



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
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March 21, 2017

Mano Nazar
President and Chief Nuclear Officer
Nuclear Division
Florida Power & Light Company
Mail Stop NT3/JW
15430 Endeavor Drive
Jupiter, FL 33478

SUBJECT: TURKEY POINT NUCLEAR PLANT, UNITS 3 AND 4 – U.S. NUCLEAR
REGULATORY COMMISSION EMERGENCY PREPAREDNESS INSPECTION
REPORT 05000250/2017502, AND 05000251/2017502

Dear Mr. Nazar

On February 24, 2017, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Turkey Point Nuclear Plant, Units 3 and 4. The enclosed inspection report (IR) documents the inspection results that were discussed on February 23, 2017, with you and members of your staff.

The NRC inspectors did not identify any findings or violations of more than minor significance.

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390, "Public inspections, exemptions, requests for withholding," of the NRC's "Agency Rules of Practice and Procedure," 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 NRC's Agencywide Documents Access and Management System (ADAMS); accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Brian R. Bonser, Chief
Plant Support Branch 1
Division of Reactor Safety

Docket Nos. 50-250 and 50-251
License Nos. DPR-31 and DPR-41

Enclosure:
NRC IR 05000250 and 251/2017502
w/Attachment: Supplementary Information

cc: Distribution via Listserv

SUBJECT: TURKEY POINT NUCLEAR PLANT, UNITS 3 AND 4 – U.S. NUCLEAR REGULATORY COMMISSION EMERGENCY PREPAREDNESS INSPECTION REPORT 05000250/2017502, AND 05000251/2017502

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PUBLICLY AVAILABLE
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 ADAMS: Yes
 ACCESSION NUMBER: ML
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 FORM 665 ATTACHED

OFFICE	RII:DRS	RII:DRS	RII:DRS	RII:DRS	RII:DRP	RII:DRS	RII:DRP
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DATE	3/21/2017	3/21/2017	3/21/2017	3/21/2017	3/21/2017	3/21/2017	3/21/2017
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U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos: 05000250 and 05000251

License Nos: DPR-31 and DPR-41

Report Nos: 05000250/2017502 and 05000251/2017502

Licensee: Florida Power and Light

Facility: Turkey Point Nuclear Plant, Units 3 and 4

Location: Homestead, FL

Dates: February 20–24, 2017

Inspectors: Steven P. Sanchez, Senior Emergency Preparedness Inspector
Christopher A. Fontana, Emergency Preparedness Inspector
John D. Hickman, Emergency Preparedness Inspector
Wade Loo, Senior Health Physicist
Rogerio Reyes, Resident Inspector

Approved by: Brian R. Bonser, Chief
Plant Support Branch 1
Division of Reactor Safety

Enclosure

SUMMARY

Inspection Report (IR) 05000250/2017502, and 05000251/2017502; 02/20/2017 – 02/24/2017;
Turkey Point Nuclear Plant, Units 3 and 4; Exercise and Baseline Inspection

This report covers an inspection by three emergency preparedness inspectors, one resident inspector, and one health physicist. No findings of significance were identified. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 5.

REPORT DETAILS

1. REACTOR SAFETY

Cornerstone: Emergency Preparedness

1EP1 Exercise Evaluation

a. Inspection Scope

The onsite inspection consisted of the following review and assessment:

- The adequacy of the licensee's performance in the biennial exercise, conducted on February 22, 2017, was reviewed and assessed regarding the implementation of the Risk Significant Planning Standards in 10 CFR 50.47(b)(4), (5), (9), and (10); which address emergency classification, offsite notification, radiological assessment, and protective action recommendations, respectively.
- The overall adequacy of the licensee's emergency response facilities with regard to NUREG-0696, "Functional Criteria for Emergency Response Facilities," and Emergency Plan commitments. The facilities assessed were the Control Room Simulator, Technical Support Center, Operations Support Center, and the offsite Emergency Operations Facility.
- Other performance areas, such as the emergency response organization's (ERO) recognition of abnormal plant conditions; command and control, intra- and inter-facility communications; prioritization of mitigation activities; utilization of repair and field monitoring teams; interface with offsite agencies; and the overall implementation of the emergency plan and its implementing procedures.
- Past performance issues from NRC inspection reports and Federal Emergency Management Agency (FEMA)/Department of Homeland Security (DHS) exercise reports to determine the effectiveness of corrective actions as demonstrated during this exercise to ensure compliance with 10 CFR 50.47(b)(14).
- The post-exercise critique process and the presentation to the licensee's senior management conducted on February 23, 2017, to evaluate the licensee's self-assessment of its ERO performance during the exercise, and to ensure compliance with 10 CFR Part 50, Appendix E, Subsection IV.F.2.g.

The inspectors reviewed various documents, which are listed in the Attachment. The inspectors also attended the FEMA-sponsored public meeting on February 24, 2017. This inspection activity satisfied one inspection sample for the exercise evaluation on a biennial basis.

b. Findings

No findings were identified.

1EP4 Emergency Action Level and Emergency Plan Changes

a. Inspection Scope

Since the last NRC inspection of this program area, no revisions to the emergency plan, no revisions to the emergency action levels, and several revisions to emergency plan implementing procedures had been made. The licensee determined that, in accordance with 10 CFR 50.54(q), the emergency plan continued to meet the requirements of 10 CFR 50.47(b), and Appendix E to 10 CFR Part 50. The inspectors reviewed the revisions, and sampled implementing procedure changes to evaluate potential reductions in the effectiveness of the Plan. As this review was not documented in a Safety Evaluation Report, and does not constitute formal NRC approval of the changes, these changes remain subject to future NRC inspection in their entirety.

The inspection was conducted in accordance with NRC Inspection Procedure (IP) 71114, Attachment 04, Emergency Action Level and Emergency Plan Changes. The applicable planning standards of 10 CFR 50.47(b), and its related requirements in 10 CFR Part 50, Appendix E, were used as reference criteria.

The inspectors reviewed various documents, which are listed in the Attachment to this report. This inspection activity satisfied one inspection sample for the emergency action level and emergency plan changes on an annual basis.

b. Findings

No findings were identified.

1EP8 Exercise Evaluation – Scenario Review

a. Inspection Scope

Prior to the inspection activity, the inspectors conducted an in-office review of the exercise objectives and scenario submitted to the NRC using IP 71114.08, "Exercise Evaluation - Scenario Review," to determine if the exercise would test major elements of the emergency plan as required by 10 CFR 50.47(b)(14).

The inspectors reviewed various documents, which are listed in the Attachment to this report. This inspection activity satisfied one inspection sample for the exercise evaluation on a biennial basis.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification

a. Inspection Scope

The inspectors sampled licensee submittals relative to the performance indicators (PIs) listed below for the period October 1, 2015, through December 31, 2016. To verify the accuracy of the PI data reported during that period, PI definitions and guidance contained in Nuclear Energy Institute 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, was used to confirm the reporting basis for each data element.

Emergency Preparedness Cornerstone

- Drill/Exercise Performance (DEP)
- Emergency Response Organization (ERO) Readiness
- Alert and Notification System (ANS) Reliability

For the specified review period, the inspectors examined data reported to the NRC, procedural guidance for reporting PI information, and records used by the licensee to identify potential PI occurrences. The inspectors verified the accuracy of the PIs for ERO and DEP through review of a sample of drill and event records. The inspectors reviewed selected training records to verify the accuracy of the PI for ERO drill participation for personnel assigned to key positions in the ERO. The inspectors verified the accuracy of the PI for ANS reliability through review of a sample of the licensee's records of periodic system tests. The inspectors also interviewed the licensee personnel who were responsible for collecting and evaluating the PI data. Licensee procedures, records, and other documents reviewed within this inspection area, are listed in the Attachment.

This inspection satisfied three inspection samples for PI verification on an annual basis.

b. Findings

No findings were identified.

4OA6 Meetings

On February 23, 2017, the inspection team presented the inspection results to Mr. B. Stamp and other members of the plant staff. The inspectors confirmed that no proprietary information was provided during the inspection.

ATTACHMENT: Supplementary Information

SUPPLEMENTARY INFORMATION

KEY POINTS OF CONTACT

Licensee personnel

P. Barnes, System Engineering Manager
D. Barrow, Maintenance Director
B. Bazan, Emergency Preparedness Coordinator
C. Cashwell, Training Manager
J. Chamy, Chemistry Manager
D. Davis, EP Coordinator
M. Downs, Senior EP Coordinator
M. Goth, Licensing Manager
O. Hanek, Licensing Engineer
O. Hernandez, Security Manager
W. Hinson, Radiation Protection Manager
M. Koch, Assessment Team Member
G. Melin, Operations Director
K. O'Hare, EP Manager
J. Pallin, Engineering Site Director
P. Polfleit, Emergency Preparedness Corporate Functional Area Manager
C. Rossi, Nuclear Assurance Supervisor
B. Stamp, Plant General Manager
R. Tomonto, Design Engineering Manager

LIST OF DOCUMENTS REVIEWED

1EP1 Exercise Evaluation

Procedures

Turkey Point Plant Radiological Emergency Plan, Rev. 62
0-EPIP-1102, Duties of the Recovery Manager, Rev. No. 6
0-EPIP-1212, Emergency Operations Facility Activation and Operation, Rev. 12B
0-EPIP-1302, Core Damage Assessment, Rev. 4A
0-EPIP-20101, Duties of the Emergency Coordinator, Rev. 22
0-EPIP-20111, Re-Entry, Rev. No. 3A
0-EPIP-20125, Off-Site Dose Assessment Using the Unified RASCAL Interface (URI), Rev. 1
0-EPIP-20126, Off-Site Dose Calculations –Manual Method, Rev. 8C
0-EPIP-20132, Technical Support Center Activation, Rev. 11A
0-EPIP-20134, Offsite Notifications and Protective Action Recommendations, Rev. 6A
CY-TP-102-0106, Chemistry Analysis Procedures, Determination of Reactor Coolant Activity,
Rev. 2
EP-AA-101, Nuclear Division Drill and Exercise Program, Rev. 1
EP-AA-101-1000, Nuclear Division Drill and Exercise Procedure, Rev. 16 & 17
EP-AA-101-10001, Nuclear Division Drill and Exercise Objectives and Demonstration Criteria,
Rev. 6
RWP-17-0711 used for drills and exercises
TR-AA-230-1007, Conduct of Simulator Training and Evaluation, Rev. 4

Records and Data

FPL, Turkey Point Nuclear Station, 2017 Emergency Preparedness Graded Exercise, Executive Critique/Debrief

FPL, Turkey Point Nuclear Plant, Emergency Preparedness, Evaluated Exercise, February 22, 2017

Control Room Simulator, Operations Support Center, Technical Support Center, and Emergency Operations Facility /Joint Information Center - Documentation packages (logs, event notification forms, Protective Action Recommendations, Media releases, and Radiological Dose Assessments)

Corrective Action Program Documents (Action Requests)

AR 02092121, Experienced an unexpected Loss of Offsite Power

AR 02117723, March 15, 2016 EP Drill-DEP issue

AR 02164333, Missed E-Plan Drill and Exercise Performance

AR 02187071, NRC identified EP inspection item – DEP PI numbers

AR 02187120, NRC identified EP inspection item – DEP documentation

AR 02187122, NRC identified EP inspection item – 50.54(q) wording

AR 02187392, 2017 Graded Exercise issue – GE classification

AR 02187393, 2017 Graded Exercise issue – simulator performance delta

AR 02187394, 2017 Graded Exercise issue – JIC PIO interface

AR 02187395, 2017 Graded Exercise issue – team dispatch improvements

AR 02187396, 2017 Graded Exercise issue – TSC rollup

AR 02187397, 2017 Graded Exercise issue – EOF rollup

AR 02187398, 2017 Graded Exercise issue – OSC rollup

AR 02187523, 2017 Graded Exercise issue – RCS leakage status

AR 02187524, 2017 Graded Exercise issue – training frequency to improve ERO performance

AR 02187252, 2017 Graded Exercise issue – appropriate or inappropriate pace

AR 02187898, PTN ERO recovery plan

AR 02188363, 2017 Graded Exercise – NRC notification

1EP4 Emergency Action Level and Emergency Plan ChangesProcedures

EP-AA-100-1007, Evaluation of Changes to the Emergency Plan, Supporting Documents, & Equipment (10 CFR 50.54(q)), Rev. 3

NUC EPR 2001, 10 CFR 50.54(q) Qualification, Rev. 0

Change Packages

10 CFR 50.54(q) Screening Form for 0-EPIP-20134, Offsite Notifications & Protective Action Recommendations, Rev. 6, dated 1/12/16

10 CFR 50.54(q) Evaluation Form for 0-EPIP-20134, Offsite Notifications & Protective Action Recommendations, Rev. 6, dated 2/14/16

10 CFR 50.54(q) Screening Form for 0-EPIP-20101, Rev. 21A & 0-EPIP-20104, Rev. 5, dated 11/11/15

10 CFR 50.54(q) Evaluation Form for 0-EPIP-20101, Rev. 21A & 0-EPIP-20104, Rev. 5, dated 11/11/15

10 CFR 50.54(q) Screening Form for 0-EPIP-20101, Duties of the Emergency Coordinator, Rev. 22, dated 12/14/16

10 CFR 50.54(q) Evaluation Form for 0-EPIP-20101, Duties of the Emergency Coordinator, Rev. 22, dated 12/14/16

10 CFR 50.54(q) Screening Form for 0-EPIP-20134, Offsite Notifications & Protective Action Recommendations, Rev. 6A & Form F444, dated 4/4/16

Corrective Action Program Documents

AR 02110303, PTN Emergency Preparedness – PTN Radiological Emergency Plan
 AR 02138388, 0-EPIP-20101 cannot be performed per PUA standards

1EP8 Exercise EvaluationProcedures

Turkey Point Radiological Emergency Plan, Rev. 62
 EP-AA-101-1000-10001, Nuclear Division Drill and Exercise Objectives and Demonstration
 Criteria, Rev. 05
 EP-AA-101-1000, Objectives, 6 Key Functional Skill Sets Demonstrated, Attachment 12
 EPIP-04, Activation and Operation of the Technical Support Center, Rev. 51
 EPIP-05, Activation and Operation of the Operations Support Center, Rev. 36
 EPIP-06, Activation and Operation of the Emergency Operations Facility, Rev. 46

Records and Data

Turkey Point, Units 3 and 4 2017 Emergency Plan Exercise Scenario, submitted 12/21/2016
 and scheduled for 2/23/2017
 8 Year Tracking Spreadsheet
 8 Year Drill Objective Tracking Spreadsheet
 Turkey Point Nuclear Plant Emergency Preparedness Off-Year Exercise Scenario Timeline,
 dated 3/15/2016
 Turkey Point Nuclear Plant Emergency Preparedness Hostile Action Based (HAB) Exercise,
 dated 2/25/2015
 FEMA After Action Report/Improvement Plan, dated 2/25/2015
 Typical Drill and Exercise Objectives, Attachment 12
 2015 HAB Drill Critique Report, dated 3/2/2015
 2015 Second Quarter Emergency Preparedness Drill Critique Report, dated 6/26/2015
 2015 Fourth Quarter Emergency Preparedness Drill Critique Report, dated 10/8/2015
 2016 First Quarter Emergency Preparedness Drill Critique Report, dated 3/15/2016
 2016 Third Emergency Preparedness Drill Critique Report, dated 9/20/2016

40A1 Performance Indicator VerificationProcedures

0-ADM-032, NRC Performance Indicators Turkey Point, Rev. 7D
 Turkey Point Radiological Emergency Plan, Rev.62

Records and Data

DEP opportunities documentation for 4th quarter 2015, 1st , 2nd , 3rd , and 4th quarters
 2016
 Siren test data for 4th quarter 2015, 1st , 2nd , 3rd , and 4th quarters
 Drill and exercise participation records for 4th quarter 2015, 1st , 2nd , 3rd , and 4th quarters

Corrective Action Program Documents

AR 02028309, Inaccurate PAR determination
 AR 02030955, Incorrect EAL declaration made
 AR 02055137, Failed PI due to misclassification
 AR 02065959, EC and Communicator form incorrectly filled out
 AR 02092121, Experienced an unexpected Loss of Offsite Power
 AR 02102936, During the NRC inspection on 6/15/16, siren data would be easier to follow if in a
 spreadsheet
 AR 02142914, Include Recovery Manager in KEP Position Indicator

AR 02142934, 1st Quarter data for 2016 showed data point for 2nd quarter
AR 02178704 EP Performance Indicators – Data corrections 3rd and 4th Qtr.
AR 02187071, NRC Identified two successful opportunities not included in DEP PI
AR 02187120, NRC Identified inconsistent documentation of DEP opportunities

LIST OF ACRONYMS USED

ADAMS	Agencywide Documents Access and Management System
ANS	Alert and Notification System
CAP	Corrective Action Program
CFR	Code of Federal Regulations
DEP	Drill and Exercise Performance
DHS	Department of Homeland Security
ERO	Emergency Response Organization
FEMA	Federal Emergency Management Agency
IMC	Inspection Manual Chapter
IP	Inspection Procedure
NCV	Non-Cited Violation
NRC	Nuclear Regulatory Commission
PIM	Plant Issues Matrix
PI	Performance Indicator
PI&R	Problem Identification and Resolution
ROP	Reactor Oversight Process
SDP	Significance Determination Process
SUNSI	Sensitive Unclassified Non-Safeguards Information
TBD	To Be Determined
TI	Temporary Instruction
VIO	Violation