



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

March 26, 2020

EA-17-132
EA-17-153

Mr. John A Ventosa
Chief Operating Officer
South Entergy Nuclear
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Mailstop Code: M-ECH-66
Jackson, MS 39213

**SUBJECT: GRAND GULF NUCLEAR STATION – NRC CONFIRMATORY ORDER
(EA-17-132 AND EA-17-153) FOLLOW-UP INSPECTION
REPORT 05000416/2020011**

**ARKANSAS NUCLEAR ONE, UNITS 1 AND 2 – NRC CONFIRMATORY
ORDER (EA-17-132 AND EA-17-153) FOLLOW-UP INSPECTION
REPORT 05000313/2020010 AND 05000368/2020010**

**RIVER BEND STATION – NRC CONFIRMATORY ORDER (EA-17-132 AND
EA-17-153) FOLLOW-UP INSPECTION REPORT 05000458/2020010**

**WATERFORD STEAM ELECTRIC STATION, UNIT 3 – NRC CONFIRMATORY
ORDER (EA-17-132 AND EA-17-153) FOLLOW-UP INSPECTION
REPORT 05000382/2020011**

Dear Mr. Ventosa:

On January 31, 2020, the U.S. Nuclear Regulatory Commission (NRC) reviewed Entergy's progress in implementing the actions contained in the Confirmatory Order, dated March 12, 2018 (NRC's Agencywide Documents Access and Management System (ADAMS) Accession No. ML18072A191) (EA-17-132 and EA-17-153). The team discussed the results of this inspection with you and other members of your staff on March 5, 2020. The team documented the results of this inspection in the enclosed inspection report.

The NRC's review focused on those Entergy fleet-wide Confirmatory Order actions that were required to be completed by December 31, 2019. The NRC team used Inspection Procedure 92702, "Follow-up on Traditional Enforcement Actions Including Violations, Deviations, Confirmatory Action Letters, Confirmatory Orders, and Alternative Dispute Resolution Confirmatory Orders." The inspection included a review of fleet-wide communications, root cause evaluations, corrective actions, and effectiveness reviews to address willful violations that have occurred across the Entergy Operations, Inc.'s fleet and prevent similar willful violations in the future. The attached report documents observations related to those actions.

Since the Confirmatory Order defines actions that are to occur over a 3-year period and there is time to make adjustments to the actions planned, the NRC intends to monitor your development and implementation of actions to comply with the requirements in the Confirmatory Order, including any changes made in response to the observations in this report, during future inspections. The team did not identify any findings or violations of more than minor significance.

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 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

/RA/

Michael C. Hay, Deputy Director
Division of Reactor Projects

Docket Nos. 05000313, 05000368,
05000382, 05000416, and 05000458

License Nos. DPR-51, NPF-6, NPF-29,
NPF-47, and NPF-38

Enclosure:
Inspection Reports 05000313/2020010,
05000368/2020010, 05000382/2020011,
05000416/2020011, and 05000458/2020010
w/attachment: Supplemental Information

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U.S. NUCLEAR REGULATORY COMMISSION

REGION IV

Dockets: 05000313, 05000368, 05000382, 05000416, and 05000458

Licenses: DPR-51, NPF-6, NPF-29, NPF-47, and NPF-38

Report Nos.: 05000313/2020010, 05000368/2020010, 05000382/2020011,
05000416/2020011, and 05000458/2020010

Licensee: Entergy Operations, Inc.

Facility: Entergy Headquarters (Echelon)

Dates: January 27 through March 5, 2020

Team Lead: D. Proulx, Senior Project Engineer

Inspectors: C. Peabody, Senior Resident Inspector, Palo Verde

Approved By: J. Kozal
Chief, Project Branch C
Division of Reactor Projects

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensees' performance by conducting a follow-up inspection at the Entergy Operations, Inc., Headquarters in Jackson, Mississippi, 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.

The inspection activities described in this report were performed between January 27, 2020, and March 5, 2020, by inspectors from the NRC's Region IV office. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," dated July 2016.

The team reviewed the actions due to be completed by December 31, 2019, as required by the Confirmatory Order (EA-17-132 and EA-17-153). The team had several observations with respect to the fleet-wide implementation of the actions.

No findings were identified.

REPORT DETAILS

4. OTHER ACTIVITIES (OA)

4OA5 Other Activities

Confirmatory Order Follow-up (IP 92702)

a. Background

In November 2017, the NRC proposed three traditional enforcement apparent violations involving willfulness, which were associated with general employee training examination proctoring and falsification of non-licensed operator rounds at Grand Gulf Nuclear Station. An alternative dispute resolution (ADR) mediation was conducted on February 6, 2018. A Confirmatory Order (CO) (Agencywide Documents Access and Management System (ADAMS) Accession No. ML18072A191) (EA-17-132 and EA-17-153) was issued on March 12, 2018, which contained actions to be implemented fleet-wide by Entergy as agreed upon during ADR. These actions included commitments to conduct fleet-wide communications to employees at all Entergy sites, training, causal evaluations, and organizational health surveys.

On January 7-10, 2019, the NRC conducted an initial inspection using Inspection Procedure 92702 to assess the licensee's actions to comply with the CO, with emphasis on actions due to be completed by December 31, 2018, and reviewing samples of actions implemented at Entergy South plants. The team had several observations with respect to Entergy's implementation of the order, as documented in NRC Inspection Report Nos. 05000313/2019014, 05000368/2019014, 05000382/2019012, 5000416/2019012, and 05000458/2019013 (ADAMS Accession No. ML19094B867).

On January 27-31, 2020, the NRC conducted a second interim inspection using Inspection Procedure 92702 to assess the licensee's actions to comply with the CO, with emphasis on actions due to be completed by December 31, 2019, and reviewing samples of actions implemented at Entergy South plants. The team had several observations with respect to Entergy's implementation of the order, but noted that Entergy has made progress in completing the actions required by the order.

b. Confirmatory Order Items

The team reviewed the following CO elements that were due for completion by December 31, 2019:

.1 Communications with Site Workers

A. Element A

Within 1 month of the issuance date of the Confirmatory Order, a licensee senior executive at each Entergy site and the corporate nuclear headquarters will communicate with workers the circumstances leading

to this Confirmatory Order, that willful violations will not be tolerated, and, as a result, Entergy will be undertaking efforts to confirm whether others are engaging in such conduct at any of its sites. The communication will stress the importance of procedural adherence, ensuring that documents are complete and accurate, and of potential consequences for engaging in willful violations. This message will be balanced with the recognition that people do make mistakes and when that happens, it is Entergy's expectation that its employees and contractors will identify and document issues accordingly.

.1 Observations

During the January 2019 first CO inspection, the team had several observations with respect to implementation of communications. In a letter to the NRC, dated March 21, 2019 (CNRO-2019-00013), Entergy committed to a number of improvements in the implementation, tracking, and effectiveness reviews of communications. These improvements are discussed in detail in Section 4OA5.b.1.B of this report.

.2 Status

Element A of the CO is closed.

B. Element B

Within 6 months of the completion of Element A, Entergy will conduct semiannual communications with workers in the Entergy fleet reemphasizing its intolerance of willful misconduct and updating the workforce on the status of compliance with this Confirmatory Order until December 31, 2019. Starting in 2020, Entergy will conduct annual training emphasizing its intolerance of willful misconduct.

.1 Observations

During the January 2019 first CO inspection, the team had several observations with respect to implementation, tracking, and verifying effectiveness of communications required by Element B of the CO. In a letter to the NRC, dated March 21, 2019 (CNRO-2019-00013), Entergy committed to a number of improvements in the implementation, tracking, and effectiveness reviews of communications as follows:

Entergy developed a plan to strengthen documentation of the two remaining required semiannual integrity communications. The plan includes the utilization of the Entergy Tier 2 Communication process to ensure that the communications are delivered in a timely manner. Tier 2 communications are cascaded down to employees through various meetings and forums. Entergy will record the receipt and acknowledgement of these communications for future traceability.

The team reviewed the Tier 2 communications completed in March and September of 2019 to meet these commitments. The inspectors noted that the applicable work groups held team meetings in question and answer sessions as well as receiving emails with a video from the Entergy chief operating officer. The team reviewed the records certifying completion of these communications and verified that Entergy had over a 97 percent participation in the training.

During the previous CO inspection, the team noted that Entergy performed a pulse survey to determine if the messages concerning the unacceptability of willful misconduct were received and internalized. Because of the very low response rate, and because a small percentage of those surveyed could recall the communications, the team questioned if this survey provided meaningful data as to the efficacy of the communications. As a result, in a letter to the NRC, dated March 21, 2019 (CNRO-2019-00013), Entergy committed to the following:

Entergy will conduct surveys to ensure the integrity messages have been received and understood. Entergy will modify its corrective actions, as needed, based on the results of the effectiveness reviews.

The team reviewed Entergy's surveys to ensure the integrity messages have been received and understood. Entergy sampled 150 employees each, from all seven Entergy sites. At each of the sites, over 90 percent of the respondents recalled the Tier 2 communications and understood the message, a considerable improvement from the 2018 pulse survey.

The September 2019 Tier 2 communication was the final semiannual communication to workers in the Entergy fleet required by Element B of the CO. The team concluded that Entergy had effectively communicated the message that Entergy was intolerant of willful misconduct.

In addition, the team reviewed the implementation of Entergy's annual training to emphasize its intolerance of willful misconduct. This item was implemented by a computer-based training (CBT) module in December 2019. Entergy added this training to the training profiles of all Entergy employees and contractors. The CBT is automatically updated to be scheduled each year following the employees' completion. The team verified that 96 percent of Entergy employees had completed the annual integrity CBT as of the time of the inspection. Satisfactory completion of this CBT on an annual basis is tied to maintaining site access. The team observed Entergy corporate personnel performing this training to verify that the training module and controls worked as intended. The team reviewed Entergy's controls over the annual CBT and determined that they were sufficient to ensure employees receive this training and completion is properly tracked.

The team reviewed the content of the CBT and determined that it was sufficiently adequate to communicate Entergy's intolerance of willful misconduct. However, the team had the following two observations with respect to the content:

- In April 2019, the NRC issued Severity Level III Violations to River Bend and Waterford involving non-licensed operators (NLOs) failing to complete operator rounds and falsifying documentation. The NRC stated that five NLOs at River Bend and nine NLOs at Waterford committed willful violations of NRC requirements in these citations. Entergy did not dispute these conclusions.
- The CBT stated that one NLO at River Bend committed a willful violation as opposed to the five cited by the NRC.
- The CBT stated that all employees found to have committed willful violations were terminated. Although Entergy took disciplinary action against the NLOs cited in the enforcement actions against River Bend and Waterford, most of them were not terminated.

.2 Conclusions

The team concluded that Entergy had effectively implemented the semiannual communications required by Element B through the Tier 2 communications. The team concluded that Entergy adequately implemented the annual training in a traceable and repeatable manner. However, the team noted two discrepancies involving the content of the annual CBT. Entergy Corporate initiated Condition Report CR-HQN-2020-00206 to document the team's observations.

.3 Status

Element B will remain open until final closure of the CO to ensure that the annual CBT on integrity remains in place.

.2 Causal Evaluations of Previous Corrective Actions to Deter Willful Violations

A. Element C

Within 6 months of the issuance date of the Confirmatory Order, Entergy will perform a causal evaluation, informed by site evaluations, to determine why prior fleet-wide corrective actions from confirmatory orders and other willful violations issued after January 1, 2009, were not fully successful in preventing or minimizing instances of willful misconduct across the fleet. The causal evaluation will include the following elements:

- 1. Problem identification**
- 2. Root cause, extent of condition (including an assessment of work groups that perform NRC regulated activities to determine whether those workers are engaging in willful misconduct), and extent of cause evaluation**
- 3. Corrective actions, with timeframe for their completion**

4. Safety culture attributes

.1 Observations

During the first confirmatory inspection, the team had a number of observations with respect to the implementation of Element C as follows:

The team concluded that the root cause evaluations identified appropriate root and contributing causes. The corrective actions from the root cause analysis for why prior fleet-wide corrective actions from other willful violations were not fully successful in preventing or minimizing instances of willful misconduct across the fleet emphasized process changes and detection rather than prevention. The prevention actions are expected to be realized through the procedure and process changes by communicating that instances of willful misconduct will not be tolerated, and the probability of detection is high and the consequences potentially high.

There are a large number of specific actions to address NLOs and examination proctors, which is appropriate. It is apparent, however, that other organizations are not receiving as much attention. This places significant importance on the audit results and EOI's [Entergy Operation, Inc.'s] ability to use the audit findings to identify whether additional corrective actions are needed for other groups. The results of the audits are required by the CO to be shared within the department, but in some instances the team was not provided with information to demonstrate that audit results were shared, or that audit results were reported to a central owner to assess for changes or enhancements. Based on the team's questioning, it was determined that Entergy Corporate had not yet determined the process by which the audit results would be used to determine the effectiveness of the corrective actions.

The CAPRs focus on operations and examination proctors, but the CO is associated with willful misconduct fleet-wide. This shows a misalignment between the problem statements for the cause evaluations and the CO. However, the team noted that the contributing causes were frequently better aligned with the CO.

In response to these observations, Entergy Operation, Inc., submitted letter CNRO-2091-00013, dated March 21, 2019, which stated the following:

Entergy performed causal analyses related to gaps in meeting integrity standards, which included extent of

condition reviews for work groups that perform NRC regulated activities, to determine if individuals from those work groups engaged in willful misconduct. This review did not identify additional instances of workers engaging in willful misconduct. In addition, plans were developed to conduct quarterly audits of activities performed by these work groups.

The team reviewed the revised root cause corrective actions and extent of condition. The team concluded that Entergy appropriately implemented the comments of the previous CO inspection into the root cause evaluation. The corrective action plans to prevent reoccurrence (CAPRs) appeared to be aligned with the causal analysis. One of Entergy's primary root causes of the reasons why prior fleet-wide corrective actions from COs and other willful violations were not fully successful in preventing or minimizing instances of willful misconduct across the fleet was that willful misconduct was treated at each site as a confidential human resources issue, and not in the corrective action or operating experience programs. Thus, Entergy created the confidential corrective action program to enter integrity issues into the corporate corrective action program so that issues of willful misconduct could be more readily shared throughout the fleet. The effectiveness and implementation of the confidential corrective action program is discussed in Element F of this report and was found to be initially ineffective in disseminating operating experience with respect to willful misconduct.

The team concluded that the extent of condition reviews generally identified the appropriate groups to be included in integrity audits. However, the team had the following observations with respect to the extent of condition reviews:

- The extent of condition mentions "training," but only with respect to validating that proctors are not providing inappropriate assistance during written or computer-based exams. The extent of condition did not consider auditing on-the-job training or job performance measures in the plant to ensure that the credited items on qualification cards were in fact performed.

.2 Conclusions

Entergy implemented revisions to the initial root cause analyses to address the team's comments from the first 2019 CO inspection. The extent of condition reviews generally included appropriate groups to perform integrity audits. The extent of condition review for training deficiencies did not include qualification cards/on-the-job training. Entergy Corporate initiated Condition Report CR-HQN-2020-00201 to document the team's observations.

.3 Status

Element C of the CO remains open, pending further review of implementation of the confidential corrective action program and extent of condition.

B. Element E

For the Grand Gulf Nuclear Station, the evaluation described in Element C will address the three violations that are the subject of this ADR mediation session (refer to the NRC's letter, dated November 20, 2017).

.1 Observations

During the first CO inspection, the team had several observations concerning the Grand Gulf site specific root cause evaluation. The licensee's root cause evaluation for the GET proctor inappropriately providing examination answers provided a well-supported analysis of the causes and appropriate corrective actions. The team concluded that the root cause evaluations for the specified issues of willful misconduct of NLOs at Grand Gulf identified details which were indicative of a lack of supervision and field presence, but these were not considered as causal factors. The Grand Gulf evaluation report was revised to match a fleet-level evaluation despite the requirement to have a site-specific evaluation for Grand Gulf, and the corrective actions were revised in a manner that appears to have potentially reduced their effectiveness.

In response to these observations, Entergy reviewed the Grand Gulf site specific root cause analysis and revised as appropriate. The licensee augmented the corrective actions to reflect the revisions. The team concluded that Entergy's actions with respect to Element E were appropriate to implement the requirements of the CO.

.2 Conclusions

Entergy's actions with respect to Element E were appropriate to implement the requirements of the CO. Specifically, Entergy implemented revisions that adequately addressed the NRC's concerns from the first CO inspection.

.3 Status

Element E of the CO is closed.

C. Element F

Corrective actions identified as a result of the above evaluations will be implemented within 18 months of completion of the evaluation unless they involve a plant modification.

.1 Observations

The team observed that Entergy initiated several corrective actions to address the root and contributing causes of the fleet-wide failure to prevent repeat instances of willful misconduct. These included procedure revisions, integrity audits, training, communications, and the initiation of the confidential CAP. The team verified that these actions committed to address the root and contributing causes were completed and that Entergy maintained quality records for verification.

The team noted that one of the contributing causes of the issues of willful misconduct by non-licensed operators was that non-licensed operators were given the unintended message that operator rounds were not important. The team noted that the procedure that governs operator rounds, Procedure EN-OP-115-01, "Control Room and Field Operator Rounds," Revision 4, did not contain any precautions, limitations, or introductory notes emphasizing that complete and accurate operator logs were of the utmost importance to an operator's shift duties.

Procedure EN-LI-102, "Corrective Action Program," Revision 39, was revised to include Attachment 10, "Oversite of Evaluations for Willful Violations of NRC Requirements," for the fleet corrective action programs. This procedure directed the condition report screening groups to consider a set of questions that could be indicative of willful misconduct and, thus, initiate an entry into the confidential CAP. Since the inception of the confidential CAP, Entergy has several items to be evaluated, indicating that the use of this system had been effectively disseminated throughout the fleet.

However, the team noted that the confidential CAP had issues with implementation. As verified by the Entergy effectiveness reviews, many of the evaluations were not timely. This was as a result of fleet sites completing site causal evaluations of condition reports prior to entering the issues into the confidential CAP. As a result, the sharing of operational experience between fleet sites for the types of issues resulting in willful misconduct did not happen before several months had ensued. Additionally, Entergy questioned the quality of some of the evaluations and lack of detail to justify the conclusions.

The team also noted that the confidential CAP had no requirement or provisions for notification to the NRC. Although not required by regulation, timely notification of the NRC is a mitigating factor in enforcement actions for issues of willful misconduct. Entergy acknowledged this observation and initiated corrective action to develop reporting requirements to the NRC for the confidential CAP.

The team also determined that the confidential CAP did not have a provision to evaluate the issues for any trends or the impact of the volume of issues of willful misconduct. Entergy did identify that, besides the past misconduct issues with individuals acting alone, the confidential CAP contained issues in which multiple individuals contributed to acts of willful misconduct. These types of issues were added to the scope of the integrity audits.

.2 Conclusions

Entergy Corporate initiated condition reports CR-HQN-2020-00198, -00205, -00208, and -00214 to document the team's observations.

.3 Status

Element F of the CO remains open. This element will remain open until Entergy completes their third required annual effectiveness review in December 2021 and implements those corrective actions deemed necessary as a result of the effectiveness reviews.

.3 Effectiveness Reviews of Corrective Actions

A. Element D

Entergy will identify specific criteria necessary to perform annual effectiveness reviews of the corrective actions. The annual effectiveness reviews will include insights from fleet and individual site performance. Entergy will perform annual effectiveness reviews for 3 years. Entergy will modify its corrective actions, as needed, based on the results of the annual effectiveness reviews.

.1 Observations

The team reviewed all of the root cause evaluations performed at the affected sites and corporate headquarters. The inspectors identified eight unique root and contributing causes that would be subject to effectiveness measures and reviews. The remaining causes were determined to be duplicates or historical factors that are no longer indicative of current licensee performance.

Six of the eight causes had effectiveness reviews in place, specifically:

- The Entergy fleet did not have adequate methods in place to prevent and detect deliberate misconduct.
- Entergy fleet leadership failed to detect that the significant integrity events that occurred between 2011 and 2014 were representative of a larger fleet concern rather than the result of individual actions alone.
- Entergy had the cultural perception that willful misconduct aspects of events should be addressed outside of the corrective action program.
- Entergy Investigations Oversight Charter and Nuclear Safety Culture Monitoring did not include specific roles, inputs, structure and outputs to ensure timely identification of a larger fleet concern related to willful misconduct.

- Fleet Procedure EN-OE-100, “Operating Experience Program,” Revision 27, provided only a recommendation to consider sharing NRC violations as operating experience within the fleet.
- Performance management processes were not effectively utilized to address previous human performance errors and inappropriate behavior of individuals engaging in deliberate misconduct.

The team determined that the effectiveness measures performed thus far were effective in verifying that causes had been addressed in full, or when deltas were encountered, that appropriate actions were taken within the CAP, and future iterations of the effectiveness measures were scheduled appropriately. Future NRC inspections will continue to review these effectiveness reviews to ensure their continued effectiveness prior to the closure of the CO.

Two of the eight causes did not have any effectiveness reviews in place, specifically:

- Shift leaders unintentionally sent the message that rounds were less important than other shift activities by elevating the importance of competing tasks without reinforcing the priority of rounds.
- Operations leaders unintentionally sent the message to NLOs that the consequences for poor decisions and poor performance would be low.

The team acknowledged that both of these causes could likely be joined into a more general cause statement that Entergy leaders did not effectively communicate priorities and standards to their subordinates.

The effectiveness review for corrective actions for Entergy having the cultural perception that willful misconduct aspects of events should be addressed outside of the CAP was thorough and self-critical. Entergy effectiveness reviews determined that the confidential CAP, initiated to share willful misconduct issues throughout the fleet, was ineffective in that the confidential CAP had indications of poor timeliness, quality, and sharing of operational experience. Entergy initiated additional corrective actions to alleviate these shortcomings. The team could not assess the effectiveness of the additional corrective actions in that they had not been in place for a relevant period of time.

The confidential CAP had several substantiated instances of willful misconduct since its initiation in 2018 and several cases that were pending. Entergy’s effectiveness reviews did not consider the volume and or type of new instances in their reviews to determine if the corrective actions in total have had the desired effect.

Two additional rounds of effectiveness measures are scheduled in accordance with the CO to be completed by December 2020 and December 2021. The NRC plans to assess the effectiveness measures in

place for all identified causes during the next inspection in order to support closure of this CO item.

.2 Conclusions

Effectiveness reviews were generally self-critical and thorough in identifying enhancements to the corrective action plans. Entergy did not have effectiveness reviews planned for corrective actions for two of the contributing causes. Entergy's effectiveness reviews did not consider the volume of instances of willful misconduct as an effectiveness measure. Entergy Corporate initiated Condition Report CR-HQN-2020-00207 to document the team's observations.

.3 Status

Element D of the CO remains open. This element will remain open until Entergy completes their third required annual effectiveness review in December 2021 following NRC review.

.4 Organizational Health Survey

A. Element G

Within 12 months of the issuance date of the Confirmatory Order, the Grand Gulf Nuclear Station, as well as all Entergy fleet sites, will conduct an organizational health survey developed by a third-party and designed, in part, to identify safety culture concerns that could contribute to willful misconduct.

.1 Observations

Entergy performed the first organizational health survey in July of 2018 (prior to the March 2019 due date). The team reviewed the scope and the quality of the questions in the organizational health index (OHI) to ensure that safety culture concerns could be identified. The team determined that the specific questions regarding deliberate misconduct were appropriate and likely would identify high priority work groups that pose potential safety culture concerns. The survey results identified security and engineering as priority groups and took appropriate action to monitor these areas.

.2 Conclusions

The first organizational health survey conducted in July 2018 appropriately identified site and individual groups that had lower positive responses and monitored the groups for potential safety culture concerns.

.3 Status

Element G of the CO is closed.

B. Element H

A second organizational health survey will be conducted within 18 months of the survey in Element G.

.1 Observations

The team reviewed the results of the most recent survey to verify that it would, in part, identify potential safety culture concerns that could contribute to willful misconduct, that was conducted in July of 2019.

The team determined that the specific questions regarding deliberate misconduct were appropriate and likely would identify high priority work groups that pose potential safety culture concerns. Both iterations of the organizational health survey did in fact identify high priority groups such as security and engineering. The team observed that in some cases, the director or manager of the high priority groups in the survey were assigned the task of deeper reviews of the safety culture of the group, which may affect their independence in reviewing the safety culture of their group.

While the licensee's corrective actions did well in their targeted areas of addressing deliberate misconduct, the survey also provided some general observations:

- Nuclear employees generally have the lowest overall scores throughout the company.
- Significant disconnect between leader responses and line worker responses when asked the same question.
- Mid-career employees have significantly lower scores than both older and newer employees.
- Growing disparity between respondent counterparts at different power plant locations.
- Overall scores are continuing to improve year over year.

While the licensee is not obligated to address these items under the CO, they did provide additional insights into potential cultural issues. However, the inspectors did observe targeted improvement in the areas that Entergy applied themselves. The team determined that the OHI appeared to identify high priority safety culture groups effectively.

.2 Conclusions

The second organizational health survey appeared to identify high priority safety culture groups effectively and provided data to take action to preclude safety culture issues leading to willful misconduct. The team noted lower priority disparities in OHI survey responses that Entergy had not acted upon..

Entergy Corporate initiated Condition Reports CR-HQN-2020-00180 and - 00197 to document the team's observations.

.3 Status

Element H of the CO is closed.

C. Element I

If safety culture concerns are identified through the survey, Entergy will document and initiate corrective actions within 2 months of the concern identification to mitigate the likelihood of willful misconduct occurring.

.1 Observations

The OHI surveys identified high priority groups (such as security and engineering) throughout the company. Affected groups have been informed timely and actions have been taken to mitigate safety culture issues that could present an increased likelihood for deliberate misconduct. Many of the groups identified in 2018 showed improvement on the 2019 survey.

.2 Conclusions

The OHI surveys have identified high priority groups and actions have been taken to mitigate safety culture issues that could present an increased likelihood for deliberate misconduct.

.3 Status

Element I of the CO is closed.

.5 Notifications to the NRC When Actions Are Completed

A. Element J

Within 1 month of completion of Element C, Entergy will submit written notification to the appropriate Regional Administrators.

.1 Observations

Based on the completion date of Element C of August 28, 2018, the written notification to the Regional Administrators was due on September 28, 2018. On September 27, 2018, Entergy submitted letters to the regional administrators documenting completing Element C of the CO. Entergy Operations, Inc., submitted a timely and complete letter to comply with Element J of the CO.

.2 Status

Element J of the CO is closed.

B. Element K

By December 31 of each calendar year from 2018 through 2020, Entergy will provide in writing to the appropriate regional administrators a summary of the actions implemented across the fleet as a result of this Confirmatory Order and the results of any effectiveness reviews performed.

.1 Observations

On December 28, 2018, Entergy submitted letters to the NRC regional administrators summarizing the actions taken across the fleet and results of any effectiveness reviews performed during calendar year 2018.

On December 30, 2019, Entergy submitted the second required letters to the NRC regional administrators with a summary of actions completed and the results of the effectiveness reviews. The team noted that the letters were complete, timely, and contained self-critical results in the effectiveness reviews.

Entergy Operations, Inc., submitted timely and complete letters to comply with Element J of the CO in 2018 and 2019.

.2 Conclusions

The Entergy Operation, Inc., letters to the regional administrators to discuss the fleet-wide actions were timely and contained specific details about items that had been completed and contained self-critical results.

.3 Status

Element K of the CO remains open and will be ready for final review after Entergy submits the final letter required by Element K to the regional administrator in December 2020.

4OA6 Meetings, Including Exit

Exit Meeting Summary

On March 5, 2020, the team presented the inspection results to Mr. John Ventosa, and other members of the Entergy Operation, Inc., staff. The licensee acknowledged the issues presented. The licensee confirmed that any proprietary information reviewed by the inspectors had been returned or destroyed.

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Entergy Operations Inc. Personnel

R. Gaston, Director, Regulatory Assurance
J. Nadeau, Senior Staff Engineer – Regulatory Assurance
J. Hennen, Fleet Corrective Action Program and Operating Experience Specialist

NRC

M. Hay, Deputy Director, Division of Reactor Projects
J. Kozal, Chief, Reactor Project Branch C, Division of Reactor Projects
J. Dixon, Chief, Reactor Project Branch D, Division of Reactor Projects

LIST OF CONFIRMATORY ORDER ELEMENTS CLOSED AND DISCUSSED

Closed

Communications with Site Workers

Element A (Section 4OA5.b.1.A)

Causal Evaluation of Previous Corrective Actions to Deter Willful Violations

Element C (Section 4OA5.b.2.A)

Element E (Section 4OA5.b.2.B)

Organizational Health Survey

Element G (Section 4OA5.b.4.A)

Element H (Section 4OA5.b.4.B)

Element I (Section 4OA5.b.4.C)

Notifications to the NRC When Actions Are Completed

Element J (Section 4OA5.b.5.A)

Discussed

Communications with Site Workers

Element B (Section 4OA5.b.1.B)

Causal Evaluation of Previous Corrective Actions to Deter Willful Violations

Element F (Section 4OA5.b.2.C)

Effectiveness Reviews of Corrective Actions

Element D (Section 4OA1.b.3.A)

Notifications to the NRC When Actions Are Completed

Element K (Section 4OA5.b.5.B)

LIST OF DOCUMENTS REVIEWED

Section 40A5: Other Activities

Condition Reports

CR-HQN-

2017-00300	2017-01968	2018-00578	2018-01210	2018-02277
2019-00039	2019-00051	2019-00052	2019-00056	2019-00057
2019-00184	2020-00180	2020-00197	2020-00198	2020-00201
2020-00205	2020-00206	2020-00207	2020-00208	2020-00214

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
EN-OP-104	Operability Determination Process	11
EN-OP-100	Operating Experience Program	27, 25
EN-LI-102	Corrective Action Program	39
EN-OP-115	Conduct of Operations	25
EN-OP-115-01	Control Room and Field Operator Rounds	4
EN-OP-117	Operations Assessment Resources	15
EN-FAP-OM-011	Corporate Oversight Model,	15
EN-HU-105	Human Performance – Managed Defenses	17
EN-LI-104	Self-Assessment and Benchmark Process	12
EN-LI-106	NRC Correspondence	16
EN-LI-118	Casual Evaluation Process	28
EN-LI-123-A6	Project Review Board Guide	3
EN-MA-105	Control of Measuring and Test Equipment	14
EN-NS-221	Security Organization, Standards and Expectations	11
EN-OE-100	Operating Experience Program	27
EN-PL-100	Nuclear Excellence Model	8
EN-QV-136	Nuclear Safety Culture Monitoring	16

Miscellaneous

<u>Number</u>	<u>Title</u>	<u>Revision Date</u>
CNRO 2018-00051	CO Summary Validation Package	0
	Functional Area Audit Results	
	CNO and Site Vice President Communications on Integrity	March 27, 2018
	Willful Misconduct Survey Questions	
	Integrity Pulse Survey Results	
	Summary of Trust-But-Verify Audits - First and Second Quarterly Audit	
	PCRS "Super-User" Function / Activities Audit	January–May 2018

GRAND GULF NUCLEAR STATION – NRC CONFIRMATORY ORDER (EA-17-132 AND EA-17-153) FOLLOW-UP INSPECTION REPORT 05000416/2020011; ARKANSAS NUCLEAR ONE, UNITS 1 AND 2 – NRC CONFIRMATORY ORDER (EA-17-132 AND EA-17-153) FOLLOW-UP INSPECTION REPORT 05000313/2020010 AND 05000368/2020010; RIVER BEND STATION – NRC CONFIRMATORY ORDER (EA-17-132 AND EA-17-153) FOLLOW-UP INSPECTION REPORT 05000458/2020010; WATERFORD STEAM ELECTRIC STATION, UNIT 3 – NRC CONFIRMATORY ORDER (EA-17-132 AND EA-17-153) FOLLOW-UP INSPECTION REPORT 05000382/2020011 - March 26, 2020

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 By: DProulx ☒ Yes ☐ No ☒ Publicly Available ☐ Sensitive NRC-002

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