UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET SW SUITE 23T85
ATLANTA, GEORGIA 30303-8931

August 2, 2000

Florida Power Light Company
ATTN: Mr. T. F. Plunkett
President, Nuclear Division
P. O. Box 14100
Juno Beach, FL 33408-0420

SUBJECT: TURKEY POINT NUCLEAR PLANT UNITS 3 & 4, NRC INSPECTION REPORT NOS. 50-250/2000-07 AND 50-251/2000-07

Dear Mr. Plunkett:

On June 23, 2000, the NRC completed an inspection at your Turkey Point Nuclear Plant, Units 3 and 4. The enclosed report presents the results of that inspection which were discussed on June 23, 2000, with Mr T. Jones and other members of your staff. This was a Safety System Design Inspection.

The inspection was an examination of 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. Within these areas, the inspection consisted of a selective examination of procedures and representative records, observations of activities, and interviews with personnel.
Based on the results of this inspection there were no findings.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publically Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC web site at
http://www.nrc.gov/NRC/ADAMS/index.html
(the Public Electronic Reading Room).

Sincerely,

/RA/

Kerry D. Landis, Chief
Engineering Branch
Division of Reactor Safety

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

Enclosure: NRC Inspection Report Nos. 50-250 /00-07
and 50-251/00-07

cc w/encl: (See page 2)

cc w/encl:

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U. S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos.:	50-250, 50-251
License Nos.:	DPR-31, DPR-41
Report No.:	50-250/00-07 AND 50-251/00-07
Licensee:	Florida Power Light Company
Facility:	Turkey Point Nuclear Plant, Units 3 & 4
Location:	9760 S. W. Street Florida City, FL 33035
Dates:	May 30-June2, 2000 and June 19-23, 2000
Lead Inspector:	F. Jape, Senior Project Manager Engineering Branch Division of Reactor Safety
Inspectors:	R. L. Moore, Reactor Inspector C. F. Smith, Senior Reactor Inspector S. Ninh, Senior Project Engineer R. G. Quirk, NRC Contractor, Beckman & Associates
Approved by:	K. D. Landis, Chief Engineering Branch Division of Reactor Safety

SUMMARY OF FINDINGS

IR 50-250/00-07, & 50-251/00-07, on 5/30-6/2/00 and 6/19-23/00: Florida Power Light Company; Turkey Point Nuclear Plant, Units 3 & 4.

The inspection was by a regional engineering team using IP 71111.21, Safety System Design and Performance Capability. This inspection identified no findings.

REPORT DETAILS

1. REACTOR SAFETY

Cornerstone: Mitigating Systems

1R21 Safety System Design and Performance Capability (71111.21)

.1 System Needs

.11 Energy Source

a Inspection Scope

The team performed an electrical design review for probable common cause failures of risk significant equipment in the high head and low head safety injection system for a DBA coincident with a LOOP for Unit 3. The design review focused on evaluating the capabilities of Unit 3 risk significant equipment to mitigate the event. The team reviewed design basis documents, calculations of record, vendor information and approved design output drawings for the Unit 3, 4160 Volts and 480 Volts electrical distribution system. The team evaluated the adequacy of the electrical distribution system to meet design criteria for steady state voltage ranges at 4160 Volts and 480 Volts motor terminals to ensure successful operation of these motors. Transient voltage conditions were also evaluated for successful starting of the high head and low head safety injection pump motors. Design criteria related to the minimum pickup voltage of motor starter contactors of risk significant MOVs, listed below, were evaluated to ensure that the criteria were satisfied under transient voltage conditions.

Motor Operated Valves Evaluated:

MOV-862A/B
MOV-863A/B
MOV-864A/B
MOV-866A/B
MOV-750
MOV-751
MOV-843A/B

b Issues and Findings

There were no findings identified.

.12 Controls

a. Inspection Scope

The team verified control power for low pressure injection (LPI) and high pressure injection (HPI) pumps and motor operated valves (MOV) required to operate during the injection and recirculation modes was safety related. The team also reviewed the failure mode for air operated valves (AOV) associated with the recirculation mode to verify these would fail in the safe condition and the non-safety grade control air was either isolated or procedures were in place to ensure valves were properly positioned for

mitigating the effects of the accident. Additionally the team reviewed system components that should receive SI signals to change status for the start of the injection phase. The refueling water storage tank (RWST) level instrumentation and related level setpoints were reviewed to ensure sufficient water inventory existed before the accident, and levels associated with manual actions related to swap-over to the containment sump were adequate and accounted for net positive suction head (NPSH) and vortexing issues.

b. Issues and Findings

There were no findings identified.

.13 Operator Actions

a. Inspection Scope

The RWST level instrumentation related to initiation, control, and shutdown actions in the emergency operating procedures (EOP) were verified to determine if they were consistent with the design basis documents.

The team reviewed operating procedures for mitigating the consequences of Loss-of-Coolant Accident (LOCA) events to verify that the procedures specified operator actions for transferring Emergency Core Cooling System (ECCS) from injection phase to recirculation phase were consistent with design and licensing basis documents. This review included operating procedures (OPs), off-normal operating procedures (ONOPs), Emergency Operating Procedures (EOPs), EOP Basis Documents, ECCS System Descriptions, Annunciator Response procedures, Design Basis Documents (DBDs), Final Safety Analysis Report (FSAR), and Technical Specifications (TS). The team performed a walkdown of selected HPI and LPI components to verify that operation and system alignments were consistent with design and licensing basis assumptions. The team also performed a walkdown of selected control room instrumentation and alarms to verify that (1) containment sump levels, refueling water storage tank levels, HPI and LPI flows and pressures were consistent with design and licensing basis documents and (2) the appropriate indications, controls, and alarms were available for operators to initiate the manual switch over of LPI at 155,000 gallons in RWST, to align piggypack operation, and to secure HPI pumps and containment spray at 60,000 gallons in RWST during the recirculation phase.

In addition, the team observed, on the simulator, how licensed operators would respond to a design basis accident scenario, a large break LOCA with a failure of train B and non-recovery failure of instrument air.

b. Issues and Findings

There were no findings identified.

.2 System Condition and Capability

.21 Installed Configuration

a. Inspection Scope

The team completed walkdowns of the LPI and HPI systems to verify that critical instrumentation was adequately located. Also, a walkdown of the main control room instrumentation and controls required for operator action to mitigate a large break LOCA was performed to ascertain if they were operable.

b. Issues and Findings

There were no findings identified.

.22 Design

a. Inspection Scope

The team reviewed various calculations, and maintenance and operations procedures to ensure the system major design bases and assumptions were translated into design calculations and procedures. The team reviewed the system pump and valve elementary wiring diagrams to verify the control logic was adequate for mitigating large break LOCAs.

The team reviewed design basis calculations of record and approved design output drawings of 4160 Volts auxiliary switchgear 3A and 3B, and 480 Volts load centers 3A, and 3B, in order to verify that the degraded voltage relay set point values ensured that steady state voltage criteria for motors were not violated. Steady state degraded voltage protection provided by the IAV relays was reviewed. The analytical limit upon which the set points were based was evaluated to ensure that degraded voltage protection was provided for motors fed from the 4160 Volts switchgear. Transient voltage conditions monitored by the ITE relays and the analytical limit upon which the set points were based were also reviewed. The team reviewed these set point values to determine compliance with TS requirements. Loss of voltage protection provided by the "HGA" relay at 4160 Volts auxiliary switchgears 3A and 3B was reviewed to ensure compliance with licensing basis information.

b. Issues and Findings

There were no findings identified.

.23 Testing

a. Inspection Scope

The team verified major system design requirements, such as RWST setpoints and tolerances, to determine if these were translated into calibration procedures. Additionally the team verified design bases and Technical Specification requirements which impacted RWST level instrument uncertainty were translated into appropriate surveillance test procedures.

b. Issues and Findings

There were no findings identified.

.3 Selected Components

.31 Component Inspection

a. Inspection Scope

The team reviewed pump performance curves and motor/pump speed torque curves for the HPI and LPI safety injection system in order to verify that the motors were adequately sized based on mechanical load demand. The team also reviewed design basis calculations for degraded voltage conditions, motor acceleration time current curves, and instantaneous time over current protective relay calculations in order to verify the capability of the 4160 Volts electrical distribution system to support operation of the high head and low head safety injection pump motors. Control circuits for pump motors "OFF-AUTO-START" control logic was also reviewed to verify agreement with licensing basis information. Additionally, risk significant MOVs were reviewed to verify the motors capability to perform their design function under degraded voltage conditions at motor control centers 3A, 3B, and 3C. In addition, the team conducted a walkdown of Unit 3 and Unit 4 switchgear rooms to observe the sequencer panels.

b. Issues and Findings

There were no findings identified.

.32 System Design Needs

a. Inspection Scope

The team reviewed design output documents and calculations to verify that the design of the LPI and HPI systems met the criteria of 10 CFR 50.46, Acceptance Criteria for Emergency Core Cooling Systems for Light water Nuclear Power Reactors. This review included verification of attributes critical for system design functions, such as the volume and availability of water sources, system flow and discharge head capabilities, and time lapse after a safety injection signal for the achievement of system flow requirements. Supporting systems' design, reliability, and availability was reviewed. System

configurations were reviewed to verify the adequacy of net positive suction head for pumps in all accident response scenarios.

b. Issues and Findings

There were no findings identified.

.33 Design Calculations and Surveillance Testing.

a. Inspection Scope

The team reviewed design base documentation, performance test documents, and surveillance procedures to verify that system conditions and capabilities of the LPI and HPI systems were consistent with the design base requirements and system performance was appropriately verified by testing and inspection. Modification documentation was reviewed to verify that systems' design function and capability was not inversely impacted by plant changes. Field walkdowns were performed to assess the installed configuration and material condition adequacy to meet system functions under accident conditions.

b. Issues and Findings

There were no findings identified.

4. Other Activities

4OA2 Identification and Resolution of Problems

a. Inspection Scope

The inspectors reviewed selected condition reports related to the LPI and HPI Systems to verify the licensee had an appropriate threshold for identifying design issues. The inspectors also evaluated the effectiveness of the corrective actions for the identified issues, including the engineering justification for operability when applicable. In conjunction with this review, the Operating Experience Feedback program was reviewed to determined if the Turkey Point Plant staff was aware of and using experience from other nuclear power plants.

b. Issues and Findings

There were no findings identified.

4OA6 Management Meetings

.1 Exit Meeting Summary

The inspectors presented the inspection results to Mr. T. Jones, Operations Manager, and other members of licensee management at the conclusion of the inspection on June 23, 2000. The licensee acknowledged the findings presented. Proprietary information is not included in this inspection report.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

R. Bleeker, Engineering Supervisor, Electrical
S. Franzone, Licensing Manager
J. Manso, Mechanical Design Supervisor
C. Melchor, System Engineer, ECCS
W. Parker, Senior Project Engineer
G. Shukla, Principal Licensing Engineer
W. Skelley, Engineering Manager
T. Sweeny, I&C Design Supervisor

Other licensee employees contacted included engineers, operations personnel and administrative personnel.

NRC

C. Casto, Director, Division of Reactor Safety, Region II
C. Patterson, Senior Resident Inspector
R. Reyes, Resident Inspector

APPENDIX

LIST OF DOCUMENTS REVIEWED

Technical Specifications

Technical Specification 3/4.5, ECCS
Technical Specification 3/4.3.2 “Engineered Safety Features Actuation System Instrumentation”
Technical Specification 3/4.5.2 “ECCS Subsystems - T_{avg} Greater Than or Equal to 350°F”
Technical Specification 3/4.5.3 “ECCS Subsystems - T_{avg} Less Than 350°F”
Technical Specification 3/4.5.4 “Refueling Water Storage Tank”

FSAR

FSAR Chapter 6.2 “Safety Injection System”
FSAR Chapter 7.5.2 “Engineered Safety Features Actuation Instrumentation”
FSAR Chapter 14.3.2.1 “Large Break LOCA”
FSAR Table 7.5-1 “Parameter Listing Summary Sheets Unit 3 Turkey Point”

Procedures

QI 16-PTN-1, Corrective Action
O-ADM-515, Operating Experience Feedback (OEF) Program
3-OP-050, Residual Heat Removal System
3-OP-062, Safety Injection
3-OP-201, Filling/Draining the Refueling Cavity and the SFP Transfer Canal
3-OSP-202.1, Safety Injection/Residual Heat Removal Flowpath Verification
3-ONOP-013, Loss of Instrument Air
3-ONOP-050, Loss of RHR
3-EOP-E-0, Reactor Trip or Safety Injection
3-EOP-E-1, Loss of Reactor or Secondary Coolant
3-EOP-ES-1.1, SI Termination
3-EOP-ES-1.2, Post LOCA Cooldown and Depressurization
3-EOP-ES-1.3, Transfer to Cold Leg Recirculation Phase
3-EOP-ES -1.4, Transfer to Hot Leg Recirculation Phase
3-EOP-FR-H-1, Response to Loss of Secondary Heat Sink
3-ARP-097.CR, Control Room Annunciator Response
O-OSP-062.2, Safety Injection System In-service Tests, dated January 13, 1999 and January 19, 2000
3/4 OSP-050.2, Residual Heat Removal System In-service Test, dated April 15, 1999

3-OP-050, Residual Heat Removal System, dated January 21, 2000

4-OSP-062.4, Safety Injection System Full Flow Tests, dated September 23, 1997 and March 20, 1999
0-NCSP-001, Primary Chemistry Documentation, 5/23/00
0-OSP-062.2, Safety Injection System Inservice Test, 3/19/00
3-EOP-ES-1.3, Transfer to Cold Leg Recirculation, 4/15/99
3-OSP-050.2, Residual Heat Removal System Inservice Test, 4/15/99

3-PMI-062.35, Refueling Water Storage Tank Level Instrumentation Channel L-3-6583A Calibration, 4/22/98 Change 1
3-PMI-062.36, Refueling Water Storage Tank Level Instrumentation Channel L-3-6583B Calibration, 8/11/98 Change 1
4-EOP-E-0, Reactor Trip or Safety Injection, 3/17/99
4-EOP-E-1, Loss of Reactor or Secondary Coolant, 3/17/99
4-EOP-ES-1.4, Transfer to Hot to Hot Leg Recirculation, 4/28/99
4-PMI-061.6, Containment Sump Level Loop L-4-6308A Calibration, 12/2/98
4-PMI-061.7, Containment Water Level Loop L-4-6309A, 12/2/98
4-PMI-061.8, Containment Sump Level Loop L-4-6309B Calibration, 12/2/98
4-PMI-061.9, Containment Water Level Loop L-4-6308B Calibration, 12/2/98
ENG-QI 1.0, Design Control, 4/6/2000
ENG-QI 1.1, Engineering Package (EP), 9/10/99
ENG-QI 1.5, Calculations, 1/19/98
IC-3.17, Instrument Setpoint Methodology For Nuclear Power, Revision 6

Design Changes

PC/M 99-048, RWST Level Scaling and Indication Enhancement, Revision 0 dtd 1/10/00

Condition Reports

95-135, EOP RHR Flow Setpoint For Piggyback Mode, 2/21/95
95-573, Failure to Consider Possibility of 4 SI Pumps Drawing From 1 RWST, dtd 7/24/95
98-1064, RWST Transmitter Scaling Properly - Elevation and Density Error (SSEI Prep), dtd 7/2/98 and Supplement dtd 9/2/98
98-1066, Failure to Account for Density Variation In Calculation (SSEI Prep), dtd 7/14/98
98-1122, Failure to Account For Instrument Uncertainty in NPSH Calc (SSEI Prep), dtd 7/30/98
00-907, Incorrect Allowable Instrument Error Used to Calibrate RHR Pump IST Gages (SSDPI Prep), dtd 5/8/00
00-999, Design Errors Noted in RWST Level Scaling Mod PC/M 99-048 (SSDPI Prep), dtd 5/26/00
CR 98-1819, Air/gas found in SI Cold Leg piping, dated December 5, 1998
CR 99-007, Air/gas found in 4B SI pump, dated January 5, 1999
CR 99-0652, Excessive filling and sampling of 4A accumulator, dated April 21, 1999
CR 99-0690, Potential back leakage identified in Unit 4 from accumulator to cold leg, dated May 1, 1999
CR 99-1257, Deficiencies noted in corrective actions for SI line back leakage (CR 99-690), dated August 27, 1999
CR 00-0074, Engineering did not review repeat condition of gas in 4B SI pump lines, dated January 21, 2000

Condition Reports Initiated as a Result of this Inspection

CR 00-0999
CR 00-1026
CR 00-1027
CR 00-1028
CR 00-1099
CR 00-1100
CR 00-1101

Calculations

523-E-01, Unit 3 Load Center Undervoltage Relay Set Points, Revision 1
M12-383-01, Vortex Design Evaluation of Refueling Water Storage Tank (RWST), Revision 2
PTN-BFJI-94-006, Refueling Water Storage Tank Level Uncertainty Determination, Revision 2 (As Built), Revision 3 (Design)
PTN-BFSC-98-1002, Volume of Containment Sump to Elevation 14'0", Revision 0
PTN-BFSM-97-032, Minimum Containment Sump Level for ECCS Switch over, Revision 1
PTN-BWJI-91-001, Setpoint Methodology Scaling Calculations Turkey Point Units 3 and 4, Revision 2
SE/SS-FPL-2054, FPL/FLA RWST Maximum/Minimum Delivered Volumes, Revision 0
JPN-PTP-SEMJ-89-056, Evaluation of HHSI Pump Minimum Flow requirements, April, 1989
SE/SS-FPL/FLA-2048, FPL/FLA PEGISYS 3.0 ECCS Model Verification, dated July 27, 1995
JPN-PTP-SEMJ-89-056, FPL Turkey Point Units 3&4 Evaluation of HHSI Pump Minimum Flow Requirements, dated April, 1989.
Stone&Webster Calculation 05006-NP-007, Turkey Point Units 3&4, pipe Stress and Support Thermal Uprate review for the SI and RHR Systems, revision 0.

P&ID

5613-M-3047 Sheet 2, Unit 3 CVCS Charging and Letdown P&ID, Revision 29
5613-M-3050 Sheet 1, Unit 3 Residual Heat Removal P&ID, Revision 20
5613-M-3061 Sheet 2, Unit 3 Waste Disposal System Liquid Containment Drains P&ID, Revision 5
5613-M-3062 Sheet 1, Unit 3 Safety Injection System P&ID, Revision 16
5613-M-3062 Sheet 2, Unit 3 Safety Injection System P&ID, Revision 13
5613-M-3064 Sheet 1, Unit 3 Safety Injection Accumulator System P&ID, Revision 19
5614-M-3047 Sheet 2, Unit 4 CVCS Charging and Letdown P&ID, Revision 33
5614-M-3050 Sheet 1, Unit 4 Residual Heat Removal P&ID, Revision 21
5614-M-3061 Sheet 3, Unit 4 Waste Disposal System Liquid Containment Drains P&ID, Revision 5
5614-M-3062 Sheet 1, Unit 4 Safety Injection System P&ID, Revision 17
5614-M-3062 Sheet 2, Unit 4 Safety Injection System P&ID, Revision 13
5614-M-3064 Sheet 1, Unit 4 Safety Injection Accumulator System P&ID, Revision 25

Elementary Diagrams

5610-E-25 Sheet 118, Valve MOV 856A, Revision 1
5610-E-25 Sheet 41, Valve MOV 862A & B, Revision 12
5610-E-25 Sheet 41, Valves MOV 862Q & B, Revision 12
5610-E-27 Sheet 41A, Containment and Containment Sump Water Level Loop 6309A, Revision 0
5610-E-27 Sheet 41B, Containment and Containment Sump Water Level Loop 6308A, Revision 0
5613-E-25 Sheet 118, SI Test Valve MOV-3-856A, Revision 1
5613-E-25 Sheet 118A, SI Test Valve MOV-3-856A, Revision 2
5613-E-25 Sheet 119, SI Test Valve MOV-3-856B, Revision 1
5613-E-25 Sheet 119A, SI Test Valve MOV-3-856B, Revision 2
5613-E-25 Sheet 27D, Containment Sump Isolation Valve MOV-3-860A, Revision 3
5613-E-25 Sheet 27E, Containment Sump Isolation Valve MOV-3-860B, Revision 3
5613-E-25 Sheet 27F, RHR Header Stop Valve MOV-3-861A, Revision 3
5613-E-25 Sheet 27G, RHR Header Stop Valve MOV-3-861B, Revision 3
5613-E-25 Sheet 27H, RWST Isolation Valve MOV-3-864A, Revision 4
5613-E-25 Sheet 27K, Loop A Hot Leg SI Stop Valve MOV-3-869, Revision 3
5613-E-25 Sheet 27L, Alternate Low Head SI Line Valve MOV-3-872, Revision 3
5613-E-25 Sheet 27M, RHR Heat Exchanger Cool Water Isolation MOV-3-749A Revision 3
5613-E-25 Sheet 27N, RHR Heat Exchanger Cool Water Isolation MOV-3-749B Revision 3
5613-E-25 Sheet 27P, RWST Isolation Valve MOV-3-864B, Revision 4
5613-E-25 Sheet 28D, SI Loop A Hot Leg MOV-3-866A, Revision 4
5613-E-25 Sheet 28E, SI Loop B Hot Leg MOV-3-866B, Revision 4
5613-E-25 Sheet 28F, RCS Inlet Isolation from RHR MOV-3-744A, Revision 4
5613-E-25 Sheet 28G, RCS Inlet Isolation from RHR MOV-3-744B, Revision 4
5613-E-25 Sheet 28H, Boron Safety Injection Valve Loop B Cold Leg, Revision 3
5613-E-25 Sheet 28P, Boron Safety Injection Valve Loop A Cold Leg, Revision 5
5613-E-25 Sheet 31A, RHR Heat Exchanger Outlet Valve MOV-3-863A, Revision 4
5613-E-25 Sheet 31B, RHR Heat Exchanger Outlet Valves MOV-3-863B, Revision 4
5613-E-25 Sheet 32A, Containment Cooling Water MOV-3-1417, Revision 7
5613-E-25 Sheet 32B, Containment Cooling Water MOV-3-1418, Revision 6
5613-E-25 Sheet 32B1, Containment Cooling Water MOV-3-1418, Revision 2
5613-E-25 Sheet 35A, High Head SI Pump Transfer MOV-878A, Revision 2
5613-E-25 Sheet 35B, High Head SI Pump Transfer MOV-878B, Revision 2
5613-E-25 Sheet 37A, RHR Inlet Isolation Valve MOV-3-750, Revision 4
5613-E-25 Sheet 3A, SI Pump 3A, Revision 4
5613-E-25 Sheet 3A2, SI Pump 3A, Revision 0
5613-E-25 Sheet 3B, SI Pump 3B, Revision 5
5613-E-25 Sheet 3B2, SI Pup 3B, Revision 0
5613-E-25 Sheet 42A, RHR Inlet Isolation Valve MOV-3-751, Revision 4
5613-E-25 Sheet 4A, RHR Pump 3A, Revision 4
5613-E-27 Sheet 4A1, RHR Pump 3A, Revision 0
5613-E-25 Sheet 4B, RHR Pump 3B, Revision 4
5613-E-25 Sheet 4B1, RHR Pump 3B, Revision 1
5613-E-27 Sheet 41E, Containment and Containment Sump Water Level Annunciation, Revision 1

Single Line Drawing

5613-E-10 Sheet 1, Motor Control Centers 3A, NV3A, 3B, NV3B, 3C, NV3, Revision 31
5613-E-10 Sheet 1, Motor Control Centers 3D and 3K , Revision 10
P&ID 5614-M-3062, sheet 1, SI System, revision 17.

LHSI Pump Curves, Ingersoll Rand, curve Nos. 46932 and 46933, dated June 9, 1969; curve Nos. 48329 and 48330, dated February 16, 1970.

HHSI Pump Curves, Worthington Company, curve Nos. E-209011 and E-209010, dated October 17, 1969; curve No. E-209012, dated October 16, 1968, and curve Nol E-209295, dated November 25, 1969

Completed Surveillance Procedures

3-PMI-062.35, Refueling Water Storage Tank Level Instrumentation Channel L-6583A Calibration, Completed 11/15/99
3-PMI-062.36, Refueling Water Storage Tank Level Instrumentation Channel L-6583B Calibration, Completed 11/17/99
4-PMI-062.35, Refueling Water Storage Tank Level Instrumentation Channel L-6583A Calibration, Completed 1/5/99
4-PMI-062.36, Refueling Water Storage Tank Level Instrumentation Channel L-6583B Calibration, Completed 2/15/99

VENDOR DOCUMENTS

VTM V000234, Vender Manual for 3WTS-811 Centrifugal Pumps for Safety Injection Cooling Systems in Nuclear Reactors, dated September 29, 1997

Westinghouse Electric Instructions for Large AC Motors, Life-line D, Horizontal Induction Motor, Frames 5000, 5800, 6800, Weather Protected Type II, Sleeve or roller bearings, dated June 24, 1987

Vendor Manual B876, ANH Anchor Valve Co. (Darling) Valve, Gate, Globe, and Check, Revision 2

DESIGN BASE DOCUMENTS

Design Basis Document No. 5610-023-DB-001, Emergency Power System, Revision 5.

Design Basis Document No. 5610-023-DB-002, Component Design Requirement Document, Revision 8.

MISCELLANEOUS DOCUMENTS

In-service Test Component Analysis Summary for Pumps and Power Operated Valves, dated May 17, 1997

Westinghouse Turkey Point Units 3&4 Uprating Engineering Report, Vol.2, (WCAP-14291) dated December 1995.

Plant/Change Modification (PCM) 81-153, HHSI Pump Recirculating Lines, dated February 1, 1984

FPL Response to NRC Bulletin 88-04, Potential Loss of Safety Related Pumps, dated May 26, 1989

FPL-NSD-100, Westinghouse Analysis, FP&L GL 97-04 Report, dated January 6, 1998

JPN-PTN-SEYS-99-0153, MOV Joint Owners Group Periodic Verification Dynamic Testing Results, dated March 1998 and March , 2000

O-ADM-218, Technical Specification Matrix, dated March 7, 2000

System Description No.021, Emergency Core Cooling System (Sys. 050, 062, 064)
EOP Quality Assurance Reports
3/4 BD-EOP- E-0, Reactor Trip or Safety Injection
3/4 BD-EOP-E-1, Loss of Reactor or Secondary Coolant
3/4 BD-EOP-ES-1.1, SI Termination
3/4 BD-EOP-ES-1.2, Post LOCA Cooldown and Depressurization
3/4 BD-EOP-ES-1.3, Transfer to Cold Leg Recirculation
3/4 BD-EOP-ES-1.4, Transfer to Hot Leg Recirculation
5610-C-18, Specification for Field Storage Tanks, Revision 7
5610-050-DB-001, Residual Heat removal System Design Basis Document, Revision 9
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LIST OF ACRONYMS USED

AOV	Air Operated Valve
DBA	Design Basis Accident
ECCS	Emergency Core Coolant System
EOP	Emergency Operating Procedure
FSAR	Final Safety Analysis Report
HPI	High Pressure Injection
LOCA	Loss of Coolant Accident
LOOP	Loss of Off-site Power
LPI	Low Pressure Injection
MOV	Motor Operated Valve
ONOP	Off Normal Operating Procedure
OP	Operating Procedure
RWST	Refueling Water Storage Tank
SI	Safety Injection
TS	Technical Specification