UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
2100 RENAISSANCE BOULEVARD, SUITE 100
KING OF PRUSSIA, PENNSYLVANIA 19406-2713

June 14, 2012

Mr. Michael Colomb
Site Vice President
Entergy Nuclear Northeast
James A. FitzPatrick Nuclear Power Plant
P. O. Box 110
Lycoming, NY 13093

SUBJECT: JAMES A. FITZPATRICK NUCLEAR POWER PLANT - NRC EVALUATION OF CHANGES, TESTS, OR EXPERIMENTS AND PERMANENT PLANT MODIFICATIONS TEAM INSPECTION REPORT 05000333/2012007

Dear Mr. Colomb:

On May 3, 2012, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at the James A. FitzPatrick Nuclear Power Plant (FitzPatrick). The enclosed inspection report documents the inspection results, which were discussed on May 3, 2012, with you and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. In conducting the inspection, the team reviewed selected procedures, calculations and records, observed activities, and interviewed station personnel.

Based on the results of this inspection, no findings were identified.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of the NRC's document system, Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

Lawrence T. Doerflein

Lawrence T. Doerflein, Chief
Engineering Branch 2
Division of Reactor Safety

Mr. Michael Colomb
Site Vice President
Entergy Nuclear Northeast
James A. FitzPatrick Nuclear Power Plant
P. O. Box 110
Lycoming, NY 13093

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Sincerely,

/RA/

Lawrence T. Doerflein, Chief
Engineering Branch 2
Division of Reactor Safety

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ADAMS ACCESSION NUMBER: ML12166A406

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DATE	5/30/12	6/11/12	6/14/12		

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Docket No. 50-333
License No. DPR-59

Enclosure:
Inspection Report 05000333/2012007
w/Attachment: Supplemental Information

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No.:	50-333
License No.:	DPR-59
Report No.:	05000333/2012007
Licensee:	Entergy Nuclear Northeast (Entergy)
Facility:	James A. FitzPatrick Nuclear Power Plant
Location:	Scriba, New York
Inspection Period:	April 16 through May 3, 2012
Inspectors:	J. Schoppy, Senior Reactor Inspector, Division of Reactor Safety (DRS), Team Leader R. Fuhrmeister, Senior Reactor Inspector, DRS D. Kern, Senior Reactor Inspector, DRS
Approved By:	Lawrence T. Doerflein, Chief Engineering Branch 2 Division of Reactor Safety

SUMMARY OF FINDINGS

IR 05000333/2012007; 4/16/2012-5/3/2012; James A. FitzPatrick Nuclear Power Plant (FitzPatrick); Engineering Specialist Plant Modifications Inspection.

This report covers a two week on-site inspection period of the evaluations of changes, tests, or experiments and permanent plant modifications. The inspection was conducted by three region based engineering inspectors. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

No findings were identified.

REPORT DETAILS

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R17 Evaluations of Changes, Tests, or Experiments and Permanent Plant Modifications (IP 71111.17)

.1 Evaluations of Changes, Tests, or Experiments (20 samples)

a. Inspection Scope

The team reviewed a sample of twenty 10 CFR 50.59 screenings for which Entergy had concluded that no safety evaluation was required. The team performed these reviews to assess whether Entergy's threshold for performing safety evaluations was consistent with 10 CFR 50.59. The sample included design changes, calculations, and procedure changes and were selected based on the safety significance, risk significance, and complexity of the change to the facility. The team reviewed the screenings to determine whether the changes to the facility or procedures, as described in the Updated Final Safety Analysis Report (UFSAR), had been adequately reviewed in accordance with 10 CFR 50.59 requirements. The team interviewed plant staff and reviewed supporting information including calculations, analyses, design change documentation, procedures, the UFSAR, the Technical Specifications (TSs), and plant drawings to assess the adequacy of the screenings. The team compared the screenings and supporting documents to the guidance and methods provided in Nuclear Energy Institute (NEI) 96-07, "Guidelines for 10 CFR 50.59 Evaluations," as endorsed by NRC Regulatory Guide 1.187, "Guidance for Implementation of 10 CFR 50.59, Changes, Tests, and Experiments," to determine the adequacy of the screenings.

Entergy had not performed and approved any safety evaluations at FitzPatrick during the time period covered by this inspection (i.e., since the last modifications inspection). As such, the team did not review any safety evaluations during this inspection. The team also compared Entergy's administrative procedures used to control the screening, preparation, review, and approval of safety evaluations to the guidance in NEI 96-07 to determine whether those procedures adequately implemented the requirements of 10 CFR 50.59. The screenings reviewed by the team are listed in the attachment.

b. Findings

No findings were identified.

.2 Permanent Plant Modifications (11 samples)

.2.1 Replacement of Obsolete Low Pressure Coolant Injection Inverters

a. Inspection Scope

The team reviewed a modification (engineering change (EC) 17239) developed to replace the A and B low pressure coolant injection (LPCI) system inverters, which had demonstrated reliability issues due to equipment age. The LPCI inverters supply 600 VAC power to certain safety-related components to help mitigate a loss-of-coolant accident (LOCA). Spare parts were no longer manufactured and were difficult to obtain. Entergy replaced the A LPCI inverter during the September 2010 refueling outage (RFO19). Entergy planned the B LPCI inverter replacement for a future outage. The modification included installation of the new solid state LPCI inverter, rerouting electric cable conduit, seismic mounting, revision to various documents, and a comprehensive post modification test plan (PMTP).

The team reviewed the modification to verify the design basis, licensing basis, and performance capability of the LPCI inverters and supported safety-related components had not been degraded by the modification. The team verified that the design specifications of the new LPCI inverter were equivalent or improved from the original model. The team interviewed design engineers and reviewed calculations, evaluations, purchase specifications, vendor verification and validation reports, and the PMTP results to verify that Entergy properly implemented the inverter replacement modification. The team also reviewed corrective action condition reports (CRs) to determine whether the new A LPCI inverter performed reliably since installation and whether any new performance issues had resulted from the modification. The team walked down the A LPCI inverter to assess the material condition and standby configuration. The team also verified that Entergy adequately updated applicable station drawings, electrical loading calculations, operating and maintenance procedures, vendor manuals, and spare parts inventories to address the modification. Additionally, the team reviewed the 10 CFR 50.59 screen and engineering evaluation associated with this modification. The documents reviewed are listed in the attachment.

b. Findings

No findings were identified.

.2.2 Containment Vent and Purge Piping Support Modification

a. Inspection Scope

The team reviewed a modification (EC 7540) to the support system for safety-related standby gas treatment (SBGT) system line 27-24"-G28-152A-46. The modification was in response to seismic interaction concerns (CR-JAF-2008-01366) identified during a stress analysis performed by the Stone and Webster Engineering Corporation on containment vent and purge piping. Specifically, the stress analysis (calculation 14620-EM-9011-6) determined that the addition of three supports and the modification of a fourth existing

support would reduce the stresses for the design basis loading conditions so that they would be within the USAS B31.1.0 design code allowable stress limits. Entergy performed an operability determination for CR-JAF-2008-01366, and determined the piping remained operable but degraded. NRC previously reviewed the operability determination and documented the results in inspection report 05000333/2008003. Entergy implemented the modification by adding three new pipe supports (PFSK-7082, PFSK-7083 and PFSK-7084) and modifying a fourth existing pipe support (BFSK-771) to the affected SBGT system piping.

The team reviewed the modification to verify that the design basis, licensing basis and structural integrity of the SBGT piping and supports had not been degraded by the modification. The team interviewed design engineers, and reviewed drawings, pipe stress calculations, anchor and support installation procedures, and associated maintenance work orders to verify that the SBGT piping support modifications were appropriately implemented and that the SBGT piping was maintained in accordance with design assumptions. The team also performed several walkdowns of the accessible portions of the modification, and included performing independent measurements, to ensure that the system configuration was in accordance with design instructions. The team also reviewed corrective action CRs to determine if there were reliability or performance issues that may have resulted from the modification. Additionally, the team reviewed the 10 CFR 50.59 screen and engineering evaluation associated with this modification. The documents reviewed are listed in the attachment.

b. Findings

No findings were identified.

.2.3 Electrical Transient Analyzer Program Software Verification

a. Inspection Scope

The team reviewed a modification (EC 6527) which provided the engineering evaluation for implementing the Electrical Transient Analyzer Program (ETAP) software program, and included ensuring it met the Level A requirements of Entergy procedure EN-IT-104, Software Quality Assurance Program. The software program provides a method for electrical engineers to design and perform studies of electrical power systems. Entergy uses this software to ensure safety-related structures, systems, and components (SSCs) meet their intended design basis functions as defined in FitzPatrick's licensing and design bases documents.

The team reviewed the modification to determine if it affected the design or licensing bases or impacted any plant system or component. The team reviewed the design verification checklist, impact screening forms, process applicability checklist, 10 CFR 50.59 screening, and engineering evaluation associated with the software to ensure that Entergy adequately reviewed the modification. The team reviewed the software's verification and validation documentation provided to Entergy by a qualified supplier to ensure that it was properly verified and validated under the supplier's

10 FR Part 50, Appendix B, quality assurance program. The documents reviewed are listed in the attachment.

b. Findings

No findings were identified.

.2.4 Update Remaining Service Life for Various Calculations Due to Wall Thinning Issues

a. Inspection Scope

The team reviewed a design calculation (EC 11238) which determined the estimated remaining service life (RSL) for piping in several risk important systems (emergency service water, residual heat removal (RHR) service water, RHR, reactor building ventilation, control room and relay room ventilation, and the torus). Flow accelerated corrosion (FAC) is the degradation and consequential wall thinning of piping or components due to a dissolution phenomenon similar to erosion. Entergy procedure EN-DC-315, FAC Program, established the programmatic criteria and methodology for the inspection, evaluation, and disposition of piping susceptible to degradation due to FAC. Based on ultrasonic test (UT) measurements performed from 2004 to 2008, EC 11238 documented the RSL evaluation of 30 pipe segments which had experienced FAC degradation.

The team reviewed Entergy's methodology used to determine the monitored susceptible piping, measurement techniques, degradation progression, RSL, and Entergy's recommended corrective actions to ensure piping design code requirements were maintained. The team selected 11 of the 30 specific pipe wall locations for detailed review, based on risk insights and estimated RSL of less than 15 years. The team reviewed the associated piping code design requirements, UT measurement reports, and RSL calculations. Additionally, the inspectors performed selected plant walkdowns and interviewed engineers to verify that Entergy's monitoring program was effectively implemented, evaluations of RSL were technically sound, safety margins were maintained, and corrective actions implemented in a timely manner to maintain piping design and associated system operability. Additionally, the team reviewed the 10 CFR 50.59 screen associated with this calculation. The documents reviewed are listed in the attachment.

b. Findings

No findings were identified.

.2.5 Reactor Recirculation Motor-Generator Set Scoop Tube Positioner Replacements

a. Inspection Scope

The team reviewed a modification (EC 15323) that replaced the reactor water recirculation (RWR) system motor-generator (MG) set scoop tube positioners (02-184ACT-1A & 1B). The function of the RWR MG set scoop tube positioners is to allow the

licensed operator to establish precise control of reactor power by setting RWR flow. The previous RWR MG set scoop tube positioners were obsolete and were not supported by the original manufacturer. Entergy implemented the A and B train MG set scoop tube positioner replacements under child ECs 17564 and 17565, respectively. Entergy uses child ECs to track installation, testing, return to service, and update of configuration documents for each separate train when the return to service is completed at different times.

The team reviewed EC 15323 and associated EC packages (EC 17564 and EC 17565) to verify that the design basis, licensing basis, and performance capability of the RWR system had not been degraded by the modification. The team reviewed the associated engineering evaluation, engineering change notices, the fire protection program evaluation, the PMTP, work order instructions, vendor manuals for the new equipment, the impact screening form, and the 10 CFR 50.59 screening to verify that Entergy appropriately evaluated the change and developed appropriate installation instructions. The team verified that Entergy identified and appropriately addressed potential effects on the electrical distribution system. The team discussed aspects of the design and testing with the engineer responsible for the modification. The team also reviewed EC 26765, Install Digital RWR Recirc Flow Control System, to ensure that Entergy properly addressed interfaces between the control system and the controlled component. The team reviewed associated cable pull tickets and raceway installation tickets to verify that Entergy maintained adequate separation of divisional electrical cabling and specified appropriate maximum pulling tensions and minimum bend radii. The team performed several walkdowns of the RWR MG set scoop tube positioners, accessible electrical raceways, and local indicating panels to ensure that the modification was installed in accordance with design instructions and to independently assess Entergy's configuration control and the material condition of the RWR MG set room. The team also reviewed corrective action CRs to verify proper RWR system operation and to determine if there were reliability or performance issues that may have resulted from the modification. The documents reviewed are listed in the attachment.

b. Findings

No findings were identified.

.2.6 Residual Heat Removal Service Water Strainer Coating Modification

a. Inspection Scope

Since 2000, Entergy monitored the RHR service water (RHRSW) system strainers for wall thinning through periodic UT examinations. Based on internal inspections of the strainer housings, Entergy identified that no internal coating remained for these components. Entergy determined that internal wall thinning of the RHRSW strainers occurred at an accelerated rate in localized areas of the strainer basket housings. In response, Entergy developed EC 2014 as a mitigating strategy to extend the life of the RHRSW strainers until the strainers could be replaced. The purpose of EC 2014 was to identify an acceptable coating for the internal surfaces of the RHRSW strainers to prevent any further erosion. However, prior to installing the new epoxy coating on the internals of

the old RHRSW strainers, Entergy developed and approved EC 32222 to clarify some of the precautions noted in EC 2014 to allow coating application in a shop setting, during on-line maintenance windows, as part of a large scale replacement of the strainer housing.

The team reviewed EC 2014 and EC 32222 to verify that the design basis, licensing basis, and performance capability of the RHRSW strainers and the RHRSW system had not been degraded by the modification. The team reviewed calculations, engineering evaluations, strainer specifications, and epoxy product specifications to verify that the applied epoxy and modified strainer housings would not adversely impact important to safety SSCs during normal operation or under design basis conditions. The team reviewed the associated post-modification test (PMT) results, system health and walkdowns reports, and corrective action CRs to verify proper strainer operation and to determine if there were reliability or performance issues that may have resulted from the modification. The team reviewed the associated work order documentation for the A2 and B1 RHRSW strainers and performed several walkdowns of the RHRSW strainers to ensure that the modification was implemented in accordance with design instructions and to independently assess strainer integrity, Entergy's configuration control, and the material condition of the safety-related service water pump rooms. Additionally, the team reviewed the 10 CFR 50.59 screens and engineering evaluations associated with EC 2014 and EC 32222. The documents reviewed are listed in the attachment.

b. Findings

No findings were identified.

.2.7 Static Head Correction for Reactor Core Isolation Cooling and High Pressure Coolant Injection Suction Pressure Instruments

a. Inspection Scope

The team reviewed revised calculations and an associated modification (EC 30006) for the high pressure coolant injection (HPCI) system and reactor core isolation cooling (RCIC) system pump suction pressure instruments. The pump suction pressure instruments provide indication, high pressure alarm function, and a turbine trip if suction pressure falls below the respective pump net positive suction head (NPSH) requirements. Engineers identified that the RCIC instrumentation was not head corrected to address the elevation of the suction pressure transmitter being located 13.625 feet above the pump suction elevation. Additionally, the HPCI low suction pressure turbine trip and high pressure alarm functions were not pressure compensated for transmitter elevation (i.e., static head). Entergy revised the calculations to demonstrate that the corrected RCIC and HPCI high pressure alarm setpoints remained below the respective system relief valve lift setpoints and that the corrected low suction pressure trip setpoint continued to ensure adequate NPSH for the HPCI and RCIC pumps.

The team reviewed the modification and revised calculations to verify that the design basis, licensing basis, and performance capability of the HPCI and RCIC pump suction pressure indication, overpressure protection, and low pressure protection had not been

degraded by the modification. The team independently verified the revised RCIC pump suction pressure transmitter calibration values were correct and were properly translated into maintenance procedures. The team also reviewed the completed PMT and revisions identified for the control room simulator. Additionally, the team reviewed the 10 CFR 50.59 screen and engineering evaluation associated with this modification. The documents reviewed are listed in the attachment.

b. Findings

No findings were identified.

.2.8 Replacement of Reserve Station Service Transformers (71T-2 and 71T-3)

a. Inspection Scope

Entergy developed modification EC 12703 to replace the two existing reserve station service transformers (RSST) with new transformers of similar impedance. The function of the RSSTs is to provide a means of supplying power from the offsite 115 kV power grid (115 kV lines 3 and 4) via the 115 kV switchyard and stepping it down to the 4160V level required by the plant alternating current (AC) distribution system. The RSSTs provide the power required for plant start-up and shutdown. These transformers also provide offsite power to the engineered safeguards equipment for safe shutdown of the plant in the event of an abnormal or accident condition. The new transformers have a higher capacity rating and have an automatic on-load tap changer (OLTC) capability. Entergy had planned to install the new RSSTs during Phase 1 of the modification in September 2010; however, switchyard issues caused Entergy to delay the planned installation until Fall 2012. In preparation for the planned installation in September 2010, Entergy had pulled several hundred feet of associated cable into the East and West safety-related cable tunnels prior to RFO19 in 2010.

The team reviewed modification EC 12703 to verify that the design basis, licensing basis, and performance capability of the AC distribution system had not been degraded by the partial implementation of the modification. The team discussed the planned modification and partially installed portions with design and fire protection program engineers to verify the design assumptions and program requirements. The team conducted several walkdowns and visual inspections of the East and West cable tunnels to assess the installed configuration, material condition, and potential adverse impact on safety-related SSCs in the area. Specifically, the team independently assessed the condition, placement, and storage of the de-energized non safety-related RSST cables for potential adverse impact on the fire protection system, fire penetration seals, tunnel ventilation system, and safety-related cable tray electrical separation. The team also reviewed corrective action CRs to determine if there were reliability or performance issues that may have resulted from the partial implementation of the modification. Additionally, the team reviewed the 10 CFR 50.59 screen and engineering evaluation associated with this modification. The documents reviewed are listed in the attachment.

b. Findings

No findings were identified.

.2.9 Screen Wash Booster Pump Discharge Line Isolation Valve Bypass Modification

a. Inspection Scope

Two screen wash booster pumps, arranged in parallel, take suction from the normal service water (NSW) pump discharge manifold and supply pressurized water to the traveling water screen wash nozzles. The NSW screen wash booster pump discharge header isolation valve, 46MOV-111, is designed to automatically open when one of the screen wash booster pumps starts. A FitzPatrick single point failure vulnerability review for the non-safety related circulating water system (LO-WTJAF-2006-1 CA 313) concluded that if valve 46MOV-111 failed to open due to mechanical problems, the traveling water screens would not start due to low discharge pressure (no flow) at pressure switch 46PS-124, which is located directly downstream of valve 46MOV-111. In addition, as 46MOV-111 was the common isolation valve for the discharge line from both SW screen wash booster pumps, its failure to open would result in both pumps being inoperable. Entergy developed and implemented EC 14172 to mitigate this single failure potential by installing a bypass line around 46MOV-111 and included a bypass line manual isolation valve (46SWS-49). In addition, the modification installed isolation valves on both sides of 46MOV-111 to enable periodic maintenance on 46MOV-111 during plant operation with the bypass line in service.

The team reviewed the modification (EC 14172) to verify that the design basis, licensing basis and performance capability of the screen wash booster pumps and traveling water screens had not been degraded by the modification. The team reviewed the associated work order instructions and documentation to verify that the modification was implemented as designed. The team reviewed related drawings and operating procedures to ensure that they were properly updated. The team reviewed the associated PMTP and PMT results to ensure that Entergy specified appropriate tests and acceptance criteria and that the documented results confirmed satisfactory performance. The team also interviewed plant operators and reviewed corrective action CRs to verify proper screen wash system operation and to determine if there were reliability or performance issues that may have resulted from the modification. The team performed several walkdowns of the modified screen wash piping and intake area SSCs to ensure that the modification was installed in accordance with design instructions and to independently assess Entergy's configuration control and the material condition of the intake area. Additionally, the team reviewed the 10 CFR 50.59 screen and engineering evaluation associated with this modification. The documents reviewed are listed in the attachment.

b. Findings

No findings were identified.

.2.10 Service Water Pump Suction Bell Modification; Replace Bowl Assembly with New Design Suction Bell Bearing

a. Inspection Scope

The team reviewed a modification (EC5000018761) which installed a new design pump suction bell and lower shaft on each of the three NSW pumps. The previous NSW pumps experienced high vibration and bearing wear. The NSW pumps provide a heat sink for the reactor building and turbine building closed cooling water systems. Entergy installed the modified suction bell, with a bearing housing to capture the end of the shaft, to reduce bearing wear and pump vibration. The manufacturer estimated that the modified pump would have a slightly reduced operating point (flow versus pump total driving head) and slightly increased electrical power demand. Engineers determined that the reduction in pump head and flow and increased power consumption were acceptable because they represented only a small decrease in the existing margin that the pumps had above system operating requirements. Entergy implemented the modification on the three NSW pumps in 2008, 2009, and 2010, respectively.

The team reviewed the modification to verify that the design basis, licensing basis and functional capability of the NSW pumps had not been degraded by the modification. The team interviewed design engineers and reviewed calculations, evaluations, vendor and nameplate data, PMT results, and associated maintenance work orders to verify that Entergy properly implemented the NSW pump suction bell replacement modification. The team verified that NSW flow and pump power consumption did not appreciably change and that pump vibration was notably reduced. The team also walked down portions of the NSW system to observe post-modification pump performance. The team reviewed corrective action CRs to ensure that Entergy had appropriately addressed any NSW pump modification, PMT, or performance issue. Additionally, the team reviewed the 10 CFR 50.59 screen and engineering evaluation associated with this modification. The documents reviewed are listed in the attachment.

b. Findings

No findings were identified.

.2.11 Residual Heat Removal Service Water Piping Remaining Service Life Calculation

a. Inspection Scope

The RHRSW system is designed to provide cooling water to the RHR heat exchangers (HX). The RHRSW system is operated whenever the RHR HXs are required to operate in the shutdown cooling mode, the suppression pool cooling mode, or the containment spray mode of the RHR system. The safety-related RHRSW system consists of two independent and redundant subsystems. In response to September 2008 UT inspection data, Entergy revised calculation JAF-CALC-RHR-03085 (EC 20584) to determine the structural acceptability of thinned sections of RHRSW piping downstream of 10MOV-89 A/B in the A and B RHR HX rooms. The calculation also determined the RSL of the piping based on the measured wall thickness in the bounding thinned area.

The team reviewed EC 20584 to verify that the design basis, licensing basis, and performance capability of the RHRSW and RHR systems had not been degraded by the engineering change. Specifically, the team reviewed calculations, technical evaluations, FitzPatrick's piping code and piping specifications, and UT examination history dating back to 1995 to verify that Entergy used appropriate and conservative assumptions to ensure that the evaluated RHRSW piping would continue to perform its design function during normal operation and under design basis conditions for the calculated remaining service life. The team compared the calculated piping RSL to Entergy's RHRSW piping replacement schedule to ensure adequate margin was maintained and that a reasonable assurance of continued operability existed. The team performed a walkdown of the RHRSW piping in the A and B RHR HX rooms and several walkdowns of accessible RHRSW piping outside the RHR HX rooms to independently assess the RHRSW piping condition, Entergy's configuration control, and the material condition of the safety-related SSCs in these areas. The team reviewed system health and walkdown reports, and corrective action CRs to ensure that Entergy had appropriately addressed any RHRSW piping integrity or performance issues. Additionally, the team reviewed the 10 CFR 50.59 screen and engineering evaluation associated with EC 20584. The documents reviewed are listed in the attachment.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

4OA2 Identification and Resolution of Problems (IP 71152)

a. Inspection Scope

The team reviewed a sample of CRs associated with 10 CFR 50.59 and plant modification issues to determine whether Entergy was appropriately identifying, characterizing, and correcting problems associated with these areas, and whether the planned and/or completed corrective actions were appropriate. In addition, the team reviewed CRs written on issues identified during the inspection to verify adequate problem identification and incorporation of the problem into the corrective action system. The CRs reviewed are listed in the attachment.

b. Findings

No findings were identified.

4OA6 Meetings, including Exit

The team presented the inspection results to Mr. Michael Colomb, Site Vice President, and other members of Entergy's staff at an exit meeting on May 3, 2012. The team returned the proprietary information reviewed during the inspection and verified that this report does not contain proprietary information.

ATTACHMENT

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel
V. Bacanskas, Manager, Design Engineering
R. Casella, Senior Engineer, Mechanical/Structural Design
M. Colomb, Site Vice President
G. Foster, Supervisor, Configuration Management
R. Johnson, Nuclear Plant Operator
S. Juravich, Design Engineer
R. Kester, Senior Engineer, EFIN Structural
K. McWeeny, Senior Reactor Operator
J. Pechacek, Manager, Licensing
A. Porch, Design Engineering
D. Ruddy, Design Engineer
D. Stokes, Fire Protection Engineer
A. Storm, System Engineer
B. Sullivan, General Manager, Plant Operations
A. Yost, Senior Engineer, Electrical Design

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

None.

LIST OF DOCUMENTS REVIEWED

10 CFR 50.59 Screened-out Evaluations
AOP-14, Earthquake Process Applicability Determination, dated 4/15/10
AOP-49, Station Blackout Process Applicability Determination, dated 11/14/11
AOP-64, Loss of Intake Water Level, Rev. 8
AOP-68, Spent Fuel Pool Trouble, Rev. 5
EC 5681, Equivalency Evaluation of Fluke 8060A Digital Multi Meter, Rev. 0
EC 17551, Replace 71UPS-1 MG Set with Static Inverter, Rev. 0
EC 19659, Perform Voltage Pickup Calculation Available at 01-125MOV-12(OP) Contactor Coil during the Degraded Bus Voltage Condition (Refer to CR-JAF-2010-00242), Rev. 0
EC 21686, ESW/RHRSW Pump Room Temperature Evaluation - Forced Ventilation Process Applicability Determination, dated 4/29/10
EC 22434, Install Method to Open 46MOV-111, SWS Screenwash Booster Pump Discharge Header Isolation Valve, Rev. 0
EC 24517, Evaluation of Exxon Polyrex EM Grease VS Chevron SRI Grease for Motor Bearing Applications Process Applicability Determination, dated 9/11/10
EC 26085, Line/Valve Kill Sealant Injection at 35RV-115B, Rev. 0

EC 30962, Temporary Alarm Set Point Change for 20 TIS-534B Reactor Building Sump 'B' Temperature, Rev. 2
EC 35170, EDG Room Flooding Analysis, Rev. 0
EOP-5/6, Secondary Containment Control - Radioactive Release Control Flow Chart Revision 8 Process Applicability Determination, dated 8/5/11
MST-071.20, 125 VDC Station Service Battery Test, Rev. 32
OP-45A, Backfeeding Normal Station Service Transformers from the 345 kV System, Rev. 14
OP-46A, 4160V and 600V Normal AC Power Distribution, Rev. 56
ST-9QA, EDG A and C Full Load Test (8 Hour Run) Process Applicability Determination, dated 1/18/11
ST-40D, Daily Surveillance and Channel Check Process Applicability Determination, dated 12/8/11
TSG-9, Primary Containment Venting Without AC Power, Rev. 4

Audits and Self-Assessments
February 2011 50.59 Screen Sample, Rev. 0
February 2012 50.59 Screen Sample, Rev. 0
JAFLO-2011-009, Engineering Change Installation Snapshot Assessment, performed 2/1/11 - 2/24/11
JAFLO-2011-110, James A. FitzPatrick Nuclear Power Plant Focused Self-Assessment Report, dated 4/6/12
QA-4-2010-JAF-1, Engineering Quality Assurance Audit Report, dated 8/18/10

Calculations
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MISC-1835, Evaluation of Acceptable Pit Depth for Torus Shell Wall, Rev. 1
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JAF-DBD-16, Design Basis Document for the Primary Containment Isolation System, Rev. 4
JAF-DBD-46, Design Basis Document for the Normal Service Water, Emergency Service Water, and RHR Service Water Systems, Rev. 18
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00173598	00252248	51100059	
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284872-09, 10S-5B1 FME Closeout, dated 3/23/12
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PLMSDS N890A1NL, Carboguard 890 N Part A Material Safety Data Sheet, dated 3/25/09
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LIST OF ACRONYMS

AC	Alternating Current
ADAMS	Agency-Wide Documents Access and Management System
AOP	Abnormal Operating Procedure
ASME	American Society of Mechanical Engineers
CR	Condition Report
DBD	Design Basis Document
DRS	Division of Reactor Safety
EC	Engineering Change
Entergy	Entergy Nuclear Northeast
EPRI	Electric Power Research Institute
ESW	Emergency Service Water
ETAP	Electrical Transient Analyzer Program
FAC	Flow Accelerated Corrosion
HPCI	High Pressure Coolant Injection
HX	Heat Exchanger
IP	Inspection Procedure
JAF	James A. FitzPatrick Nuclear Power Plant
kV	KiloVolt
LOCA	Loss-of-Coolant Accident
LPCI	Low Pressure Coolant Injection
MG	Motor-Generator
MOV	Motor Operated Valve
NEI	Nuclear Energy Institute
NPSH	Net Positive Suction Head
NRC	Nuclear Regulatory Commission
NSW	Normal Service Water
OLTC	On-Load Tap Changer
PARS	Publicly Available Records
PMT	Post-Modification Test
PMTP	Post-Modification Test Plan
RCIC	Reactor Core Isolation Cooling
RFO	Refueling Outage
RHR	Residual Heat Removal
RHRSW	Residual Heat Removal Service Water
RSL	Remaining Service Life
RSST	Reserve Station Service Transformer
RWR	Reactor Water Recirculation
SBGT	Standby Gas Treatment
SSC	Structure, System, and Component
TS	Technical Specification
UFSAR	Updated Final Safety Analysis Report
USAS	USA Standard Code for Pressure Piping
UT	Ultrasonic Test
UV	Undervoltage
V	Volt