the implementation of vendor standards (torque values, locking compounds, configurations, and freedom of movement checks), listed steps and sequence of steps, troubleshooting methods, and include this root cause evaluation as operating experience. Intent: Create a standard for the replacement of the mechanical governor and rod ends for EDGs and to create consistent instructions for successful outcomes in all future evolutions.

b. Other Planned Corrective Actions

The inspectors reviewed a sample of other planned corrective actions (non-CAPRs) for each cause to determine the appropriateness and timeliness of the actions to correct each cause documented in condition report CR-WF3-2024-04960. The inspectors did not have any concerns with the planned corrective actions.

Cause	Corrective Action
Root Cause	The licensee planned actions to obtain higher quality vendor documents to enhance document searchability and visual clarity of drawings; actions for managers to review completed critical component work orders and provide feedback to the planning department; and actions to perform testing and inspection of governor linkages associated with components identified in the extent of condition review.
Contributing Cause	The licensee planned actions to perform a common cause evaluation of the issues identified by the contributing cause to determine why previous action plans did not result in sustained improvement in the maintenance organization’s standards.

Conclusion

Overall, the inspectors determined that the licensee's problem identification, causal analysis, and corrective actions sufficiently addressed the performance issue that led to the White finding regarding the failure to properly develop and implement adequate maintenance instructions for the fuel linkage connection to the mechanical governor for EDG A. All inspection objectives listed in Inspection Procedure 95001 were met, and this inspection is closed. The White finding and associated notice of violation will be closed and no longer considered as an action matrix input as of the date of the exit meeting. The open corrective action to preclude repetition will be inspected as part of the ongoing NRC baseline inspection program.

INSPECTION RESULTS

CAPR (Discussed)	Waterford 95001 CAPR CR-WF3-2024-04960-00017 Create and Implement a Mechanical Maintenance Procedure for Replacement of the Mechanical Governor for the Emergency Diesel Generators CAPR 05000382/2025040-01	95001
Description: Create and implement a mechanical maintenance safety-related continuous use procedure for replacement of the mechanical governor and governor linkage rod ends for emergency diesel generators (A and B). Ensure section 1.0 of the new procedure includes reference to this CAPR. Incorporate all vendor documents (TD-C629 series, TD-W290.0075, Woodward manual 82340, and any other identified) including the implementation of vendor standards (torque values, locking compounds, configurations, and freedom of movement checks), listed steps and sequence of steps, troubleshooting methods, and include this root cause evaluation as operating experience. Intent: Create a standard for the replacement of the mechanical governor and rod ends for emergency diesel generators and to create consistent instructions for successful outcomes in all future evolutions." The inspectors reviewed the plan for implementation of this CAPR and determined that the licensee established an acceptable plan. The licensee was tracking this CAPR in their corrective action program as CR-WF3-2024-04960-00017 and had planned to implement this CAPR by December 18, 2025, at the time of the onsite inspection. This CAPR will remain open pending further review.		

EXIT MEETINGS AND DEBRIEFS

The inspectors verified that no proprietary information was retained or documented in this report.

- On September 25, 2025, the inspectors presented the 95001 supplemental inspection results to David Oertling, General Manager Plant Operations, and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
95001	Corrective Action Documents	CR-WF3-	2020-03193, 2021-03144, 2023-00197, 2024-02159, 2024-03700, 2024-03809, 2024-04960, 2025-01498, 2025-03905, 2025-03919, 2025-03921, 2025-03928, 2025-04410, 2025-04439	
	Engineering Changes	0054260328	EDG Linkage Washer Installation Detail Update	0
	Miscellaneous	JA-PI-16	Sample Size Selection Guidance	1
		Job Plan 00062289	Emergency Diesel Generator B Engine Control Governor B Replacement	09/30/2025
		Job Plan 00062291	Emergency Diesel Generator A Engine Control Governor A Replacement	09/30/2025
		TD-C629.0045	Cooper Bessemer KSV Diesel Generator Nuclear Power Plant Emergency Stand-By Operation and Maintenance Manual	2
	Procedures	EN-DC-132	Control of Engineering Documents	14
		EN-DC-153	Preventive Maintenance Component Classification	24
		EN-LI-102	Corrective Action Program	55
		EN-LI-118	Causal Analysis Process	38
		EN-MA-106	Planning	8
		EN-WM-102	Work Implementation and Closeout	15
		EN-WM-105	Planning	23
		OP-009-002	Emergency Diesel Generator	363
	Self-Assessments	LO-WF3-2025-00072	Pre-Inspection Assessment Worksheet for IP 95001 Inspection	08/15/2025
	Work Orders	WO	54199975, 54240437	