



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

February 7, 2014

Mr. Michael Chisum
Vice President, Operations
Entergy Operations, Inc.
Waterford Steam Electric Station, Unit 3
Killona, LA 70057-0751

**SUBJECT: WATERFORD STEAM ELECTRIC STATION, UNIT 3 – NRC INTEGRATED
INSPECTION REPORT 05000382/2013005**

Dear Mr. Chisum:

On December 31, 2013, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Waterford Steam Electric Station, Unit 3, facility. On January 17, 2014, the NRC inspectors discussed the results of this inspection with you and other members of your staff. Inspectors documented the results of this inspection in the enclosed inspection report.

NRC inspectors documented one finding of very low significance (Green) in this report. The finding involved a violation of NRC requirements. Further, inspectors documented a licensee-identified violation which was determined to be of very low safety significance. The NRC is treating this violation as a non-cited violation (NCV) consistent with Section 2.3.2.a of the Enforcement Policy.

If you contest the violation or significance of the NCV, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region IV; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC resident inspector at the Waterford Steam Electric Station, Unit 3, facility.

If you disagree with a cross-cutting aspect assignment in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region IV; and the NRC resident inspector at the Waterford Steam Electric Station, Unit 3, facility.

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390, "Public Inspections, Exemptions, Requests for Withholding," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC's Public Document Room or from the Publicly Available Records (PARS) component of the

M. Chisum

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Sincerely,

/RA/

Gregory E. Werner, Acting Chief
Project Branch E
Division of Reactor Projects

Docket Nos.: 50-382
License Nos: NPF-38

Enclosure: Inspection Report 05000382/2013005
w/Attachment: Supplemental Information

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U.S. NUCLEAR REGULATORY COMMISSION

REGION IV

Docket: 05000382

License: NPF-38

Report: 05000382/2013005

Licensee: Entergy Operations, Inc.

Facility: Waterford Steam Electric Station, Unit 3

Location: 17265 River Road
Killona, LA 70057

Dates: October 1 through December 31, 2013

Inspectors: M. Davis, Senior Resident Inspector
C. Speer, Resident Inspector
A. Fairbanks, Resident Inspector
I. Anchondo, Senior Reactor Inspector
J. Laughlin, Emergency Preparedness Inspector, NSIR
G. Guerra, CHP, Emergency Preparedness Inspector
J. Beavers, Emergency Preparedness Inspector, RIII
S. Hedger, Operations Inspector
J. Braisted, Reactor Inspector
C. Cowdrey, Operations Inspector

Approved By: G. Werner, Acting Chief
Project Branch E
Division of Reactor Projects

SUMMARY

IR 05000382/20130005; 10/01/2013 – 12/31/2013; Waterford Steam Electric Station, Unit 3; Integrated Resident and Regional Report and Emergency Preparedness.

The inspection activities described in this report were performed between October 1, 2013, and December 31, 2013, by the resident inspectors at Water Steam Electric Station, Unit 3, and eight inspectors from the NRC's Region IV office and other NRC offices. One finding of very low safety significance (Green) are documented in this report. This finding involved a violation of NRC requirements. Additionally, NRC inspectors documented in this report one licensee-identified violation of very low safety significance. The significance of inspection findings is indicated by their color (Green, White, Yellow, or Red), which is determined using Inspection Manual Chapter 0609, "Significance Determination Process." Their cross-cutting aspects are determined using Inspection Manual Chapter 0310, "Components Within the Cross-Cutting Areas." Violations of NRC requirements are dispositioned in accordance with the NRC's Enforcement Policy. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process."

Cornerstone: Emergency Preparedness

- Green. The inspectors identified a non-cited violation of 10 CFR Part 50.47(b)(14) for the failure to identify deficiencies resulting from the licensee's 2013 biennial evaluated exercise. Specifically, the licensee did not identify as part of the critique process two examples of failure to provide a range of protective actions for emergency workers. First, actions were not taken to minimize radiological dose for one in-plant repair team; second, the licensee did not perform habitability evaluations to determine the suitability for continued use of emergency response facilities during the simulated radiological emergency. This violation was entered into the licensee's corrective action program as Condition Reports CR-WF3-2013-5895 and CRWF3-2013-5905.

The failure to identify weaknesses occurring in an exercise is a performance deficiency. The performance deficiency is more than minor because it is associated with the emergency response organization performance attribute of the emergency preparedness cornerstone and it adversely impacted the objective of ensuring that the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. In addition, if left uncorrected, continuing these behaviors could result in unnecessary radiological dose to emergency workers and the public in an actual event. Using NRC Inspection Manual Chapter 0609, Appendix B, "Emergency Preparedness Significance Determination Process (SDP)," the finding was determined to have very low safety significance (Green). The finding had a cross-cutting aspect in the corrective action program component of the problem identification and resolution cross-cutting area because the licensee failed to thoroughly evaluate two issues during the exercise critique process [P.1(c)] (Section 1EP1).

Licensee-Identified Violations

A violation of very low safety significance that was identified by the licensee has been reviewed by the inspectors. Corrective actions taken or planned by the licensee have been entered into the licensee's corrective action program. This violation and associated corrective action tracking numbers are listed in Section 4OA7 of this report.

PLANT STATUS

The Waterford Steam Electric Station, Unit 3, began the inspection period at 100 percent power. On December 5, 2013, operators lowered the reactor to approximately 98.5 percent to perform testing on the turbine inlet valves. On December 6, 2013, operators raised power to 100 percent. On December 9, 2013, operators commenced a reactor down power to approximately 97.5 percent to perform maintenance on the feedwater heater drain pump C. On December 10, 2013, operators raised power to 100 percent and maintained 100 percent power for the remainder of the inspection period.

REPORT DETAILS

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01)

Readiness for Seasonal Extreme Weather Conditions

a. Inspection Scope

On October 5, 2013, the inspectors completed an inspection of the station's readiness for seasonal extreme weather conditions. The inspectors reviewed the licensee's adverse weather procedures for hurricane season and evaluated the licensee's implementation of these procedures. The inspectors verified that prior to the onset of Tropical Storm Karen on October 5, 2013, the licensee corrected weather-related equipment deficiencies identified during the previous hurricane season.

The inspectors selected one risk-significant system that was required to be protected for the hurricane season:

- 4160 volt system transformers

The inspectors reviewed the licensee's procedures and design information to ensure the components would remain functional when challenged during hurricane season. The inspectors verified that operator actions described in the licensee's procedures were adequate to maintain readiness of these systems. The inspectors walked down portions of these systems to verify the physical condition of the hurricane protection features.

These activities constituted one sample of readiness for seasonal adverse weather, as defined in Inspection Procedure 71111.01.

b. Findings

No findings were identified.

1R04 Equipment Alignment (71111.04)

.1 Partial Walkdown

a. Inspection Scope

The inspectors performed partial system walk-downs of the following risk-significant systems:

- On October 28, 2013, emergency feedwater train AB during planned maintenance on train A
- On November 19, 2013, component cooling water train A with train B being out of service for scheduled testing
- On November 26, 2013, low pressure safety injection train B with train A being out of service for scheduled testing

The inspectors reviewed the licensee's procedures and system design information to determine the correct lineup for the systems. They visually verified that critical portions of the systems were correctly aligned for the existing plant configuration.

These activities constituted three partial system walk-down samples as defined in Inspection Procedure 71111.04.

b. Findings

No findings were identified.

.2 Complete Walkdown

a. Inspection Scope

On October 23, 2013, the inspectors performed a complete system walk-down inspection of the essential chilled water system. The inspectors reviewed the licensee's procedures and system design information to determine the correct essential chilled water lineup for the existing plant configuration. The inspectors also reviewed outstanding work orders, open condition reports, in-process design changes, temporary modifications, and other open items tracked by the licensee's operations and engineering departments. The inspectors then visually verified that the system was correctly aligned for the existing plant configuration.

These activities constituted one complete system walk-down sample, as defined in Inspection Procedure 71111.04.

b. Findings

No findings were identified.

1R05 Fire Protection (71111.05)

.1 Quarterly Inspection

a. Inspection Scope

The inspectors evaluated the licensee's fire protection program for operational status and material condition. The inspectors focused their inspection on four plant areas important to safety:

- On October 10, 2013, reactor auxiliary building, fire area 19, component cooling water pump A
- On November 14, 2013, reactor auxiliary building, fire area 11, battery room 3B
- On November 14, 2013, reactor auxiliary building, fire area 8B, switchgear room B
- On November 21, 2013, reactor auxiliary building, fire area 19, diesel oil storage tank B

For each area, the inspectors evaluated the fire plan against defined hazards and defense-in-depth features in the licensee's fire protection program. The inspectors evaluated control of transient combustibles and ignition sources, fire detection and suppression systems, manual firefighting equipment and capability, passive fire protection features, and compensatory measures for degraded conditions.

These activities constituted four quarterly inspection samples, as defined in Inspection Procedure 71111.05.

b. Findings

No findings were identified.

1R06 Flood Protection Measures (71111.06)

a. Inspection Scope

The inspectors reviewed the final safety analysis report, the flooding analysis, and plant procedures to assess susceptibilities involving internal flooding; reviewed the corrective action program to determine if licensee personnel identified and corrected flooding problems; and verified that operator actions for coping with flooding can reasonably achieve the desired outcomes. The inspectors also inspected the area listed below to verify the adequacy of equipment seals located below the flood line, floor and wall penetration seals, watertight door seals, common drain lines and sumps, sump pumps, level alarms, and control circuits, and temporary or removable flood barriers. Specific documents reviewed during this inspection are listed in the attachment.

- On December 30, 2013, safeguards pump room A

These activities constitute completion of one flood protection measure inspection sample as defined in Inspection Procedure 71111.06-05.

b. Findings

No findings were identified.

1R11 Licensed Operator Requalification Program and Licensed Operator Performance (71111.11)

.1 Review of Licensed Operator Requalification

a. Inspection Scope

On October 21, 2013, the inspectors observed simulator training for an operating crew. The inspectors assessed the performance of the operators and the evaluators' critique of their performance.

These activities constitute completion of one quarterly licensed operator requalification program sample, as defined in Inspection Procedure 71111.11.

b. Findings

No findings were identified.

.2 Review of Licensed Operator Performance

a. Inspection Scope

On December 20, 2013, the inspectors observed the performance of on-shift licensed operators in the plant's main control room. At the time of the observations, the plant was in a period of heightened activity due to feedwater regulating valve testing. The inspectors observed the control board component manipulations, communications between crew members and use and interpretation of plant instruments, indications, and alarms.

These activities constitute completion of one quarterly licensed operator performance sample, as defined in Inspection Procedure 71111.11.

b. Findings

No findings were identified.

1R12 Maintenance Effectiveness (71111.12)

a. Inspection Scope

The inspectors reviewed two instances of degraded performance or condition of safety-related structures, systems, and components (SSCs):

- On October 28, 2013, completed a review of the licensee's 50.65(a)(3) evaluation
- On November 15, 2013, main feedwater isolation valve 184A due to loose actuator housing bolts

The inspectors reviewed the extent of condition of possible common cause SSC failures and evaluated the adequacy of the licensee's corrective actions. The inspectors reviewed the licensee's work practices to evaluate whether these may have played a role in the degradation of the SSCs. The inspectors assessed the licensee's characterization of the degradation in accordance with 10 CFR 50.65 (the Maintenance Rule), and verified that the licensee was appropriately tracking degraded performance and conditions in accordance with the Maintenance Rule.

These activities constituted completion of two maintenance effectiveness samples, as defined in Inspection Procedure 71111.12.

b. Findings

No findings were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13)

a. Inspection Scope

The inspectors reviewed three risk assessments performed by the licensee prior to changes in plant configuration and the risk management actions taken by the licensee in response to elevated risk:

- On October 23, 2013, planned maintenance on the startup transformer B with maintenance on the emergency diesel generator fuel oil storage tank B
- On November 25, 2013, startup transformer B work with the train B emergency diesel generator air compressor out of service
- On December 1, 2013, startup transformer A work with the essential chiller AB out of service

The inspectors verified that these risk assessment were performed timely and in accordance with the requirements of 10 CFR 50.65 (the Maintenance Rule) and plant procedures. The inspectors reviewed the accuracy and completeness of the licensee's risk assessments and verified that the licensee implemented appropriate risk management actions based on the result of the assessments.

These activities constitute completion of three maintenance risk assessments inspection samples, as defined in Inspection Procedure 71111.13.

b. Findings

No findings were identified.

1R15 Operability Determinations and Functionality Assessments (71111.15)

a. Inspection Scope

The inspectors reviewed one operability determination that the licensee performed for degraded or nonconforming SSCs:

- On October 11, 2013, emergency feedwater header B to steam generator 2 backup flow control valve (EFW-223B)
- On October 24, 2013, Allen Bradley relays (700RTC) causing inadvertent actuation of engineered safety features actuation signal equipment
- On November 15, 2013, emergency feedwater header A to steam generator 1 backup flow control valve (EFW-223A)
- On November 15, 2013, main feedwater isolation valve (FW-184A)

The inspectors reviewed the timeliness and technical adequacy of the licensee's evaluations. Where the licensee determined the degraded SSC to be operable, the inspectors verified that the licensee's compensatory measures were appropriate to provide reasonable assurance of operability. The inspectors verified that the licensee had considered the effect of other degraded conditions on the operability of the degraded SSC.

These activities constitute completion of four operability and functionality review samples, as defined in Inspection Procedure 71111.15.

b. Findings

No findings were identified.

1R18 Plant Modifications (71111.18)

a. Inspection Scope

On October 17, 2013, the inspectors reviewed a permanent modification on component cooling water piping vents on lines to shutdown heat exchanger B that affected risk-significant SSCs:

The inspectors reviewed the design and implementation of the modification. The inspectors verified that work activities involved in implementing the modification did not adversely impact operator actions that may be required in response to an emergency or other unplanned event. The inspectors verified that post-modification testing was adequate to establish the operability of the SSC as modified.

These activities constitute completion of one sample of permanent modifications, as defined in Inspection Procedure 71111.18.

b. Findings

No findings were identified.

1R19 Post-Maintenance Testing (71111.19)

a. Inspection Scope

The inspectors reviewed six post-maintenance testing activities that affected risk-significant SSCs:

- On, October 15, 2013, replaced breaker for the chemical and volume control system charging pump B
- On October 29, 2013, replaced blown fuse on the controller for the emergency feedwater header A backup flow control valve
- On, November 14, 2013, performed maintenance on the manual override assembly for the auxiliary component cooling water temperature control valve (ACC-126A)
- On December 18, 2013, repaired the air receiver for the train B emergency diesel generator

The inspectors reviewed licensing- and design-basis documents for the SSCs and the maintenance and post-maintenance test procedures. The inspectors observed the performance of the post-maintenance tests to verify that the licensee performed the tests in accordance with approved procedures, satisfied the established acceptance criteria, and restored the operability of the affected SSCs.

These activities constitute completion of four post-maintenance testing inspection samples, as defined in Inspection Procedure 71111.19.

b. Findings

No findings were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors observed four risk-significant surveillance tests and reviewed test results to verify that these tests adequately demonstrated that the SSCs were capable of performing their safety functions:

- On October 9, 2013, component cooling water pump A

- On November 27, 2013, low pressure safety injection pump A
- On December 16, 2013, essential chilled water pump AB
- On December 17, 2013, component cooling water pump B in-service test

The inspectors verified that these tests met technical specification requirements, that the licensee performed the tests in accordance with their procedures, and that the results of the test satisfied appropriate acceptance criteria. The inspectors verified that the licensee restored the operability of the affected SSCs following testing.

These activities constitute completion of four surveillance testing inspection samples, as defined in Inspection Procedure 71111.22.

b. Findings

No findings were identified.

Cornerstone: Emergency Preparedness

1EP1 Exercise Evaluation (71114.01)

a. Inspection Scope

The inspectors reviewed the objectives and final scenario for the 2013 biennial emergency plan exercise to verify the exercise acceptably tested major elements of the emergency plan and provided opportunities to demonstrate key emergency response organization skills. The scenario simulated a spent fuel pool leak, reactor coolant leak, loss of coolant accident, fission product barrier failures, core damage and a radiological release to the environment via a containment penetration and the plant stack to demonstrate the licensee's capability to implement its emergency plan.

The inspectors observed activities in the Control Room Simulator during the exercise conducted December 4, 2013, and at the following emergency response facilities:

- Technical Support Center (TSC)
- Operations Support Center (OSC)
- Emergency Operations Facility (EOF)

The inspectors focused their evaluation of the licensee's performance on the risk-significant activities of event classification, offsite notification, recognition of offsite dose consequences, and development of protective action recommendations.

The inspectors also assessed recognition of, and response to, abnormal and emergency plant conditions, the transfer of decision-making authority and emergency function responsibilities between facilities, onsite and offsite communications, protection of emergency workers, emergency repair evaluation and capability, and the overall implementation of the emergency plan to protect public health and safety and the

environment. The inspectors reviewed the current revision of the facility emergency plan, emergency plan implementing procedures associated with operation of the licensee's emergency response facilities, procedures for the performance of associated emergency functions, and other documents as listed in the attachment to this report.

The inspectors attended the post-exercise critiques in each emergency response facility to evaluate the initial licensee self-assessment of exercise performance. The inspectors also attended a subsequent formal presentation of critique items to plant management. The specific documents reviewed during this inspection are listed in the attachment.

These activities constituted completion of one exercise evaluation sample as defined in Inspection Procedure 71114.01.

b. Findings

.1 Failure to Critique Weaknesses During an Evaluated Exercise

Introduction. The inspectors identified a non-cited violation of 10 CFR Part 50.47(b)(14), for the failure to identify deficiencies resulting from the licensee's 2013 biennial evaluated exercise. Specifically, the licensee did not identify two examples of failures to provide a range of protective actions for emergency workers.

Description. During the December 4, 2013, exercise, action was not taken to minimize radiological dose for one in-plant repair team and the licensee did not perform habitability evaluations of the emergency response facilities during the simulated radiological emergency.

The NRC inspectors observed the performance of the licensee's emergency response organization, including the OSC. The OSC provides multi-discipline teams to investigate and repair damaged equipment. Health physics (HP) staff in the OSC need to account for radiological releases and ensure that repair teams are given directions which prevent or minimize their radiological exposure.

At 11:29 a.m., plant stack radiation monitors went into high alarm, providing indication that a radiological release was in progress. Meteorological data showed that the wind was blowing from 144 degrees in relation to the plant, resulting in the release path directly over the building housing the OSC. This release resulted in a declaration of a General Emergency at 11:33 a.m. At 12:05 p.m., the OSC repair team dispatched to align the high pressure safety injection AB pump (Team 3), contacted the OSC and reported that they had completed their task. Operations Support Center personnel directed them to report back to the OSC, taking a modified path around the south end of the plant. However, the team, by physically returning to the OSC, regardless of the path from the plant, was sent into the radiological release path. Team 3 returned to the OSC at 12:15 p.m. The release and the wind direction existing at 11:29 a.m. continued until a wind shift occurred at 12:40 p.m.

Procedure EP-002-031, "In-Plant Radiological Controls and Surveys During Emergency," Revision 301, Step 5.9.2.4, states to, "issue instrumentation to other qualified self-monitors in lieu of health physics technicians if they are not entering an area that has a

high potential for changing radiological conditions.” Team 3 was directed to return to the OSC without an HP technician accompanying them; furthermore, the team did not have a survey instrument being operated by a qualified self-monitor. Also, in the exercise management debrief meeting on December 6, 2013, the licensee identified that one OSC repair team was sent out to conduct work on a main steam isolation valve without appropriate HP staff coverage. However, the licensee did not review the dispatch of other repair teams to see if the same weakness was exhibited. The licensee documented this issue in Condition Report CR-WF3-2013-5905. The inspectors concluded the failure to provide appropriate radiological protection to an OSC repair team precluded the effective implementation of the licensee’s emergency plan and constituted a weakness in emergency response organization performance.

Also during the exercise, the licensee made a plant wide announcement according to the requirements of Procedure EP-001-030, “Site Area Emergency,” Revision 307, Section 5.2.5.1, which states, in part, “THERE WILL BE NO SMOKING, EATING, OR DRINKING UNTIL FURTHER NOTICE.” The facilities were posted as required per current site procedures at the time the Site Area Emergency was declared (10:26 a.m.). The postings remained unchanged throughout the exercise in the OSC, TSC, and EOF.

The inspectors determined that licensee staff did not complete two procedure requirements related to facility habitability. Procedure EP-002-031, Section 5.11.2, stated that, “Surveys should be made to arrive at habitability requirements for occupied areas and ascertain site environmental conditions.” The inspectors noted that surveys were performed for the OSC, TSC, and EOF; however, the licensee never arrived at habitability requirements. Additionally, Procedure EP-002-034, Section 5.1.1, stated, “the Radiological Coordinator or Rad/Chem Coordinator evaluates the potential radiological hazards within the onsite (out-of-plant) areas to ascertain habitability conditions in occupied areas that may be affected by plume passage or plant conditions.” The inspectors did not observe performance of an evaluation to ascertain habitability conditions. If the licensee had ascertained habitability conditions, the response facilities would have been released from the no eating or drinking requirement based on the results of the habitability surveys because there was no release at the Site Area Emergency. At the General Emergency, the release was away from the response facilities. The OSC was the only facility affected when the release occurred at 11:29 a.m. The licensee documented this issue in Condition Report CR-WF3-2013-5895. The inspectors concluded the failure to ascertain habitability conditions in emergency response facilities precluded the effective implementation of the licensee’s emergency plan and constituted a weakness in emergency response organization performance.

Analysis. A weakness is defined in Section 2.0(o) of Manual Chapter 0609, Appendix B, “Emergency Preparedness Significance Determination Process,” as performance during an exercise that would have precluded the effective implementation of the emergency plan had the circumstances occurred. The failure to identify weaknesses occurring in an exercise is a performance deficiency within the licensee’s ability to foresee and correct. The performance deficiency is more than minor because it is associated with the emergency response organization performance attribute of the emergency preparedness cornerstone and adversely impacted the cornerstone objective. The licensee’s ability to implement adequate measures to protect the health and safety of the public in the event of a radiological emergency is degraded when it fails to identify and correct performance

that precludes the effective implementation of the emergency plan. In addition, if left uncorrected, these behaviors could result in unnecessary radiological dose to emergency workers and the public in an actual event. The finding was evaluated using NRC Inspection Manual Chapter 0609, Appendix B, "Emergency Preparedness Significance Determination Process," Table 5.14-1, and determined to have very low safety significance (Green). The finding was a failure to comply with NRC requirements, and was not a loss of planning standard function. It was not a loss of planning standard function because the critique process failed to identify weaknesses associated with the non-risk significant aspects of Planning Standard 10 CFR 50.47(b)(10) during a full-scale drill or exercise. The finding had a cross-cutting aspect in the corrective action program component of the problem identification and resolution cross-cutting area because the licensee failed to thoroughly evaluate two issues during the exercise critique process [P.1(c)].

Enforcement. Title 10 of the *Code of Federal Regulations*, Part 50.47(b)(14) requires, in part, that "deficiencies identified as a result of exercises or drills are (will be) corrected." Part 50.47(b)(10) requires, in part, that "a range of protective actions has been developed for the plume exposure pathway EPZ for emergency workers." Contrary to the above, on December 6, 2013, the licensee failed to identify deficiencies in their emergency response organization performance so they would be corrected, affecting their implementation of 10 CFR 50.47(b)(10). Specifically, the licensee did not identify two examples of failures to provide a range of protective actions to emergency workers. Action was not taken to minimize the radiological dose potential for one in-plant repair team and the licensee did not perform habitability evaluations to determine the suitability for continued use of emergency response facilities during the simulated radiological emergency. Because this finding is of very low safety significance and has been entered into the licensee's corrective action program as Condition Reports CR-WF3-2013-5895 and CR-WF3-2013-5905, this violation is being treated as a non-cited violation consistent with the NRC Enforcement Policy: NCV 05000382/2013005-01; "Failure to Critique Weaknesses During an Evaluated Exercise."

.2 Protective Action Recommendations Under Conditions of Changing Wind Vectors Not Consistent with Federal Guidance

Introduction. The inspectors identified an unresolved item related to the adequacy of the licensee's guidelines for the choice of protective actions during an emergency in accordance with the requirements of 10 CFR 50.47(b)(10). Specifically, the licensee's implementation of guidelines for extending existing protective action recommendations into additional geographical areas of the emergency planning zone under conditions of changing wind vectors may not be consistent with the guidance of EPA-400-R-92-001, "Manual of Protective Action Guides and Protective Actions for Nuclear Incidents."

Description. The inspectors observed during the December 4, 2013, evaluated exercise that the licensee expanded an existing protective action recommendation for the public into a geographical area for which protective actions may not have been warranted. Specifically, with an existing recommendation of evacuate all sectors within two miles of the reactor and to five miles in three downwind sectors, the licensee subsequently expanded the five-mile recommendation to an adjacent (fourth) downwind sector

following a wind vector change. The licensee applied deterministic, plant-condition-based criterion in expanding the five-mile evacuation recommendation.

The expansion of the protective action recommendation into a fourth sector may not have been warranted because the licensee had valid dose assessments showing that protective action guides were not exceeded at two miles in the newly-affected sector at the time when wind direction changed. The licensee did not apply those results in making the decision to expand protective action recommendations. The inspectors concluded the licensee's recommendation was not based on EPA guidance, which states, in part, that protective action guides are the approximate levels at which protective measures are justified, and that evacuation is seldom warranted at less than 1 rem Total Effective Dose Equivalent.

The inspectors identified that Procedure EP-002-052, "Protective Action Guidelines," Revision 23, allows the licensee to generate evacuation protective action recommendations for members of the general public in areas of the emergency planning zone where radiological protective action guides are not exceeded. The procedure required the user determine the plant is in a stable condition before allowing the application of radiological assessment results when wind vectors change. Specifically, Step 5.4.1.1(A) required as a precondition that "plant conditions are well understood and changes can be reasonably predicted," and Step (B) that "radiological releases have a high degree of predictability in terms of isotopic composition...and release rate." The inspectors observed that licensee staff understood Step (A) to require that core damage had been arrested and that plant conditions precluded any future change in core state with a high degree of confidence. The inspectors observed that licensee staff used deterministic plant-based protective action recommendations instead of radiological-based assessments in expanding protective action recommendations because core damage had not been arrested and future changes in core state were not precluded with a high degree of confidence. In addition, licensee staff also concluded that future release rates were not predictable.

This issue was identified as an unresolved item because the NRC has not determined whether the licensee has adequately implemented Planning Standard 10 CFR 50.47(b)(10), which states, in part, that "...guidelines for the choice of protective actions, consistent with Federal Guidance, are developed and in place...". Specifically, the NRC has not determined whether the restrictions on the application of radiological assessments in Procedure EP-002-052, Revision 23, Step 5.4.1.1, adequately implement the guidance of EPA-400-R-92-001. No additional information is required from the licensee. The licensee has entered this issue into their corrective action program as Condition Report CR-WF3-2013-5900. This issue is identified as URI 05000382/2013005-02, "Protective Action Recommendations Under Conditions of Changing Wind Vectors Not Consistent with Federal Guidance."

1EP4 Emergency Action Level and Emergency Plan Changes (71114.04)

a. Inspection Scope

The NSIR headquarters staff performed an in-office review of the latest revisions of various emergency plan implementing procedures and the emergency plan located under ADAMS accession number ML13330B686 as listed in the Attachment.

The licensee determined that in accordance with 10 CFR 50.54(q), the changes made in the revisions resulted in no reduction in the effectiveness of the Plan, and that the revised Plan continued to meet the requirements of 10 CFR 50.47(b) and Appendix E to 10 CFR Part 50. The NRC review was not documented in a safety evaluation report and did not constitute approval of licensee-generated changes; therefore, this revision is subject to future inspection. The specific documents reviewed during this inspection are listed in the Attachment.

These activities constitute completion of one sample as defined in Inspection Procedure 71114.04-05.

b. Findings

No findings were identified.

1EP6 Drill Evaluation (71114.06)

.1 Emergency Preparedness Drill Observation

a. Inspection Scope

The inspectors observed an emergency preparedness drill on October 16, 2013, to verify the adequacy and capability of the licensee's assessment of drill performance. The inspectors reviewed the drill scenario, observed the drill from the control room simulator, and reviewed the post-drill critique. The inspectors verified that the licensee's emergency classifications, off-site notifications, and protective action recommendations were appropriate and timely. The inspectors verified that any emergency preparedness weaknesses were appropriately identified by the licensee in the post-drill critique and entered into the corrective action program for resolution.

These activities constitute completion of one sample as defined in Inspection Procedure 71114.04-05.

b. Findings

No findings were identified.

1EP8 Exercise Evaluation (71114.08)

a. Inspection Scope

The licensee submitted the preliminary scenario for the 2013 biennial emergency preparedness exercise on October 3, 2013, in accordance with the requirements of Appendix E to 10 CFR 50, Part IV.F(2)(b). The inspectors performed an in-office review of the preliminary exercise scenario to determine whether the scenario would acceptably test the major elements of the licensee's emergency plan and provided opportunities to demonstrate the key emergency response organization skills.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, Emergency Preparedness, Public Radiation Safety, Occupational Radiation Safety, and Security

4OA1 Performance Indicator Verification (71151)

.1 Drill/Exercise Performance (EP01)

a. Inspection Scope

The inspectors reviewed the licensee's evaluated exercises and selected drill and training evolutions that occurred between July 1, 2012, and September 30, 2013, to verify the accuracy of the licensee's data for classification, notification, and protective action recommendation opportunities. The inspectors reviewed a sample of the licensee's completed classifications, notifications, and protective action recommendations to verify their timeliness and accuracy. The inspectors used definitions and guidance contained in Nuclear Energy Institute Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, to determine the accuracy of the reported data.

These activities constituted verification of the drill/exercise performance performance indicator as defined in Inspection Procedure 71151.

b. Findings

No findings were identified.

.2 Emergency Response Organization Drill Participation (EP02)

a. Inspection Scope

The inspectors verified that all members of the licensee's emergency response organization in the key positions identified had been counted in the reported performance indicator data. The inspectors reviewed the licensee's basis for reporting the percentage of key emergency response organization members who participated in a drill or exercise. The inspectors reviewed drill attendance records and verified a sample of those reported as participating. The inspectors used definitions and guidance contained in Nuclear Energy Institute Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, to determine the accuracy of the reported data.

These activities constituted verification of the emergency response organization drill participation performance indicator as defined in Inspection Procedure 71151.

b. Findings

No findings were identified.

.3 Alert and Notification System Reliability (EP03)

a. Inspection Scope

The inspectors sampled licensee submittals for the Alert and Notification System performance indicator for the period between July 1, 2012, and September 30, 2013. To determine the accuracy of the performance indicator data reported during those periods, performance indicator definitions and guidance contained in Nuclear Energy Institute Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, was used. The inspectors reviewed the licensee's records associated with the performance indicator to verify that the licensee accurately reported the indicator in accordance with relevant procedures and the Nuclear Energy Institute guidance. Specifically, the inspectors reviewed licensee records and processes including procedural guidance on assessing opportunities for the performance indicator and the results of periodic alert notification system operability tests. The specific documents reviewed are described in the attachment to this report.

These activities constitute completion of the alert and notification system sample as defined in Inspection Procedure 71151.

b. Findings

No findings were identified.

.4 Mitigating Systems Performance Index: Emergency AC Power Systems (MS06)

a. Inspection Scope

The inspectors reviewed the licensee's mitigating system performance index data for the period of March 2012 through September 2013 to verify the accuracy and completeness of the reported data. The inspectors used definitions and guidance contained in Nuclear Energy Institute Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, to determine the accuracy of the reported data.

These activities constituted verification of the mitigating system performance index for emergency ac power systems, as defined in Inspection Procedure 71151.

b. Findings

No findings were identified.

.5 Mitigating Systems Performance Index: High Pressure Injection Systems (MS07)

a. Inspection Scope

The inspectors reviewed the licensee's mitigating system performance index data for the period of March 2012 through September 2013 to verify the accuracy and completeness of the reported data. The inspectors used definitions and guidance contained in Nuclear Energy Institute Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, to determine the accuracy of the reported data.

These activities constituted verification of the mitigating system performance index for high pressure injection systems, as defined in Inspection Procedure 71151.

b. Findings

No findings were identified.

.6 Mitigating Systems Performance Index: Heat Removal Systems (MS08)

a. Inspection Scope

The inspectors reviewed the licensee's mitigating system performance index data for the period of March 2012 through September 2013 to verify the accuracy and completeness of the reported data. The inspectors used definitions and guidance contained in Nuclear Energy Institute Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, to determine the accuracy of the reported data.

These activities constituted verification of the mitigating system performance index for heat removal systems, as defined in Inspection Procedure 71151.

b. Findings

No findings were identified.

40A2 Problem Identification and Resolution (71152)

.1 Routine Review

a. Inspection Scope

Throughout the inspection period, the inspectors performed daily reviews of items entered into the licensee's corrective action program and periodically attended the licensee's condition report screening meetings. The inspectors verified that licensee personnel were identifying problems at an appropriate threshold and entering these problems into the corrective action program for resolution. The inspectors verified that the licensee developed and implemented corrective actions commensurate with the significance of the problems identified. The inspectors also reviewed the licensee's problem identification and resolution activities during the performance of the other inspection activities documented in this report.

b. Findings

No findings were identified.

.2 Semiannual Trend Review

a. Inspection Scope

The inspectors reviewed the licensee's corrective action program, performance indicators, system health reports, and other documentation to identify trends that might indicate the existence of a more significant safety issue. The inspectors verified that the licensee was taking corrective actions to address identified adverse trends. The inspectors also reviewed the licensee's progress in addressing an existing cross-cutting theme in problem identification and resolution area.

These activities constitute completion of one semiannual trend review sample, as defined in Inspection Procedure 71152.

b. Findings

No findings were identified.

.3 Annual Follow-up of Selected Issues

a. Inspection Scope

The inspectors selected two issues for an in-depth follow-up:

- On December 19, 2013, Essential Chillers A and AB could not start remote manually or local manually from the local panel

The inspectors assessed the licensee's problem identification threshold, cause analyses, extent of condition reviews and compensatory actions. The inspectors verified that the licensee appropriately prioritized the planned corrective actions and that these actions were adequate to correct the condition.

- On November 12, 2013, Essential Chiller B water leak and corroded piping

The inspectors assessed the licensee's problem identification threshold, cause analyses, extent of condition reviews and compensatory actions. The inspectors verified that the licensee appropriately prioritized the planned corrective actions and that these actions were adequate to address the condition.

These activities constitute completion of two annual follow-up samples, as defined in Inspection Procedure 71152.

b. Findings

No findings were identified.

4OA3 Follow-up of Events and Notices of Enforcement Discretion (71153)

.1 (Closed) Licensee Event Report 05000382/2013-006-00 Failure of Credited Manual Operator for Air Operated Valve Causes Train Past Inoperability

On September 4, 2013, the licensee identified that safety-related air operated temperature control valve ACC-126A could not be fully closed manually. Manual closure is credited in the safety analysis to preserve wet cooling tower inventory following an accident. The licensee performed maintenance on the valve to ensure manual closure on September 5, 2013, and determined that the travel stop on the manual override was set inappropriately. Due to the misaligned manual stops, the licensee determined that ACC-126A was inoperable and unable to meet its specified safety function since July 27, 2012, when maintenance personnel last rebuilt the valve. This period was greater than the technical specification allowed outage time of 72 hours. The enforcement aspects of this finding are discussed in Section 4OA7. This licensee event report is closed.

.2 (Closed) Licensee Event Report 05000382/2013-002-00 Emergency Feedwater System Flow Control Valve Fails to Close Due to Valve Positioner Failure

On January 21, 2013, the unit experienced an automatic reactor trip from 91 percent power due to a secondary transient that caused a low level in the number one steam generator. Following the transient, emergency feedwater backup flow control valve EFW-223A failed to close. The failure of the valve was due to a loose flapper set screw within the valve positioner. In the review of this event, no licensee performance deficiencies were identified. This licensee event report is closed.

These activities constitute completion of two event follow-up samples, as defined in Inspection Procedure 71153.

40A5 Other Activities

Temporary Instruction 2515/182 (Closed) - Review of the Industry Initiative to Control Degradation of Underground Piping and Tanks

a. Inspection scope

Leakage from buried and underground pipes has resulted in groundwater contamination incidents with associated heightened NRC and public interest. The industry issued a guidance document, NEI 09-14, "Guideline for the Management of Buried Piping Integrity," (ADAMS Accession No. ML1030901420) to describe the goals and required actions (commitments made by the licensee) resulting from this underground piping and tank initiative. On December 31, 2010, NEI issued Revision 1 to NEI 09-14 (ADAMS Accession No. ML110700122), with an expanded scope of components which included underground piping that was not in direct contact with the soil and underground tanks. On November 17, 2011, the NRC issued Temporary Instruction 2515/182, "Review of the Industry Initiative to Control Degradation of Underground Piping and Tanks," to gather information related to the industry's implementation of this initiative.

b. Observations

The Phase 1 portion, Section 03.01, of Temporary Instruction 2515/182 was completed and documented in NRC Inspection Report 05000382/2013003. For the Phase 2 portion of the inspection, the inspectors reviewed the licensee's buried and underground piping and tanks program in accordance with the requirements of Temporary Instruction 2515/182, Section 03.02, and the questions found at <http://www.nrc.gov/reactors/operating/ops-experience/buried-pipe-ti-phase-2-insp-req-2011-n-16.pdf>. The inspectors submitted the responses to NRC headquarters staff.

c. Findings

No findings were identified.

40A6 Meetings, Including Exit

Exit Meeting Summary

On December 6, 2013, the inspectors presented the results of the onsite inspection of the licensee's biennial emergency preparedness exercise to Ms. D. Jacobs, Vice President, Operations, and other members of the licensee's staff. The licensee acknowledged the issues presented. The licensee confirmed that any proprietary information reviewed by the inspectors had been returned or destroyed.

On January 17, 2014, the inspectors presented the inspection results to Mr. M. Chisum, Vice President, Operations, and other members of the licensee's staff. The licensee acknowledged the issues presented. The licensee confirmed that any proprietary information reviewed by the inspectors had been returned or destroyed.

On February 4, 2014, the inspectors re-exited on the licensee-identified violation with Mr. C. Rich, Jr., Director of Regulatory and Performance Improvement.

40A7 Licensee-Identified Violations

The following violation of very low safety significance (Green) was identified by the licensee and is a violation of NRC requirements which meets the criteria of the NRC Enforcement Policy for being dispositioned as a non-cited violation.

Title 10 of the Code of Federal Regulations Part 50, Appendix B, Criterion XI, "Test Control," requires, in part, that a test program shall be established to assure that all testing required to demonstrate that structures, systems, and components will perform satisfactorily in service is identified and performed in accordance with written test procedures which incorporate the requirements and acceptance limits contained in applicable design documents. Contrary to the above, prior to September 5, 2013, the licensee did not establish test program requirements that incorporated acceptable limits to ensure that safety-related auxiliary component cooling water temperature control valves ACC-126A and ACC-126B would perform satisfactorily in service when manually closed to conserve wet cooling tower inventory following a loss of coolant accident. The licensee identified this issue during a review of a degraded trend in the auxiliary component cooling water high point header pressure for the automatic closure function. As part of troubleshooting effort, the licensee identified that the operational surveillance procedure used to conduct the manual closure function of the valve did not incorporate requirements and acceptance limits contained in applicable design documents. Specifically, Procedure OP-903-118, Primary Auxiliaries Quarterly IST Valve Test, Sections 7.12 and 7.13 did not contain requirements or acceptable limits to ensure that the manual closure function for the valves would maintain the required high point header pressure contained in applicable design documents. The licensee entered this condition into their corrective action program as CR-WF3-2013-04290 and CR-WF3-2013-04324. A senior reactor analyst performed a bounding detailed risk evaluation and determined that the finding was of very low safety significance (Green).

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

M. Chisum, Site Vice President, Operations
K. Cook, General Manager, Plant Operations
S. Adams, Manager, Production
E. Brauner, Manager, Emergency Preparedness
B. Pellegrin, Senior Manager, Production
M. Chaisson, Supervisor, Radiation Protection
J. Briggs, Superintendent, Electrical Maintenance
K. Crissman, Senior Manager, Maintenance
D. Frey, Manager, Radiation Protection
R. Gilmore, Manager, Systems and Components
J. Jarrell, Manager, Regulatory Assurance
L. Milster, Licensing Specialist, Licensing
A. James, Manager, Security
B. Lanka, Director, Engineering
N. Lawless, Manager, Chemistry
J. Lewis, Project Manager, Emergency Preparedness (Corporate)
B. Lindsey, Senior Manager, Operations
J. Pollock, Licensing Specialist, Licensing
M. Mills, Manager, Nuclear Oversight
W. McKinney, Manager, Performance Improvement
S.W. Meiklejohn, Superintendent, I & C Maintenance
J. Jarrell, Manager, Regulatory Assurance
G. Pierce, Manager, Training
R. Porter, Manager, Design & Program Engineering
D. Reider, Supervisor, Quality Assurance
W. Renz, Director, Emergency Preparedness (Corporate)
C. Rich, Jr., Director, Regulatory & Performance Improvement
J. Signorelli, Superintendent, Simulator & Training Support
R. Simpson, Superintendent, Operator Training
P. Stanton, Supervisor, Design Engineering
J. Williams, Senior Licensing Specialist

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

05000382-2013005-02	URI	Protective Action Recommendations Under Conditions of Changing Wind Vectors Not Consistent with Federal Guidance (Section 1EP1)
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Opened and Closed

05000382-2013005-01	NCV	Failure to Critique Weaknesses During an Evaluated Exercise (Section 1EP1)
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Closed

05000382/2013-006-00	LER	Failure of Credited Manual Operator for Air Operated Valve Causes Train Past Inoperability
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05000382/2013-002-00	LER	Emergency Feedwater System Flow Control Valve Fails to Close Due to Valve Positioner Failure
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LIST OF DOCUMENTS REVIEWED

Section 1R01: Adverse Weather Protection

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
OP-901-521	Severe Weather and Flooding	309
ENS-EP-302	Severe Weather Response	11

Section 1R04: Equipment Alignment

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
OP-002-003	Component Cooling Water	312
OP-009-008	Safety Injection System	33
OP-009-003	Emergency Feedwater	305

Section 1R05: Fire Protection

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
UNT-005-013	Fire Protection Program	12
RAB 8B, E, F-001	Prefire Strategy Switchgear Room "B"	10
RAB 11-001	Prefire Strategy Elevation +21.00' RAB Battery Room "3B"	7
RAB 41-001	Diesel Oil Storage Tank "B"	4
RAB 19-001	Prefire Strategy Elevation +21.00' RAB (RCA) Component Cooling Water Pump "A"	7

Section 1R06: Flood Protection Measures

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
MNQ3-5	Flooding Analysis Outside Containment	4
W3F1-2007-0017	Response to Generic Letter 2007-01	0

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
W3F1-2009-0066	Clarification of Response to Generic Letter 2007-01	0

Section 1R11: Licensed Operator Requalification Program and Licensed Operator Performance

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
EN-OP-115	Conduct of Operations	12
EN-TQ-114	Licensed Operator Requalification Training Program	8

Section 1R12: Maintenance Effectiveness

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
EN-DC-203	Maintenance Rule Program	1
EN-DC-204	Maintenance Rule Scope and Basis	2
EN-DC-207	Maintenance Rule Periodic Assessment	3
LO-WTWF3-2008-0108	Cycle 18, Refuel 18, Maintenance Rule (a)(3) Periodic Assessment Report	0
EC-41086	Oversize FWIV Actuator Mounting Holes	0

Condition Reports

CR-WF3-2013-5392

Work Orders

WO 00366954 WO 00235799

Section 1R13: Maintenance Risk Assessments and Emergent Work Control

Procedures/Documents

<u>Number</u>	<u>Title</u>	<u>Revision</u>
EN-WM-104	On Line Risk Assessment	7
OI-037-000	Operations' Risk Assessment Guideline	304

Condition Reports

CR-WF3-2013-05698

Section 1R15: Operability Determinations and Functionality Assessments

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
OP-903-121	Safety Systems Quarterly IST Valve Tests	116
STA-001-005	Leakage Testing of Air and Nitrogen Accumulators for Safety-Related Valves	310

Condition Reports

CR-WF3-2013-05091 CR-WF3-2013-05582 CR-WF3-2013-05392 CR-WF3-2013-04796

Section 1R18: Plant Modifications

Procedures/Documents

<u>Number</u>	<u>Title</u>	<u>Revision</u>
EN-DC-117	Post Modification Testing and Special Instructions	7
EN-DC-136	Temporary Modifications	9

Section 1R19: Post-Maintenance Testing

Procedures/Documents

<u>Number</u>	<u>Title</u>	<u>Revision</u>
MN(Q)9-50	ACCW System Resistance	2
OP-002-001	Auxiliary Component Cooling Water	305
EC-M96-013	Auxiliary Component Cooling Water Jockey Pump Analysis	0
OP-903-118	Primary Auxiliaries Quarterly IST Valve Tests	31
OP-903-050	Component Cooling Water and Auxiliary Component Cooling Water Pump and Valve Operability Test	28
OP-002-005	Chemical and Volume Control	43
OP-903-003	Charging Pump Operability Check	304

Condition Reports

CR-WF3-2013-04324	CR-WF3-2013-04290	CR-WF3-2012-02870	CR-WF3-2012-03280
CR-WF3-2013-04332	CR-WF3-2013-04274	CR-WF3-2012-03217	CR-WF3-2010-03602
CR-WF3-2013-05015	CR-WF3-2013-05007	CR-WF3-2013-05091	CR-WF3-2013-03610

Work Orders

WO 00361527	WO 00320439	WO 00319967	WO 00322538
WO 00364852	WO 00366584		

Section 1R22: Surveillance Testing

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
OP-002-003	Component Cooling Water	312
OP-903-050	Component Cooling Water and Auxiliary Component Cooling Water Pump and Valve Operability Test	28
OP-903-030	Safety Injection Pump Operability Verification	20
OP-903-063	Chilled Water Pump Operability Verification	305

Work Orders

WO 52498868	WO 52442303	WO 52515438	WO 52511252
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Condition Reports

CR-WF3-2013-04841

Section 1EP1: Exercise Evaluation

Procedures/Documents

<u>Number</u>	<u>Title</u>	<u>Revision</u>
EP-001-001	Recognition and Classification of Emergency Conditions	30
EP-001-010	Unusual Event	305
EP-001-020	Alert	308
EP-001-030	Site Area Emergency	307
EP-001-040	General Emergency	307
EP-002-010	Notifications and Communications	308

Procedures/Documents

<u>Number</u>	<u>Title</u>	<u>Revision</u>
EP-002-015	Emergency Responder Activation	302
EP-002-030	Emergency Radiation Exposure Guidelines and Controls	010
EP-002-031	In-Plant Radiological Controls and Surveys During Emergencies	301
EP-002-032	Monitoring and Decontamination	302
EP-002-034	Onsite Surveys During Emergencies	301
EP-002-050	Offsite Dose Assessment	305
EP-002-052	Protective Action Guidelines	023
EP-002-060	Radiological Field Monitoring	304
EP-002-071	Site Protective Measures	302
EP-002-090	Core Damage Assessment	302
EP-002-100	Technical Support Center (TSC) Activation; Operation and Deactivation	040
EP-002-101	Operational Support Center (OSC) Activation, Operation, and Deactivation	303
EP-002-190	Personnel Accountability	019
EPP-428	Emergency Facilities and Equipment Readiness	303

Section 1EP4 Emergency Action Level and Emergency Plan Changes

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
EP-002-050	Offsite Dose Assessment,	305

Section 1EP5: Correction of Emergency Preparedness Weaknesses and Deficiencies

Procedures

<u>Number</u>	<u>Title</u>	<u>Date</u>
2009-03	2009 Blue Team Biennial Exercise	December 15, 2009
2011-04	2011 Orange Team Biennial Exercise	January 4, 2012

Procedures

<u>Number</u>	<u>Title</u>	<u>Date</u>
2012-01	2012 Blue Team Site Drill	March 13, 2012
2012-02	2012 Green Team Site Drill	May 16, 2012
2012-03	2012 Red Team Site Drill	July 12, 2012
2012-04	2012 Orange Team Site Drill	August 24, 2012
2012-05	Control Room Emergency Breathing Air Drill	April 25, 2012
2012-06	Control Room Emergency Breathing Air Drill	October 22, 2012
2012-08	Offsite Medical Response Drill	October 26, 2012
2013-01	2013 Blue Team Site Drill	May 11, 2013
2013-02	2013 Green Team Site Drill	July 11, 2013
2013-05	Control Room Emergency Breathing Air Drill	June 25, 2013

Condition Reports

2011-08028	2012-01010	2012-01633	2012-02030
2012-02058	2012-02838	2012-03311	2012-03417
2012-03474	2012-03566	2012-04203	2012-04223
2012-04230	2012-04288	2012-04681	2013-05860
2012-05959	2012-05976	2012-07320	2012-07794
2013-00121	2013-00252	2013-00360	2013-00761
2013-01477	2013-01636	2013-01642	2013-01736
2013-01738	2013-01815	2013-01874	2013-03840
2013-04115	2013-05506	2013-05594	

Section 1EP6: Drill Evaluation

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
EP	Emergency Plan	43
EP-001-001	Recognition and Classification of Emergency Conditions	30
2013-03	Site Team Drill	October 16, 2013

Section 4OA1: Performance Indicator Verification

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision Date</u>
NEI 99-02	Regulatory Assessment Performance Indicator Guideline	6
EN-LI-114	Performance Indicator Process	4
ECH-NE-09- 00036	Waterford 3 Mitigating System Performance Index Basis	2
	Waterford 3 SES Emergency Plan	44
EP-002-010	Notifications and Communications	308
EP-003-020	Emergency Preparedness Drills and Exercises	302
EN-EP-801	Emergency Response Organization	8
EN-LI-114	Performance Indicator Process	6
	Drills and Exercise Performance Data	April 2013 – June 2013
	ERO Drill Participation Data	July 2012 - September 2013
LO-WLO-2013- 00041	Insert Key ERO Member List into PI Process	July 24, 2013
	Updated Alert/Notification System Design Report	7
EPP-422	Siren and Helicopter Warning System Maintenance	4
EPP-424	Siren Testing and Siren System Administrative Controls	13
EN-LI-114 Attachment 9.2 Rev 6	NRC Performance Indicator Technique/Data Sheet	3rd Quarter 2012 - 3rd Quarter 2013
EPP-422 Attachment 7.1	Siren Maintenance Checklist for Whelen Sirens	3rd Quarter 2012 - 3rd Quarter 2013
EPP-422 Attachment 7.2	Monthly Helicopter Warning System Maintenance Checklist	3rd Quarter 2012 - 3rd Quarter 2013

Section 40A2: Problem Identification and Resolution

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
EN-LI-102	Corrective Actions Process	20

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
EN-LI-119	Apparent Cause Evaluation Process	16

Condition Reports

CR-WF3-2013-2876 CR-WF3-2013-5322 CR-WF3-2013-3170 CR-WF3-2013-3245

Work Orders

WO 00355051

Section 40A3: Follow-up of Events and Notices of Enforcement Discretion

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
05000382/2013-006-00	Failure of Credited Manual Operator for Air Operated Valve Causes Train Past Inoperability	0
05000382/2013-002-00	Emergency Feedwater System Flow Control Valve Fails to Close Due to Valve Positioner Failure	0

Section 40A5: Other Activities

Procedures/Documents

<u>Number</u>	<u>Title</u>	<u>Revision</u> <u>Date</u>
1000002.400	APEC Native Survey and CP Testing Waterford Steam Electric Station – WSES Entergy Corporation	0
EN-DC-343	Underground Piping and Tanks Inspection and Monitoring Program	8
CEP-UPT-0100	Underground Piping and Tanks Inspection and Monitoring	2
EN-EP-S-002-MULTI	Underground Piping and Tanks General Visual Inspection	2
ME-004-431	Cathodic Protection System Inspection, Cleaning, and Testing	0
LO-WLO-2013-131	NRC TI 2515/182 Phase 2 Audit Assessment	November 8, 2013

Procedures/Documents

<u>Number</u>	<u>Title</u>	<u>Revision</u> <u>Date</u>
LO-WLO-2013-78	Underground Piping & Tanks Inspection and Monitoring Program Self-Assessment	September 20, 2012
SEP-UIP-WF3	Underground Components Inspection Plan	2

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Date</u>
	BPIG Position Paper No. 2, Inspection for Piping Encased in Concrete	December 2012
	Condition Assessment of PCCP	March 12, 2013
	Radiological Material Leak Prevention to Groundwater of Above and Under Ground Structure System and Components	September 30, 2010

Drawings

Procedures

<u>Number</u>	<u>Title</u>	<u>Date</u>
G205 S01	Yard Piping	February 23, 1983

Work Orders

342151	253669	306240
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Nuclear Notifications

WF3-2013-0789	WF3-2013-05073	LO-HQNLO-2008-15
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