UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
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ARLINGTON, TEXAS 76011-4005

August 26, 2004

Harold B. Ray, Executive Vice President
San Onofre, Units 2 and 3
Southern California Edison Co.
P.O. Box 128, Mail Stop D-3-F
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SUBJECT: SAN ONOFRE NUCLEAR GENERATING STATION - NRC SAFETY SYSTEM DESIGN AND PERFORMANCE CAPABILITY INSPECTION REPORT 05000361/2004007; 05000362/2004007

Dear Mr. Ray:

On July 30, 2004, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your San Onofre Nuclear Generating Station, Units 2 and 3. The enclosed Safety System Design and Performance Capability Team report documents the inspection findings, which were discussed at the conclusion of the inspection with Mr. Dwight Nunn and other members of your staff.

This 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. The team reviewed selected procedures and records, observed activities and interviewed personnel.

Based on the results of this inspection, no findings of significance 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 made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document 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,

/RA/

J. Clark, P.E., Chief
Engineering Branch
Division of Reactor Safety

Dockets: 50-361; 50-362
Licenses: NPF-10; NPF-15

Enclosure:
NRC Inspection Report
05000361/2004-007; 05000362/2004-007

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ADAMS: ☒ Yes ☐ No Initials: _JIT_____
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ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Docket Nos:	50-361, 50-362
License Nos:	NPF-10, NPF-15
Report No:	05000361/2004007 and 05000362/2004007
Licensee:	Southern California Edison Co.
Facility:	San Onofre Nuclear Generating Station, Units 2 and 3
Location:	5000 S. Pacific Coast Hwy. San Clemente, California
Dates:	July 12-30, 2004
Team Leader:	J. I. Tapia, P.E., Senior Reactor Inspector, Engineering Branch
Inspectors:	P. A. Goldberg, P.E., Reactor Inspector, Engineering Branch W. M. McNeill, P.E., Reactor Inspector, Engineering Branch G. George, Reactor Inspector (NSPDP)
Accompanied by:	J. Leivo, P.E., Contractor, Beckman & Assoc., Inc. A. Hansley, Engineering Associate M. I. Montoya, Engineering Associate
Approved by:	Jeff Clark, P.E., Chief Engineering Branch Division of Reactor Safety

SUMMARY OF FINDINGS

IR 05000361/2004-07, 05000362/2004-07; 07/12 -30/2004; San Onofre Nuclear Generating Station, Units 2 and 3; Safety System Design and Performance Capability; Permanent Plant Modifications; Evaluations of Changes, Tests, or Experiments.

The report covered a 2-week period of inspection on site by a team of four region-based engineering inspectors and one consultant. 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 3, dated July 2000.

NRC-Identified and Self-Revealing Findings

No findings of significance were identified.

REPORT DETAILS

1. REACTOR SAFETY

Introduction

The NRC conducted an inspection to verify that licensee personnel adequately preserved the facility safety system design and performance capability and that licensee personnel preserved the initial design in subsequent modifications of the systems selected for review. The scope of the review also included any necessary nonsafety-related structures, systems, and components that provided functions to support safety functions. This inspection also reviewed the licensee's programs and methods for monitoring the capability of the selected systems to perform the current design basis functions. This inspection verified aspects of the initiating events, mitigating systems, and barrier cornerstones.

The licensee personnel based the probabilistic risk assessment model for the San Onofre Nuclear Generating Station on the capability of the as-built safety systems to perform their intended safety functions successfully. The team determined the area and scope of the inspection by reviewing the licensee's probabilistic risk analysis models to identify the most risk significant systems, structures, and components. The team established this according to their ranking and potential contribution to dominant accident sequences and/or initiators. The team also used a deterministic approach in the selection process by considering recent inspection history, recent problem area history, and all modifications developed and implemented.

The team assessed the adequacy of calculations, analyses, engineering processes, and engineering and operating practices that licensee personnel used for the selected safety system and the necessary support systems during normal, abnormal, and accident conditions. Acceptance criteria used by the team included NRC regulations, the technical specifications, applicable sections of the Updated Final Safety Analysis Report, applicable industry codes and standards, and industry initiatives implemented by the licensee's programs.

1R02 Evaluations of Changes, Tests, or Experiments (71111.02)

a. Inspection Scope

The minimum sample size for this procedure is 5 evaluations and 10 screenings. The team reviewed 10 licensee-performed 10 CFR 50.59 evaluations to verify that licensee personnel had appropriately considered the conditions under which the licensee may make changes to the facility or procedures or conduct tests or experiments without prior NRC approval. These evaluations had been performed since the last NRC inspection of 10 CFR 50.59 activities.

The team reviewed 12 licensee-performed 10 CFR 50.59 screenings, in which licensee personnel determined that evaluations were not required to ensure that exclusion of a full evaluation was consistent with the requirements of 10 CFR 50.59. Additionally, the team reviewed 3 licensee-performed applicability determinations, in which licensee personnel determined that neither screenings nor evaluations were required, to ensure

consistency with the requirements of 10 CFR 50.59 in the licensee's exclusion of screenings and evaluations.

The team reviewed and evaluated the most recent licensee 10 CFR 50.59 program self assessment and a sample of 21 corrective action documents written since the last NRC 10 CFR 50.59 inspection to determine whether licensee personnel conducted sufficient in-depth analyses of their program to allow for the identification and subsequent resolution of problems or deficiencies.

b. Findings

No findings of significance were identified.

1R17 Permanent Plant Modifications (71111.17)

.2 Biennial Review

a. Inspection Scope

The minimum sample size for this procedure is 5 to10 permanent plant modifications. The team reviewed 10 permanent plant modifications and associated engineering change package documentation (e.g., implementation reviews, safety evaluation applicability determinations, and screenings) to verify that they were performed in accordance with regulatory requirements and plant procedures. The inspectors reviewed procedures governing plant modifications to evaluate the effectiveness of the programs for implementing modifications to risk-significant systems, structures, and components, such that these changes did not adversely affect the design and licensing basis of the facility. Procedures and permanent plant modifications reviewed are listed in the attachment to this report. The inspectors interviewed the cognizant design and system engineers for the identified modifications to gain their understanding of the modification packages.

b. Findings

No findings of significance were identified.

1R21 Safety System Design and Performance Capability (71111.21)

The minimum sample size for this procedure is one risk-significant system for mitigating an accident or maintaining barrier integrity. The team completed the required sample size by reviewing the auxiliary feedwater system. The team also reviewed the plant protection system, which includes the reactor protection system and core protection calculator, as well as the control room emergency air clean up system. The primary review prompted parallel review and examination of support systems, such as, power, instrumentation & controls, cooling and related structures and components.

.1 System Requirements

a. Inspection Scope

The team inspected the following attributes of the selected systems: (1) process medium (water, steam, air, electrical signal), (2) energy sources, (3) control systems, and (4) equipment protection. The team examined the procedural instructions to verify that instructions were consistent with actions required to meet, prevent, and/or mitigate design basis accidents. The team also considered requirements and commitments identified in the Updated Final Safety Analysis Report, technical specifications, design basis documents, and plant drawings. In conjunction with the primary review, a parallel review and examination of support systems and related structures and components was also conducted.

b. Findings

No findings of significance were identified.

.2 System Condition and Capability

a. Inspection Scope

The team reviewed the periodic testing procedures for the selected systems to verify that the capabilities of the systems were periodically verified. The team also reviewed system health reports, as well as, a sample of the governing procedures and documentation for the control of calculations that were translated into values used in plant procedures. In addition, the team performed walkdowns of the selected systems to ascertain the material condition of the systems.

The team also reviewed the operation of the systems by reviewing normal, abnormal, and emergency operating procedures. The review included the Updated Final Safety Analysis Reports, technical specifications, design calculations and drawings.

b. Findings

No findings of significance were identified.

.3 Identification and Resolution of Problems

a. Inspection Scope

The team reviewed a sample of problems associated with the selected systems that were identified by licensee personnel in the corrective action program to evaluate the effectiveness of corrective actions related to design issues and aging hardware. The sample included open and closed action requests and their disposition via maintenance orders, apparent cause evaluations, spurious action documentation, or field support notes as documented in the licensee's corrective action program. The sample covered the past 3 years and the documents reviewed are listed in the attachment to this report.

Inspection Procedure 71152, “Identification and Resolution of Problems,” was used as guidance to perform this part of the inspection.

b. Findings

No findings of significance were identified.

.4 System Walkdowns

a. Inspection Scope

The team performed walkdowns of the accessible portions of the selected systems. The team focused on the installation, configuration, and visible material condition of equipment and components. During the walkdowns, the team assessed:

- The placement of protective barriers and systems,
- The susceptibility to flooding, fire, or environmental conditions,
- The physical separation of trains and the provisions for seismic concerns,
- Accessibility and lighting for any required operator action,
- The material condition and preservation of systems and equipment, and
- The conformance of the currently-installed system configuration to the design and licensing bases.

b. Findings

No findings of significance were identified.

.5 Design Review

a. Inspection Scope

The team reviewed the current as-built instrument and control, electrical, and mechanical design of the selected systems and support systems. These reviews included an examination of design assumptions, calculations, environmental qualifications, required system thermal-hydraulic performance, electrical power system performance, control logic, and instrument setpoints and uncertainties. The team assessed the adequacy of calculations, analyses, test procedures, and operating procedures that licensee personnel used during normal and accident conditions.

The team also reviewed the adequacy of the original system design to perform the design basis functions during normal, accident and post-accident conditions. The review included: design basis documents; specifications; reliability calculations; instrument uncertainty/setpoint calculations; uncertainty calculations related to

emergency operating instruction action levels; and schematic diagrams. The adequacy of the design and maintenance of selected support systems was also reviewed.

b. Findings

No findings of significance were identified.

6. Safety System Inspection and Testing

a. Inspection Scope

The team reviewed the program and procedures for testing and inspecting selected components for the selected systems and support systems. The review included the results of surveillance tests required by the technical specifications and a selective review of inservice tests.

b. Findings

No findings of significance were identified.

4OA6 Exit Meeting Summary

The inspection findings were presented by the team leader during an exit meeting on July 30, 2004, to Mr. Dwight Nunn and other members of licensee management staff. The team leader confirmed that proprietary information, while reviewed, had not been retained by the team.

ATTACHMENT

PARTIAL LIST OF PERSONS CONTACTED

Licensee

J. Aguirre, Core Protectin Calculator Harware Engineer
D. Axline, Licensing Engineer
B. Bostian, CRD Lead Engineer
D. Breig, Maintenance Engineering Manager
S. Foglio, Reactor Protection System Engineer
C. Hays, Computer Engineering Supervisor
T. Herring, Configuration Engineering Manager
E. Kimoto, Auxiliary Feedwater Lead Engineer
M. Love, Maintenance Manger
J. A. Madigan, Health Physics Manager
C. McAndrews, Nuclear Oversight Manager
M. McBrearty, Engineer, Nuclear Regulatory Affairs
D. McBride, Supervisor, Maintenance
S. Medling, Nuclear Regulatory Affairs Manager
D. E. Nunn, Vice President, Engineering & Technical Services
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J. Ramsdell, Systems Engineer
S. Root, Special Projects Manager
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A. Scherer, Manager, Nuclear Regulatory Affairs
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R. Waldo, Station Manager
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C. E. Williams, Compliance Engineer
T.R. Yackle, Design Engineering Manager
T. Yee, Structural Engineering

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C. Osterholtz, Senior Resident Inspector
M. Sitek, Resident Inspector

DOCUMENTS REVIEWED

Calculations

00000-ICE-3652, Revision 00,“Reliability Prediction Calculation for Core Protection Calculator System (CPC),” May 16, 1977.

J-BBB-019, Revision 0, “CPC Temperature Input Drift Analysis,” February 28, 1994.

J-BBB-031, Revision 1, “TLU [Total Loop Uncertainty] for Wide Range Pressurizer Pressure

Indication & Evaluation of Wide Range Pressurizer Pressure Indications for EOIs."

J-BBB-091, Revision 0, "Pressurizer Pressure Narrow Range Indication Loop Uncertainties," 9/30/98; CCN N-1 dated June 11, 2000.

NFM-2-SP-1313, Revision 00, "SONGS-2 Cycle 13 CPC Reload Data Block Update Analysis," February 2, 2004.

NFM-2-SP-1322, Revision 00, "SONGS-2 Cycle 13 MSQUA Post-Processor Analysis," February 2, 2004.

SO23-944-C50, Revision 3, 2/13/97: CE NPSD-570-P,/1370-ICE-3670/1470-ICE-3698, Revision 7, "SONGS 2 & 3 Plant Protection System Setpoint Calculation," CCN 9 dated September 25, 1998 [CE Proprietary].

SO23-944-C90-2, Revision 2: CE NPSD-704-P/ 1370/1470-ICE-36199, "SONGS Units 2 and 3 CPC Input Data Channel Uncertainty Calculation," Revision 06, 6/13/1996 [CE Proprietary].
J-SAA-001, "Toxic Gas Isolation System Setpoints," Revision 1

J-SPA-099, "Control Room/Fuel Handling Building Monitor Concentration Ranges," Revision 0

J-SRA-179, "Control Room/Fuel Handling Building Set Points," Revision 0 with Calculation Change Notices 4 and 5

M-0073-041, "Auxiliary Building Controlled Area Elevation 30' heat Load and Equipment Sizing Normal and Emergency," Revision 8 with Calculation Change Notices 20, and 22 - 31 and Interim Calculation Change Notices 17 and 23 -26

M-0073-133, "Control Room Envelope Volume Calculation to be Used for the Tracer Gas Testing," Revision 0

M-0073-095, "Infiltration into the Control Room Envelope from Surrounding Areas," Revision 3 with Calculation Change Notice 2

N-4072-001, "Fuel Handling Accident Inside Fuel Handling Building - Control Room and Offsite Doses," Revision 6

N-4090-012, "Toxic Gas Concentrations in the Control Room for Toxic Gas Isolation System Monitored Chemicals," Revision 0

M-8910SP-2HV9307, REV 2, ICCN C-1, "Generic Letter 89-10 Setpoint Calculation for 2HV9307"

M-1203-161-04A, ICCN C-1, "Radwaste CCW Line 1203-161 Unit 3"

M-1203-161-02A, ICCN C-1, "Radwaste CCW Line 1203-161"

M-37632, "EQ Document Package for Auxiliary Feedwater Pump Motor," Revision 3

M-37624, "EQ Document Package for Axivane Fan inside the Auxiliary Feedwater Pump Rooms," Revision 9

M37706, "EQ Document Package for Motorized Valve Actuators inside the Auxiliary Feedwater Pump Room," Revision 11

M-0056-039, "AFW System Performance with 40 F Condensate," Revision 0

M56-38, " Auxiliary Feedwater Pump System Performance," Revision 0, CCN 1, CCN 2 & N-1, and CCNT 3

M56.16, "Auxiliary Feedwater System Analysis," Revision 1

M50-2, "Condensate Storage Tank Capacity," Revision 3

M-0056-018, "Auxiliary Feedwater Pump NPSH Requirements," Revision 3

M-DSC-248, "Auxiliary Feedwater Steam Flows for Reduced Line Capacity," Revision 0

M-0050-017, "BTP RSB 5-1 Condensate Inventory," Revision 3

M-74-06, "AFW Pump Room Heat Load Calculation," Revision 1

M-0060-008, "Restriction of AFW Turbine Trip/Throttle Valve," Revision 0

Action Requests

000900187	020200468	021101166	030700105	040100147	040501673
010100770	020200745	021200579	030700364	040101030	040600147
010500462	020301482	021201342	030701532	040101548	040600608
010501377	020400823	030100500	030801131	040200972	040601053
010600258	020500474	030101056	030900049	040201564	040700829
010600605	020501682	030300007	031000738	040201800	040700842
010600694	020602171	030300217	031000888	040202185	040700865
010800440	020700544	030300835	031100693	040300464	040700866
010800825	020700761	030400155	031100693	040301598	040700873
010801221	020800755	030401421	031100694	040400212	040701424
010900531	020800840	030401471	031100964	040400227	040701512
010900829	020801668	030600145	031101052	040401098	040701564
011000126	020901177	030600288	031200453	040501000	040701601
011000765	021000630	030600552	031200636	040501221	040701603
011001127	021000631	030600856	031201634	040501394	040701631
011200343	021100202	030601402	031201694	040501562	991101109
020100971	021100715	030700070	031201697		

Design Basis Documents

DBD-SO23-710, “Plant Protection System,” Revision 7, December 2, 2002.

00000-ICE-3001, “General Engineering Specification for a Plant Protection System,” Revision 3, May 13, 1976 [CE Proprietary].

1370-ICE-3019, “Project Engineering Specification for Auxiliary Protective Cabinet for San Onofre Nuclear Generating Station Units 2 & 3,” Revision 00, December 8, 1975 [CE Proprietary].

SO23-907-125-0, “Technical Manual for Control Element Assembly Position Isolation Assembly,” November 17, 1977.

DBD–SO23-780, “Design Basis Document, Auxiliary Feedwater System,” Revision 6

Drawings

UFHA Figure 8-6, Revision 10, “Auxiliary Building (Control Area) Unit 2 &3 Elevation 30'-0" Fire Protection Features.”

SO23-944-545, Sheet 350, Revision 28, “PPS Trip Channel Bypass, Wiring Schematic.”

SO23-944-545, Sheet 351, Revision 28, “PPS Trip Channel Bypass, Wiring Schematic.”

SO23-944-545, Sheet 366, Revision 28, “Test Coils, AB Matrix, Wiring Schematic.”SO23-944-545, Sheet 415, Revision 28, “Matrix Relay Card, Schematic Diagram.”

SO23-944-600, Sheet 1, Revision 5, “Plant Protection System Simplified Functional Diagram.”

W-91X0636-D-SO3, Sheet 17, Revision 6, “Wiring Diagram for Auxiliary Protective Cabinet 3L91.”

W-91X0636-D-S03, Sheet 19, Revision 7, “Wiring Diagram for Auxiliary Protective Cabinet 3L91.”

31579, Sheet 4, Revision 9, “Wiring Diagram, Control Building, NSSS Protection Area (Vault) 2LO91.”

32021, Sheet 36, Revision 6, “Wiring Diagram, Penetration Area, Pen. 47 Type 3-2.”

32085, Sheet 8, Revision 6, “Wiring Diagram, Containment Structure, Reactor Head.”

10101. “Auxiliary Building Floor Plan Elevation 30'-0",” Revision 30

40098, “Air Flow Diagram - Train A Control Building - Elevation 30'-0",” Revision 10

40096, “Air Flow Diagram - Train B Control Building - Elevation 30'-0",” Revision 19

40173A, “Process and Instrument Diagram Control Room Complex Heating, Ventilation, and Air Conditioning System No. 1510,” Revision 22

40173B, “Process and Instrument Diagram Control Room Complex Heating, Ventilation, and Air Conditioning System No. 1510,” Revision 9

40173C, “Process and Instrument Diagram Control Room Complex Heating, Ventilation, and Air Conditioning System No. 1510,” Revision 23

40173D, “Process and Instrument Diagram Control Room Complex Heating, Ventilation, and Air Conditioning System No. 1510,” Revision 12

40173X, “Process Key Plan Control Room Complex Heating, Ventilation, and Air Conditioning System No. 1510,” Revision 2

Root-Cause/Apparent Cause Evaluation Reports

ACE 010900531-02
ACE 020800755-04
ACE 020801305-04
ACE 030401421-11

Procedures

SO23-V-12.2.32, “CPC/CEAC Off-Line Circuit Board and Component Testing,” Revision 0, June 5, 2002.

SO23-XV-2, “Troubleshooting Plant Equipment and Systems,” Revision 0.

SO23-XXXVII-4.1, “CPC/CEAC/COLSS Software Control and Documentation,” Revision 0, September 10, 2001.

SO23-XXXVII-4.7, “Control of CPC Addressable Constants,” Revision 0, February 25, 2004.

SO23-944I-20-1, Energy Incorporated Procedure SCAL-3-902, “Instructions for Making Component Substitution for CPCS Spares,” Revision 1, January 7, 1986.

SO23-1-5.1, “Auxiliary Building Emergency Heating, Ventilation, and Air Conditioning,” Revision 4 with Temporary Change Notice 4-1

SO23-3-2.29, “Toxic Gas Analyzer Operation,” Revision 7

SO23-3-3.12 ISS 2, “Integrated Engineered Safety Feature System Refueling Test,” Revision 21

SO23-3-3.20, “Monthly CREACUS Test, Control Room Exercise Run and Emergency Chill Water Systems Minimum Operability Verification,” Revision 16 with Temporary Change Notice 16-5

SO23-3-3.20.1, “Control Room Emergency Air Cleanup System 18-Month Surveillance,” Revision 13 with Temporary Change Notice 13-5

SO23-3-3.21, “Common Shiftly Surveillance,” Revision 28

SO23-5-2.25, “Plant Heating, Ventilation, and Air Conditioning 83 Alarm Response Procedure,” Revision 5 with Temporary Change Notice 5-6

SO23-5-2'7, “Annunciator Panel 60A Emergency Heating, Ventilation, and Air Conditioning,” Revision 5 with Temporary Change Notice 5-52

SO23-I-2.44, “CREACUS-Control Room Emergency Air Cleanup System Operation and Operability Test Surveillance,” Revision 7

SO23-II-1.15, “Surveillance Requirement Toxic Gas Isolation System Train A Channel Function Test and Channel Calibration,” Revision 11 with Temporary Change Notice 11-3

SO23-II-1.15.1, “Surveillance Requirement Toxic Gas Isolation System Train B Channel Functional Test and Channel Calibration,” Revision 4 with Temporary Change Notice 4-4

SO23-II-8.22, “Surveillance Requirement Toxic Gas Isolation System Response Test and Channel Functional Test,” Revision 8 with Temporary Change Notice 8-4

SO23-XXV-4.3, “Surveillance Requirement Control Room Isolation System Train A Loop 2/3RE7824G1 Channel Calibration, Response Time Test, and Channel Functional Test,” Revision 5

SO23-XXV-4.37, “Surveillance Requirement Control Room Isolation System Train B Loop 2/3RE7824G2 Channel Calibration, Response Time Test, and Channel Functional Test,” Revision 6

SO23-XXV-4.8, “Surveillance Requirement Control Room Isolation System In-Duct Radiation Monitor Train A Loop 2/3RE7824G1 Channel Functional Test,” Revision 4 with Temporary Change Notice 4-1

SO23-XXV-4.9, “Surveillance Requirement Control Room Isolation System In-Duct Radiation Monitor Train B Loop 2/3RE7824G2 Channel Functional Test,” Revision 4 with Temporary Change Notice 4-4

SO123-XV-5, “Nonconforming Material, Parts, or Components,” Revision17

SO123-XX-1, “Action Request/Maintenance Order Initiation and Processing,” Revision 15 TCN 15-2

SO123-XV-52, “Operability Assessments and Reportability Evaluations,” Revision 5

SO23-5-1.5, “Plant Shutdown From Hot Standby to Cold Shutdown,” Revision 23

SO23-12-4, Steam Generator Tube Rupture,” Revision 18

10 CFR 50.59 Evaluations

AR 000900187-02	AR 010800825-02	AR 020200745-03
AR 010100770-11	AR 011000765-04	AR 020301482-25
AR 010600258-02	AR 011200343-07	AR 991101109-30
AR 010600694-01		

10 CFR 50.59 Screenings

AR 000900187-02	AR 020301482-22	AR 031101052-05
AR 010100770-25	AR 020400823-34	AR 040200972-08
AR 010100770-47	AR 020400823-82	AR 030300797-03
AR 010500462-03	AR 021100202-13	AR 030801458-05

10 CFR 50.59 Evaluation Exemptions

AR 010801221
AR 021000630
AR 040600608

Permanent Plant Modifications

MMP No. 2-6817.00SJ, “Revise PPS and ESFAS Setpoints,” Revision 0, August 17, 1990.

MMP No. 2&3-6828.00SJ, “PPS and ESFAS Power Supply Replacement,” Revision 0, April 26, 1993.

Engineering Change Packages

010800854-2	030601402-9	010800854-11
021000630-9	030801155-3	031201461-11
030601402-5	031201461-5	

Special Test Report

MO 01101388000, “Perform a one-time test of PPS bistable Relay/matrix relay LEDs for reverse breakdown voltage of greater than 10 vdc for both Units 2 & 3 (Westinghouse Technical Bulletin T0104)”

Field Support Notes

FS 030300217-01
FS 030400155-01
FS 030600288-01
FS 030701532-01
FS 040101030-01
FS 040201800-01
FS 040300464-01
FS 011000126-02

Maintenance Orders

MO 03010989000
MO 03030035000
MO 03030707000
MO 04011364000
MO 04040267000
MO 01101388000

24-Month Control Room Positive Pressure Maintenance Orders

02072005001
11052044001

18-Month Operability Test Maintenance Orders

01031550000
01031551000
01103084000
02012285000
02080243000
02080244000
02080245000
03040760000

Corrective Maintenance Work Orders

01102831000
02010169000
02020808000
02061192000
02061254000
02061254001
02080918000
02100681000
02120946000
02120963000
03061005000
03063441000
03081022000
03081022001
03081669000
03081736000
03100858000
04010114000
04020232000
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