

May 5, 2003

U. S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, D. C. 20555

Subject: **Docket No. 50-362**  
**Owner's Report of Inservice Inspection, Form NIS-1**  
**San Onofre Nuclear Generating Station, Unit 3**

Reference: American Society of Mechanical Engineers (ASME)  
Boiler and Pressure Vessel Code (ASME B&PVC)  
Section XI: 1989 Edition, No Addenda; Second Inservice Inspection Interval

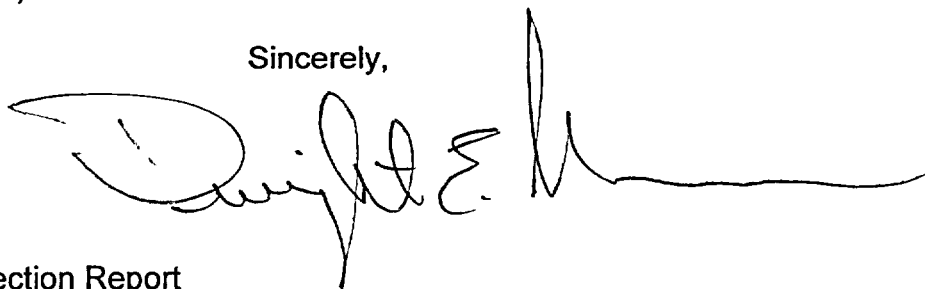
Gentlemen:

In accordance with 10CFR50.55a(g) and ASME B&PVC, Section XI, Article IWA-6000, this letter submits the Inservice Inspection (ISI) Summary Report, including the Owner's Reports of Repairs and Replacements, for San Onofre Nuclear Generating Station, Unit 3. This report covers the period from February 4, 2001 through February 17, 2003, the date Unit 3 returned to service following its Cycle 12 refueling outage.

On page 15 of Section 6 of the enclosed report, SCE notes that some inspected welds were not accessible for "...more than 90 percent of the examination volume of each weld, where the reduction in coverage is due to interference by another component." SCE will be submitting a code relief request for these welds in accordance with 10CFR50.55a(g)(5)(iv).

If you have any questions or require additional information, please contact me or Mr. Clay E. Williams at (949) 368-6707.

Sincerely,



Enclosure: Inservice Inspection Report

cc: (see attached list)

Document Control Desk  
San Onofre Nuclear Generating Station  
Unit 3

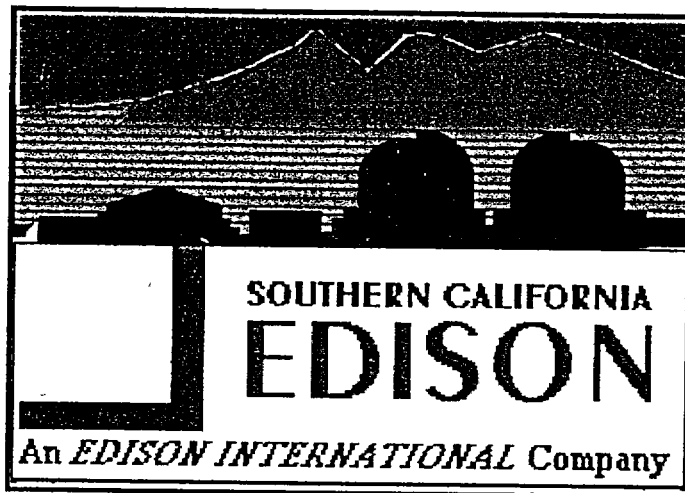
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Owner's Report of ISI  
May 5, 2003

cc: E. W. Merschoff, Regional Administrator, NRC Region IV  
A.T. Howell, III, Director, Division of Reactor Safety, NRC Region IV  
B. M. Pham, NRC Project Manager, San Onofre Units 2 and 3  
C. C. Osterholtz, NRC Senior Resident Inspector, San Onofre Units 2 & 3

State of California  
Department of Industrial Relations  
Division of Occupational Safety and Health  
Pressure Vessels Unit  
Attention: Dabbriu Patnaik, Senior Safety Engineer  
2100 East Katella, Suite 265  
Anaheim, CA 92806-6040

State of California  
Department of Industrial Relations  
Division of Occupational Safety and Health  
Pressure Vessels Unit  
Attention: Don Cook, Principal Pressure Vessel Engineer  
1515 Clay Street, Suite 1302  
Oakland, CA 94612



**SAN ONOFRE**  
**NUCLEAR GENERATING**  
**STATION UNIT-3**

**2<sup>ND</sup> INTERVAL, 3<sup>RD</sup> PERIOD**  
**REFUELING OUTAGE-12**

**INSERVICE INSPECTION SUMMARY**  
**REPORT**

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## 1 INTRODUCTION

This document refers to the implementation of the Inservice Inspection (ISI) conducted at the San Onofre Nuclear Generating Station (SONGS) Unit 3 for the 3rd Period of the 2nd Interval.

1st Interval            August 18, 1983 through August 17, 1993  
2nd Interval            August 18, 1993 through August 17, 2003

Each 10-year Interval is further divided into 3 periods, which is adjusted to accommodate one or two outages in each period. Adjustments of the intervals to accommodate these refueling outages are allowed by the ASME Boiler & Pressure Vessel Code, Section XI, No Addenda Article IWA-2430, Inspection Intervals, to extend or decrease the interval by as much as 1 year. This extension was used in the 1<sup>st</sup> 10-year interval, which ended in March 1994.

The 1st and 2nd 10-year intervals are:

1st Interval            August 18, 1983 through March 31, 1994  
2nd Interval            April 1, 1994 through August 17, 2003

The 3 periods for the 2nd 10-year interval are as follows:

<u>PERIODS</u>	<u>DATES</u>	<u>OUTAGES</u>
1	Apr 1, 1994 - Aug 17, 1997	U3C8, U3C9
2	Aug 18, 1997 - Aug 17, 2001	U3C10, U3C11
3	Aug 18, 2001 - Aug 17, 2003	U3C12

ASME Code Section XI, Article IWA-6000, Records & Reports, the ISI Program 90064 Rev 6, and the ISI procedures were used to put this report together. This report is intended to provide a summary of the ISI activities performed during the Unit 3 Cycle 12 outage. Detailed descriptions of these activities are documented, controlled and maintained in accordance with the Owner's Technical Specification commitments.

**2 PLAN & SCHEDULE**

SUBSECTION	CATEGORY	TOTAL EXAMS REQUIRED	PERIOD	PERIOD	PERIOD
			1	2	3
IWB	B-A	27	3	2	22
	B-B	8	3	2	3
	B-D	34	10	0	24
	B-F	28	9	10	9
	B-G-1	248	84	82	82
	B-G-2	177	61	67	58
	B-J	160	55	54	52
	B-K	10	6	3	3
	B-L-1	2	0	0	2
	B-L-2 (See Note-3)				
	B-M-1	8	2	0	6
	B-M-2 (See Note-3)		2		
	B-N-1	3	1	1	1
	B-N-2	30	0	0	30
	B-N-3	2	0	0	2
	B-O	10	0	0	10
	B-P	Each Refueling Outage			
	B-Q	Per Technical Specifications			
	IWC	C-A	20	5	8
C-B		8	2	2	4
C-C		46	25	15	15
C-F-1		140	48	46	46
C-F-2		28	12	9	9
C-G		5	1	2	2
C-H		Each Inspection Period			
IWD		D-A (System Pressure Test)	Each Inspection Period		
	D-B (System Pressure Test)	Each Inspection Period			
	D-C (System Pressure Test)	Each Inspection Period			
	D-A (Integral Attachments)	50	18	17	17

**2 PLAN & SCHEDULE**

SUBSECTION	CATEGORY	TOTAL EXAM REQUIRED	PERIOD	PERIOD	PERIOD
			1	2	3
IWF	F-A	269	92	90	90
IWE	E-A	443	1	1	441
	E-C	6	2	2	2
	E-D	3	1	1	1
	E-G	99	0	0	99
	E-P PER 10 CFR 50 APPENDIX J				
IWL	L-A (Concrete surfaces)		Every ten years		
	L-B (Unbonded Post-Tensioning System)		Every five years alternative, Item L2.10, L2.20, and L2.30, L2.40, L2.50		
Augmented ISI for Reactor Coolant pump flywheels and high-energy lines					
	Flywheels	4	4	0	4
	High Energy line welds	203	69	68	66

- Notes
- 1) As specified in 10 CFR 50.55a(b)(2)(vi), effective edition and addenda for Subsection IWE and IWL is 1992 edition with the 1992 addenda. Initial (first) 120-month inspection interval is from September 9, 1998 to September 8, 2008. 1<sup>st</sup> period is September 9, 1998 to September 8, 2001, 2<sup>nd</sup> period is from September 9, 2001 to September 8, 2005, 3<sup>rd</sup> period is from September 9, 2005 to September 8, 2008.
  - 2) For Subsection IWL, Inspection Schedule shall comply with IWL-2421
  - 3) Examination required when pump or valve is disassembled.

**3 SUMMARY REPORT**

**Date of Document Completion** ..... March 31, 2003

**Name & Address of Owners:**

Southern California Edison  
2244 Walnut Grove Ave.  
Rosemead, CA 91770

San Diego Gas & Electric Co  
101 Ash St.  
San Diego, CA 92112

City of Anaheim  
Public Utilities Department  
City Hall West - 8th Floor  
Ste. 802, 201 S. Anaheim Blvd.  
Anaheim, CA 92805

City of Riverside  
Public Utilities Department  
3900 Main St.  
Riverside, CA 92522

**Name & Address of Generating Plant:**

San Onofre Nuclear Generating Station  
5000 Pacific Coast Hwy  
San Clemente, CA 92672

**Number Designation of the Unit** ..... Unit 3

**Commercial Service Date for the Unit**..... April 4, 1984



**REFUELING OUTAGE NO.**

Refueling Outage Number:

**U3C12**

**FORM NIS-1 OWNER'S REPORT FOR INSERVICE INSPECTIONS**  
**As required by the Provisions of the ASME Code Rules**

- 1. Owner:** Southern California Edison Company  
2244 Walnut Grove Avenue, Rosemead, CA 91770
- 2. Plant:** San Onofre Nuclear Generating Station  
5000 Pacific Coast Hwy  
San Clemente, CA 92672
- 3. Plant Unit:**   3                        **4. Owner's Certificate of Authorization:** N/A
- 5. Commercial Service Date:** 04/04/84      **6. National Board Number for Unit:** N/A
- 7. Components Inspected:**

Component Or Appurtenance	Manufacturer Or Installer	Manufacturer Or Installer Serial Number	State or Province Number	National Board Number
Reactor Vessel 3MV1101	Combustion Engineering	72170	35204-82	22001
Pressurizer 3ME087	Combustion Engineering	70603	35204-82	21496
Steam Gen 3ME088	Combustion Engineering	72270-2	35204-82	22265
Steam Gen 3ME089	Combustion Engineering	72270-1	35204-82	22264
Reactor Coolant Pump 3MP003	Byron Jackson	701-N-0561	N/A	N/A
Reactor Coolant Pump 3MP004	Byron Jackson	701-N-0562	N/A	N/A

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### **ABSTRACT OF EXAMINATIONS & TESTS**

This report covers the inservice examination activities conducted at the San Onofre Nuclear Generating Station (SONGS), Unit 3. The examinations and tests were performed during third period of the 2<sup>nd</sup> 10-year interval as described in ISI program procedures and document 90064. The inservice examinations were conducted in accordance with 10 CFR Part 50.55a and ASME Boiler and Pressure Vessel Code Section XI.

The NDE services were provided by Wesdyne International LLC, a Subsidiary of Westinghouse Electric LLC and Lambert, MacGill, Thomas, Inc. Additional services were provided by SCE. List of examinations and tests performed during third period are included in Attachment-1.

Factory Mutual Insurance Company provided the services of the Authorized Inspection Agency (AIA) Authorized Nuclear Inservice Inspectors (ANII's).

### **ABSTRACT OF RESULTS OF EXAMINATIONS & TESTS**

The inservice and preservice examinations conducted at SONGS 3 were performed during refueling cycle 12. These examinations were performed to fulfill the requirements of 10 CFR 50.55a(g)(4) and IWA-1400, Owner's Responsibilities of ASME Code Section XI.

The number of components and supports for Class 1 and 2 selected for examination were based on the ISI Program Plan Doc. # 90064, Rev. 6 and ISI program procedures employing Inspection Program Plan B of the ASME Code Section XI.

All the pressure retaining components of ASME Class 1, 2 and 3 System pressure test were performed per the requirement of ASME Code Section XI. Twenty-year visual examination of containment structure post tensioning system was performed per Subsection IWL and 10 CFR 50.55a during November and December of 2002.

All the NDE personnel were qualified and certified in accordance with the 10 CFR 50.55a and Section XI Code requirements.

All the NDE examinations were found ASME Code Section XI acceptable.

### ABSTRACT OF CORRECTIVE MEASURES

In preparation for the 10-year In-Service Inspection (ISI) of the reactor vessel, the Unit 3 core support barrel (CSB) was removed from the Reactor Vessel. During lifting of the core support barrel, site personnel observed that the load cell readings increased from 211 kips to 270 kips. Personnel stopped lifting at this point, lowered the core support barrel, re positioned the polar crane then lifted again. No abnormal load changes were observed after lifting commenced again. Using underwater video equipment, an inspection of the reactor vessel inner surface and the core support barrel outer surface was made. This inspection revealed marking on the reactor vessel outlet nozzle faces (also referred to as bosses) and the core support barrel snubber blocks (also referred to as key ways).

VT-3 Visual Examination of the markings (assignment 5 of AR 030102193 and MO 03011983) were conducted per ASME XI Table IWB 2500-1, Category B-N-1 and acceptance criteria per IWB 3520.2. The examination results revealed no crack like surface flaws, and no evidence of exposed Carbon Steel, nor did any of the marks have a depth which exceeded  $7/32$  nd of an inch, the nominal thickness of cladding. The VT3 visual examination, which was preceded by VT1 visual examination did not reveal any crack like indications on the surface of the marks, all marks lie within the cladding depth. Based on IWB-3610 (b) (1) Category 1-A flaw that entirely lies in the cladding need not be evaluated. The cladding has not been credited in the structural integrity calculations of the RV, i.e., a small loss of cladding material would not have any impact.

Based on the evaluation component is considered acceptable as found condition for continued service. Evaluation results were documented in action request 030102193.

**4 MECHANICAL SEAL ASSEMBLY (MNSA),**  
**VISUAL EXAMINATION RESULTS**

As stated in letter from SCE to U.S. NRC Document Control Desk dated December 24, 2001, Subject : Docket Nos. 50-361 and 50-362, Mechanical Nozzle Seal Assembly (MNSA), Code Replacement Request from 10 CFR 50.55a San Onofre Nuclear Generating Station, Units 2 and 3, SCE performed and documented visual examination of all the Unit-3 installed MNSA's. Results of the inspection were acceptable per approved procedures and ASME Code Section XI 1989 Edition No Addenda.

## **5 STEAM GENERATOR EXAMINATIONS**

On January 26, 2003, SCE completed the inservice inspection of steam generator tubes at San Onofre Nuclear Generating Station Unit-3 per Technical Specification 5.7.2.c.

Examination report has been sent to the US NRC dated February 7, 2003, Subject: Docket No. 50-362, Special Report Inservice Inspection of Steam Generator Tubes, Cycle-12, San Onofre Nuclear Generating Station, Unit 3.



**6 ATTACHMENT-1**

**LIST OF COMPLETED ISI NDE EXAMINATIONS AND  
SYSTEM PRESSURE TESTS**

**ATTACHMENT-1**

**ISI U3C12 Completed Examinations (15 pages)  
U3C12 Class – 1 and 2, System Pressure Test Completed (1 Page)**

### ISI U3C12 COMPLETED EXAMINATIONS

ISI ID	AREA DESCRIPTIONS	CODE CAT	CODE ITEM	VOL	SURF	VISUAL	NDE PROCEDURES
03-001-001	BOTTOM HEAD DOME WELD	B-A	B1.21	UT			SO23-XXVII-3.50.8
03-001-002	BOTTOM HEAD PEEL WELD @ 30 DEGREES	B-A	B1.22	UT			SO23-XXVII-3 50.8
03-001-003	BOTTOM HEAD PEEL WELD @ 90 DEGREES	B-A	B1.22	UT			SO23-XXVII-3 50 8
03-001-004	BOTTOM HEAD PEEL WELD @ 150 DEGREES	B-A	B1.22	UT			SO23-XXVII-3 50.8
03-001-005	BOTTOM HEAD PEEL WELD @ 210 DEGREES	B-A	B1.22	UT			SO23-XXVII-3.50.8
03-001-006	BOTTOM HEAD PEEL WELD @ 270 DEGREES	B-A	B1 22	UT			SO23-XXVII-3 50 8
03-001-007	BOTTOM HEAD PEEL WELD @ 330 DEGREES	B-A	B1.22	UT			SO23-XXVII-3.50.8
03-001-008	BOTTOM HEAD-TO-SHELL GIRTH WELD	B-A	B1.11	UT			SO23-XXVII-3.50.8
03-001-009	LOWER SHELL LONGITUDINAL WELD @ 90 DEGREES	B-A	B1.12	UT			SO23-XXVII-3 50 8
03-001-010	LOWER SHELL LONGITUDINAL WELD @ 210 DEGREES	B-A	B1.12	UT			SO23-XXVII-3.50.8
03-001-011	LOWER SHELL LONGITUDINAL WELD @ 330 DEGREES	B-A	B1.12	UT			SO23-XXVII-3 50 8
03-001-012	MIDDLE SHELL LOWER GIRTH WELD	B-A	B1.11	UT			SO23-XXVII-3 50 8
03-001-013	MIDDLE SHELL LONGITUDINAL WELD @ 90 DEGREES	B-A	B1.12	UT			SO23-XXVII-3.50.8
03-001-014	MIDDLE SHELL LONGITUDINAL WELD @ 210 DEGREES	B-A	B1.12	UT			SO23-XXVII-3.50.8
03-001-015	MIDDLE SHELL LONGITUDINAL WELD @ 330 DEGREES	B-A	B1.12	UT			SO23-XXVII-3 50 8
03-001-016	MIDDLE SHELL UPPER GIRTH WELD	B-A	B1.11	UT			SO23-XXVII-3 50 8
03-001-017	UPPER SHELL LONGITUDINAL WELD @ 90 DEGREES	B-A	B1.12	UT			SO23-XXVII-3.50.8
03-001-018	UPPER SHELL LONGITUDINAL WELD @ 210 DEGREES	B-A	B1.12	UT			SO23-XXVII-3 50 8
03-001-019	UPPER SHELL LONGITUDINAL WELD @ 330 DEGREES	B-A	B1.12	UT			SO23-XXVII-3 50 8
03-001-020-A	UPPER SHELL-TO-FLANGE WELD FROM FLANGE FACE	B-A	B1.30	UT			SO23-XXVII-3 50.5
03-001-020-B	UPPER SHELL-TO-FLANGE WELD FROM FLANGE ID	B-A	B1.30	UT			SO23-XXVII-3.50.8
03-001-021-R	HOT LEG NOZZLE INNER RADIUS @ 0 DEGREES	B-D	B3.100			VT-1	SO23-XXVII-3.50.7
03-001-021-W	HOT LEG NOZZLE-TO-SHELL WELD @ 0 DEGREES	B-D	B3.90	UT			SO23-XXVII-3.50.8, SO23-XXVII-3.50.10
03-001-022-R	COLD LEG NOZZLE INNER RADIUS @ 60 DEGREES	B-D	B3.100			VT-1	SO23-XXVII-3 50.7
03-001-022-W	COLD LEG NOZZLE-TO-SHELL WELD @ 60 DEGREES	B-D	B3.90	UT			SO23-XXVII-3.50 8, SO23-XXVII-3 50.10
03-001-023-R	COLD LEG NOZZLE INNER RADIUS @ 120 DEGREES	B-D	B3.100			VT-1	SO23-XXVII-3.50.7
03-001-023-W	COLD LEG NOZZLE-TO-SHELL WELD @ 120 DEGREES	B-D	B3 90	UT			SO23-XXVII-3 50 8, SO23-XXVII-3 50.10
03-001-024-R	HOT LEG NOZZLE INNER RADIUS @ 180 DEGREES	B-D	B3.100			VT-1	SO23-XXVII-3 50.7
03-001-024-W	HOT LEG NOZZLE-TO-SHELL WELD @ 180 DEGREES	B-D	B3.90	UT			SO23-XXVII-3.50.8, SO23-XXVII-3 50.10.
03-001-025-R	COLD LEG NOZZLE INNER RADIUS @ 240 DEGREES	B-D	B3.100			VT-1	SO23-XXVII-3.50.7
03-001-025-W	COLD LEG NOZZLE-TO-SHELL WELD @ 240 DEGREES	B-D	B3 90	UT			SO23-XXVII-3 50.8, SO23-XXVII-3 50.10
03-001-026-R	COLD LEG NOZZLE INNER RADIUS @ 300 DEGREES	B-D	B3.100			VT-1	SO23-XXVII-3 50.7
03-001-026-W	COLD LEG NOZZLE-TO-SHELL WELD @ 300 DEGREES	B-D	B3.90	UT			SO23-XXVII-3.50.8, SO23-XXVII-3.50.10
03-001-033	HOT LEG NOZZLE-TO-EXTENSION PIECE WELD @ 0 DEGREES	B-J	B9.11	UT			SO23-XXVII-3 50 9, SO23-XXVII-3 50.11
03-001-034	COLD LEG NOZZLE-TO-EXTENSION PIECE WELD @ 60 DEGREES	B-J	B9.11	UT			SO23-XXVII-3.50.9, SO23-XXVII-3.50.11
03-001-035	COLD LEG NOZZLE-TO-EXTENSION PIECE WELD @ 120 DEGREES	B-J	B9.11	UT			SO23-XXVII-3 50 9, SO23-XXVII-3 50.11
03-001-036	HOT LEG NOZZLE-TO-EXTENSION PIECE WELD @ 180 DEGREES	B-J	B9.11	UT			SO23-XXVII-3.50.9, SO23-XXVII-3.50.11
03-001-037	COLD LEG NOZZLE-TO-EXTENSION PIECE WELD @ 240 DEGREES	B-J	B9.11	UT			SO23-XXVII-3.50.9, SO23-XXVII-3 50.11
03-001-038	COLD LEG NOZZLE-TO-EXTENSION PIECE WELD @ 300 DEGREES	B-J	B9.11	UT			SO23-XXVII-3 50.9, SO23-XXVII-3 50.11
03-001-039	CORE STABILIZING LUG @ 0 DEGREES, & LOCKING PINS	BN2	B13.60			VT-3	SO23-XXVII-3.50.7
03-001-040	CORE STABILIZING LUG @ 60 DEGREES, & LOCKING PINS	BN2	B13 60			VT-3	SO23-XXVII-3 50.7
03-001-041	CORE STABILIZING LUG @ 120 DEGREES, & LOCKING PINS	BN2	B13 60			VT-3	SO23-XXVII-3.50.7
03-001-042	CORE STABILIZING LUG @ 180 DEGREES, & LOCKING PINS	BN2	B13.60			VT-3	SO23-XXVII-3.50.7
03-001-043	CORE STABILIZING LUG @ 240 DEGREES, & LOCKING PINS	BN2	B13 60			VT-3	SO23-XXVII-3.50.7
03-001-044	CORE STABILIZING LUG @ 300 DEGREES, & LOCKING PINS	BN2	B13 60			VT-3	SO23-XXVII-3 50.7

**ISI U3C12 COMPLETED EXAMINATIONS**

03-001-045	CORE STOP LUG @ 10 DEGREES	BN2	B13.60			VT-3	SO23-XXVII-3.50.7
03-001-046	CORE STOP LUG @ 40 DEGREES	BN2	B13.60			VT-3	SO23-XXVII-3.50.7
03-001-047	CORE STOP LUG @ 85 DEGREES	BN2	B13.60			VT-3	SO23-XXVII-3.50.7
03-001-048	CORE STOP LUG @ 130 DEGREES	BN2	B13.60			VT-3	SO23-XXVII-3.50.7
03-001-049	CORE STOP LUG @ 160 DEGREES	BN2	B13.60			VT-3	SO23-XXVII-3.50.7
03-001-050	CORE STOP LUG @ 205 DEGREES	BN2	B13.60			VT-3	SO23-XXVII-3.50.7
03-001-051	CORE STOP LUG @ 250 DEGREES	BN2	B13.60			VT-3	SO23-XXVII-3.50.7
03-001-052	CORE STOP LUG @ 280 DEGREES	BN2	B13.60			VT-3	SO23-XXVII-3.50.7
03-001-053	CORE STOP LUG @ 325 DEGREES	BN2	B13.60			VT-3	SO23-XXVII-3.50.7
03-001-054-37	FLANGE LIGAMENT AREA - STUD HOLE #37	BG1	B6.40	UT			SO23-XXVII-3.50.6
03-001-054-38	FLANGE LIGAMENT AREA - STUD HOLE #38	BG1	B6.40	UT			SO23-XXVII-3.50.6
03-001-054-39	FLANGE LIGAMENT AREA - STUD HOLE #39	BG1	B6.40	UT			SO23-XXVII-3.50.6
03-001-054-40	FLANGE LIGAMENT AREA - STUD HOLE #40	BG1	B6.40	UT			SO23-XXVII-3.50.6
03-001-054-41	FLANGE LIGAMENT AREA - STUD HOLE #41	BG1	B6.40	UT			SO23-XXVII-3.50.6
03-001-054-42	FLANGE LIGAMENT AREA - STUD HOLE #42	BG1	B6.40	UT			SO23-XXVII-3.50.6
03-001-054-43	FLANGE LIGAMENT AREA - STUD HOLE #43	BG1	B6.40	UT			SO23-XXVII-3.50.6
03-001-054-44	FLANGE LIGAMENT AREA - STUD HOLE #44	BG1	B6.40	UT			SO23-XXVII-3.50.6
03-001-054-45	FLANGE LIGAMENT AREA - STUD HOLE #45	BG1	B6.40	UT			SO23-XXVII-3.50.6
03-001-054-46	FLANGE LIGAMENT AREA - STUD HOLE #46	BG1	B6.40	UT			SO23-XXVII-3.50.6
03-001-054-47	FLANGE LIGAMENT AREA - STUD HOLE #47	BG1	B6.40	UT			SO23-XXVII-3.50.6
03-001-054-48	FLANGE LIGAMENT AREA - STUD HOLE #48	BG1	B6.40	UT			SO23-XXVII-3.50.6
03-001-054-49	FLANGE LIGAMENT AREA - STUD HOLE #49	BG1	B6.40	UT			SO23-XXVII-3.50.6
03-001-054-50	FLANGE LIGAMENT AREA - STUD HOLE #50	BG1	B6.40	UT			SO23-XXVII-3.50.6
03-001-054-51	FLANGE LIGAMENT AREA - STUD HOLE #51	BG1	B6.40	UT			SO23-XXVII-3.50.6
03-001-054-52	FLANGE LIGAMENT AREA - STUD HOLE #52	BG1	B6.40	UT			SO23-XXVII-3.50.6
03-001-054-53	FLANGE LIGAMENT AREA - STUD HOLE #53	BG1	B6.40	UT			SO23-XXVII-3.50.6
03-001-054-54	FLANGE LIGAMENT AREA - STUD HOLE #54	BG1	B6.40	UT			SO23-XXVII-3.50.6
03-001-056-37	REACTOR VESSEL CLOSURE STUD #37	BG1	B6.30	UT	MT		SO23-XXVII-30.7, SO23-XXVII-20.47
03-001-056-38	REACTOR VESSEL CLOSURE STUD #38	BG1	B6.30	UT	MT		SO23-XXVII-30.7, SO23-XXVII-20.47
03-001-056-39	REACTOR VESSEL CLOSURE STUD #39	BG1	B6.30	UT	MT		SO23-XXVII-30.7, SO23-XXVII-20.47
03-001-056-40	REACTOR VESSEL CLOSURE STUD #40	BG1	B6.30	UT	MT		SO23-XXVII-30.7, SO23-XXVII-20.47
03-001-056-41	REACTOR VESSEL CLOSURE STUD #41	BG1	B6.30	UT	MT		SO23-XXVII-30.7, SO23-XXVII-20.47
03-001-056-42	REACTOR VESSEL CLOSURE STUD #42	BG1	B6.30	UT	MT		SO23-XXVII-30.7, SO23-XXVII-20.47
03-001-056-43	REACTOR VESSEL CLOSURE STUD #43	BG1	B6.30	UT	MT		SO23-XXVII-30.7, SO23-XXVII-20.47
03-001-056-44	REACTOR VESSEL CLOSURE STUD #44	BG1	B6.30	UT	MT		SO23-XXVII-30.7, SO23-XXVII-20.47
03-001-056-45	REACTOR VESSEL CLOSURE STUD #45	BG1	B6.30	UT	MT		SO23-XXVII-30.7, SO23-XXVII-20.47
03-001-056-46	REACTOR VESSEL CLOSURE STUD #46	BG1	B6.30	UT	MT		SO23-XXVII-30.7, SO23-XXVII-20.47
03-001-056-47	REACTOR VESSEL CLOSURE STUD #47	BG1	B6.30	UT	MT		SO23-XXVII-30.7, SO23-XXVII-20.47
03-001-056-48	REACTOR VESSEL CLOSURE STUD #48	BG1	B6.30	UT	MT		SO23-XXVII-30.7, SO23-XXVII-20.47
03-001-056-49	REACTOR VESSEL CLOSURE STUD #49	BG1	B6.30	UT	MT		SO23-XXVII-30.7, SO23-XXVII-20.47
03-001-056-50	REACTOR VESSEL CLOSURE STUD #50	BG1	B6.30	UT	MT		SO23-XXVII-30.7, SO23-XXVII-20.47
03-001-056-51	REACTOR VESSEL CLOSURE STUD #51	BG1	B6.30	UT	MT		SO23-XXVII-30.7, SO23-XXVII-20.47
03-001-056-52	REACTOR VESSEL CLOSURE STUD #52	BG1	B6.30	UT	MT		SO23-XXVII-30.7, SO23-XXVII-20.47
03-001-056-53	REACTOR VESSEL CLOSURE STUD #53	BG1	B6.30	UT	MT		SO23-XXVII-30.7, SO23-XXVII-20.47
03-001-056-54	REACTOR VESSEL CLOSURE STUD #54	BG1	B6.30	UT	MT		SO23-XXVII-30.7, SO23-XXVII-20.47
03-001-057-37	REACTOR VESSEL CLOSURE NUT #37	BG1	B6.10		MT		SO23-XXVII-20.47

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03-001-057-38	REACTOR VESSEL CLOSURE NUT #38	BG1	B6.10		MT		SO23-XXVII-20.47
03-001-057-39	REACTOR VESSEL CLOSURE NUT #39	BG1	B6.10		MT		SO23-XXVII-20.47
03-001-057-40	REACTOR VESSEL CLOSURE NUT #40	BG1	B6.10		MT		SO23-XXVII-20.47
03-001-057-41	REACTOR VESSEL CLOSURE NUT #41	BG1	B6.10		MT		SO23-XXVII-20.47
03-001-057-42	REACTOR VESSEL CLOSURE NUT #42	BG1	B6.10		MT		SO23-XXVII-20.47
03-001-057-43	REACTOR VESSEL CLOSURE NUT #43	BG1	B6.10		MT		SO23-XXVII-20.47
03-001-057-44	REACTOR VESSEL CLOSURE NUT #44	BG1	B6.10		MT		SO23-XXVII-20.47
03-001-057-45	REACTOR VESSEL CLOSURE NUT #45	BG1	B6.10		MT		SO23-XXVII-20.47
03-001-057-46	REACTOR VESSEL CLOSURE NUT #46	BG1	B6.10		MT		SO23-XXVII-20.47
03-001-057-47	REACTOR VESSEL CLOSURE NUT #47	BG1	B6.10		MT		SO23-XXVII-20.47
03-001-057-48	REACTOR VESSEL CLOSURE NUT #48	BG1	B6.10		MT		SO23-XXVII-20.47
03-001-057-49	REACTOR VESSEL CLOSURE NUT #49	BG1	B6.10		MT		SO23-XXVII-20.47
03-001-057-50	REACTOR VESSEL CLOSURE NUT #50	BG1	B6.10		MT		SO23-XXVII-20.47
03-001-057-51	REACTOR VESSEL CLOSURE NUT #51	BG1	B6.10		MT		SO23-XXVII-20.47
03-001-057-52	REACTOR VESSEL CLOSURE NUT #52	BG1	B6.10		MT		SO23-XXVII-20.47
03-001-057-53	REACTOR VESSEL CLOSURE NUT #53	BG1	B6.10		MT		SO23-XXVII-20.47
03-001-057-54	REACTOR VESSEL CLOSURE NUT #54	BG1	B6.10		MT		SO23-XXVII-20.47
03-001-058-37	REACTOR VESSEL CLOSURE WASHER #37	BG1	B6.50		VT-1		SO23-XXVII-20.49
03-001-058-38	REACTOR VESSEL CLOSURE WASHER #38	BG1	B6.50		VT-1		SO23-XXVII-20.49
03-001-058-39	REACTOR VESSEL CLOSURE WASHER #39	BG1	B6.50		VT-1		SO23-XXVII-20.49
03-001-058-40	REACTOR VESSEL CLOSURE WASHER #40	BG1	B6.50		VT-1		SO23-XXVII-20.49
03-001-058-41	REACTOR VESSEL CLOSURE WASHER #41	BG1	B6.50		VT-1		SO23-XXVII-20.49
03-001-058-42	REACTOR VESSEL CLOSURE WASHER #42	BG1	B6.50		VT-1		SO23-XXVII-20.49
03-001-058-43	REACTOR VESSEL CLOSURE WASHER #43	BG1	B6.50		VT-1		SO23-XXVII-20.49
03-001-058-44	REACTOR VESSEL CLOSURE WASHER #44	BG1	B6.50		VT-1		SO23-XXVII-20.49
03-001-058-45	REACTOR VESSEL CLOSURE WASHER #45	BG1	B6.50		VT-1		SO23-XXVII-20.49
03-001-058-46	REACTOR VESSEL CLOSURE WASHER #46	BG1	B6.50		VT-1		SO23-XXVII-20.49
03-001-058-47	REACTOR VESSEL CLOSURE WASHER #47	BG1	B6.50		VT-1		SO23-XXVII-20.49
03-001-058-48	REACTOR VESSEL CLOSURE WASHER #48	BG1	B6.50		VT-1		SO23-XXVII-20.49
03-001-058-49	REACTOR VESSEL CLOSURE WASHER #49	BG1	B6.50		VT-1		SO23-XXVII-20.49
03-001-058-50	REACTOR VESSEL CLOSURE WASHER #50	BG1	B6.50		VT-1		SO23-XXVII-20.49
03-001-058-51	REACTOR VESSEL CLOSURE WASHER #51	BG1	B6.50		VT-1		SO23-XXVII-20.49
03-001-058-52	REACTOR VESSEL CLOSURE WASHER #52	BG1	B6.50		VT-1		SO23-XXVII-20.49
03-001-058-53	REACTOR VESSEL CLOSURE WASHER #53	BG1	B6.50		VT-1		SO23-XXVII-20.49
03-001-058-54	REACTOR VESSEL CLOSURE WASHER #54	BG1	B6.50		VT-1		SO23-XXVII-20.49
03-001-059	MATERIAL SURVEILLANCE CAPSULE HOLDER @ 83 DEGREES	BN2	B13.50		VT-1		SO23-XXVII-3 50.7
03-001-060	MATERIAL SURVEILLANCE CAPSULE HOLDER @ 97 DEGREES	BN2	B13.50		VT-1		SO23-XXVII-3.50.7
03-001-061	MATERIAL SURVEILLANCE CAPSULE HOLDER @ 104 DEGREES	BN2	B13.50		VT-1		SO23-XXVII-3 50.7
03-001-062	MATERIAL SURVEILLANCE CAPSULE HOLDER @ 263 DEGREES	BN2	B13.50		VT-1		SO23-XXVII-3.50.7
03-001-063	MATERIAL SURVEILLANCE CAPSULE HOLDER @ 277 DEGREES	BN2	B13.50		VT-1		SO23-XXVII-3.50.7
03-001-064	MATERIAL SURVEILLANCE CAPSULE HOLDER @ 284 DEGREES	BN2	B13.50		VT-1		SO23-XXVII-3 50.7
03-001-065	FLOW BAFFLE	BN2	B13.60		VT-3		SO23-XXVII-3 50.7
03-001-070	CORE SUPPORT BARREL	BN3	B13.70		VT-3		SO23-XXVII-3.50.7
03-001-071	UPPER GUIDE STRUCTURE	BN3	B13.70		VT-3		SO23-XXVII-3 50.7
03-001-072	ALIGNMENT KEY @ 0 DEGREES	BN2	B13.50		VT-1		SO23-XXVII-3 50.7
03-001-073	ALIGNMENT KEY @ 90 DEGREES	BN2	B13.50		VT-1		SO23-XXVII-3 50.7

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03-001-074	ALIGNMENT KEY @ 180 DEGREES	BN2	B13.50			VT-1	SO23-XXVII-3.50.7
03-001-075	ALIGNMENT KEY @ 270 DEGREES	BN2	B13.50			VT-1	SO23-XXVII-3.50.7
03-001-076	GUIDE LUG @ 70 DEGREES	BN2	B13.50			VT-1	SO23-XXVII-3.50.7
03-001-077	GUIDE LUG @ 160 DEGREES	BN2	B13.50			VT-1	SO23-XXVII-3.50.7
03-001-078	GUIDE LUG @ 250 DEGREES	BN2	B13.50			VT-1	SO23-XXVII-3.50.7
03-001-079	GUIDE LUG @ 340 DEGREES	BN2	B13.50			VT-1	SO23-XXVII-3.50.7
03-001-080	AREAS ABOVE AND BELOW REACTOR CORE	BN1	B13.10			VT-3	SO23-XXVII-3.50.7
03-002-005	PEEL SEGMENT WELD @ 234 DEGREES	B-A	B1.22	UT			SO23-XXVII-30.10
03-002-006	PEEL SEGMENT WELD @ 306 DEGREES	B-A	B1.22	UT			SO23-XXVII-30.10
03-002-018-65	LOWER MOTOR HOUSING WELD - CEDM #65 (FORMERLY ISI #03-002-018-06)	B-O	B14.10			PT	SO23-XXVII-20.48
03-002-018-70	LOWER MOTOR HOUSING WELD - CEDM #70 (FORMERLY ISI #03-002-018-11)	B-O	B14.10			PT	SO23-XXVII-20.48
03-002-018-72	LOWER MOTOR HOUSING WELD - CEDM #72 (FORMERLY ISI #03-002-018-13)	B-O	B14.10			PT	SO23-XXVII-20.48
03-002-018-74	LOWER MOTOR HOUSING WELD - CEDM #74 (FORMERLY ISI #03-002-018-15)	B-O	B14.10			PT	SO23-XXVII-20.48
03-002-018-75	LOWER MOTOR HOUSING WELD - CEDM #75 (FORMERLY ISI #03-002-018-16)	B-O	B14.10			PT	SO23-XXVII-20.48
03-002-018-76	LOWER MOTOR HOUSING WELD - CEDM #76 (FORMERLY ISI #03-002-018-17)	B-O	B14.10			PT	SO23-XXVII-20.48
03-002-018-83	LOWER MOTOR HOUSING WELD - CEDM #83 (FORMERLY ISI #03-002-018-24)	B-O	B14.10			PT	SO23-XXVII-20.48
03-002-018-84	LOWER MOTOR HOUSING WELD - CEDM #84 (FORMERLY ISI #03-002-018-25)	B-O	B14.10			PT	SO23-XXVII-20.48
03-002-018-85	LOWER MOTOR HOUSING WELD - CEDM #85 (FORMERLY ISI #03-002-018-26)	B-O	B14.10			PT	SO23-XXVII-20.48
03-002-018-90	LOWER MOTOR HOUSING WELD - CEDM #90 (FORMERLY ISI #03-002-018-31)	B-O	B14.10			PT	SO23-XXVII-20.48
03-002-019-65	UPPER MOTOR HOUSING WELD - CEDM #65 (FORMERLY ISI #03-002-019-06)	B-O	B14.10			PT	SO23-XXVII-20.48
03-002-019-70	UPPER MOTOR HOUSING WELD - CEDM #70 (FORMERLY ISI #03-002-019-11)	B-O	B14.10			PT	SO23-XXVII-20.48
03-002-019-72	UPPER MOTOR HOUSING WELD - CEDM #72 (FORMERLY ISI #03-002-019-13)	B-O	B14.10			PT	SO23-XXVII-20.48
03-002-019-74	UPPER MOTOR HOUSING WELD - CEDM #74 (FORMERLY ISI #03-002-019-15)	B-O	B14.10			PT	SO23-XXVII-20.48
03-002-019-75	UPPER MOTOR HOUSING WELD - CEDM #75 (FORMERLY ISI #03-002-019-16)	B-O	B14.10			PT	SO23-XXVII-20.48
03-002-019-76	UPPER MOTOR HOUSING WELD - CEDM #76 (FORMERLY ISI #03-002-019-17)	B-O	B14.10			PT	SO23-XXVII-20.48
03-002-019-83	UPPER MOTOR HOUSING WELD - CEDM #83 (FORMERLY ISI #03-002-019-24)	B-O	B14.10			PT	SO23-XXVII-20.48
03-002-019-84	UPPER MOTOR HOUSING WELD - CEDM #84 (FORMERLY ISI #03-002-019-25)	B-O	B14.10			PT	SO23-XXVII-20.48

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03-002-019-85	UPPER MOTOR HOUSING WELD - CEDM #85 (FORMERLY ISI #03-002-019-26)	B-O	B14.10		PT		SO23-XXVII-20.48
03-002-019-90	UPPER MOTOR HOUSING WELD - CEDM #90 (FORMERLY ISI #03-002-019-31)	B-O	B14.10		PT		SO23-XXVII-20.48
03-002-020-65	LOWER PRESSURE TUBE WELD - CEDM #65 (FORMERLY ISI #03-002-020-06)	B-O	B14.10		PT		SO23-XXVII-20 48
03-002-020-70	LOWER PRESSURE TUBE WELD - CEDM #70 (FORMERLY ISI #03-002-020-11)	B-O	B14.10		PT		SO23-XXVII-20.48
03-002-020-72	LOWER PRESSURE TUBE WELD - CEDM #72 (FORMERLY ISI #03-002-020-13)	B-O	B14.10		PT		SO23-XXVII-20.48
03-002-020-74	LOWER PRESSURE TUBE WELD - CEDM #74 (FORMERLY ISI #03-002-020-15)	B-O	B14.10		PT		SO23-XXVII-20.48
03-002-020-75	LOWER PRESSURE TUBE WELD - CEDM #75 (FORMERLY ISI #03-002-020-16)	B-O	B14.10		PT		SO23-XXVII-20.48
03-002-020-76	LOWER PRESSURE TUBE WELD - CEDM #76 (FORMERLY ISI #03-002-020-17)	B-O	B14.10		PT		SO23-XXVII-20.48
03-002-020-83	LOWER PRESSURE TUBE WELD - CEDM #83 (FORMERLY ISI #03-002-020-24)	B-O	B14.10		PT		SO23-XXVII-20 48
03-002-020-84	LOWER PRESSURE TUBE WELD - CEDM #84 (FORMERLY ISI #03-002-020-25)	B-O	B14.10		PT		SO23-XXVII-20.48
03-002-020-85	LOWER PRESSURE TUBE WELD - CEDM #85 (FORMERLY ISI #03-002-020-26)	B-O	B14.10		PT		SO23-XXVII-20.48
03-002-020-90	LOWER PRESSURE TUBE WELD - CEDM #90 (FORMERLY ISI #03-002-020-31)	B-O	B14.10		PT		SO23-XXVII-20.48
03-002-021-65	UPPER PRESSURE TUBE WELD - CEDM #65 (FORMERLY ISI #03-002-021-06)	B-O	B14.10		PT		SO23-XXVII-20.48
03-002-021-70	UPPER PRESSURE TUBE WELD - CEDM #70 (FORMERLY ISI #03-002-021-11)	B-O	B14.10		PT		SO23-XXVII-20.48
03-002-021-72	UPPER PRESSURE TUBE WELD - CEDM #72 (FORMERLY ISI #03-002-021-13)	B-O	B14.10		PT		SO23-XXVII-20 48
03-002-021-74	UPPER PRESSURE TUBE WELD - CEDM #74 (FORMERLY ISI #03-002-021-15)	B-O	B14.10		PT		SO23-XXVII-20.48
03-002-021-75	UPPER PRESSURE TUBE WELD - CEDM #75 (FORMERLY ISI #03-002-021-16)	B-O	B14 10		PT		SO23-XXVII-20 48
03-002-021-76	UPPER PRESSURE TUBE WELD - CEDM #76 (FORMERLY ISI #03-002-021-17)	B-O	B14.10		PT		SO23-XXVII-20.48
03-002-021-83	UPPER PRESSURE TUBE WELD - CEDM #83 (FORMERLY ISI #03-002-021-24)	B-O	B14.10		PT		SO23-XXVII-20 48
03-002-021-84	UPPER PRESSURE TUBE WELD - CEDM #84 (FORMERLY ISI #03-002-021-25)	B-O	B14.10		PT		SO23-XXVII-20.48
03-002-021-85	UPPER PRESSURE TUBE WELD - CEDM #85 (FORMERLY ISI #03-002-021-26)	B-O	B14.10		PT		SO23-XXVII-20 48
03-002-021-90	UPPER PRESSURE TUBE WELD - CEDM #90 (FORMERLY ISI #03-002-021-31)	B-O	B14.10		PT		SO23-XXVII-20.48
03-003-010	INLET NOZZLE-TO-HEAD WELD	B-D	B3.130	UT			SO23-XXVII-20 66
03-003-011	OUTLET NOZZLE-TO-HEAD WELD @ 45 DEGREES	B-D	B3.130	UT			SO23-XXVII-20.66

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03-003-012	OUTLET NOZZLE-TO-HEAD WELD @ 315 DEGREES	B-D	B3.130	UT			SO23-XXVII-20.66
03-003-017	INLET NOZZLE INNER RADIUS	B-D	B3.140	UT			SO23-XXVII-20.52
03-003-018	OUTLET NOZZLE INNER RADIUS @ 45 DEGREES	B-D	B3.140	UT			SO23-XXVII-20.52
03-003-019	OUTLET NOZZLE INNER RADIUS @ 315 DEGREES	B-D	B3.140	UT			SO23-XXVII-20.52
03-004-001	SUPPORT SKIRT-TO-STAY BASE WELD	B-K	B10.10		MT		SO23-XXVII-20.47
03-004-022	STAY CYLINDER EXTENSION-TO-TUBE SHEET WELD	B-B	B2.40	UT			SO23-XXVII-20.66
03-004-029-08	PRIMARY MANWAY STUD @ 112 DEGREES, 30 MINUTES	BG2	B7.30			VT-1	SO23-XXVII-20.49
03-004-029-09	PRIMARY MANWAY STUD @ 112 DEGREES, 30 MINUTES	BG2	B7.30			VT-1	SO23-XXVII-20.49
03-004-029-10	PRIMARY MANWAY STUD @ 112 DEGREES, 30 MINUTES	BG2	B7.30			VT-1	SO23-XXVII-20.49
03-004-029-11	PRIMARY MANWAY STUD @ 112 DEGREES, 30 MINUTES	BG2	B7.30			VT-1	SO23-XXVII-20.49
03-004-029-12	PRIMARY MANWAY STUD @ 112 DEGREES, 30 MINUTES	BG2	B7.30			VT-1	SO23-XXVII-20.49
03-004-029-13	PRIMARY MANWAY STUD @ 112 DEGREES, 30 MINUTES	BG2	B7.30			VT-1	SO23-XXVII-20.49
03-004-029-14	PRIMARY MANWAY STUD @ 112 DEGREES, 30 MINUTES	BG2	B7.30			VT-1	SO23-XXVII-20.49
03-004-029-15	PRIMARY MANWAY STUD @ 112 DEGREES, 30 MINUTES	BG2	B7.30			VT-1	SO23-XXVII-20.49
03-004-029-16	PRIMARY MANWAY STUD @ 112 DEGREES, 30 MINUTES	BG2	B7.30			VT-1	SO23-XXVII-20.49
03-004-029-17	PRIMARY MANWAY STUD @ 112 DEGREES, 30 MINUTES	BG2	B7.30			VT-1	SO23-XXVII-20.49
03-004-029-18	PRIMARY MANWAY STUD @ 112 DEGREES, 30 MINUTES	BG2	B7.30			VT-1	SO23-XXVII-20.49
03-004-029-19	PRIMARY MANWAY STUD @ 112 DEGREES, 30 MINUTES	BG2	B7.30			VT-1	SO23-XXVII-20.49
03-004-029-20	PRIMARY MANWAY STUD @ 112 DEGREES, 30 MINUTES	BG2	B7.30			VT-1	SO23-XXVII-20.49
03-004-030-01	PRIMARY MANWAY NUT @ 112 DEGREES, 30 MINUTES	BG2	B7.30			VT-1	SO23-XXVII-20.49
03-004-030-02	PRIMARY MANWAY NUT @ 112 DEGREES, 30 MINUTES	BG2	B7.30			VT-1	SO23-XXVII-20.49
03-004-030-03	PRIMARY MANWAY NUT @ 112 DEGREES, 30 MINUTES	BG2	B7.30			VT-1	SO23-XXVII-20.49
03-004-030-04	PRIMARY MANWAY NUT @ 112 DEGREES, 30 MINUTES	BG2	B7.30			VT-1	SO23-XXVII-20.49
03-004-030-05	PRIMARY MANWAY NUT @ 112 DEGREES, 30 MINUTES	BG2	B7.30			VT-1	SO23-XXVII-20.49
03-004-030-06	PRIMARY MANWAY NUT @ 112 DEGREES, 30 MINUTES	BG2	B7.30			VT-1	SO23-XXVII-20.49
03-004-030-07	PRIMARY MANWAY NUT @ 112 DEGREES, 30 MINUTES	BG2	B7.30			VT-1	SO23-XXVII-20.49
03-004-030-08	PRIMARY MANWAY NUT @ 112 DEGREES, 30 MINUTES	BG2	B7.30			VT-1	SO23-XXVII-20.49
03-004-030-09	PRIMARY MANWAY NUT @ 112 DEGREES, 30 MINUTES	BG2	B7.30			VT-1	SO23-XXVII-20.49
03-004-030-10	PRIMARY MANWAY NUT @ 112 DEGREES, 30 MINUTES	BG2	B7.30			VT-1	SO23-XXVII-20.49
03-004-030-11	PRIMARY MANWAY NUT @ 112 DEGREES, 30 MINUTES	BG2	B7.30			VT-1	SO23-XXVII-20.49
03-004-030-12	PRIMARY MANWAY NUT @ 112 DEGREES, 30 MINUTES	BG2	B7.30			VT-1	SO23-XXVII-20.49
03-004-030-13	PRIMARY MANWAY NUT @ 112 DEGREES, 30 MINUTES	BG2	B7.30			VT-1	SO23-XXVII-20.49
03-004-030-14	PRIMARY MANWAY NUT @ 112 DEGREES, 30 MINUTES	BG2	B7.30			VT-1	SO23-XXVII-20.49
03-004-030-15	PRIMARY MANWAY NUT @ 112 DEGREES, 30 MINUTES	BG2	B7.30			VT-1	SO23-XXVII-20.49
03-004-030-16	PRIMARY MANWAY NUT @ 112 DEGREES, 30 MINUTES	BG2	B7.30			VT-1	SO23-XXVII-20.49
03-004-030-17	PRIMARY MANWAY NUT @ 112 DEGREES, 30 MINUTES	BG2	B7.30			VT-1	SO23-XXVII-20.49
03-004-030-18	PRIMARY MANWAY NUT @ 112 DEGREES, 30 MINUTES	BG2	B7.30			VT-1	SO23-XXVII-20.49
03-004-030-19	PRIMARY MANWAY NUT @ 112 DEGREES, 30 MINUTES	BG2	B7.30			VT-1	SO23-XXVII-20.49
03-004-030-20	PRIMARY MANWAY NUT @ 112 DEGREES, 30 MINUTES	BG2	B7.30			VT-1	SO23-XXVII-20.49
03-004-036	SUPPORT SKIRT	F-A	F1.40B			VT-3	SO23-XXVII-20.51
03-005-007	UPPER SHELL LONGITUDINAL WELD @ 225 DEGREES	B-B	B2.12	UT			SO23-XXVII-20.66
03-005-008	UPPER SHELL-TO-TOP HEAD GIRTH WELD	B-B	B2.11	UT			SO23-XXVII-20.66
03-005-011	SAFETY NOZZLE-TO-TOP HEAD WELD @ 45 DEGREES	B-D	B3.110	UT			SO23-XXVII-20.66
03-005-012	SAFETY NOZZLE-TO-TOP HEAD WELD @ 225 DEGREES	B-D	B3.110	UT			SO23-XXVII-20.66
03-005-013	SAFETY NOZZLE-TO-TOP HEAD WELD @ 315 DEGREES	B-D	B3.110	UT			SO23-XXVII-20.66
03-005-016	SAFETY NOZZLE INNER RADIUS @ 45 DEGREES	B-D	B3.120	UT			SO23-XXVII-20.52

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03-005-017	SAFETY NOZZLE INNER RADIUS @ 225 DEGREES	B-D	B3.120	UT			SO23-XXVII-20 52
03-005-018	SAFETY NOZZLE INNER RADIUS @ 315 DEGREES	B-D	B3.120	UT			SO23-XXVII-20.52
03-005-019-14	PRIMARY MANWAY BOLTING (STUD )	BG2	B7.20			VT-1	SO23-XXVII-20.49
03-005-019-15	PRIMARY MANWAY BOLTING (STUD )	BG2	B7.20			VT-1	SO23-XXVII-20.49
03-005-019-16	PRIMARY MANWAY BOLTING (STUD )	BG2	B7.20			VT-1	SO23-XXVII-20.49
03-005-019-17	PRIMARY MANWAY BOLTING (STUD )	BG2	B7 20			VT-1	SO23-XXVII-20 49
03-005-019-18	PRIMARY MANWAY BOLTING (STUD )	BG2	B7.20			VT-1	SO23-XXVII-20.49
03-005-019-19	PRIMARY MANWAY BOLTING (STUD )	BG2	B7.20			VT-1	SO23-XXVII-20.49
03-005-019-20	PRIMARY MANWAY BOLTING (STUD )	BG2	B7.20			VT-1	SO23-XXVII-20.49
03-005-027	SAFETY NOZZLE-TO-SAFE END WELD @ 45 DEGREES	B-F	B5.40	UT	PT		SO23-XXVII-30.9, SO23-XXVII-20 48
03-005-028	SAFETY NOZZLE-TO-SAFE END WELD @ 225 DEGREES	B-F	B5 40	UT	PT		SO23-XXVII-30.9, SO23-XXVII-20.48
03-005-029	SAFETY NOZZLE-TO-SAFE END WELD @ 315 DEGREES	B-F	B5.40	UT	PT		SO23-XXVII-30.9, SO23-XXVII-20.48
03-005-030	SPRAY NOZZLE-TO-SAFE END WELD	B-F	B5.40	UT	PT		SO23-XXVII-30 9, SO23-XXVII-20 48
03-005-037-14	PRIMARY MANWAY BOLTING (NUT)	BG2	B7.20			VT-1	SO23-XXVII-20.49
03-005-037-15	PRIMARY MANWAY BOLTING (NUT)	BG2	B7.20			VT-1	SO23-XXVII-20.49
03-005-037-16	PRIMARY MANWAY BOLTING (NUT)	BG2	B7.20			VT-1	SO23-XXVII-20.49
03-005-037-17	PRIMARY MANWAY BOLTING (NUT)	BG2	B7.20			VT-1	SO23-XXVII-20.49
03-005-037-18	PRIMARY MANWAY BOLTING (NUT)	BG2	B7.20			VT-1	SO23-XXVII-20.49
03-005-037-19	PRIMARY MANWAY BOLTING (NUT)	BG2	B7.20			VT-1	SO23-XXVII-20.49
03-005-037-20	PRIMARY MANWAY BOLTING (NUT)	BG2	B7 20			VT-1	SO23-XXVII-20.49
03-006-001	STEAM GENERATOR #1 INLET NOZZLE EXTENSION PIECE-TO-PIPE WELD	B-J	B9.11	UT	MT		SO23-XXVII-30.5, SO23-XXVII-20.47
03-006-005 RV	PIPE LONGITUDINAL WELD - R.V. END	B-J	B9.12	UT			SO23-XXVII-3 50.9, SO23-XXVII-3 50 11
03-006-006 RV	PIPE LONGITUDINAL WELD - R.V. END	B-J	B9.12	UT			SO23-XXVII-3.50.9, SO23-XXVII-3.50.11
03-006-007	PIPE-TO-REACTOR VESSEL OUTLET NOZZLE EXTENSION PIECE	B-J	B9.11	UT			SO23-XXVII-3 50.9, SO23-XXVII-3 50.11
03-006-008	SURGE NOZZLE-TO PIPE	B-J	B9 31	UT	MT		SO23-XXVII-30 5, SO23-XXVII-20.47
03-006-010	SURGE NOZZLE-TO-SAFE END	B-F	B5.130	UT	PT		SO23-XXVII-30.9, SO23-XXVII-20.48
03-006-011	DRAIN NOZZLE-TO SAFE END (2" DIA.)	B-F	B5.140		PT		SO23-XXVII-20 48
03-007-005 RV	PIPE LONGITUDINAL WELD - RV END	B-J	B9.12	UT			SO23-XXVII-3 50 9, SO23-XXVII-3 50.11
03-007-006 RV	PIPE LONGITUDINAL WELD - RV END	B-J	B9.12	UT			SO23-XXVII-3.50.9, SO23-XXVII-3 50.11
03-007-007	PIPE-TO-REACTOR VESSEL OUTLET NOZZLE EXTENSION PIECE WELD	B-J	B9.11	UT			SO23-XXVII-3 50.9, SO23-XXVII-3 50.11
03-008-017	PIPE-TO-STEAM GENERATOR NOZZLE EXTENSION PIECE WELD	B-J	B9.11	UT	MT		SO23-XXVII-30.5, SO23-XXVII-20 47
03-008-019	DRAIN NOZZLE-TO-2" SAFE END WELD	B-F	B5.140		PT		SO23-XXVII-20.48
03-009-006 RV	ELBOW BODY WELD - INSIDE RADIUS (R.V. END)	B-J	B9.12	UT			SO23-XXVII-3 50.9, SO23-XXVII-3 50.11
03-009-007 RV	ELBOW BODY WELD - OUTSIDE RADIUS (R.V. END)	B-J	B9.12	UT			SO23-XXVII-3 50.9, SO23-XXVII-3 50.11
03-009-008	ELBOW-TO-RPV COLD LEG INLET NOZZLE EXTENSION PIECE WELD	B-J	B9.11	UT			SO23-XXVII-3.50.9, SO23-XXVII-3 50.11
03-010-017	PIPE-TO-STEAM GENERATOR EXTENSION PIECE WELD	B-J	B9.11	UT	MT		SO23-XXVII-30.5, SO23-XXVII-20.47
03-010-019	DRAIN NOZZLE-TO-SAFE END WELD (2")	B-F	B5.140		PT		SO23-XXVII-20.48
03-011-006 RV	ELBOW BODY WELD - OUTSIDE RADIUS (R.V. END)	B-J	B9.12	UT			SO23-XXVII-3 50 9, SO23-XXVII-3 50.11
03-011-007 RV	ELBOW BODY WELD - INSIDE RADIUS (R.V. END)	B-J	B9.12	UT			SO23-XXVII-3 50.9, SO23-XXVII-3 50.11
03-011-008	ELBOW-TO-RPV COLD LEG INLET NOZZLE EXTENSION PIECE WELD	B-J	B9.11	UT			SO23-XXVII-3.50.9, SO23-XXVII-3.50.11
03-011-017	CHARGING NOZZLE-TO-SAFE END WELD (2")	B-F	B5.140		PT		SO23-XXVII-20.48
03-013-006 RV	ELBOW BODY WELD - INSIDE RADIUS (R.V. END)	B-J	B9.12	UT			SO23-XXVII-3 50.9, SO23-XXVII-3 50.11
03-013-007 RV	ELBOW BODY WELD - OUTSIDE RADIUS (R.V. END)	B-J	B9.12	UT			SO23-XXVII-3.50.9, SO23-XXVII-3.50.11
03-013-008	ELBOW-TO-RPV COLD LEG INLET NOZZLE EXTENSION PIECE WELD	B-J	B9.11	UT			SO23-XXVII-3.50.9, SO23-XXVII-3 50 11



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03-015-006 RV	ELBOW BODY WELD - INSIDE RADIUS (R.V. END)	B-J	B9.12	UT			SO23-XXVII-3 50.9, SO23-XXVII-3 50.11
03-015-007 RV	ELBOW BODY WELD - OUTSIDE RADIUS (R.V. END)	B-J	B9.12	UT			SO23-XXVII-3 50.9, SO23-XXVII-3.50.11
03-015-008	ELBOW-TO-RV COLD LEG INLET NOZZLE EXTENSION PIECE WELD	B-J	B9.11	UT			SO23-XXVII-3 50 9, SO23-XXVII-3 50.11
03-015-009	SAFETY INJECTION NOZZLE-TO-PIPE WELD	B-J	B9.31	UT	MT		SO23-XXVII-30.5, SO23-XXVII-20 47
03-015-014	CHARGING NOZZLE-TO-PIPE WELD	B-J	B9 32		MT		SO23-XXVII-20.47
03-016-009	12" SCH 160 PIPE-TO-ELBOW	B-J	B9.11	UT	PT		SO23-XXVII-30 6, SO23-XXVII-20.48
03-017-680-F	STRUT	F-A	F1.10A			VT-3	SO23-XXVII-20.51
03-018-370	8" SCH 140 PIPE-TO-ELBOW	B-J	B9.11	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20.48
03-018-380	8" SCH 140 ELBOW-TO-PIPE	B-J	B9.11	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20 48
03-018-580-F	Y-STOP	F-A	F1.10B			VT-3	SO23-XXVII-20.51
03-018-600-F	Y-STOP	F-A	F1.10A			VT-3	SO23-XXVII-20 51
03-019-1020-F	GUIDE/AXIAL STOP	F-A	F1.10B			VT-3	SO23-XXVII-20.51
03-019-1030	Y-STOP	F-A	F1.10A			VT-3	SO23-XXVII-20.51
03-019-260	8" SCH 140 ELBOW-TO-PIPE	B-J	B9.11	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20.48
03-019-280	8" SCH 140 PIPE-TO-ELBOW	B-J	B9.11	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20 48
03-019-290	8" SCH 140 ELBOW-TO-PIPE	B-J	B9.11	UT	PT		SO23-XXVII-30 6, SO23-XXVII-20 48
03-019-300	8" SCH 140 PIPE-TO-ELBOW	B-J	B9.11	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20.48
03-019-510D	12" STOP VALVE LOWER BODY WELD (DRAWING NO. SO23-507-5-1-22)	BM1	B12.40			PT	SO23-XXVII-20 48
03-019-510E	12" STOP VALVE BODY UPPER WELD (DRAWING NO. SO23-507-5-1-22)	BM1	B12 40			PT	SO23-XXVII-20.48
03-019-630	12" SCH 160 PIPE-TO-REDUCING TEE	B-J	B9.11	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20 48
03-019-640	12" SCH 160 REDUCING TEE-TO-PIPE	B-J	B9.11	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20.48
03-019-680	12" SCH 160 ELBOW-TO-PIPE	B-J	B9.11	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20 48
03-019-690	12" SCH 160 PIPE-TO-ELBOW	B-J	B9.11	UT	PT		SO23-XXVII-30 6, SO23-XXVII-20.48
03-019-700	12" SCH 160 ELBOW-TO-PIPE	B-J	B9.11	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20.48
03-020-780-F	STRUT	F-A	F1.10A			VT-3	SO23-XXVII-20.51
03-021-210	16" SCH 160 ELBOW-TO-PIPE	B-J	B9.11	UT	PT		SO23-XXVII-30 6, SO23-XXVII-20 48
03-021-310B	16" STOP VALVE UPPER BODY WELD (DRAWING NO. SO23-507-5-1-37)	BM1	B12.40			PT	SO23-XXVII-20.48
03-021-310C	16" STOP VALVE LOWER BODY WELD (DRAWING NO. SO23-507-5-1-37)	BM1	B12.40			PT	SO23-XXVII-20.48
03-021-450B	10" STOP VALVE LOWER BODY WELD (DRAWING SO23-507-1-5-139)	BM1	B12.40			PT	SO23-XXVII-20.48
03-021-450E	10" STOP VALVE UPPER BODY WELD (DRAWING NO. SO23-507-5-1-139)	BM1	B12.40			PT	SO23-XXVII-20.48
03-021-650-F	SWAY STRUT	F-A	F1.10A			VT-3	SO23-XXVII-20.51
03-022-166	4" SCH 120 PIPE-TO-ELBOW	B-J	B9.11	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20 48
03-022-167	4" SCH 120 ELBOW-TO-PIPE	B-J	B9.11	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20.48
03-022-172	4" SCH 120 PIPE-TO-ELBOW	B-J	B9.11	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20.48
03-022-173	4" SCH 120 ELBOW-TO-PIPE	B-J	B9.11	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20.48
03-022-176	4" SCH 120 PIPE-TO-TEE	B-J	B9.11	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20 48
03-023-200-F	Y-STOP & AXIAL STOP	F-A	F1.10B			VT-3	SO23-XXVII-20.51
03-023-200-I	Y-STOP & AXIAL STOP W/INTEGRALLY WELDED LUGS	B-K	B10.20			PT	SO23-XXVII-20.48
03-023-215	GUIDE & Y-STOP	F-A	F1.10B			VT-3	SO23-XXVII-20.51
03-024-530	4" SCH 120 PIPE BEND-TO-SAFE END WELD	B-J	B9.11	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20.48

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03-024-580	SWAY STRUT	F-A	F1.10A			VT-3	SO23-XXVII-20.51
03-025-130	6" SCH 160 NOZZLE-TO-PIPE @ 315 DEGREES	B-J	B9.11	UT	PT		SO23-XXVII-30 6, SO23-XXVII-20.48
03-026-800	2" SCH 160 PIPE-TO-REDUCING TEE	B-J	B9.21		PT		SO23-XXVII-20.48
03-026-900	2" SCH 160 PIPE-TO-2" CHECK VALVE	B-J	B9 21		PT		SO23-XXVII-20.48
03-026-920	2" SCH 160 PIPE-TO-REDUCING TEE	B-J	B9.21		PT		SO23-XXVII-20.48
03-026-950	2" SCH 160 TEE-TO-PIPE	B-J	B9 21		PT		SO23-XXVII-20.48
03-027-110	2" SCH 160 PIPE-TO-VALVE	B-J	B9 21		PT		SO23-XXVII-20.48
03-028-200	SWAY STRUT (SNUBBER REPLACED DCP 3-6683 0BP)	F-A	F1.10A			VT-3	SO23-XXVII-20 51
03-028-210	Y-STOP	F-A	F1.10A			VT-3	SO23-XXVII-20.51
03-029-010	2" SCH 160 NOZZLE-TO-PIPE	B-J	B9 21		PT		SO23-XXVII-20.48
03-029-030	2" SCH 160 ELBOW-TO-PIPE	B-J	B9 21		PT		SO23-XXVII-20.48
03-029-040	2" SCH 160 PIPE-TO-TEE	B-J	B9 21		PT		SO23-XXVII-20 48
03-029-070	2" SCH 160 ELBOW-TO-PIPE	B-J	B9.21		PT		SO23-XXVII-20.48
03-029-100	2" SCH 160 VALVE-TO-PIPE	B-J	B9 21		PT		SO23-XXVII-20.48
03-030-020	2" SCH 160 PIPE-TO-REDUCING TEE	B-J	B9 21		PT		SO23-XXVII-20.48
03-030-040	2" SCH 160 REDUCING TEE-TO-PIPE	B-J	B9.21		PT		SO23-XXVII-20.48
03-030-050	2" SCH 160 PIPE-TO-REDUCER	B-J	B9 21		PT		SO23-XXVII-20 48
03-031-010	2" SCH 160 NOZZLE-TO-PIPE	B-J	B9.21		PT		SO23-XXVII-20.48
03-031-060	2" SCH 160 PIPE-TO-VALVE	B-J	B9 21		PT		SO23-XXVII-20.48
03-031-080	2" SCH 160 VALVE-TO-PIPE	B-J	B9 21		PT		SO23-XXVII-20.48
03-031-090	2" SCH 160 PIPE-TO-VALVE	B-J	B9.21		PT		SO23-XXVII-20.48
03-032-020	2" SCH 160 VALVE-TO-PIPE	B-J	B9.21		PT		SO23-XXVII-20.48
03-032-170	2" SCH 160 PIPE-TO-REDUCING TEE	B-J	B9 21		PT		SO23-XXVII-20.48
03-032-190	2" SCH 160 REDUCING TEE-TO-PIPE	B-J	B9 21		PT		SO23-XXVII-20.48
03-032-224	2" SCH 160 ELBOW-TO-PIPE	B-J	B9.21		PT		SO23-XXVII-20.48
03-032-240	GUIDE & Y-STOP	F-A	F1.10B			VT-3	SO23-XXVII-20.51
03-035-012	MOTOR FLYWHEEL (ENTIRE FLYWHEEL)	N/A	N/A	UT			SO23-XXVII-20.63
03-036-012	MOTOR FLYWHEEL (ENTIRE FLYWHEEL)	N/A	N/A	UT			SO23-XXVII-20.63
03-037-001	SCROLL WELD IN PUMP CASING (CODE CASE N-481 APPLIES)	BL1	B12.10			VT-1	SO23-XXVII-20.49
03-037-002	SCROLL WELD IN PUMP CASING (CODE CASE N-481 APPLIES)	BL1	B12 10			VT-1	SO23-XXVII-20.49
03-037-012	MOTOR FLYWHEEL (ENTIRE FLYWHEEL)	N/A	N/A	UT			SO23-XXVII-20.63, SO23-XXVII-20 67
03-037-013	SUPPORT SKIRT UPPER COURSE-TO-PUMP WELD	B-K	B10.30		PT		SO23-XXVII-20.48
03-038-008	MOTOR HYDRAULIC SNUBBER (HORIZONTAL)	F-A	F1.40C			VT-3	SO23-XXVII-20 51
03-038-009	DRIVER MOUNT HORIZONTAL SUPPORT ASSEMBLY	F-A	F1.40B			VT-3	SO23-XXVII-20.51
03-038-010	DRIVER MOUNT HORIZONTAL SUPPORT ASSEMBLY	F-A	F1.40B			VT-3	SO23-XXVII-20.51
03-038-012	MOTOR FLYWHEEL (ENTIRE FLYWHEEL)	N/A	N/A	UT			SO23-XXVII-20 63
03-038-014	PUMP CASING HORIZONTAL SUPPORT ASSEMBLY	F-A	F1.40B			VT-3	SO23-XXVII-20.51
03-038-026	REACTOR COOLANT PUMP CASING CLOSURE STUD	BG1	B6.180	UT			SO23-XXVII-30.7
03-038-027	REACTOR COOLANT PUMP CASING CLOSURE STUD	BG1	B6.180	UT			SO23-XXVII-30.7
03-038-028	REACTOR COOLANT PUMP CASING CLOSURE STUD	BG1	B6.180	UT			SO23-XXVII-30.7
03-038-029	REACTOR COOLANT PUMP CASING CLOSURE STUD	BG1	B6.180	UT			SO23-XXVII-30.7
03-038-030	REACTOR COOLANT PUMP CASING CLOSURE STUD	BG1	B6 180	UT			SO23-XXVII-30.7
03-038-042	REACTOR COOLANT PUMP CASING CLOSURE NUT	BG1	B6.200			VT-1	SO23-XXVII-20.49
03-038-043	REACTOR COOLANT PUMP CASING CLOSURE NUT	BG1	B6.200			VT-1	SO23-XXVII-20.49
03-038-044	REACTOR COOLANT PUMP CASING CLOSURE NUT	BG1	B6 200			VT-1	SO23-XXVII-20.49
03-038-045	REACTOR COOLANT PUMP CASING CLOSURE NUT	BG1	B6 200			VT-1	SO23-XXVII-20.49

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03-038-046	REACTOR COOLANT PUMP CASING CLOSURE NUT	BG1	B6 200			VT-1	SO23-XXVII-20 49
03-038-079	PUMP CASING HORIZONTAL SUPPORT ASSEMBLY	F-A	F1.40B			VT-3	SO23-XXVII-20.51
03-038-112	SEAL HOUSING-TO-FLANGE CAPSCREW (DWG. NO. SO23-922-231-6)	BG2	B7.60			VT-1	SO23-XXVII-20.49
03-038-113	SEAL HOUSING-TO-FLANGE CAPSCREW (DWG. NO. SO23-922-231-6)	BG2	B7.60			VT-1	SO23-XXVII-20 49
03-038-114	SEAL HOUSING-TO-FLANGE CAPSCREW (DWG. NO. SO23-922-231-6)	BG2	B7.60			VT-1	SO23-XXVII-20.49
03-038-115	SEAL HOUSING-TO-FLANGE CAPSCREW (DWG. NO. SO23-922-231-6)	BG2	B7.60			VT-1	SO23-XXVII-20 49
03-038-116	SEAL HOUSING-TO-FLANGE CAPSCREW (DWG NO. SO23-922-231-6)	BG2	B7.60			VT-1	SO23-XXVII-20 49
03-038-117	SEAL HOUSING-TO-FLANGE CAPSCREW (DWG. NO. SO23-922-231-6)	BG2	B7.60			VT-1	SO23-XXVII-20.49
03-038-118	SEAL HOUSING-TO-FLANGE CAPSCREW (DWG. NO. SO23-922-231-6)	BG2	B7.60			VT-1	SO23-XXVII-20 49
03-038-119	SEAL HOUSING-TO-FLANGE CAPSCREW (DWG. NO. SO23-922-231-6)	BG2	B7.60			VT-1	SO23-XXVII-20 49
03-038-120	SEAL HOUSING-TO-FLANGE CAPSCREW (DWG. NO. SO23-922-231-6)	BG2	B7.60			VT-1	SO23-XXVII-20.49
03-038-121	SEAL HOUSING-TO-FLANGE CAPSCREW (DWG. NO. SO23-922-231-6)	BG2	B7.60			VT-1	SO23-XXVII-20 49
03-038-122	SEAL HOUSING-TO-FLANGE CAPSCREW (DWG. NO. SO23-922-231-6)	BG2	B7 60			VT-1	SO23-XXVII-20.49
03-038-123	SEAL HOUSING-TO-FLANGE CAPSCREW (DWG. NO SO23-922-231-6)	BG2	B7.60			VT-1	SO23-XXVII-20 49
03-038-124	SEAL HOUSING-TO-FLANGE CAPSCREW (DWG. NO. SO23-922-231-6)	BG2	B7.60			VT-1	SO23-XXVII-20 49
03-038-125	SEAL HOUSING-TO-FLANGE CAPSCREW (DWG. NO. SO23-922-231-6)	BG2	B7 60			VT-1	SO23-XXVII-20.49
03-038-126	SEAL HOUSING-TO-FLANGE CAPSCREW (DWG. NO. SO23-922-231-6)	BG2	B7.60			VT-1	SO23-XXVII-20.49
03-038-127	SEAL HOUSING-TO-FLANGE CAPSCREW (DWG. NO. SO23-922-231-6)	BG2	B7.60			VT-1	SO23-XXVII-20 49
03-039-470-F	GUIDE & Y-STOP	F-A	F1.10B			VT-3	SO23-XXVII-20 51
03-039-550-F	Y-STOP	F-A	F1.10A			VT-3	SO23-XXVII-20.51
03-043-001	SECONDARY EXTENSION RING-TO-TUBE SHEET WELD	C-A	C1.30	UT			SO23-XXVII-20.66
03-043-002	SECONDARY EXTENSION RING-TO-LOWER SHELL WELD	C-A	C1.10	UT			SO23-XXVII-20 66
03-043-003	INTERMEDIATE SHELL-TO-CONE WELD	C-A	C1.10	UT			SO23-XXVII-20.66
03-043-004	CONE-TO-UPPER SHELL WELD	C-A	C1.10	UT			SO23-XXVII-20.66
03-043-005	TOP HEAD-TO-UPPER SHELL WELD	C-A	C1.20	UT			SO23-XXVII-20 66
03-043-006	DOMES-TO-TORUS WELD	C-A	C1.20	UT			SO23-XXVII-20.66
03-043-007-R	STEAM NOZZLE INSIDE RADIUS SECTION	C-B	C2.22	UT			SO23-XXVII-20 52
03-043-007-W	STEAM NOZZLE-TO-HEAD WELD	C-B	C2.21	UT	MT		SO23-XXVII-20.66, SO23-XXVII-20.47
03-043-008-R	FEEDWATER NOZZLE INSIDE RADIUS SECTION	C-B	C2.22	UT			SO23-XXVII-20.52
03-043-008-W	FEEDWATER NOZZLE-TO-SHELL WELD	C-B	C2.21	UT	MT		SO23-XXVII-20 66, SO23-XXVII-20 47

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03-043-009	STAY CYLINDER DOME-TO-TUBE SHEET WELD	C-A	C1 30	UT			SO23-XXVII-20.66
03-043-044-F	SUPPORT @ 0 DEGREES	F-A	F1.40A			VT-3	SO23-XXVII-20 51
03-043-044-I	SUPPORT KEY WELD @ 0 DEGREES	C-C	C3.10		MT		SO23-XXVII-20.47
03-043-045-F	SUPPORT @ 180 DEGREES	F-A	F1 40A			VT-3	SO23-XXVII-20.51
03-043-046-F	SNUBBER @ 90 DEGREES	F-A	F1.40C			VT-3	SO23-XXVII-20 51
03-043-047-F	SNUBBER @ 270 DEGREES	F-A	F1.40C			VT-3	SO23-XXVII-20 51
03-044-070	18" SCH 100 PIPE-TO-SWEEPOLET	CF2	C5.81		MT		SO23-XXVII-20 47
03-044-340	20" SCH 100 PENETRATION-TO-PIPE	CF2	C5 51	UT			SO23-XXVII-30.5
03-044-380	20" SCH 100 PIPE-TO-VALVE	CF2	C5.51	UT	MT		SO23-XXVII-30 5, SO23-XXVII-20.47
03-044-390A	20" STOP VALVE BODY LOWER WELD (DRAWING NO. SO23-507-6-1-59)	C-G	C6 20		MT		SO23-XXVII-20.47
03-044-390B	20" STOP VALVE BODY LOWER WELD (DRAWING NO. SO23-507-6-1-59)	C-G	C6.20		MT		SO23-XXVII-20.47
03-045-020	VALVE-TO-20" SCH 100 PIPE	CF2	C5 51	UT			SO23-XXVII-30.5
03-045-050	20" SCH 100 PIPE-TO-PENETRATION #29	CF2	C5.51	UT	MT		SO23-XXVII-30.5, SO23-XXVII-20.47
03-046-020	VALVE-TO-6" SCH 120 PIPE	CF2	C5.51	UT			SO23-XXVII-30 5
03-046-030	6" SCH 120 PIPE-TO-ELBOW	CF2	C5 51	UT			SO23-XXVII-30.5
03-046-040	6" SCH 120 ELBOW-TO-PIPE	CF2	C5 51	UT			SO23-XXVII-30.5
03-046-050	6" SCH 120 PIPE-TO-ELBOW	CF2	C5.51	UT	MT		SO23-XXVII-30 5, SO23-XXVII-20 47
03-046-060	6" SCH 120 ELBOW-TO-PIPE	CF2	C5.51	UT			SO23-XXVII-30 5
03-046-070	6" SCH 120 PIPE-TO-ELBOW	CF2	C5.51	UT			SO23-XXVII-30.5
03-046-080	6" SCH 120 ELBOW-TO-PIPE	CF2	C5.51	UT	MT		SO23-XXVII-30.5, SO23-XXVII-20.47
03-046-090	6" SCH 120 PIPE-TO-TEE	CF2	C5.51	UT			SO23-XXVII-30.5
03-046-100	6" SCH 120 TEE-TO-PIPE	CF2	C5 51	UT			SO23-XXVII-30.5
03-047-280	6" SCH 120 PENETRATION-TO-PIPE	CF2	C5.51	UT			SO23-XXVII-30 5
03-047-290	6" SCH 120 PIPE-TO-ELBOW	CF2	C5.51	UT			SO23-XXVII-30.5
03-047-300	6" SCH 120 ELBOW-TO-PIPE	CF2	C5.51	UT			SO23-XXVII-30 5
03-047-310	6" SCH 120 PIPE-TO-TEE	CF2	C5.51	UT	MT		SO23-XXVII-30 5, SO23-XXVII-20 47
03-047-320	6" SCH 120 TEE-TO-PIPE	CF2	C5 51	UT			SO23-XXVII-30.5
03-048-380	6" SCH 80 ELBOW-TO-ELBOW	CF2	C5 51	UT			SO23-XXVII-30.5
03-048-390	6" SCH 80 ELBOW-TO-PIPE	CF2	C5.51	UT			SO23-XXVII-30 5
03-048-400	6" SCH 80 PIPE-TO-ELBOW	CF2	C5.51	UT			SO23-XXVII-30.5
03-048-410	6" SCH 80 ELBOW-TO-PIPE	CF2	C5.51	UT			SO23-XXVII-30.5
03-048-420	6" SCH 80 PIPE-TO-ELBOW	CF2	C5 51	UT			SO23-XXVII-30 5
03-048-430	6" SCH 80 ELBOW-TO-PIPE	CF2	C5.51	UT			SO23-XXVII-30.5
03-048-435	6" SCH 80 PIPE-TO-PIPE	CF2	C5 51	UT			SO23-XXVII-30.5
03-048-440	6" SCH 80 PIPE-TO-VALVE (VALVE SUPPLIED W/SAFE END)	CF2	C5 51	UT	MT		SO23-XXVII-30 5, SO23-XXVII-20 47
03-049-440-F	SNUBBER	F-A	F1.20C			VT-3	SO23-XXVII-20.51
03-051-340	40" PIPE-TO-PENETRATION #33	CF2	C5 51	UT	MT		SO23-XXVII-30.5, SO23-XXVII-20.47
03-052-040	REDUCING TEE-TO-34" ELBOW	CF2	C5.51	UT			SO23-XXVII-30.5
03-052-050A SG	34" ELBOW BODY WELD - OUTSIDE RADIUS	CF2	C5.52	UT			SO23-XXVII-30 5
03-052-050A SV	34" ELBOW BODY WELD - OUTSIDE RADIUS	CF2	C5.52	UT			SO23-XXVII-30 5
03-052-050B SG	34" ELBOW BODY WELD - INSIDE RADIUS	CF2	C5.52	UT			SO23-XXVII-30.5
03-052-050B SV	34" ELBOW BODY WELD - INSIDE RADIUS	CF2	C5 52	UT			SO23-XXVII-30 5
03-052-060	34" ELBOW-TO-PIPE	CF2	C5.51	UT			SO23-XXVII-30 5
03-052-070	8" SCH 80 PIPE-TO-HEADER EXTRUSION	CF2	C5.51	UT	MT		SO23-XXVII-30.5, SO23-XXVII-20 47

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03-052-080	8" SCH 80 PIPE-TO-ELBOW	CF2	C5.51	UT	MT		SO23-XXVII-30 5, SO23-XXVII-20.47
03-052-090	8" SCH 80 ELBOW-TO-ELBOW	CF2	C5.51	UT			SO23-XXVII-30.5
03-052-100	8" SCH 80 ELBOW-TO-PIPE	CF2	C5 51	UT			SO23-XXVII-30.5
03-052-110	8" SCH 80 PIPE-TO-VALVE	CF2	C5.51	UT			SO23-XXVII-30.5
03-052-270	HEADER EXTRUSION-TO-6" PIPE	CF2	C5.51	UT			SO23-XXVII-30.5
03-052-271 SG	34" PIPE LONGITUDINAL WELD	CF2	C5.52	UT			SO23-XXVII-30 5
03-052-271 SV	34" PIPE LONGITUDINAL WELD	CF2	C5.52	UT			SO23-XXVII-30.5
03-052-280	HEADER EXTRUSION-TO-6" PIPE	CF2	C5.51	UT			SO23-XXVII-30.5
03-052-290	34" HEADER-TO-HEADER	CF2	C5.51	UT			SO23-XXVII-30 5
03-052-300	HEADER EXTRUSION-TO-6" PIPE	CF2	C5 51	UT	MT		SO23-XXVII-30.5, SO23-XXVII-20 47
03-052-310	HEADER EXTRUSION-TO-6" PIPE	CF2	C5.51	UT			SO23-XXVII-30 5
03-052-311 SG	34" PIPE LONGITUDINAL WELD	CF2	C5.52	UT			SO23-XXVII-30.5
03-052-311 SV	34" PIPE LONGITUDINAL WELD	CF2	C5.52	UT			SO23-XXVII-30.5
03-052-320	HEADER EXTRUSION-TO-6" PIPE	CF2	C5 51	UT			SO23-XXVII-30.5
03-052-330	34" HEADER-TO-CAP	CF2	C5.51	UT			SO23-XXVII-30.5
03-052-340	6" SCH 80 PIPE-TO-HEADER EXTRUSION	CF2	C5.51	UT			SO23-XXVII-30.5
03-052-360	6" PIPE-TO-6" X 1" SWAGE NIPPLE	CF2	C5.51	UT			SO23-XXVII-30.5
03-053-120	8" SCH 80 PIPE-TO-ELBOW	CF2	C5.51	UT			SO23-XXVII-30.5
03-053-130	8" SCH 80 ELBOW-TO-PIPE	CF2	C5 51	UT			SO23-XXVII-30.5
03-053-140	8" SCH 80 PIPE-TO-ELBOW	CF2	C5 51	UT			SO23-XXVII-30.5
03-053-150	8" SCH 80 ELBOW-TO-PIPE	CF2	C5.51	UT			SO23-XXVII-30 5
03-053-160	8" SCH 80 PIPE-TO-ELBOW	CF2	C5.51	UT			SO23-XXVII-30 5
03-053-170	8" SCH 80 ELBOW-TO-PIPE	CF2	C5 51	UT			SO23-XXVII-30.5
03-053-180	8" SCH 80 PIPE-TO-ELBOW	CF2	C5.51	UT			SO23-XXVII-30 5
03-053-190	8" SCH 80 ELBOW-TO-PIPE	CF2	C5.51	UT			SO23-XXVII-30.5
03-053-200	8" SCH 80 PIPE-TO-ELBOW	CF2	C5 51	UT			SO23-XXVII-30.5
03-053-210	8" SCH 80 ELBOW-TO-PIPE	CF2	C5.51	UT			SO23-XXVII-30 5
03-053-220	8" SCH 80 PIPE-TO-ELBOW	CF2	C5 51	UT			SO23-XXVII-30.5
03-053-230	8" SCH 80 ELBOW-TO-PIPE	CF2	C5 51	UT			SO23-XXVII-30.5
03-053-240	8" SCH 80 PIPE-TO-ELBOW	CF2	C5.51	UT			SO23-XXVII-30.5
03-053-250	8" SCH 80 ELBOW-TO-PIPE	CF2	C5.51	UT			SO23-XXVII-30.5
03-053-260	8" SCH 80 PIPE-TO-VALVE	CF2	C5.51	UT	MT		SO23-XXVII-30.5, SO23-XXVII-20.47
03-061-2080-F	Y-STOP	F-A	F1.20A			VT-3	SO23-XXVII-20 51
03-061-2110-F	GUIDE & Y-STOP	F-A	F1.20B			VT-3	SO23-XXVII-20 51
03-061-2160-F	SNUBBER	F-A	F1.20C			VT-3	SO23-XXVII-20.51
03-061-2160-I	SNUBBER W/INTEGRALLY WELDED ATTACHMENT	C-C	C3.20		PT		SO23-XXVII-20 48
03-061-2170-F	SNUBBER	F-A	F1.20C			VT-3	SO23-XXVII-20.51
03-061-2170-I	SNUBBER W/INTEGRALLY WELDED ATTACHMENT	C-C	C3.20		PT		SO23-XXVII-20 48
03-061-2180-F	SNUBBER	F-A	F1.20C			VT-3	SO23-XXVII-20.51
03-061-2180-I	SNUBBER W/INTEGRALLY WELDED ATTACHMENT	C-C	C3.20		PT		SO23-XXVII-20 48
03-061-2220-F	SWAY STRUT	F-A	F1.20A			VT-3	SO23-XXVII-20.51
03-061-2220-I	SWAY STRUT W/INTEG WELDED ATTACH (SNUBBER REPL DCP 3-6683.OBP)	C-C	C3 20		PT		SO23-XXVII-20 48
03-061-2540-F	SWAY STRUT	F-A	F1.20A			VT-3	SO23-XXVII-20.51
03-061-2540-I	SWAY STRUT W/WELDED ATTACHMENT (SNUBBER REPLACED DCP 3-6683.OBP)	C-C	C3 20		PT		SO23-XXVII-20.48

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03-063-380	10" SCH 10S STUB-IN PIPE-TO-PIPE	CF1	C5.41		PT		SO23-XXVII-20.48
03-066-830-F	GUIDE	F-A	F1.20A			VT-3	SO23-XXVII-20 51
03-066-840-F	SWAY STRUT	F-A	F1 20A			VT-3	SO23-XXVII-20.51
03-066-930-F	SWAY STRUT	F-A	F1.20A			VT-3	SO23-XXVII-20.51
03-066-930-I	SWAY STRUT W/INTEG WELDED ATTACH (SNUBBER REPL DCP 3-6683.2BP)	C-C	C3 20		PT		SO23-XXVII-20.48
03-068-1010	GUIDE	F-A	F1.20B			VT-3	SO23-XXVII-20 51
03-068-1020	Y-STOP	F-A	F1.20A			VT-3	SO23-XXVII-20.51
03-068-1030	GUIDE & Y-STOP	F-A	F1.20B			VT-3	SO23-XXVII-20.51
03-068-1040	GUIDE & Y-STOP	F-A	F1.20B			VT-3	SO23-XXVII-20 51
03-068-1050-F	GUIDE & Y-STOP	F-A	F1.20B			VT-3	SO23-XXVII-20.51
03-068-590	4" SCH 80S PIPE-TO-ELBOW	CF1	C5 21	UT	PT		SO23-XXVII-30 6, SO23-XXVII-20.48
03-068-600	4" SCH 80S ELBOW-TO-PIPE	CF1	C5 21	UT	PT		SO23-XXVII-30 6, SO23-XXVII-20 48
03-068-650	4" SCH 80S PIPE-TO-ELBOW	CF1	C5 21	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20.48
03-068-705	4" SCH 80S PIPE-TO-PIPE	CF1	C5.21	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20.48
03-068-710	4" SCH 80S PIPE-TO-TEE	CF1	C5 21	UT	PT		SO23-XXVII-30 6, SO23-XXVII-20 48
03-068-780	4" SCH 80S ELBOW-TO-PIPE	CF1	C5 21	UT	PT		SO23-XXVII-30 6, SO23-XXVII-20 48
03-068-840	4" SCH 80S ELBOW-TO-PIPE	CF1	C5.21	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20.48
03-068-860	4" SCH 80S PIPE-TO-ELBOW	CF1	C5.21	UT	PT		SO23-XXVII-30 6, SO23-XXVII-20 48
03-068-890	4" SCH 80S PIPE-TO-TEE	CF1	C5.21	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20.48
03-068-900	4" X 4" X 4" SCH 80S TEE-TO-REDUCER	CF1	C5.21	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20.48
03-068-940	GUIDE	F-A	F1 20B			VT-3	SO23-XXVII-20.51
03-068-970-F	GUIDE & Y-STOP	F-A	F1.20B			VT-3	SO23-XXVII-20.51
03-068-980	GUIDE	F-A	F1.20A			VT-3	SO23-XXVII-20 51
03-069-1820	2" SCH 160 PIPE-TO-ELBOW	CF1	C5 21	UT	PT		SO23-XXVII-30 6, SO23-XXVII-20.48
03-069-1860	2" SCH 160 PIPE-TO-ELBOW	CF1	C5 21	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20.48
03-069-1870	2" SCH 160 ELBOW-TO-PIPE	CF1	C5.21	UT	PT		SO23-XXVII-30 6, SO23-XXVII-20.48
03-069-1880	2" SCH 160 PIPE-TO-ELBOW	CF1	C5 21	UT	PT		SO23-XXVII-30 6, SO23-XXVII-20 48
03-069-1890	2" SCH 160 ELBOW-TO-PIPE	CF1	C5 21	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20.48
03-069-1940	PENETRATION 39-TO-PIPE	CF1	C5.21	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20.48
03-069-1950	3" SCH 160 PIPE-TO-ELBOW	CF1	C5.21	UT	PT		SO23-XXVII-30 6, SO23-XXVII-20 48
03-069-1960	3" SCH 160 ELBOW-TO-PIPE	CF1	C5 21	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20.48
03-069-2010	3" SCH 160 PIPE-TO-ELBOW	CF1	C5 21	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20.48
03-069-2040	3" SCH 160 ELBOW-TO-PIPE	CF1	C5.21	UT	PT		SO23-XXVII-30 6, SO23-XXVII-20.48
03-069-2850	3" SCH 160 PIPE-TO-ELBOW	CF1	C5 21	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20.48
03-069-2860	3" SCH 160 ELBOW-TO-PIPE	CF1	C5.21	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20 48
03-069-2870	3" SCH 160 PIPE-TO-ELBOW	CF1	C5 21	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20.48
03-069-2880	3" SCH 160 ELBOW-TO-PIPE	CF1	C5.21	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20 48
03-069-2890	3" SCH 160 PIPE-TO-PENETRATION 3	CF1	C5 21	UT	PT		SO23-XXVII-30 6, SO23-XXVII-20 48
03-069-3650	SPRING HANGER	F-A	F1 20C			VT-3	SO23-XXVII-20.51
03-069-3880	SPRING HANGER	F-A	F1.20C			VT-3	SO23-XXVII-20 51
03-070-1180	2" SCH 160 PIPE BEND-TO-ELBOW	CF1	C5.21	UT	PT		SO23-XXVII-30 6, SO23-XXVII-20 48
03-070-1190	2" SCH 160 ELBOW-TO-PIPE BEND	CF1	C5.21	UT	PT		SO23-XXVII-30 6, SO23-XXVII-20.48
03-070-1290	2" SCH 160 PIPE BEND-TO-TEE	CF1	C5 21	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20.48
03-070-1310	2" X 2" X 3/4" REDUCER TEE-TO-ELBOW	CF1	C5.21	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20 48
03-070-1320	2" SCH 160 ELBOW-TO-PIPE	CF1	C5.21	UT	PT		SO23-XXVII-30 6, SO23-XXVII-20.48

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03-070-1820	3" SCH 160 ELBOW-TO-PIPE	CF1	C5 21	UT	PT		SO23-XXVII-30 6, SO23-XXVII-20.48
03-070-1830	3" SCH 160 PIPE-TO-ELBOW	CF1	C5.21	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20.48
03-070-1840	3" SCH 160 ELBOW-TO-PIPE	CF1	C5.21	UT	PT		SO23-XXVII-30 6, SO23-XXVII-20.48
03-070-1880	3" VALVE-TO-3" SCH 160 PIPE	CF1	C5 21	UT	PT		SO23-XXVII-30 6, SO23-XXVII-20 48
03-070-1900	3" SCH 160 PIPE TO PENETRATION 67	CF1	C5.21	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20.48
03-070-410	4" SCH 80S PIPE-TO-ELBOW	CF1	C5.21	UT	PT		SO23-XXVII-30 6, SO23-XXVII-20 48
03-070-420	4" SCH 80S ELBOW-TO-PIPE	CF1	C5 21	UT	PT		SO23-XXVII-30 6, SO23-XXVII-20 48
03-070-490	4" SCH 120 PIPE-TO-TEE	CF1	C5.21	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20.48
03-070-500	4" X 4" X 2 SCH 120 REDUCER TEE-TO-PIPE	CF1	C5 21	UT	PT		SO23-XXVII-30 6, SO23-XXVII-20.48
03-070-510	4" SCH 120 PIPE-TO-ELBOW	CF1	C5 21	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20.48
03-070-520	4" SCH 120 ELBOW-TO-PIPE	CF1	C5.21	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20.48
03-070-530	4" SCH 120 PIPE-TO-ELBOW	CF1	C5 21	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20 48
03-070-540	4" SCH 120 ELBOW-TO-PIPE	CF1	C5 21	UT	PT		SO23-XXVII-30 6, SO23-XXVII-20 48
03-071-1020	2" X 2" SCH 80S TEE-TO-PIPE	CF1	C5.21	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20 48
03-071-1100	2" SCH 80S ELBOW-TO-PIPE	CF1	C5.21	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20.48
03-071-1101	2" SCH 80S PIPE-TO-TEE	CF1	C5 21	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20 48
03-071-1102	2" X 1-1/2" REDUCER-TO-TEE	CF1	C5 21	UT	PT		SO23-XXVII-30 6, SO23-XXVII-20 48
03-071-1104	2" FLANGE-TO-PIPE	CF1	C5.21	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20.48
03-071-1109	2" SCH 80S PIPE-TO-ELBOW	CF1	C5 21	UT	PT		SO23-XXVII-30 6, SO23-XXVII-20 48
03-071-1110	2" SCH 80S ELBOW-TO-PIPE	CF1	C5.21	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20.48
03-071-1240	2" SCH 80S PIPE-TO-ELBOW	CF1	C5 21	UT	PT		SO23-XXVII-30 6, SO23-XXVII-20.48
03-071-1300	2" SCH 80S PIPE-TO-ELBOW	CF1	C5 21	UT	PT		SO23-XXVII-30 6, SO23-XXVII-20 48
03-071-1310	2" SCH 80S ELBOW-TO-PIPE	CF1	C5.21	UT	PT		SO23-XXVII-30 6, SO23-XXVII-20.48
03-071-1570	GUIDE	F-A	F1 20A			VT-3	SO23-XXVII-20 51
03-071-1630	GUIDE	F-A	F1.20A			VT-3	SO23-XXVII-20 51
03-071-1650	GUIDE	F-A	F1.20A			VT-3	SO23-XXVII-20.51
03-071-1660	Y-STOP	F-A	F1.20A			VT-3	SO23-XXVII-20 51
03-071-1720	Y-STOP	F-A	F1 20A			VT-3	SO23-XXVII-20 51
03-071-1750	GUIDE	F-A	F1 20A			VT-3	SO23-XXVII-20 51
03-071-1760	STRUT W/CLAMP	F-A	F1.20A			VT-3	SO23-XXVII-20.51
03-071-1780	STRUT W/CLAMP	F-A	F1.20A			VT-3	SO23-XXVII-20 51
03-073-2130	PENETRATION NO. 48-TO-8" SCH 140 PIPE	CF1	C5.11	UT	PT		SO23-XXVII-30.6, SO23-XXVII-20 48
03-074-710-F	SWAY STRUT	F-A	F1.20A			VT-3	SO23-XXVII-20.51
03-074-710-I	SWAY STRUT W/WELDED ATTACHMENT (SNUBBER REPLACED DCP 3-6683.OP)	C-C	C3 20		PT		SO23-XXVII-20 48
03-075-690-F	SNUBBER	F-A	F1.20C			VT-3	SO23-XXVII-20.51
03-075-690-I	SNUBBER W/INTEGRALLY WELDED ATTACHMENT	C-C	C3.20		PT		SO23-XXVII-20 48
03-077-770-F	GUIDE	F-A	F1.20A			VT-3	SO23-XXVII-20.51
03-077-790-F	GUIDE	F-A	F1.20B			VT-3	SO23-XXVII-20.51
03-077-820	GUIDE	F-A	F1.20B			VT-3	SO23-XXVII-20 51
03-077-840-F	VARIABLE SPRINGS	F-A	F1.20C			VT-3	SO23-XXVII-20 51
03-077-840-I	VARIABLE SPRINGS W/INTEGRALLY WELDED ATTACHMENTS	C-C	C3 20		PT		SO23-XXVII-20.48
03-077-860-F	GUIDE	F-A	F1.20A			VT-3	SO23-XXVII-20.51
03-077-880	GUIDE & Y-STOP	F-A	F1.20B			VT-3	SO23-XXVII-20 51
03-077-900-F	SWAY STRUT	F-A	F1.20A			VT-3	SO23-XXVII-20.51

**ISI U3C12 COMPLETED EXAMINATIONS**

03-077-900-I	SWAY STRUT W/WELDED ATTACHMENT (SNUBBER REPLACED DCP 3-6683 2BP)	C-C	C3.20		PT		SO23-XXVII-20.48
03-077-910	GUIDE	F-A	F1.20A			VT-3	SO23-XXVII-20.51
03-077-940-F	GUIDE	F-A	F1.20B			VT-3	SO23-XXVII-20.51
03-077-950-F	SNUBBER	F-A	F1.20C			VT-3	SO23-XXVII-20.51
03-077-950-I	SNUBBER W/WELDED ATTACHMENT	C-C	C3.20		PT		SO23-XXVII-20.48
03-078-1040-F	VARIABLE SPRING	F-A	F1.20C			VT-3	SO23-XXVII-20.51
03-078-1040-I	VARIABLE SPRING W/INTEGRALLY WELDED ATTACHMENT	C-C	C3 20		PT		SO23-XXVII-20.48
03-078-840	VARIABLE SPRING	F-A	F1.20C			VT-3	SO23-XXVII-20.51
03-078-920	GUIDE	F-A	F1.20A			VT-3	SO23-XXVII-20.51
03-078-930-F	SNUBBER	F-A	F1.20C			VT-3	SO23-XXVII-20.51
03-078-930-I	SNUBBER W/WELDED ATTACHMENT	C-C	C3.20		PT		SO23-XXVII-20.48
03-078-960	Y-STOP	F-A	F1.20A			VT-3	SO23-XXVII-20.51
03-082-090-F	SWAY STRUT	F-A	F1.20A			VT-3	SO23-XXVII-20.51
03-082-090-I	SWAY STRUT W/WELDED ATTACHMENT (SNUBBER REPLACED DCP 3-6683 ODP)	C-C	C3 20		PT		SO23-XXVII-20.48
Notes : 1) Due to design & access provisions i.e., proximity of flow skirt & several of the core stop lugs limits the complete UT scanning of the RPV bottom head peel welds.							
Following is the breakdown of individual peel weld coverage,							
Weld ID: 03-001-002	03-001-003	03-001-004	03-001-005	03-001-006	03-001-007		
Coverage: 61%	55.9%	62.7%	61%	61%	56.8%		



**UNIT-3 CYCLE-12, CLASS-1 AND 2, SYSTEM PRESSURE TESTS COMPLETED**

<u>System</u>	<u>Procedure</u>
1) Reactor Coolant	SO23-XVII-3.1.1
2) Chemical & Volume Control	SO23-XVII-3.2.1
3) Main Steam	SO23-XVII-3.2.2
4) Main & Aux. Feed Water	SO23-XVII-3.2.3
5) Safety Injection	SO23-XVII-3.2.4
6) Containment Spray	SO23-XVII-3.2.5

7 ATTACHMENT- 2

ABSTRACT OF NIS-2 REPAIRS & REPLACEMENTS

FORM NIS-2 OWNER'S REPORTS FOR

REPAIRS OR REPLACEMENTS

## Abstract of Records of Repairs and Replacements

	MO	EQID	Class	NIS-2	Worksum
1	00011473001	3PV0201A	III-2	03/31/03	Replaced control valve and piping
2	00060142000	S31208MU017	III-2	07/23/01	Removed body to bonnet seal weld
3	01011915000	S3SI003H002	III-NF	03/31/03	Replaced all-thread rod on spring can
4	01020049000	S3-VC-015-H-013	III-2	03/31/03	Removed spring can assy and pipe guide
5	01021014000	3HV8419	III-2	07/23/01	Replaced valve plug
6	01030668000	S31208MU017	III-2	07/23/01	Replaced check valve
7	01041543000	S31301ME088	III-2	03/31/03	Replaced SG handhole cover bolting
8	01041606001	S3SI087H022	III-2	03/31/03	Replaced rigid strut
9	01041670000	S31301ME088	III-2	03/31/03	Replaced manway bolting
10	01050017000	S31301ME089	III-2	03/31/03	Replaced secondary manway cover bolting
11	01051273000	S3SI087H022	III-2	03/31/03	Welded strut support rear bracket
12	01060453000	S31301ME088P	III-1	03/28/03	Replaced SG manway bolting
13	01060455000	S31301ME089P	III-1	03/31/03	Replaced manway cover bolting
14	01060705000	S31201ME603	III-1	03/28/03	Replaced pressurizer heater
15	01071370000	S31201ME614	III-1	03/28/03	Replaced pressurizer heater
16	01100407000	3PSV0200	III-1	03/28/03	Replaced safety valve and inlet bolting
17	01100457000	3PSV0201	III-1	03/28/03	Replaced safety valve and inlet bolting
18	01100459000	3PSV8402	III-2	03/31/03	Replaced safety valve and inlet bolting
19	01100508000	3PSV8407	III-2	03/31/03	Replaced safety valve and inlet bolting
20	01100510000	3PSV8408	III-2	03/31/03	Replaced safety valve and inlet bolting
21	01100514000	3PSV8409	III-2	03/31/03	Replaced safety valve and inlet bolting
22	01100530000	3PSV8416	III-2	03/31/03	Replaced safety valve and inlet bolting
23	01100535000	3PSV8417	III-2	03/31/03	Replaced safety valve and inlet bolting
24	01101233000	3PSV9225	III-2	07/30/02	Replaced relief valve
25	01110068001	3PSV9226	III-2	01/11/02	Replaced relief valve
26	01110163000	S31208MU069	III-2	01/25/02	Replaced valve disc
27	01110164000	S31208MU069	III-2	01/25/02	Removed/reinstalled seal weld
28	01110502000	S31201ML001	III-1	03/28/03	Replaced thermowell with Weed thermowell
29	01110505000	S31201ML002	III-1	03/28/03	Replaced thermowells with Weed thermowells
30	01110509000	S31201ML007	III-1	03/28/03	Replaced thermowells with Weed thermowells
31	01110514000	S31201ML008	III-1	03/28/03	Replaced thermowells with Weed thermowells
32	01110523000	S31201ML010	III-1	03/28/03	Replaced thermowells with Weed thermowells
33	01110529000	S31201ML009	III-1	03/31/03	Replaced thermowells with Weed thermowells
34	02011628000	3PSV9349	III-2	03/31/03	Replaced L-Top relief valve

## Abstract of Records of Repairs and Replacements

	MO	EQID	Class	NIS-2	Worksum
35	02061062000	027-81177	III-2	01/27/03	Manufactured MSSV studs
36	02080787000	026-27164-N59381-00-0002	III-2	01/27/03	Machined valve nozzle inlet flange
37	02090222000	3HV9326	III-2	03/31/03	Removed and restored body-to-bonnet seal weld
38	02090659000	3HV7258	III-2	03/31/03	Replaced bonnet studs
39	02091957000	S31201MP002	III-1	03/31/03	Replaced mechanical seal cartrdge
40	02091958000	S31201MP001	III-1	03/31/03	Replaced mechanical seal cartridge
41	02101312000	S31201MP002	III-1	03/31/03	Replaced sealwater heat exchanger and case bolting
42	02102115000	S31101MV001W	III-1	03/28/03	Replaced & modified instrument flange adapter hubs
43	02110325000	S31201MP002	III-1	03/31/03	Replaced sealwater heat exchanger
44	02111652001	S31208MU005	III-2	03/31/03	Replaced valve bonnet
45	03010278000	3HV9201	III-1	03/31/03	Replaced inner valve (plug)
46	03010425000	S31201MP004	III-1	03/31/03	Replaced mechanical seal cartridge
47	03010589000	S31201MP004	III-1	03/31/03	Reinstalled heat exchanger and replaced bolting
48	03010823000	S3FW189H010T	III-2	03/28/03	Replaced snubber
49	03010824000	S3FW189H013B	III-2	03/28/03	Replaced snubber
50	03010911001	S31208MU122	III-1	03/28/03	Replaced valve disc and cover
51	03011133000	S31101MV001W	III-1	03/28/03	Tack welded post to new flange adapter hubs
52	03011277000	S31206MU006	III-2	03/31/03	Replaced flange bolting
53	03011616000	S31201MP002	III-1	03/31/03	Installed replacement case studs
54	03011813000	S31208MU122	III-1	03/28/03	Replaced valve cover
55	03011983000	S31101MV001	III-1	03/28/03	Repaired damaged areas of RV hot leg nozzles
56	96062164001	3HV4052	III-2	03/31/03	Machined valve bonnet
57	96062165000	3HV4048	III-2	07/23/01	Machined valve bonnet
58	96090333001	3HV4048	III-2	07/23/01	Modified body drain configuration
59	96090335000	3HV4052	III-2	03/31/03	Modified body drain configuration
60	97090774000	S31204MU002	III-2	03/31/03	Replaced valve
61	98031053000	3PSV9349	III-2	11/07/01	Manufactured L-Top valve studs
62	SOG-02-001*	027-83249	III-1	01/14/03	Weed Instr Fabricated thermowells

\* Hardcopy Traveler

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

1. Owner: Southern California Edison Company  
 2244 Walnut Grove Avenue  
 Rosemead, California 91770
2. Plant: San Onofre Nuclear Generating Station  
 San Clemente, California 92674-0128
3. Work Performed by: Southern California Edison Company
4. Identification of System: Chemical and Volume Control
5. (a) Applicable Construction Code ASME Section III, Class 2 (NC), 1974 Edition, S.'74 Addenda; Code Case: None
5. (b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1989 Edition, No Addenda; 1992 Ed., No Add. (piping modification); Code Case: N-416-1
6. Identification of Components Repaired or Replaced and Replacement Components:

Unit: 3  
 MO: 00011473001 00011473000  
 FCN: F21261M, F21263M, F22334M, F21232M  
 Rspec: 990800957-43, 990800957-45  
 PID: 40123BSO3 (E6)  
 N5: S3-1208-14  
 Type Code Symbol Stamp: N/A  
 Authorization No: N/A  
 Expiration Date: N/A

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
1" 600# Flow Control Valve	ITT Hammel Dahl	74/5798/014	N/A	3PV0201A	1977	Replaced	Yes
2" 600# Globe Valve	Control Components	100142-10-1	N/A	RSO-1886-01, SA182 F316	2000	Replacement	Yes
2" 1878# Double Disc Gate Valve	Anchor/Darling	3265-5-15	N/A	S31208MU166	1988	---	Yes
2" NPS Sch 40S Pipe	Energy & Process Co	Ht #448896	N/A	RSO-1157-00, SA312 TP304	N/A	Replacement	No
2" NPS Sch 40 90 Deg Elbow (3)	Energy & Process Co.	Ht. #LVHX-1 (2)/ Ht. #00149 (1)	N/A	RSO-1606/RSO-0959-00, SA403 WP304	N/A	Replacement	No
3" x 2" NPS Sch 40S Reducer	Energy & Process Co	Ht Code 862ZNA	N/A	RSO-1157-00, SA403 1TP304	N/A	Replacement	No

7. Description of Work:

Replaced the existing Hammel Dahl valve in plant position 3PV0201A (s/n 74/5798/014), the associated piping and fittings with a new CCI valve (s/n 100142-10-1) in accordance with FCN F21261M and reconfigured pipework in accordance with Repair Specification 990800957-43, the associated weld records, and FCNs F21263M, F22334M, F21232M. Weld records WR3-01-033, -034, -035, -036, -037, -038, -039, -040, -041, -042, -043 and -044 replaced the existing valve and reconfigured the pipework. Weld record WR3-01-050 removed and reinstalled valve-to-pipe nipple socket weld in accordance with Repair Specification 990800957-45. WR3-01-048 sealwelded the 1/2" NPS packing leak-off port. All NDE was directed, documented and controlled by the weld records.

8. Tests Conducted: System Leakage Pressure Test      Pressure: NOP      Temp: NOT  
System Functional Pressure Test      NOP  
See: AR 990800957-25

**This test was performed in lieu of a hydrostatic pressure test as allowed under Code Case N-416-1.**

Note Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in x 11 in, (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

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9. Remarks: None.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this repair and replacement conforms to the rules of the ASME Code, Section XI.   
 repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizaton No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 03/31/03  
 Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 2/1/01 to 3/31/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions CA 1574 California  
 Inspector's Signature National Board, State, Province, and Endorsements

Date 3/31/03

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

- |  |   |
|--|---|
| <p>1. Owner: Southern California Edison Company<br/>2244 Walnut Grove Avenue<br/>Rosemead, California 91770</p> <p>2. Plant: San Onofre Nuclear Generating Station<br/>San Clemente, California 92674-0128</p> <p>3. Work Performed by: Southern California Edison Company</p> <p>4. Identification of System: Safety Injection and Shutdown Cooling</p> <p>5. (a) Applicable Construction Code: <u>ASME Section III, NF-Class 2, 1974 Ed., S.74 Addenda; Code Case: N-491</u></p> | <p>Unit: 3<br/>MO: - 01011915000<br/>Rspec: 010102512-02, GEN-139 R1<br/>PID: 40112ASO3 (A6)<br/>N5: S3-1204-21</p> <p>Type Code Symbol Stamp: N/A<br/>Authorization No: N/A<br/>Expiration Date: N/A</p> <p>(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: <u>1989 Edition, No Addenda</u></p> |
|--|---|

6. Identification of Components Repaired or Replaced and Replacement Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
Spring Can Hanger	Grinnell	Line No. S3-SI-003-11	N/A	S3-SI-003-H-002	N/A		No
1 1/2"-6 x 36" All-Thread Stud (1)	Nova Machine Products	Ht. #67944, Tr. Code TTF	N/A	RSO-2268-00, SA193 B7 (CR-3005-96)	N/A	Replacement	No

7. Description of Work:

Replaced the all-thread rod installed between the C-82 spring can and the weldless eyenut on hanger S3-SI-003-H-002 with an in-kind replacement rod in accordance with Repair Specification 010102512-02. (1) piece of all-thread stock was cut to length with the required markings transferred to the cut piece in accordance with Repair Specification GEN-139 Rev. 1.

8. Tests Conducted: N/A

Pressure: N/A

Temp: N/A

Note: Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in. x 11 in., (2) information on Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: CR-3005-96 reconciles the replacement rod which was certified to ASME III-2, 1989 Ed., No Addenda

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizaton No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 3/31/03  
Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 9/9/02 to 3/31/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1574 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date 3/31/03





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9. Remarks: None.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this deletion and repair conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizat~~on~~ No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 3/31/03  
Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 2/1/01 to 3/31/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1574 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date 3/31/03

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

- |   |   |
|---|---|
| <p>1. Owner: Southern California Edison Company<br/>2244 Walnut Grove Avenue<br/>Rosemead, California 91770</p> <p>2. Plant: San Onofre Nuclear Generating Station<br/>San Clemente, California 92674-012</p> <p>3. Work Performed by: Southern California Edison Company</p> <p>4. Identification of System: Main Steam</p> <p>5. (a) Applicable Construction Code: <u>ASME Section III, Class 2, 1974 Edition, S.'74 Addenda; Code Case: None</u></p> | <p>Unit: 3<br/>MO: 01021014000<br/>Rspec: ASME SECTION XI DATA-0142<br/>PID: 40141DSO3 (E6)<br/>NS: S3-1301-1</p> <p>Type Code Symbol Stamp: N/A<br/>Authorization No: N/A<br/>Expiration Date: N/A</p> <p>(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: <u>1989 Edition, No Addenda</u></p> |
|---|---|

6. Identification of Components Repaired or Replaced and Replacement Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No.	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
8" x 12" 900# Drag Valve	B&W/Control Components Inc.	18447-3-3	N/A	3HV8419	1979	---	Yes
Valve Plug	Control Components Inc	134111-1, Ht. #242292	N/A	RSO-1627-00, SA182 F11	2000	Replacement	Yes

7. Description of Work:

Replaced the valve plug in the valve located in plant position 3HV8419 (S/N 18447-3-3) with an in-kind replacement

8. Tests Conducted: System Functional Pressure Test      Pressure: NOP      Temp: N/A  
See: AR 010200053-03

Note: Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in. x 11 in., (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: None.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI.   
 repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizaton No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 7-23-01  
 Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 02/21/01 to 07/23/01, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1862 California  
 Inspector's Signature National Board, State, Province, and Endorsements

Date July 23, 2001

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

- |  |  |
|--|--|
| <p>1. Owner: Southern California Edison Company<br/>2244 Walnut Grove Avenue<br/>Rosemead, California 91770</p> <p>2. Plant: San Onofre Nuclear Generating Station<br/>San Clemente, California 92674-012</p> <p>3. Work Performed by: Southern California Edison Company</p> <p>4. Identification of System: Chemical and Volume Control</p> <p>5. (a) Applicable Construction Code: <u>ASME Section III, Class 1, 1971 Ed., S.'73 Add. (Valve); Class 2 1974 Ed., S.'74 Add. (Piping &amp; Installation); Code Case: None</u></p> <p>5. (b) Applicable Edition of Section XI Utilized for Repairs or Replacements: <u>1989 Edition, No Addenda; 1992 Ed., No Add. (VT-2); Code Case: N-416-1</u></p> | <p>Unit: 3<br/>MO: 01030668000 00060142000<br/>Rspec: ASME SECTION XI DATA-0593,<br/>000501117-04, 000501117-13<br/>PID: 40124BSO3 (C2)<br/>N5: S3-1208-5<br/>Type Code Symbol Stamp: N/A<br/>Authorization No: N/A<br/>Expiration Date: N/A</p> |
|--|--|

6. Identification of Components Repaired or Replaced and Replacement Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
2" 1513# Y-Type Check Valve	BW/IP International	97ZV1145	N/A	S31208MU017	1998	Replaced	Yes
2" 1513# Y-Type Check Valve	Flowsolve	E-029P-1-2	N/A	RSO-0352-99	1999	Replacement	Yes

7. Description of Work:

Replaced the valve in plant location S31208MU017 (s/n 97ZV1145) with an in-kind replacement valve (s/n E-029P-1-2) in accordance with MO 01030668. MO 00060142 removed the body to bonnet seal weld to facilitate removal of the existing valve in accordance with Repair Specification 000501117-04. Prior to installation of the replacement valve, MO 01030668 prepared the new valve ends by removing the existing land by grinding such that the resultant weld ends have a bevel angle of 35 to 40 degrees. PT examination 3PT-071-01 was performed on the weld end preps with satisfactory results. The replacement valve was installed in accordance with Repair Specification 000501117-13 and weld records WR3-01-117 and WR3-01-118. The replacement valve body to bonnet seal weld was performed in accordance with weld record WR3-01-119, Rev. 1.

8. Tests Conducted: System Leakage Pressure Test      Pressure: NOP      Temp: NOT  
See: AR 000501117-12

This test was performed in lieu of a hydrostatic pressure test as allowed under Code Case N-416-1.

Note Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in. x 11 in., (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: None.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this repair and replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizaton No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 7/16/01  
Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 03/12/01 to 07/23/01, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1862 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date July 23, 2001

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

- |   |   |
|---|---|
| <p>1. Owner: Southern California Edison Company<br/>2244 Walnut Grove Avenue<br/>Rosemead, California 91770</p> <p>2. Plant: San Onofre Nuclear Generating Station<br/>San Clemente, California 92674-0128</p> <p>3. Work Performed by: Southern California Edison Company</p> <p>4. Identification of System: Reactor Coolant</p> <p>5. (a) Applicable Construction Code <u>ASME Section III, Class 1, 1971 Ed., S.'71 Addenda; Code Case: None</u></p> <p>5. (b) Applicable Edition of Section XI Utilized for Repairs or Replacements: <u>1989 Edition, No Addenda</u></p> | <p>Unit: 3<br/>CWO: 01041543000<br/>Rspec: GEN-105s<br/>PID: 40141ASO3 (F5)<br/>N5: S3-1201-3</p> <p>Type Code Symbol Stamp: N/A<br/>Authorization No: N/A<br/>Expiration Date: N/A</p> |
|---|---|

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No.	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
Steam Generator	CE	72270-2	22265	S31301ME088	1977	---	Yes
1"-8N-2A x 6" Handhole Stud (10)	ABB Combustion Engineering	Ht. #85689	N/A	RSO-2249-91, SA193 B7 (CR-2001-93)	N/A	Replacement	No
1"-8N-2B Handhole Nut (10)	ABB Combustion Engineering	Ht. #11472	N/A	RSO-2249-91, SA193 B7 (CR-2001-93)	N/A	Replacement	No

7. Description of Work:

Replaced the steam generator handhole cover bolting. (10) each studs (location #1 - #10) and (10) each nuts (location #1 - #10) were replaced with in-kind replacement bolting in accordance with Repair Specification GEN-105s.

8. Tests Conducted: System Inservice Pressure Test      Pressure: NOP      Temp: N/A  
See: AR 020701574-04

Note Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in x 11 in, (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: CR-2001-93 reconciles the replacement bolting which was certified to ASME III-1, 1974 Ed., W.'74 Add. (studs); ASME III-1, 1980 Ed., W.'82 Add. (nuts).

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizat~~on~~ No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 3/31/03  
Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 9/23/02 to 3/31/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1574 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date 3/31/03



# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

1. Owner: Southern California Edison Company  
 2244 Walnut Grove Avenue  
 Rosemead, California 91770
- Unit: 3  
 MO: 01041606001 01041606000 01051273000  
 FCN: F25486M  
 Rspec: 01010624-13, 010101624-6
2. Plant: San Onofre Nuclear Generating Station  
 San Clemente, California 92674-0128
- PID: 40112CSO3  
 N5: S3-1204-13
3. Work Performed by: Southern California Edison Company
- Type Code Symbol Stamp: N/A  
 Authorization No: N/A
4. Identification of System: Safety Injection and Shutdown Cooling
- Expiration Date: N/A
5. (a) Applicable Construction Code ASME Section III, NF-Class 2, 1974 Ed., S.74 Addenda; Code Case: None
5. (b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1989 Edition, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
Rigid Strut	Lisega	p/n 392049RR1	N/A	S3-SI-087-H-022	N/A	Replaced	No
17 1/2" Rigid Strut	Lisega	Trace #A402-1, p/n 392049RR1	N/A	RSO-1365-01, Tp. 3922RR1S	N/A	Replacement	No

7. Description of Work:

The existing Lisega rigid strut for hanger S3-SI-087-H-022 was removed and replaced with a shorter replacement Lisega rigid strut in accordance with Repair Specification 010101624-13 and FCN F25486 (MO 01041606000 removed the existing strut and MO 01041606001 installed the replacement strut). MO 01051273000 re-welded one rear bracket to the modified support steel in accordance with Repair Specification 010101624-06, weld record WR3-01-137, and FCN F25486M. NDE (03051924 and 3MT-005-03) and VT-3 examinations were performed on the final weld surfaces and connections with satisfactory results.

8. Tests Conducted: N/A

Pressure: N/A

Temp: N/A

Note: Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in. x 11 in., (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: None.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this repair and replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizaton No: N/A

Expiration Date: N/A

Signed: [Signature]  
Owner or Owner's Designee, Title

Supervising ASME Codes Engineer Date: 3/31/03

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 9/23/02 to 03/31/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature]  
Inspector's Signature

Commissions 1574 California  
National Board, State, Province, and Endorsements

Date 3/31/03

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

- |  |  |
|--|--|
| <p>1. Owner: Southern California Edison Company<br/>2244 Walnut Grove Avenue<br/>Rosemead, California 91770</p> <p>2. Plant: San Onofre Nuclear Generating Station<br/>San Clemente, California 92674-0128</p> <p>3. Work Performed by: Southern California Edison Company</p> <p>4. Identification of System: Reactor Coolant</p> <p>5. (a) Applicable Construction Code <u>ASME Section III, Class 1, 1971 Ed., S.71 Addenda; Code Case: None</u></p> <p>5. (b) Applicable Edition of Section XI Utilized for Repairs or Replacements: <u>1989 Edition, No Addenda</u></p> | <p>Unit: 3<br/>CWO: 01041670000<br/>Rspec: GEN-105s<br/>PID: 40141ASO3<br/>N5: S3-1201-3</p> <p>Type Code Symbol Stamp: N/A<br/>Authorization No: N/A<br/>Expiration Date: N/A</p> |
|--|--|

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
Steam Generator	CE	72270-2	22265	S31301ME088	1977	---	Yes
1 1/2" -8N-2A x 9" Secondary Manway Stud (3)	CE	Ht. #82158, Ht. Code J-6391-1	N/A	RSO-1262-85, 5983-84, 1566-85, SA540 B24 Cl. 3 (CR-3007-94)	N/A	Replacement	No
1 1/2"-8N-2B Secondary Manway Nut (3)	Nova Machine Products	Ht. #73265 32-2, Ht. Code RZW	N/A	RSO-1076-00, SA193 B7	N/A	Replacement	No

7. Description of Work:

Replaced steam generator secondary manway bolting. (3) each manway studs (location #3, #4, and #8) and (3) each manway nuts (location #3, #4, and #8) were replaced with in-kind replacement bolting in accordance with Repair Specification GEN-105s.

8. Tests Conducted: System Inservice Pressure Test      Pressure: NOP      Temp:
- See: AR 020701574-03

Note Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in. x 11 in., (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: CR-3007-94 reconciles the replacement studs which were certified to ASME III-1, 1980 Ed., W.'82 Addenda.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizatoin No: N/A

Expiration Date: N/A

Signed: [Signature]  
Owner or Owner's Designee, Title

Supervising ASME Codes Engineer Date: 3/31/03

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 9/24/02 to 3/31/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature]  
Inspector's Signature

Commissions 1574 California  
National Board, State, Province, and Endorsements

Date 3/31/03

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

- |   |   |
|---|---|
| <p>1. Owner: Southern California Edison Company<br/>2244 Walnut Grove Avenue<br/>Rosemead, California 91770</p> <p>2. Plant: San Onofre Nuclear Generating Station<br/>San Clemente, California 92674-0128</p> <p>3. Work Performed by: Southern California Edison Company</p> <p>4. Identification of System: Reactor Coolant</p> <p>5. (a) Applicable Construction Code <u>ASME Section III, Class 1, 1971 Ed., S.'71 Addenda; Code Case: None</u></p> <p>5. (b) Applicable Edition of Section XI Utilized for Repairs or Replacements: <u>1989 Edition, No Addenda</u></p> | <p>Unit: 3<br/>CWO: 01050017000<br/>Rspec: GEN-105s<br/>PID: 40141ASO3 (C5)<br/>N5: S3-1201-3</p> <p>Type Code Symbol Stamp: N/A<br/>Authorization No: N/A<br/>Expiration Date: N/A</p> |
|---|---|

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
Steam Generator	CE	72270-1	22264	S31301ME089	1977	—	Yes
Secondary Manway Stud 1 1/2"-8N-2A x 9" (5)	ABB Combustion Engineering	Ht. #78055, Tr. Code NPA	N/A	RSO-1431-99, SA540 B24, Class 3	N/A	Replacement	No
Secondary Manway Nut 1 1/2"-8N-2B (5)	Nova Machine Products	Ht. #8998461 H318, Tr. Code Z17	N/A	RSO-1596-98, SA193 B7	N/A	Replacement	No

7. Description of Work:

Replaced steam generator secondary manway bolting. (5) each studs (location #1, #8, #9, #12, #13) and (5) each nuts (location #1, #8, #9, #12, #13) were replaced with in-kind replacement bolting in accordance with Repair Specification GEN-105s.

8. Tests Conducted: System Inservice Pressure Test      Pressure: NOP      Temp: N/A  
See: AR 020701574-02

Note Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in. x 11 in., (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: None.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizat~~on~~ No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 3/31/03  
Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 9/24/02 to 3/31/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1574 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date 3/31/03

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

1. Owner: Southern California Edison Company  
 2244 Walnut Grove Avenue  
 Rosemead, California 91770
- Unit: 3  
 MO: 01060453000  
 Rspec: GEN-105P R2  
 PID: 40141ASO3  
 N5: S3-1201-3
2. Plant: San Onofre Nuclear Generating Station  
 San Clemente, California 92674-0128
3. Work Performed by: Southern California Edison Company      Type Code Symbol Stamp: N/A
4. Identification of System: Reactor Coolant      Authorization No: N/A  
 Expiration Date: N/A
5. (a) Applicable Construction Code: ASME Section III, Class 1, 1971 Edition, S.71 Addenda; Code Case: None
5. (b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1989 Edition, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
Steam Generator	CE	72270-2	22265	S31301ME088P	1977		Yes
1 1/2" x 14 1/4" Stud (2)	Energy Steel & Supply Co.	Ht. #96894, Lot Code DUE5	N/A	RSO-1116-97, SA540 B24 Cl. 3 (CR-3007-94)	N/A	Replacement	No
1 1/2" - 8 Hex Nut (2)	Nova Machine Products	Ht. #73265-32-2, Ht. Code RZW	N/A	RSO-1076-00, SA193 B7	N/A	Replacement	No

7. Description of Work:

The steam generator manway studs and nuts were removed and examined. All manway studs and nuts were acceptable for reuse with the exception of cold leg manway stud and nut number 16 (1 each stud and nut) and hot leg manway stud and nut number 14 (1 each stud and nut), which were replaced. A VT-1 examination was performed on the replacement studs and nuts with satisfactory results.

8. Tests Conducted: System Leakage Pressure Test      Pressure: NOP      Temp: NOT

VT-2 performed per Procedure SO23-XVII-3.1.1

Note Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in x 11 in, (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: CR-3007-97 reconciles the replacement studs which were certified to ASME III-1, 1989 Ed., No Addenda.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizaton No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 3/27/03  
Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 11/05/02 to 3/25/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1574 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date 3/28/03



# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

1. Owner: Southern California Edison Company  
 2244 Walnut Grove Avenue  
 Rosemead, California 91770  
 Unit: 3  
 MO: 01060455000  
 Rspec: GEN-105p R2  
 PID: 40141ASO3  
 N5: S3-1201-3
2. Plant: San Onofre Nuclear Generating Station  
 San Clemente, California 92674-0128
3. Work Performed by: Southern California Edison Company  
 Type Code Symbol Stamp: N/A
4. Identification of System: Reactor Coolant  
 Authorization No: N/A  
 Expiration Date: N/A
5. (a) Applicable Construction Code: ASME Section III, Class 1, 1971 Ed., S.'71 Addenda; Code Case: None
5. (b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1989 Edition, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
Steam Generator	CE	72270-1	22264	S31301ME089P	1977	---	Yes
Primary Manway Stud 1 1/2"-8N-2A x 14 1/4" (1)	Energy Steel & Supply CO.	Ht. #96894, Ht. Code DUE6	N/A	RSO-1144-97, SA540 B24, Class 3 (CR-3007-94)	N/A	Replacement	No
Primary Manway Nut 1 1/2"-8N-2B (1)	Nova Machine Products	Ht. #73265-32-2, Ht. Code RZW	N/A	RSO-1076-00, SA193 B7	N/A	Replacement	No

7. Description of Work:

Replaced steam generator primary manway bolting. (1) each primary manway stud (location #14) and (1) each primary manway nut (location #14) was replaced with in-kind replacement bolting per Repair Specification GEN-105p Rev. 2. A VT-1 examination was performed on the replacement bolting with satisfactory results.

8. Tests Conducted: System Leakage Pressure Test      Pressure: NOP      Temp: NOT

VT-2 performed per Procedure SO23-XVII-3.1.1

Note: Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in. x 11 in., (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: CR-3007-94 reconciles the replacement stud which was certified to ASME III-1, 1989 Ed., No Add.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizatoin No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 3/31/03  
Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 11/5/02 to 3/31/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1574 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date 3/03/31/03  
Don 3/31/03

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

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|--|---|
| <p>1. Owner: Southern California Edison Company<br/>2244 Walnut Grove Avenue<br/>Rosemead, California 91770</p> <p>2. Plant: San Onofre Nuclear Generating Station<br/>San Clemente, California 92674-0128</p> <p>3. Work Performed by: Southern California Edison Company</p> <p>4. Identification of System: Reactor Coolant</p> <p>5. (a) Applicable Construction Code: <u>ASME Section III, Class 1, 1971 Edition, Summer 1971 Addenda; Code Case: 1361-2</u></p> <p>5. (b) Applicable Edition of Section XI Utilized for Repairs or Replacements: <u>1989 Edition, No Addenda</u></p> | <p>Unit: 3</p> <p>CWO: 01060705000</p> <p>ECP: 010500880-15</p> <p>Rspec: ASME SECTION XI DATA-0561,<br/>010500880-13</p> <p>PID: 40111BSO3 (E6)</p> <p>N5: S3-1201-2</p> <p>Type Code Symbol Stamp: N/A</p> <p>Authorization No: N/A</p> <p>Expiration Date: N/A</p> |
|--|---|

6. Identification of Components Repaired or Replaced and Replacement Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
Pressurizer Heater	Framatome Technologies	004	N/A	S31201ME603	1998	Replaced	Yes
Pressurizer Heater	Watlow/ C.E.	9	N/A	RSO-4723-85-02	1986	Replacement	Yes

7. Description of Work:

A replacement pressurizer heater was installed in plant location S31201ME603 (at heater sleeve D3) in accordance with Repair Specification 010500880-13, ASME XI DATA-0561 and Weld Record WR3-03-001. Post weld NDE examination (3PT-021-03) was performed with satisfactory results.

8. Tests Conducted: System Leakage Pressure Test      Pressure: NOP      Temp: NOT

VT-2 performed per Procedure SO23-XVII-3.1

Note: Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in x 11 in., (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: None.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this repair and replacement conforms to the rules, of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizaton No: N/A

Expiration Date: N/A

Signed: [Signature]  
Owner or Owner's Designee, Title

Supervising ASME Codes Engineer Date: 3/27/03

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 1/7/03 to 3/27/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1574 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date 3/28/03



FORM NIS-2 (back)

9. Remarks: None.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this repair and replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizaton No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 3/27/03  
Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 1/7/03 to 3/27/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1567 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date 3/28/03

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

- |   |   |
|---|---|
| <p>1. Owner: Southern California Edison Company<br/>2244 Walnut Grove Avenue<br/>Rosemead, California 91770</p> <p>2. Plant: San Onofre Nuclear Generating Station<br/>San Clemente, California 92674-0128</p> <p>3. Work Performed by: Southern California Edison Company</p> <p>4. Identification of System: Reactor Coolant</p> <p>5. (a) Applicable Construction Code: <u>ASME Section III, Class 1, 1974 Ed., No Add. (Valve); 1974 Ed., S.74 Add. (Inlet Bolting); Code Case: None</u></p> <p>5. (b) Applicable Edition of Section XI Utilized for Repairs or Replacements: <u>1989 Edition, No Addenda</u></p> | <p>Unit: 3<br/>MO: 01100407000<br/>Rspec: ASME SECTION XI DATA-0173<br/>PID: 40111BSO3 (G7)<br/>N5: S3-1201-2</p> <p>Type Code Symbol Stamp: N/A<br/>Authorization No: N/A<br/>Expiration Date: N/A</p> |
|---|---|

6. Identification of Components Repaired or Replaced and Replacement Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
6" x 8" Pressurizer Safety Valve	Dresser	BS-03212	N/A	3PSV0200	1978	Replaced	Yes
6" x 8" Pressurizer Safety Valve	Dresser	BU-06254	N/A	RSO-2330-02	1980	Replacement	Yes
2" x 14 1/2" All-Thread Stud (2)	Mackson, Inc	Ht. #11505330	N/A	RSO-1060-02, SA193 B7	N/A	Replacement	No

7. Description of Work:

The pressurizer safety valve was replaced for preventative maintenance action with a rebuilt and tested spare valve. During installation 2 inlet studs were replaced. A VT-1 examination was performed on the replacement flange bolting with satisfactory results. The removed valve was placed into the rebuild program.

8. Tests Conducted: System Leakage Pressure Test      Pressure: NOP      Temp: NOT

VT-2 performed per Procedure SO23-XVII-3.1.1

Note: Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in x 11 in, (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: None.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizatoin No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 3/27/03  
Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 09/26/02 to 03/18/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1574 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date 3/28/03



# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

- |  |   |
|--|---|
| <p>1. Owner: Southern California Edison Company<br/>2244 Walnut Grove Avenue<br/>Rosemead, California 91770</p> <p>2. Plant: San Onofre Nuclear Generating Station<br/>San Clemente, California 92674-0128</p> <p>3. Work Performed by: Southern California Edison Company</p> <p>4. Identification of System: Reactor Coolant</p> <p>5. (a) Applicable Construction Code: <u>ASME Section III, Class 1, 1974 Ed., No Add. (Valve); 1974 Ed., S.'74 Add. (Inlet Bolting); Code Case: None</u></p> <p>5. (b) Applicable Edition of Section XI Utilized for Repairs or Replacements: <u>1989 Edition, No Addenda</u></p> | <p>Unit: 3<br/>MO: 01100457000<br/>Rspec: ASME SECTION XI DATA-0173<br/>PID: 40111BSO3 (G5)<br/>NS: S3-1201-2</p> <p>Type Code Symbol Stamp: N/A<br/>Authorization No: N/A<br/>Expiration Date: N/A</p> |
|--|---|

6. Identification of Components Repaired or Replaced and Replacement Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
6" x 8" Pressurizer Safety Valve	Dresser	BU-06253	N/A	3PSV0201	1980	Replaced	Yes
6" x 8" Pressurizer Safety Valve	Dresser	BS-03209	N/A	RSO-2330-02	1978	Replacement	Yes
2" x 14 1/2" All-Thread Stud (4)	Mackson, Inc	Ht. #11505330	N/A	RSO-1060-02, SA193 B7	N/A	Replacement	No
2"- 8 Heavy Hex Nut (4)	Nova Machine Products	Ht. #78203, Ht. Code JBX	N/A	RSO-0056-99, SA194 Gr.7	N/A	Replacement	No

7. Description of Work:

The pressurizer safety valve was replaced for preventative maintenance action with a rebuilt and tested spare valve. During installation 4 inlet studs and 4 inlet nuts were replaced. A VT-1 examination was performed on the replacement flange bolting with satisfactory results. The removed valve was placed into the rebuild program.

8. Tests Conducted: System Leakage Pressure Test      Pressure: NOP      Temp: NOT

VT-2 performed per Procedure SO23-XVII-3.1.1

Note Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in x 11 in, (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: None.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizaton No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 3/27/03  
Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 09/26/02 to 03/18/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1574 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date 3/28/03

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

- |   |   |
|---|---|
| <p>1. Owner: Southern California Edison Company<br/>2244 Walnut Grove Avenue<br/>Rosemead, California 91770</p> <p>2. Plant: San Onofre Nuclear Generating Station<br/>San Clemente, California 92674-0128</p> <p>3. Work Performed by: Southern California Edison Company</p> <p>4. Identification of System: Reactor Coolant</p> <p>5. (a) Applicable Construction Code: <u>ASME Section III, Class 2, 1974 Edition, S.'74 Edition; Code Case: None</u></p> | <p>Unit: 3<br/>MO: 01100459000<br/>Rspec: ASME SECTION XI DATA-0186<br/>PID: 40141DSO3 (G6)<br/>N5: S3-1301-1</p> <p>Type Code Symbol Stamp: N/A<br/>Authorization No: N/A<br/>Expiration Date: N/A</p> |
|---|---|

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1989 Edition, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
6" x 10" Main Steam Safety Valve	Crosby Valve & Gage	N58737-01-0019	N/A	3PSV8402	1977	Replaced	Yes
6" x 10" Main Steam Safety Valve	Crosby Valve & Gage	N58737-01-0002	N/A	RSO-2413-02	1976	Replacement	Yes
1 3/8" x 9" Inlet Stud (11)	Nova Machine Products	Ht. #28007, Ht. Code NPN	N/A	Fabbed on MO 01010806	N/A	Replacement	No
1 3/8" x 9" Inlet Stud (1)	Mackson, Inc	Ht. #4909848 Tr. #1VK	N/A	Fabbed on MO 01061346	N/A	Replacement	No
1 3/8"- 8 Inlet Nut (12)	Mackson, Inc.	Ht. #M82952, Ht. Code AGQ	N/A	RSO-0530-02, SA194 Gr.7 (SEE-92-0065, CR-3004-96)	N/A	Replacement	No

7. Description of Work:

The main steam safety valve located in plant position 3PSV8402 (s/n N58737-00-0019) was replaced as a scheduled preventative maintenance action with a spare valve (s/n N58737-01-0002) which had been returned to the vendor for rework and testing. The inlet bolting was also replaced. (12) each studs and (12) each nuts were replaced (the studs were manufactured on MO 01010806 and MO 01061346). The removed valve was placed into the rebuild program to be rebuilt under MO 02061591 .

8. Tests Conducted: System Inservice Pressure Test      Pressure: NOP      Temp: N/A  
See: AR 020701574-07

Note Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in. x 11 in., (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: CR-3004-96 reconciles the replacement nuts which were certified to ASME III-2, 1989 Ed.; No Add. (Reference: SEE 92-0065). CR-3005-96 reconciles the replacement studs which were certified to ASME III-2, 1989 Ed.; No Add.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizaton No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 3/31/03  
Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 9/24/02 to 3/31/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1574 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date 3/31/03

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

- |  |   |
|--|---|
| <p>1. Owner: Southern California Edison Company<br/>2244 Walnut Grove Avenue<br/>Rosemead, California 91770</p> <p>2. Plant: San Onofre Nuclear Generating Station<br/>San Clemente, California 92674-0128</p> <p>3. Work Performed by: Southern California Edison Company</p> <p>4. Identification of System: Reactor Coolant</p> <p>5. (a) Applicable Construction Code: <u>ASME Section III, Class 2, 1974 Edition, S.74 Edition; Code Case: None</u></p> | <p>Unit: 3<br/>MO: 01100508000<br/>Rspec: ASME SECTION XI DATA-0191<br/>PID: 40141DSO3 (F4)<br/>N5: S3-1301-1</p> <p>Type Code Symbol Stamp: N/A<br/>Authorization No: N/A<br/>Expiration Date: N/A</p> <p>(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: <u>1989 Edition, No Addenda</u></p> |
|--|---|

6. Identification of Components Repaired or Replaced and Replacement Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No.	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
6" x 10" Main Steam Safety Valve	Crosby Valve & Gage	N58737-01-0021	N/A	3PSV8407	1977	Replaced	Yes
6" x 10" Main Steam Safety Valve	Crosby Valve & Gage	N58737-01-0023	N/A	RSO-2413-02	1976	Replacement	Yes
1 3/8" x 9" Inlet Stud (12)	Mackson, Inc	Ht. #12685, Ht. Code FK7	N/A	Fabbed on MO 02061062	N/A	Replacement	No
1 3/8" - 8 Inlet Nuts (12)	Mackson, Inc.	Ht. #M82952, Ht. Code AGQ	N/A	RSO-0530-02, SA194 Gr.7 (SEE-92-0065, CR-3004-96)	N/A	Replacement	No

7. Description of Work:

The main steam safety valve located in plant position 3PSV8407 (s/n N58737-00-0021) was replaced as a scheduled preventative maintenance action with a spare valve (s/n N58737-01-0023) which had been returned to the vendor for rework and testing. The inlet bolting was also replaced. (12) each studs and (12) each nuts were replaced (the studs were manufactured on MO 02061062). The removed valve was placed into the rebuild program to be rebuilt under MO 02061593.

8. Tests Conducted: System Inservice Pressure Test      Pressure: NOP      Temp: N/A  
See: AR 020701574-07

Note Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in. x 11 in., (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: CR-3004-96 reconciles the replacement nuts which were certified to ASME III-2, 1989 Ed.; No Add. (Reference: SEE 92-0065). CR-3005-96 reconciles the replacement studs which were certified to ASME III-2, 1989 Ed; No Add.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizaton No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 3/31/03  
Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 9/24/02 to 3/31/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1574 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date 3/31/03

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

- |  |   |
|--|---|
| <p>1. Owner: Southern California Edison Company<br/>2244 Walnut Grove Avenue<br/>Rosemead, California 91770</p> <p>2. Plant: San Onofre Nuclear Generating Station<br/>San Clemente, California 92674-0128</p> <p>3. Work Performed by: Southern California Edison Company</p> <p>4. Identification of System: Reactor Coolant</p> <p>5. (a) Applicable Construction Code: <u>ASME Section III, Class 2, 1974 Edition, S.74 Edition; Code Case: None</u></p> | <p>Unit: 3<br/>MO: 01100510000<br/>Rspec: ASME SECTION XI DATA-0192<br/>PID: 40141DSO3 (F5)<br/>N5: S3-1301-1</p> <p>Type Code Symbol Stamp: N/A<br/>Authorization No: N/A<br/>Expiration Date: N/A</p> <p>(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: <u>1989 Edition, No Addenda</u></p> |
|--|---|

6. Identification of Components Repaired or Replaced and Replacement Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
6" x 10" Main Steam Safety Valve	Crosby Valve & Gage	N58737-01-0030	N/A	3PSV8408	1977	Replaced	Yes
6" x 10" Main Steam Safety Valve	Crosby Valve & Gage	N58737-01-0011	N/A	RSO-2413-02	1976	Replacement	Yes
1 3/8" x 9" Inlet Stud (12)	Mackson, Inc	Ht. #4909848 Tr. #1VK	N/A	Fabbed on MO 01061346	N/A	Replacement	No
1 3/8" - 8 Inlet Nut (12)	Mackson, Inc.	Ht. #M82952, Ht. Code AGQ	N/A	RSO-0530-02, SA194 Gr.7 (SEE-92-0065, CR-3004-96)	N/A	Replacement	No

7. Description of Work:

The main steam safety valve located in plant position 3PSV8408 (s/n N58737-00-0030) was replaced as a scheduled preventative maintenance action with a spare valve (s/n N58737-01-0011) which had been returned to the vendor for rework and testing. The inlet bolting was also replaced. (12) each studs and (12) each nuts were replaced (the studs were manufactured on MO 01061346). The removed valve was placed into the rebuild program to be rebuilt under MO 02061597.

8. Tests Conducted: System Inservice Pressure Test      Pressure: NOP      Temp: N/A  
See: AR 020701574-07

Note: Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in. x 11 in., (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: CR-3004-96 reconciles the replacement nuts which were certified to ASME III-2, 1989 Ed.; No Add. (Reference: SEE 92-0065). CR-3005-96 reconciles the replacement studs which were certified to ASME III-2, 1989 Ed.; No Add.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizaton No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 3/31/03  
Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 9/24/02 to 3/31/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1574 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date 3/31/03



# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

- |   |   |
|---|---|
| <p>1. Owner: Southern California Edison Company<br/>2244 Walnut Grove Avenue<br/>Rosemead, California 91770</p> <p>2. Plant: San Onofre Nuclear Generating Station<br/>San Clemente, California 92674-0128</p> <p>3. Work Performed by: Southern California Edison Company</p> <p>4. Identification of System: Reactor Coolant</p> <p>5. (a) Applicable Construction Code: <u>ASME Section III, Class 2, 1974 Edition, S.'74 Edition; Code Case: None</u></p> | <p>Unit: 3<br/>MO: 01100514000<br/>Rspec: ASME SECTION XI DATA-0193<br/>PID: 40141DSO3 (F5)<br/>N5: S3-1301-1</p> <p>Type Code Symbol Stamp: N/A<br/>Authorization No: N/A<br/>Expiration Date: N/A</p> |
|---|---|

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1989 Edition, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
6" x 10" Main Steam Safety Valve	Crosby Valve & Gage	N58737-01-0031	N/A	3PSV8409	1977	Replaced	Yes
6" x 10" Main Steam Safety Valve	Crosby Valve & Gage	N58737-01-0036	N/A	RSO-2413-02	1976	Replacement	Yes
1 3/8" x 9" Inlet Stud (12)	Mackson, Inc	Ht. #4909848 Tr. #1VK	N/A	Fabbed on MO 01061346	N/A	Replacement	No
1 3/8" - 8 Inlet Nut (12)	Mackson, Inc.	Ht. #M82952, Ht. Code AGQ	N/A	RSO-0530-02, SA194 Gr.7 (SEE-92-0065, CR-3004-96)	N/A	Replacement	No

7. Description of Work:

The main steam safety valve located in plant position 3PSV8409 (s/n N58737-00-0031) was replaced as a scheduled preventative maintenance action with a spare valve (s/n N58737-01-0036) which had been returned to the vendor for rework and testing. The inlet bolting was also replaced. (12) each studs and (12) each nuts were replaced (the studs were manufactured on MO 01061346). The removed valve was placed into the rebuild program to be rebuilt under MO 02061601.

8. Tests Conducted: System Inservice Pressure Test      Pressure: NOP      Temp: N/A  
See: AR 020701574-07

Note Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in. x 11 in., (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: CR-3004-96 reconciles the replacement nuts which were certified to ASME III-2, 1989 Ed.; No Add. (Reference: SEE 92-0065). CR-3005-96 reconciles the replacement studs which were certified to ASME III-2, 1989 Ed; No Add.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizaton No: N/A

Expiration Date: N/A

Signed: *[Signature]* Supervising ASME Codes Engineer Date: 3/31/03  
Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 9/24/02 to 3/31/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

*[Signature]* Commissions 1574 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date 3/31/03

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

- |  |   |
|--|---|
| <p>1. Owner: Southern California Edison Company<br/>2244 Walnut Grove Avenue<br/>Rosemead, California 91770</p> <p>2. Plant: San Onofre Nuclear Generating Station<br/>San Clemente, California 92674-0128</p> <p>3. Work Performed by: Southern California Edison Company</p> <p>4. Identification of System: Reactor Coolant</p> <p>5. (a) Applicable Construction Code: <u>ASME Section III, Class 2, 1974 Edition, S.74 Edition; Code Case: None</u></p> | <p>Unit: 3<br/>MO: 01100530000<br/>Rspec: ASME SECTION XI DATA-0191<br/>PID: 40141CSO3 (G4)<br/>N5: S3-1301-1</p> <p>Type Code Symbol Stamp: N/A<br/>Authorization No: N/A<br/>Expiration Date: N/A</p> |
|--|---|

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1989 Edition, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No.	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
6" x 10" Main Steam Safety Valve	Crosby Valve & Gage	N58737-01-0034	N/A	3PSV8416	1977	Replaced	Yes
6" x 10" Main Steam Safety Valve	Crosby Valve & Gage	N58737-01-0003	N/A	RSO-2413-02	1976	Replacement	Yes
1 3/8" x 9" Inlet Stud (12)	Nova Machine Products	Ht. #28007, Ht. Code NPN	N/A	Fabbed on MO 01010806	N/A	Replacement	No
1 3/8"- 8 Inlet Nut (12)	Mackson, Inc.	Ht. #M82952, Ht. Code AGQ	N/A	RSO-0530-02, SA194 Gr.7 (SEE-92-0065, CR-3004-96)	N/A	Replacement	No

7. Description of Work:

The main steam safety valve located in plant position 3PSV8416 (s/n N58737-01-0034) was replaced as a scheduled preventative maintenance action with a spare valve (s/n N58737-01-0003) which had been returned to the vendor for rework and testing. The inlet bolting was also replaced. (12) each studs and (12) each nuts were replaced (the studs were manufactured on MO 01010806). The removed valve was placed into the rebuild program to be rebuilt under MO 02061604.

8. Tests Conducted: System Inservice Pressure Test      Pressure: NOP      Temp: N/A  
See: AR 020701574-07

Note Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in. x 11 in., (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: CR-3004-96 reconciles the replacement nuts which were certified to ASME III-2, 1989 Ed.; No Add. (Reference: SEE 92-0065). CR-3005-96 reconciles the replacement studs which were certified to ASME III-2, 1989 Ed; No Add.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizatoin No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 3/31/03  
Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 9/24/02 to 03/31/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1574 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date 3/31/03

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

- |   |  |
|---|--|
| 1. Owner: Southern California Edison Company<br>2244 Walnut Grove Avenue<br>Rosemead, California 91770              | Unit: 3<br>MO: 01100535000<br>Rspec: ASME SECTION XI DATA-0192<br>PID: 40141CSO3 (G3)<br>N5: S3-1301-2 |
| 2. Plant: San Onofre Nuclear Generating Station<br>San Clemente, California 92674-0128                              |  |
| 3. Work Performed by: Southern California Edison Company  | Type Code Symbol Stamp: N/A<br>Authorization No: N/A<br>Expiration Date: N/A                           |
| 4. Identification of System: Reactor Coolant  |  |
| 5. (a) Applicable Construction Code: <u>ASME Section III, Class 2, 1974 Edition, S.'74 Edition; Code Case: None</u> |  |

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1989 Edition, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
6" x 10" Main Steam Safety Valve	Crosby Valve & Gage	N58737-01-0024	N/A	3PSV8417	1977	Replaced	Yes
6" x 10" Main Steam Safety Valve	Crosby Valve & Gage	N58737-01-0006	N/A	RSO-2413-02	1976	Replacement	Yes
1 3/8" x 9" Inlet Stud (12)	Mackson, Inc	Ht. #4909848 Tr. #1VK	N/A	Fabbed on MO 01010806	N/A	Replacement	No
1 3/8"- 8 Inlet Nut (12)	Mackson, Inc.	Ht. #M82952, Ht. Code AGQ	N/A	RSO-0530-02, SA194 Gr.7 (SEE-92-0065, CR-3004-96)	N/A	Replacement	No

7. Description of Work:

The main steam safety valve located in plant position 3PSV8417 (s/n N58737-01-0024) was replaced as a scheduled preventative maintenance action with a spare valve (s/n N58737-01-0006) which had been returned to the vendor for rework and testing. The inlet bolting was also replaced. (12) each studs and (12) each nuts were replaced (the studs were manufactured on MO 01010806). The removed valve was placed into the rebuild program to be rebuilt under MO 02061608. Note: NCR 030301150 generated to address material discrepancy of replacement bonnet nut. NCR disposition action AAI for reason: the applicable requirements for ASME Class 2 nuts and ASME Class 3 nuts were compared. In this case, the technical requirements are identical. Therefore, this issue is an administrative certification issue.

8. Tests Conducted: System Inservice Pressure Test      Pressure: NOP      Temp: N/A  
See: AR 020701574-07

Note Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in. x 11 in., (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: CR-3004-96 reconciles the replacement nuts which were certified to ASME III-2, 1989 Ed.; No Add. (Reference: SEE 92-0065). CR-3005-96 reconciles the replacement studs which were certified to ASME III-2, 1989 Ed; No Add.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizaton No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 3/31/03  
Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 9/24/02 to 3/31/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1574 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date 3/31/03

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

- |   |   |
|---|---|
| <p>1. Owner: Southern California Edison Company<br/>2244 Walnut Grove Avenue<br/>Rosemead, California 91770</p> <p>2. Plant: San Onofre Nuclear Generating Station<br/>San Clemente, California 92674-0128</p> <p>3. Work Performed by: Southern California Edison Company</p> <p>4. Identification of System: Chemical and Volume Control</p> <p>5. (a) Applicable Construction Code: <u>ASME Section III, Class 2, 1974 Edition, Summer 1974 Addenda; Code Case: None</u></p> | <p>Unit: 3<br/>MO: 01101233000<br/>Rspec: ASME SECTION XI DATA-0460<br/>PID: 40124BSO3 (H2)<br/>NS: S3-1208-5</p> <p>Type Code Symbol Stamp: N/A<br/>Authorization No: N/A<br/>Expiration Date: N/A</p> <p>(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: <u>1989 Edition, No Addenda</u></p> |
|---|---|

6. Identification of Components Repaired or Replaced and Replacement Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
1 1/2" x 2" Nozzle Type Relief Valve	Crosby Valve & Gage	N59380-00-0007	N/A	3PSV9225 (to be rebuilt on MO 02021763)	1984	Replaced	Yes
1 1/2" x 2" Nozzle Type Relief Valve	Crosby Valve & Gage	N59380-00-0010	N/A	Rebuilt on MO 99110011	1985	Replacement	Yes

7. Description of Work:

Replaced the relief valve S/N N59380-00-0007 located in plant position 3PSV9225 with a tested and rebuilt spare relief valve S/N N59380-00-0010 that was rebuilt under MO 99110011. Removed valve to be rebuilt under MO 02021763.

8. Tests Conducted: System Functional Pressure Test      Pressure: NOP      Temp: N/A

See: AR 020201400-01

Note: Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in. x 11 in., (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: None.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI.   
 repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizatoin No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 7/29/02  
 Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 03/10/02 to 07/30/02, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1862 California  
 Inspector's Signature National Board, State, Province, and Endorsements

Date July 30, 2002



# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

- |  |   |
|--|---|
| <p>1. Owner: Southern California Edison Company<br/>2244 Walnut Grove Avenue<br/>Rosemead, California 91770</p> <p>2. Plant: San Onofre Nuclear Generating Station<br/>San Clemente, California 92674-012</p> <p>3. Work Performed by: Southern California Edison Company</p> <p>4. Identification of System:</p> <p>5. (a) Applicable Construction Code: <u>ASME Section III, Class 2, 1974 Edition, Summer 1974 Addenda; Code Case: None</u></p> | <p>Unit: 3<br/>MO: 01110068001 01110068000<br/>Rspec: ASME SECTION XI DATA-0460<br/>PID: 40124BSO3 (E2)<br/>N5: S3-1208-5</p> <p>Type Code Symbol Stamp: N/A<br/>Authorization No: N/A<br/>Expiration Date: N/A</p> |
|--|---|

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1989 Edition, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
1 1/2" x 2" Nozzle Type Relief Valve	Crosby Valve & Gage	N59380-00-0006	N/A	3PSV9226	1978	Replaced	Yes
1 1/2" x 2" Nozzle Type Relief Valve	Crosby Valve & Gage	N59380-00-0009	N/A	025-83508, (Rebuilt on MO 01030424)	1985	Replacement/ Replaced	Yes
1 1/2" x 2" Nozzle Type Relief Valve	Crosby Valve & Gage	N59380-00-0013	N/A	025-83508, (Rebuilt on MO 01030521)	1985	Replacement	Yes

7. Description of Work:

Replaced the relief valve located in plant position 3PSV9226 with an in-kind rebuilt and tested spare. Note: MO 01110068000 removed valve (s/n N59380-00-0006) and replaced it with valve (s/n N59380-00-0009). Upon visual inspection, leakage was noted and the MO was revised to replace the valve with another replacement valve. MO 01110068001 replaced valve (s/n N59380-00-0009) with replacement valve (s/n N59380-00-0013). The replacement spare was rebuilt and tested under MO 01030521. The removed valves to be rebuilt under MO 01110150 (s/n N59380-00-0006) and MO 01110333 (s/n N59380-00-0009).

8. Tests Conducted: System Functional Pressure Test      Pressure: NOP      Temp: N/A  
See: AR 011100018-02

Note: Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in. x 11 in., (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: None.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizaton No: N/A

Expiration Date: N/A

Signed: [Signature]  
Owner or Owner's Designee, Title

Supervising ASME Codes Engineer Date: 1/9/02

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 11/01/01 to 01/11/02, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature]  
Inspector's Signature

Commissions 1862 California  
National Board, State, Province, and Endorsements

Date Jan 11, 2002

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

- |  |  |
|--|--|
| <p>1. Owner: Southern California Edison Company<br/>2244 Walnut Grove Avenue<br/>Rosemead, California 91770</p> <p>2. Plant: San Onofre Nuclear Generating Station<br/>San Clemente, California 92674-012</p> <p>3. Work Performed by: Southern California Edison Company</p> <p>4. Identification of System: Chemical and Volume Control</p> <p>5. (a) Applicable Construction Code: <u>ASME Section III, Class 1, 1971 Edition, S.'73 Addenda; Code Case: None</u></p> | <p>Unit: 3<br/>MO: 01110163000 01110164000<br/>Rspec: ASME SECTION XI DATA-0602,<br/>011100099-03<br/>PID: 40124SO3 (D2)<br/>N5: S3-1208-5</p> <p>Type Code Symbol Stamp: N/A<br/>Authorization No: N/A<br/>Expiration Date: N/A</p> <p>(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: <u>1989 Edition, No Addenda</u></p> |
|--|--|

6. Identification of Components Repaired or Replaced and Replacement Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
2" 1513# Y-Type Lift Check Valve	BW/IP International	97ZV1144	N/A	S31208MU069	1998		Yes
Disc	Flowserve Corp.	32, Ht. Code C5701-A	N/A	RSO-1532-00, CoCR/STL6, AMS 5387B	N/A	Replacement	Yes

7. Description of Work:

Replaced the valve disc on the valve (s/n 97ZV1144) in plant location S31208MU069 with an in-kind replacement disc (per ASME XI Data Flag-0602) under MO 01110163. MO 01110164 removed and reinstalled the body to bonnet seal weld in accordance with the applicable portion of Repair Specification 011100099-03 and weld record WR3-01-402. NDE 3PT-088-01 was performed on the body to bonnet seal weld with satisfactory results.

8. Tests Conducted: System Functional Pressure Test      Pressure: NOP      Temp: NOT  
See: AR 011100099-04

Note: Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in. x 11 in., (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: This is an ASME III, Code Class 1 valve installed in an ASME Code Class 2 system.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this repair and replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizatoin No: N/A

Expiration Date: N/A

Signed: 

Owner or Owner's Designee, Title

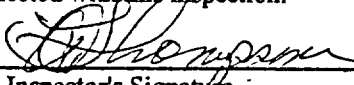
Supervising ASME Codes Engineer

Date: 1/25/02

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 1/02/01 to 01/25/02, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

  
Inspector's Signature

Commissions

1862

California

National Board, State, Province, and Endorsements

Date

Jan. 25, 2002

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

1. Owner: Southern California Edison Company  
 2244 Walnut Grove Avenue  
 Rosemead, California 91770
2. Plant: San Onofre Nuclear Generating Station  
 San Clemente, California 92674-0128
3. Work Performed by: Southern California Edison Company
4. Identification of System: Reactor Coolant
5. (a) Applicable Construction Code: ASME Section III, NB (Class 1), 1971 Ed., S.72 Add. (Design, Fab & Exam); Code Case: N-474-1
5. (b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1989 Edition, No Addenda

Unit: 3  
 MO: 01110502000  
 ECP: 001101723-65  
 Rspec: 001101723-83  
 PID: 40111ASO3 (E6)  
 N5: S2-1201-3  
 Type Code Symbol Stamp: N/A  
 Authorization No: N/A  
 Expiration Date: N/A

6. Identification of Components Repaired or Replaced and Replacement Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
RSC Loop Thermowell	SCE	251-97	N/A	3TE0112-3	N/A	Replaced	No
RSC Loop Thermowell	Weed Instr. Co.	N17022	N/A	RSO-2308-02, Fabled under SOG-02-001	2002	Replacement	No

7. Description of Work:

Replaced existing SCE manufactured RCS Loop thermowell in plant location 3TE0112-3 (Line No. S31201ML001 and Spool No. 503-01) with a replacement thermowell designed and machined by Weed Instrument Co. using INCONEL 690 material. NDE examination 3PT-020-03 was performed on the final weld with satisfactory results. All work performed in accordance with Repair Specification 001101723-83 and ECP 001101723-65. Note: The replacement thermowell was fabled under hard copy traveler SOG-02-001 (included in RSO-2308-02).

8. Tests Conducted: System Leakage Pressure Test      Pressure: NOP      Temp: NOT  
 VT-2 performed per Procedure SO23-XVII-3.1.

Note: Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in. x 11 in., (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: None.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this repair and replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizaton No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 3/27/03  
Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 11/08/02 to 3/17/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1574 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date 3/28/03

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

- |  |  |
|--|--|
| <p>1. Owner: Southern California Edison Company<br/>2244 Walnut Grove Avenue<br/>Rosemead, California 91770</p> <p>2. Plant: San Onofre Nuclear Generating Station<br/>San Clemente, California 92674-0128</p> <p>3. Work Performed by: Southern California Edison Company</p> <p>4. Identification of System: Reactor Coolant</p> <p>5. (a) Applicable Construction Code <u>ASME Section III, NB (Class 1), 1971 Ed., S.72 Add. (Design, Fab &amp; Exam); Code Case: N-474-1</u></p> <p>5. (b) Applicable Edition of Section XI Utilized for Repairs or Replacements: <u>1989 Edition, No Addenda</u></p> | <p>Unit: 3<br/>MO: 01110505000<br/>ECP: 001101723<br/>Rspec: 001101723-83<br/>PID: 40111ASO3<br/>N5: S3-1201-3</p> <p>Type Code Symbol Stamp: N/A<br/>Authorization No: N/A<br/>Expiration Date: N/A</p> |
|--|--|

6. Identification of Components Repaired or Replaced and Replacement Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
RSC Loop Thermowell	ABB Combustion Engineering	TW 008, Ht. #ED84	N/A	3TE0122-2	N/A	Replaced	No
RSC Loop Thermowell	Weed Instr. Co.	N17017	N/A	RSO-2308-02, Fabbbed under SOG-02-001	2002	Replacement	No
RSC Loop Thermowell	SCE	196-97	N/A	3TE0122-3	N/A	Replaced	No
RSC Loop Thermowell	Weed Instr. Co.	N13214	N/A	RSO-1471-99, Fabbbed under SOG-99-001	N/A	Replacement	No
RSC Loop Thermowell	ABB Combustion Engineering	TW 007, Ht. #ED84	N/A	3TE0121-X2 / 3TE0921-X2	N/A	Replaced	No
RSC Loop Thermowell	Weed Instr. Co	N17014	N/A	RSO-2308-02, Fabbbed under SOG-02-001	2002	Replacement	No

7. Description of Work:

Replaced existing SCE manufactured RCS Loop thermowells in plant locations 3TE0122-2, 3TE0122-3, and 3TE0121-X2/0921-X2 (Line No. S31201ML002 and Spool No. 503-03) with replacement thermowells designed and machined by Weed Instrument Co. using INCONEL 690 material. NDE examination 3PT-025-03 was performed on the final welds with satisfactory results. All work performed in accordance with Repair Specification 001101723-83 and ECP's 001101723-75, 001101723-76, and 001101723-78. Note: The replacement thermowells were fabbbed under hard copy travelers SOG-99-001 (included in RSO-1471-99) and SOG-02-001 (included in RSO-2308-02).

8. Tests Conducted: System Leakage Pressure Test      Pressure: NOP      Temp: NOT  
VT-2 performed per Procedure SO23-XVII-3.1.1

Note: Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in. x 11 in., (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: None.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this repair and replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizaton No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 3/27/03  
Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 1/7/02 to 3/17/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1574 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date 3/28/03



# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

- |  |  |
|--|--|
| <p>1. Owner: Southern California Edison Company<br/>2244 Walnut Grove Avenue<br/>Rosemead, California 91770</p> <p>2. Plant: San Onofre Nuclear Generating Station<br/>San Clemente, California 92674-0128</p> <p>3. Work Performed by: Southern California Edison Company</p> <p>4. Identification of System: Reactor Coolant</p> <p>5. (a) Applicable Construction Code <u>ASME Section III, NB (Class 1), 1971 Ed., S.72 Add. (Design, Fab &amp; Exam); Code Case: N-474-1</u></p> <p>5. (b) Applicable Edition of Section XI Utilized for Repairs or Replacements: <u>1989 Edition, No Addenda</u></p> | <p>Unit: 3<br/>MO: 01110509000<br/>ECP: 001101723<br/>Rspec: 001101723-83<br/>PID: 40111ASO3 (C7)<br/>N5: S3-1201-3<br/>Type Code Symbol Stamp: N/A<br/>Authorization No: N/A<br/>Expiration Date: N/A</p> |
|--|--|

6. Identification of Components Repaired or Replaced and Replacement Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
RSC Loop Thermowell	SCE	256-97	N/A	3TE9178-1	N/A	Replaced	No
RSC Loop Thermowell	Weed Instr. Co.	N17010	N/A	RSO-2308-02, Fabled under SOG-02-001	2002	Replacement	No
RSC Loop Thermowell	SCE	145-97	N/A	3TE9178-3	N/A	Replaced	No
RSC Loop Thermowell	Weed Instr. Co.	N15761	N/A	RSO-0385-02, Fabled under SOG-01-001	N/A	Replacement	No
RSC Loop Thermowell	SCE	255-97	N/A	3TE0111Y1 / 3TE0911Y1	N/A	Replaced	No
RSC Loop Thermowell	Weed Instr. Co.	N17023	N/A	RSO-2308-02, Fabled under SOG-02-001	2002	Replacement	No

7. Description of Work:

Replaced existing SCE manufactured RCS Loop thermowells in plant locations 3TE9178-1, 3TE9178-3, and 3TE0111-Y1/0911-Y1 (Line No. S31201ML007 and Spool No. 505-01) with replacement thermowells designed and machined by Weed Instrument Co. using INCONEL 690 material. NDE examination 3PT-028-03 was performed on the final welds with satisfactory results. All work performed in accordance with Repair Specification 001101723-83 and ECP's 001101723-74, 001101723-72, and 001101723-64. Note: The replacement thermowells were fabled under hard copy travelers SOG-01-001 (included in RSO-0385-02) and SOG-02-001 (included in RSO-2308-02).

8. Tests Conducted: System Leakage Pressure Test      Pressure: NOP      Temp: NOT  
VT-2 performed per Procedure SO23-XVII-3.1.1

Note: Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in. x 11 in., (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: None.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this repair and replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizat on No: N/A

Expiration Date: N/A

Signed: [Signature]  
Owner or Owner's Designee, Title

Supervising ASME Codes Engineer Date: 3/27/03

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 11/08/02 to 3/17/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature]  
Inspector's Signature

Commissions 1574 California  
National Board, State, Province, and Endorsements

Date 3/28/03

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

- |  |  |
|--|--|
| <p>1. Owner: Southern California Edison Company<br/>2244 Walnut Grove Avenue<br/>Rosemead, California 91770</p> <p>2. Plant: San Onofre Nuclear Generating Station<br/>San Clemente, California 92674-0128</p> <p>3. Work Performed by: Southern California Edison Company</p> <p>4. Identification of System: Reactor Coolant</p> <p>5. (a) Applicable Construction Code <u>ASME Section III, NB (Class 1), 1971 Ed., S.72 Add. (Design, Fab &amp; Exam); Code Case: N-474-1</u></p> <p>5. (b) Applicable Edition of Section XI Utilized for Repairs or Replacements: <u>1989 Edition, No Addenda</u></p> | <p>Unit: 3<br/>MO: 01110514000<br/>ECP: 001101723<br/>Rspec: 001101723-83<br/>PID: 40111ASO3<br/>NS: S3-1201-3</p> <p>Type Code Symbol Stamp: N/A<br/>Authorization No: N/A<br/>Expiration Date: N/A</p> |
|--|--|

6. Identification of Components Repaired or Replaced and Replacement Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
RSC Loop Thermowell	SCE	136-97	N/A	3TE9179-1	N/A	Replaced	No
RSC Loop Thermowell	Weed Instr. Co.	N13229	N/A	RSO-1795-99, Fabled under SOG-99-001	N/A	Replacement	No
RSC Loop Thermowell	SCE	158-97	N/A	3TE9179-3	N/A	Replaced	No
RSC Loop Thermowell	Weed Instr. Co.	N17020	N/A	RSO-2308-02, Fabled under SOG-02-001	N/A	Replacement	No
RSC Loop Thermowell	SCE	257-97	N/A	3TE0125-1 / 3TE0925-1	N/A	Replaced	No
RSC Loop Thermowell	Weed Instr. Co.	N17024	N/A	RSO-2308-02, Fabled under SOG-02-001	N/A	Replacement	No

7. Description of Work:

Replaced existing SCE manufactured RCS Loop thermowells in plant locations 3TE9179-1, 3TE9179-3, and 3TE0125-1/0925-1 (Line No. S31201ML008 and Spool No. 505-04) with replacement thermowells designed and machined by Weed Instrument Co. using INCONEL 690 material. NDE examination 3PT-026-03 was performed on the final welds with satisfactory results. All work performed in accordance with Repair Specification 001101723-83 and ECP's 001101723-70, 001101723-62, and 001101723-63. Note: The replacement thermowells were fabled under hard copy travelers SOG-99-001 (included in RSO-1795-99) and SOG-02-001 (included in RSO-2308-02).

8. Tests Conducted: System Leakage Pressure Test      Pressure: NOP      Temp: NOT  
VT-2 performed per Procedure SO23-XVII-3.1.1

Note: Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in x 11 in, (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: None.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this repair and replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizaton No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 3/27/03  
Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 1/8/02 to 3/17/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1574 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date 3/28/03

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

- |  |  |
|--|--|
| <p>1. Owner: Southern California Edison Company<br/>2244 Walnut Grove Avenue<br/>Rosemead, California 91770</p> <p>2. Plant: San Onofre Nuclear Generating Station<br/>San Clemente, California 92674-0128</p> <p>3. Work Performed by: Southern California Edison Company</p> <p>4. Identification of System: Reactor Coolant</p> <p>5. (a) Applicable Construction Code <u>ASME Section III, NB (Class 1), 1971 Ed., S.72 Add. (Design, Fab &amp; Exam); Code Case: N-474-1</u></p> <p>5. (b) Applicable Edition of Section XI Utilized for Repairs or Replacements: <u>1989 Edition, No Addenda</u></p> | <p>Unit: 3<br/>MO: 01110523000<br/>ECP: 001101723<br/>Rspec: 001101723-83<br/>PID: 40111ASO3 (G7)<br/>N5: S3-1201-3<br/>Type Code Symbol Stamp: N/A<br/>Authorization No: N/A<br/>Expiration Date: N/A</p> |
|--|--|

6. Identification of Components Repaired or Replaced and Replacement Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
RSC Loop Thermowell	SCE	138-97	N/A	3TE9179-2	N/A	Replaced	No
RSC Loop Thermowell	Weed Instr. Co.	N15760	N/A	RSO-0385-02, Fabbed under SOG-01-001	N/A	Replacement	No
RSC Loop Thermowell	SCE	260-97	N/A	3TE9179-4	N/A	Replaced	No
RSC Loop Thermowell	Weed Instr Co	N15756	N/A	RSO-0385-02, Fabbed under SOG-01-001	N/A	Replacement	No
RSC Loop Thermowell	SCE	134-97	N/A	3TE0121-Y2/ 3TE0921-Y2	N/A	Replaced	No
RSC Loop Thermowell	Weed Instr. Co.	N17019	N/A	RSO-2308-02, Fabbed under SOG-02-001	N/A	Replacement	No

7. Description of Work:

Replaced existing SCE manufactured RCS Loop thermowells in plant locations 3TE9179-2, 3TE9179-4, and 3TE0121-Y2/0921-Y2 (Line No. S31201ML010 and Spool No. 504-04) with replacement thermowells designed and machined by Weed Instrument Co. using INCONEL 690 material. NDE examination 3PT-033-03 was performed on the final welds with satisfactory results. All work performed in accordance with Repair Specification 001101723-83 and ECP's 001101723-69, 001101723-73, and 001101723-71. Note: The replacement thermowells were fabbed under hard copy travelers SOG-01-001 (included in RSO-0385-02) and SOG-02-001 (included in RSO-2308-02).

8. Tests Conducted: System Leakage Pressure Test      Pressure: NOP      Temp: NOT  
VT-2 performed per Procedure SO23-XVII-3.1.1

Note Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in. x 11 in., (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: None.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this repair and replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizaton No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 3/27/03  
Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 11/8/02 to 3/17/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1574 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date 3/28/03

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

- |  |  |
|--|--|
| <p>1. Owner: Southern California Edison Company<br/>2244 Walnut Grove Avenue<br/>Rosemead, California 91770</p> <p>2. Plant: San Onofre Nuclear Generating Station<br/>San Clemente, California 92674-0128</p> <p>3. Work Performed by: Southern California Edison Company</p> <p>4. Identification of System: Reactor Coolant</p> <p>5. (a) Applicable Construction Code <u>ASME Section III, NB (Class 1), 1971 Ed., S.72 Add. (Design, Fab &amp; Exam); Code Case: N-474-1</u></p> <p>5. (b) Applicable Edition of Section XI Utilized for Repairs or Replacements: <u>1989 Edition, No Addenda</u></p> | <p>Unit: 3<br/>MO: 01110529000<br/>ECP: 001101723<br/>Rspec: 001101723-83<br/>PID: 40111ASO3 (G7)<br/>N5: S3-1201-3<br/>Type Code Symbol Stamp: N/A<br/>Authorization No: N/A<br/>Expiration Date: N/A</p> |
|--|--|

6. Identification of Components Repaired or Replaced and Replacement Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
RSC Loop Thermowell	SCE	253-97	N/A	3TE9178-2	N/A	Replaced	No
RSC Loop Thermowell	Weed Instr. Co	N17025	N/A	RSO-2308-02, Fabbed under SOG-02-001	2002	Replacement	No
RSC Loop Thermowell	SCE	250-97	N/A	3TE9178-4	N/A	Replaced	No
RSC Loop Thermowell	Weed Instr. Co.	N13228	N/A	RSO-0096-00, Fabbed under SOG-99-001	1999	Replacement	No
RSC Loop Thermowell	SCE	157-97	N/A	3TE0115-2 / 3TE0915-2	N/A	Replaced	No
RSC Loop Thermowell	Weed Instr. Co.	N17013	N/A	RSO-2308-02, Fabbed under SOG-02-001	2002	Replacement	No

7. Description of Work:

Replaced existing SCE manufactured RCS Loop thermowells in plant locations 3TE9178-2, 3TE9178-4, and 3TE0115-2/0915-2 (Line No. S31201ML009 and Spool No. 504-01) with replacement thermowells designed and machined by Weed Instrument Co. using INCONEL 690 material. NDE examination 3PT-019-03 was performed on the final welds with satisfactory results. All work performed in accordance with Repair Specification 001101723-83 and ECP's 001101723-66, 001101723-77, and 001101723-79. Note: The replacement thermowells were fabbed under hard copy travelers SOG-02-001 (included in RSO-2308-02) and SOG-99-001 (included in RSO-0096-00).

8. Tests Conducted: System Leakage Pressure Test      Pressure: NOP      Temp: NOT  
VT-2 performed per Procedure SO23-XVII-3.1.1

Note: Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in x 11 in, (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: None.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this repair and replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizatoin No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 3/31/03  
Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 11/29/02 to 3/31/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1574 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date 3/31/03



# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

- |   |   |
|---|---|
| <p>1. Owner: Southern California Edison Company<br/>2244 Walnut Grove Avenue<br/>Rosemead, California 91770</p> <p>2. Plant: San Onofre Nuclear Generating Station<br/>San Clemente, California 92674-0128</p> <p>3. Work Performed by: Southern California Edison Company</p> <p>4. Identification of System: Safety Injection and Shutdown Cooling</p> <p>5. (a) Applicable Construction Code: <u>ASME Section III, Class 2, 1974 Ed., S.'74 Addenda; Code Case: None</u></p> | <p>Unit: 3<br/>MO: 02011628000<br/>Rspec: ASME SECTION XI DATA-0207<br/>PID: 40112DSO3 (C5)<br/>N5: N/A</p> <p>Type Code Symbol Stamp: N/A<br/>Authorization No: N/A<br/>Expiration Date: N/A</p> <p>(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: <u>1989 Edition, No Addenda</u></p> |
|---|---|

6. Identification of Components Repaired or Replaced and Replacement Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No.	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
6" x 8" Relief Valve (L-Top)	Crosby Valve & Gage	N60061-00-0004	N/A	3PSV9349	1984	Replaced	Yes
6" x 8" Relief Valve (L-Top)	Crosby Valve & Gage	N60061-00-0003	N/A	Mat Code 026-44409 (Rebuilt under MO 00021251)	1980	Replacement	Yes

7. Description of Work:

Replaced the relief valve in plant position 3PSV9349 with a rebuilt and tested spare valve (S/N N60061-00-0003). The removed valve (S/N N60061-00-0004) was placed in the rebuild program (to be rebuilt under MO 03011535).

8. Tests Conducted: System Functional Pressure Test      Pressure: NOP      Temp: N/A  
See: AR 020701574-05

Note Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in x 11 in., (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: None.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizatoin No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 3/31/03  
Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 9/30/02 to 3/31/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1574 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date 3/31/03

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

- |  |   |
|--|---|
| <p>1. Owner: Southern California Edison Company<br/>2244 Walnut Grove Avenue<br/>Rosemead, California 91770</p> <p>2. Plant: San Onofre Nuclear Generating Station<br/>San Clemente, California 92674-0128</p> <p>3. Work Performed by: Southern California Edison Company</p> <p>4. Identification of System: Main Steam</p> <p>5. (a) Applicable Construction Code: <u>ASME Section III, NC (Class 2), 1974 Edition, S. '74 Addenda; Code Case: None</u></p> | <p>Unit: N<br/>MO: 02061062000<br/>Rspec: GEN-166 R1<br/>PID: N/A<br/>N5: N/A</p> <p>Type Code Symbol Stamp: N/A<br/>Authorization No: N/A<br/>Expiration Date: N/A</p> <p>(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: <u>1989 Edition, No Addenda</u></p> |
|--|---|

6. Identification of Components Repaired or Replaced and Replacement Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
1 3/8" x length 36" All Thread Stock (12 ea)	Mackson, Inc	Ht.#0101075, Ht. Code AOB	N/A	RSO-1469-01, SA193 Gr.B7 (CR-3005-96)	N/A	Replacement	No
1 3/8" x length 36" All Thread Stock (20 ea)	Mackson, Inc	Ht. #12685, Ht. Code FK7	N/A	RSO-1597-02, SA193 Gr.B7 (CR-3005-96)	N/A	Replacement	No
1 3/8" x length 36" All Thread Stock (8 ea)	Mackson, Inc	Ht. #12685, Ht. Code FK7	N/A	RSO-1598-02, SA193 Gr.B7 (CR-3005-96)	N/A	Replacement	No

7. Description of Work:

(119) spare replacement studs (for the inlets of the main steam safety valves) were manufactured by cutting to length and then machining as necessary from all-thread stock. Twelve pieces of all-thread stock (RSO-1469-01) were cut into studs (35 each, 9" lengths) and twenty eight pieces of all-thread stock (RSO-1597-02 and RSO-1598-02) were cut into studs (84 each, 9" lengths), with the required markings being transferred to the cut pieces in accordance with Repair Specification GEN-166 Revision 1 and DWG SO23-507-3-17, DCN's #2 and #7.

8. Tests Conducted: N/A

Pressure: N/A

Temp: N/A

Note Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in. x 11 in., (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: CR-3005-96 Rev. 1 reconciles the replacement studs which were certified to ASME III-2, 1989 Edition, No Addenda.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **replacement** conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizaton No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 1/27/03  
Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of **California**, and employed by **Factory Mutual Insurance Company of Johnston, Rhode Island** have inspected the components described in this Owner's Report during the period 06/17/02 to 01/27/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1862 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date Jan. 27, 2003

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

- |  |  |
|--|--|
| 1. Owner: Southern California Edison Company<br>2244 Walnut Grove Avenue<br>Rosemead, California 91770                   | Unit: N<br>MO: 02080787000<br>Rspec: 020800664-02<br>PID: N/A<br>N5: N/A     |
| 2. Plant: San Onofre Nuclear Generating Station<br>San Clemente, California 92674-0128                                   | Type Code Symbol Stamp: N/A<br>Authorization No: N/A<br>Expiration Date: N/A |
| 3. Work Performed by: Southern California Edison Company   |  |
| 4. Identification of System: N/A - Spare   |  |
| 5. (a) Applicable Construction Code: <u>ASME Section III, Class 2 (NC), 1974 Edition, S.'74 Addenda; Code Case: None</u> |  |

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1989 Edition, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
1 1/2" x 2 1/2" Nozzle Type Relief Valve	Crosby Valve & Gage	N59381-00-0002	N/A	026-27164-N59381-00-0002	1978	Repaired	Yes
Nozzle	Crosby Valve & Gage	N91231-32-0004	N/A	N59381-00-0002, SA479 316L	1978	Repaired	No

7. Description of Work:

Repaired by machining damaged area found on the 0.25 inch raised face of the inlet nozzle flange of the spare nozzle type relief valve (s/n N59381-00-0002 removed from plant location 2PSV9321 on MO 01050319). Machined off the existing serrated flange facing (phonographic finish) and restored the initially required phonographic finish by remachining.

8. Tests Conducted: N/A

Pressure: N/A

Temp: N/A

Note: Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in. x 11 in., (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: None

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this repair conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizaton No: N/A

Expiration Date: N/A

Signed: [Signature]  
Owner or Owner's Designee, Title

Supervising ASME Codes Engineer Date: 3/31/03

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 9/7/02 to 1/27/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature]  
Inspector's Signature

Commissions 1574 California  
National Board, State, Province, and Endorsements

Date 3/31/03

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

1. Owner: Southern California Edison Company  
2244 Walnut Grove Avenue  
Rosemead, California 91770
- Unit: 3  
MO: 02090222000  
Rspec: GEN-160 R1  
PID: 40112CSO3 (C4)  
NS: S3-1204-11
2. Plant: San Onofre Nuclear Generating Station  
San Clemente, California 92674-0128
3. Work Performed by: Southern California Edison Company  
Type Code Symbol Stamp: N/A  
Authorization No: N/A  
Expiration Date: N/A
4. Identification of System: Safety Injection and Shutdown Cooling
5. (a) Applicable Construction Code: ASME Section III, Class 2, 1974 Ed., No Addenda; Code Case: None

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1989 Edition, No Addenda

## 6. Identification of Components Repaired or Replaced and Replacement Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
2" 1500# Y-Type Globe Valve	Target Rock	74R-002-3	N/A	3HV9326	1977	Repaired	Yes

## 7. Description of Work:

Removed and reinstalled body-to-bonnet sealweld in accordance with Repair Specification GEN-160 Rev. 1 and procedure SO23-I-11.1.

8. Tests Conducted: N/A

Pressure: N/A

Temp: N/A

Note: Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in. x 11 in., (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: None.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this repair conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizaton No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 3/31/03  
Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 9/27/02 to 3/31/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1574 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date 3/31/03



# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

- |   |   |
|---|---|
| <p>1. Owner: Southern California Edison Company<br/>2244 Walnut Grove Avenue<br/>Rosemead, California 91770</p> <p>2. Plant: San Onofre Nuclear Generating Station<br/>San Clemente, California 92674-0128</p> <p>3. Work Performed by: Southern California Edison Company</p> <p>4. Identification of System: Gaseous Radwaste</p> <p>5. (a) Applicable Construction Code: <u>ASME Section III, Class 2 (NC), 1974 Ed., S.'75 Addenda; Code Case: None</u></p> | <p>Unit: 3<br/>MO: 02090659000<br/>Rspec: ASME SECTION XI DATA-0116, GEN-139<br/>R1<br/>PID: 40131ASO3 (F3)<br/>N5: S3-1902-1</p> <p>Type Code Symbol Stamp: N/A<br/>Authorization No: N/A<br/>Expiration Date: N/A</p> <p>(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: <u>1989 Edition, No Addenda</u></p> |
|---|---|

6. Identification of Components Repaired or Replaced and Replacement Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
3" 150# Pow-R-Seal Gate Valve	WKM	495442	N/A	3HV7258	1979	---	Yes
7/8"-9 All-Thread Stud	Mackson, Inc	Ht. Code S20751	N/A	RSO-1816-02, SA193 B7 (CR-3005-96)	N/A	Replacement	No

7. Description of Work:

Replaced (8) each bonnet studs on valve s/n 495442 located in plant position 3HV7258. (8) each studs were cut to 4 1/8" lengths from all-thread stock with the required markings transferred to the cut pieces in accordance with Repair Specification GEN-139 Rev. 1.

8. Tests Conducted: System Functional Pressure Test      Pressure: NOP      Temp: N/A  
See: AR 020900475-02

Note: Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in. x 11 in., (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: CR-3005-96 reconciles the replacement studs which were certified to ASME III-2, 1989 Ed., No Add.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizatoin No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 3/31/03  
Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 1/17/03 to 3/31/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1574 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date 3/31/03

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

1. Owner: Southern California Edison Company  
 2244 Walnut Grove Avenue  
 Rosemead, California 91770
- Unit: 3  
 MO: 02091957000  
 Rspec: GEN-106 R3  
 PID: 40111ASO3  
 N5: S3-1201-3
2. Plant: San Onofre Nuclear Generating Station  
 San Clemente, California 92674-0128
3. Work Performed by: Southern California Edison Company      Type Code Symbol Stamp: N/A  
 Authorization No: N/A
4. Identification of System: Reactor Coolant      Expiration Date: N/A
5. (a) Applicable Construction Code: ASME Section III, Class 1, 1971 Ed., W.'71 Add. (Pump), 1980 Ed., S.'82 Add. (Seal Cartridge), Code Case: None
5. (b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1989 Edition, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
36" Reactor Coolant Pump	Byron Jackson	701-N-0564	N/A	S31201MP002	1978	—	Yes
Mechanical Seal Cartridge	Bingham-Williamette	1714880-4	1170	SO23-CART-#20	1986	Replaced	Yes
Mechanical Seal Cartridge	Bingham-Williamette	1714880-3	1172	SO23-CART-#22, Rebuilt under MO 02030916	1986	Replacement	Yes

7. Description of Work:

The P/CP seal cartridge was replaced with a spare which had been rebuilt in accordance with the SONGS rebuild program. The removed seal cartridge was placed into the SONGS rebuild program to be rebuilt under MO 02030917.

8. Tests Conducted: System Leakage Pressure Test      Pressure: NOP      Temp: NOT

VT-2 performed per Procedure SO23-XVII-3.1.1

Note: Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in. x 11 in., (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: None.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizatoin No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 3/31/03  
Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 9/30/02 to 3/31/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1574 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date 3/31/03



FORM NIS-2 (back)

9. Remarks: None.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizat~~on~~ No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 3/31/03  
Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 9/30/02 to 03/31/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1574 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date 3/31/03



FORM NIS-2 (back)

9. Remarks: CR-3001-83 reconciles the replacement heat exchanger which was certified to ASME III-1, '83 Ed., S.'84 Add. (for Material, Fab. and Exam. only). CR-88-004 reconciles the replacement nuts which was certified to ASME III-1, 1974 Ed., W.'74 Addenda.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizatoin No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 3/31/03  
Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 11/19/02 to 3/31/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1574 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date 3/31/03



# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

1. Owner: Southern California Edison Company  
 2244 Walnut Grove Avenue  
 Rosemead, California 91770
- Unit: 3  
 MO: 02102115000 03011133000  
 ECP: 020701066  
 Rspec: 020701066-16
2. Plant: San Onofre Nuclear Generating Station  
 San Clemente, California 92674-0128
- PID: 40111ASO3  
 N5: S3-1201-3
3. Work Performed by: Southern California Edison Company
- Type Code Symbol Stamp: N/A  
 Authorization No: N/A  
 Expiration Date: N/A
4. Identification of System: Reactor Coolant
5. (a) Applicable Construction Code: ASME Section III, Class 1, 1971 Ed., S.71 Add. (RX Vessel); ASME III, Class 1, 1977 Ed., W.79 Add. (ICI Flange Assemblies); Code Case: None
5. (b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1989 Edition, No Addenda
6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
Reactor Vessel	CE	72170	22001	S31101MV001	1977		Yes
Instrument Flange Adapter Hub Pen. #95	ABB Combustion Engineering	S/N 813913, Ht. #844949	N/A	S31101MV001W Pen # 95	N/A	Replaced	No
Instrument Flange Adapter Hub Pen. #95	Westinghouse	S/N 2, Ht. #35980	N/A	RSO-2417-02, SA479 316	2002	Replacement	No
Instrument Flange Adapter Hub Pen. #100	ABB Combustion Engineering	S/N 813915, Ht. #844949	N/A	S31101MV001W Pen # 100	N/A	Replaced	No
Instrument Flange Adapter Hub Pen. #100	Westinghouse	S/N 3, Ht. #35980	N/A	RSO-2417-02, SA479 316	2002	Replacement	No

7. Description of Work:

MO 02102115 installed the new replacement instrument adapter hubs at penetrations #95 and #100. MO 03011133 tack welded the post to the instrument flange adapter hub in one location at penetration #95 and one location in penetration #100 in accordance with weld record WR3-03-017. NDE examination 3PT-039-03 was performed on the final welds with satisfactory results. All work was done in accordance with Repair Specification 020701066-16.

8. Tests Conducted: System Leakage Pressure Test      Pressure: NOP      Temp: NOT

VT-2 performed per Procedure SO23-XVII-3.1.

Note. Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in. x 11 in., (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: None.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this repair and replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizat<sup>o</sup>n No: N/A

Expiration Date: N/A

Signed: [Signature]  
Owner or Owner's Designee, Title

Supervising ASME Codes Engineer Date: 3/28/03

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 1/20/03 to 3/28/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature]  
Inspector's Signature

Commissions 1574 California  
National Board, State, Province, and Endorsements

Date 3/28/03

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

- |   |   |
|---|---|
| <p>1. Owner: Southern California Edison Company<br/>2244 Walnut Grove Avenue<br/>Rosemead, California 91770</p> <p>2. Plant: San Onofre Nuclear Generating Station<br/>San Clemente, California 92674-0128</p> <p>3. Work Performed by: Southern California Edison Company</p> <p>4. Identification of System: Safety Injection and Shutdown Cooling</p> <p>5. (a) Applicable Construction Code: <u>ASME Section III, Class 1, 1983 Ed., S.'83 Addenda; Code Case: None</u></p> | <p>Unit: 3<br/>MO: 02111652001<br/>Rspec: ASME SECTION XI DATA-0086,<br/>021101167-09<br/>PID: 40112CSO3 (C8)<br/>N5: S3-1208-5</p> <p>Type Code Symbol Stamp: N/A<br/>Authorization No: N/A<br/>Expiration Date: N/A</p> |
|---|---|

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1989 Edition, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
2" 1878# Double Disc Gate Valve	Anchor/Darling	E3267-4-9	N/A	S31208MU005	1990	---	Yes
Bonnet	Anchor/Darling	S/N 8	N/A	RSO-1160-91 (removed on MO 03011263)	1991	Replacement	Yes
Disc	Anchor/Darling	N/A	N/A	RSO-1160-91 (removed on MO 03011263) AMS-5387 (Stellite)	1991	Replacement	Yes

7. Description of Work:

The bonnet and disc from spare valve s/n E3265-20-41 (Flowserve dwg W8622432) were cannibalized and installed as replacement bonnet and disc into valve s/n E3267-4-9 (Flowserve dwg W8923144) located in plant position S31208MU005 in accordance with Repair Specification 021101167-09 and NCR 021101167-07.

8. Tests Conducted: System Functional Pressure Test      Pressure: NOP      Temp: N/A  
See: AR 021101167-13

Note Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in. x 11 in., (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: None.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizat~~on~~ No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 5/31/03  
Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 1/23/03 to 3/31/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1574 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date 3/31/03

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

- |   |   |
|---|---|
| <p>1. Owner: Southern California Edison Company<br/>2244 Walnut Grove Avenue<br/>Rosemead, California 91770</p> <p>2. Plant: San Onofre Nuclear Generating Station<br/>San Clemente, California 92674-0128</p> <p>3. Work Performed by: Southern California Edison Company</p> <p>4. Identification of System: Reactor Coolant</p> <p>5. (a) Applicable Construction Code: <u>ASME Section III, Class 1, 1974 Ed., S.74 Addenda; Code Case: 1713</u></p> <p>5. (b) Applicable Edition of Section XI Utilized for Repairs or Replacements: <u>1989 Edition, No Addenda</u></p> | <p>Unit: 3<br/>MO: 03010278000<br/>Rspec: ASME SECTION XI DATA-0294<br/>PID: 40123ASO3 (C6)<br/>N5: S3-1208-6</p> <p>Type Code Symbol Stamp: N/A<br/>Authorization No: N/A<br/>Expiration Date: N/A</p> |
|---|---|

6. Identification of Components Repaired or Replaced and Replacement Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
2" 1665# Globe Valve	WKM	70-117786	1214	3HV9201	1977	—	Yes
Inner Valve (Plug)	Anchor/Darling	Ht. #1810-5-1098	N/A	RSO-0689-89, Stellite 6B (AMS 5387 = Stellite 6B)	1988	Replacement	Yes

7. Description of Work:

Replaced the inner valve (plug) in valve s/n 70-117786 located in plant position 3HV9201 with an in-kind replacement inner valve (plug). Note: MO was generated as an ASME MO but was not routed through Cat 25 ASME Code Engineer Review. All work was performed per the ASME Section XI program and AR 030301143 was generated to trend this action.

8. Tests Conducted: System Leakage Pressure Test      Pressure: NOP      Temp: NOT

VT-2 performed per Procedure SO23-XVII-3.1.1

Note Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in x 11 in., (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: None.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizatn No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 3/31/03  
Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 1/14/03 to 3/31/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1574 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date 3/31/03



FORM NIS-2 (back)

9. Remarks: None.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizaton No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 3/31/03  
Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 1/16/03 to 03/31/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1574 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date 3/31/03



# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

- |   |  |
|---|--|
| <p>1. Owner: Southern California Edison Company<br/>2244 Walnut Grove Avenue<br/>Rosemead, California 91770</p> <p>2. Plant: San Onofre Nuclear Generating Station<br/>San Clemente, California 92674-0128</p> <p>3. Work Performed by: Southern California Edison Company</p> <p>4. Identification of System: Reactor Coolant</p> <p>5. (a) Applicable Construction Code <u>ASME Section III, Class 1, 1971 Ed., W.'71 Addenda; Code Case: None</u></p> <p>5. (b) Applicable Edition of Section XI Utilized for Repairs or Replacements: <u>1989 Edition, No Addenda</u></p> | <p>Unit: 3<br/>MO: 03010589000<br/>Rspec: 030100383-03<br/>PID: 40111ASO3 (G2)<br/>N5: S3-1201-3</p> <p>Type Code Symbol Stamp: N/A<br/>Authorization No: N/A<br/>Expiration Date: N/A</p> |
|---|--|

6. Identification of Components Repaired or Replaced and Replacement Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
Reactor Coolant Pump	Byron Jackson	701-N-0562	N/A	S31201MP004	1978		Yes
1"-8 x 5 1/2" CCW Stud (16)	Mackson, Inc	Ht. #19639	N/A	RSO-1359-02, SA193 B7 (fabbd on MO 03010905)	N/A	Replacement	No
1"-8 2B Heavy Hex Nut (16)	Nova Machine Products	Ht. #8990206	N/A	RSO-0658-00, SA194 2H	N/A	Replacement	No
2"-8 x 15 1/2" Stud (2)	BW/IP International	Tr. Code S	N/A	RSO-1759-88, SA540 B23, Cl. 4	N/A	Replacement	No
2"-8 x 15 1/2" Stud (2)	BW/IP International	S/N 303054-4 (1), 305044-3 (1)	N/A	RSO-2341-93, SA540 B23, Cl. 4	N/A	Replacement	No
2"-8 x 15 1/2" Stud (2)	BW/IP International	S/N 303054-4 (1), 305044-3 (1)	N/A	RSO-3240-93, SA540 B23, Cl. 4	N/A	Replacement	No
2"-8 x 15 1/2" Stud (2)	BW/IP International	S/N 303054-4 (1), 305044-3 (1)	N/A	RSO-3876-86, SA540 B23, Cl. 4	N/A	Replacement	No
2"-8 UN Heavy Hex Nut (2)	BW/IP International	Ht. #8097360, Ht. Code VH9	N/A	RSO-1854-91, SA194 Gr. 7	N/A	Replacement	No
2"-8 UN Heavy Hex Nut (5)	Nova Machine Products	Ht. #T7208, Ht Code N3M	N/A	RSO-0400-94, SA194 Gr. 7	N/A	Replacement	No
2"-8 UN Heavy Hex Nut (1)	BW/IP International	S/N RS198662-7	N/A	RSO-2265-88, SA194 Gr. 7B	N/A	Replacement	No

7. Description of Work:

Reinstalled heat exchanger on reactor coolant pump S31201MP004. Replaced the seal heat exchanger/driver mount 2" bolting with in-kind replacement bolting and replaced the flange bolting on the auxiliary connections to the heat exchanger with in-kind replacement bolting in accordance with Repair Specification 030100383-03. A VT-1 examination was performed on the replacement bolting with satisfactory results.

8. Tests Conducted: System Leakage Pressure Test      Pressure: NOP      Temp: NOT  
VT-2 performed per Procedure SO23-XVII-3.1.1

Note: Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in x 11 in, (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: None.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizaton No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 3/31/03  
Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 1/16/03 to 03/31/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1574 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date 3/31/03



FORM NIS-2 (back)

9. Remarks: The replacement snubber was certified to a higher code class ASME III-1-NF as allowed by ASME III paragraph NCA-2134.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizatoin No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 3/28/03  
Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 1/16/03 to 3/28/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1574 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date 3/28/03

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

- |   |   |
|---|---|
| <p>1. Owner: Southern California Edison Company<br/>2244 Walnut Grove Avenue<br/>Rosemead, California 91770</p> <p>2. Plant: San Onofre Nuclear Generating Station<br/>San Clemente, California 92674-0128</p> <p>3. Work Performed by: Southern California Edison Company</p> <p>4. Identification of System: Condensate</p> <p>5. (a) Applicable Construction Code: <u>ASME Section III, Class 2-NF, 1974 Ed., S.'74 Addenda; Code Case: None</u></p> | <p>Unit: 3</p> <p>MO: 03010824000</p> <p>Rspec: GEN-150</p> <p>PID: 40141ASO3 (G7)</p> <p>N5: S3-1305-8</p> <p>Type Code Symbol Stamp: N/A</p> <p>Authorization No: N/A</p> <p>Expiration Date: N/A</p> <p>(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: <u>1989 Edition, No Addenda</u></p> |
|---|---|

6. Identification of Components Repaired or Replaced and Replacement Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
Mechanical Snubber PSA 10-6	Pacific Scientific	17972	N/A	S3-FW-189-H-013B	1992	Replaced	No
Mechanical Snubber PSA 10-6	Pacific Scientific	17989	N/A	RSO-0806-92, p/n 1801103-07	N/A	Replacement	No

7. Description of Work:

The mechanical snubber was replaced with an in-kind replacement. The snubber assembly was visually examined (VT-3) after installation with satisfactory results. The removed snubber was placed into the snubber rebuild program.

8. Tests Conducted: N/A

Pressure: N/A

Temp: N/A

Note Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in. x 11 in., (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: The replacement snubber was certified to a higher code class ASME III-1-NF as allowed by ASME III paragraph NCA-2134.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizat<sup>o</sup>n No: N/A

Expiration Date: N/A

Signed: 

Supervising ASME Codes Engineer

Date: 3/28/03

Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 1/16/03 to 3/28/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

  
Inspector's Signature

Commissions

1574 California

National Board, State, Province, and Endorsements

Date 3/28/03

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

- |   |   |
|---|---|
| <p>1. Owner: Southern California Edison Company<br/>2244 Walnut Grove Avenue<br/>Rosemead, California 91770</p> <p>2. Plant: San Onofre Nuclear Generating Station<br/>San Clemente, California 92674-0128</p> <p>3. Work Performed by: Southern California Edison Company</p> <p>4. Identification of System: Chemical and Volume Control</p> <p>5. (a) Applicable Construction Code: <u>ASME Section III, Class 1, 1971 Ed., S.'73 Addenda; Code Case: None</u></p> | <p>Unit: - 3<br/>MO: 03010911001 03011813000<br/>Rspec: ASME SECTION XI DATA-0249<br/>PID: 40123ASO3 (D4)<br/>N5: S3-1208-5</p> <p>Type Code Symbol Stamp: N/A<br/>Authorization No: N/A<br/>Expiration Date: N/A</p> <p>(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: <u>1989 Edition, No Addenda</u></p> |
|---|---|

6. Identification of Components Repaired or Replaced and Replacement Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
2" 1513# Y-Type Check Valve	Kerotest	MA2-8	N/A	S31208MU122	1976	---	Yes
Disc	Flowserve	S/N 4	N/A	RSO-0736-99	N/A	Replaced *	Yes
Disc	Kerotest	APG4-12	N/A	RSO-1387-93, SA479 316 Stellite	1993	Replacement	Yes
Cover	BW/IP International	314095 SN31	N/A	RSO-0897-95	1995	Replaced *	Yes
Cover	BW/IP International	314095 SN22	N/A	RSO-0897-95, SA182 F316	1995	Replacement	Yes

\* Valve disc was an in-kind replacement on MO 02120561000 and subsequently replaced on MO 03010911000. Valve cover was an in-kind replacement on MO 03010911001 and subsequently replaced on MO 03011813000.

7. Description of Work:

Replaced the valve disc with an in-kind replacement disc in accordance with MO 03010911000. Replaced the valve cover with an in-kind replacement cover in accordance with MO 03011813000. All work performed in accordance with ASME Section XI Data Flag 0249.

8. Tests Conducted: System Leakage Pressure Test      Pressure: NOP      Temp: NOT  
See: AR 030100885-02

Note. Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in. x 11 in., (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: None.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI.   
 repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizatoin No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 3/27/03  
 Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 12/30/02 to 03/27/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1574 California  
 Inspector's Signature National Board, State, Province, and Endorsements

Date 3/28/03



# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

1. Owner: Southern California Edison Company      Unit: 3  
 2244 Walnut Grove Avenue      MO: 03011277000  
 Rosemead, California 91770      Rspec: 030101353-2, GEN-139 R1
2. Plant: San Onofre Nuclear Generating Station      PID: 40114BSO3 (G3)  
 San Clemente, California 92674-0128      N5: S3-1206-2
3. Work Performed by: Southern California Edison Company      Type Code Symbol Stamp: N/A  
 Authorization No: N/A
4. Identification of System: Containment Spray      Expiration Date: N/A
5. (a) Applicable Construction Code: ASME Section III, Class 2, 1974 Ed., S.74 Addenda; Code Case: None
- (b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1989 Edition, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
Spool Piece	Bechtel	3-CS-041-033	N/A	S3-1206-ML-041	1978	---	No
7/8"-9 x 36" All-Thread Stud (5)	Mackson, Inc	Ht. #S20751	N/A	RSO-1816-02, SA193 B7 (CR-3005-96)	N/A	Replacement	No
7/8"-9 Heavy Hex Nut (48)	Mackson, Inc	Ht. #S44018	N/A	RSO-1816-02, SA194 2H (CR-3005-00)	N/A	Replacement	No

7. Description of Work:

Replaced the flange bolting at the flanged elbow on line S3-1206-ML-041-8"-C-KE0 (spool piece 3-CS-041-033) with in-kind replacement bolting in accordance with Repair Specification 030101353-2. (24) each 6 1/4" length studs were cut from all-thread stock with the required markings transferred to the cut pieces in accordance with Repair Specification GEN-139 Rev. 1, and (48) each nuts were replaced with in-kind replacements.

8. Tests Conducted: N/A

Pressure: N/A

Temp: N/A

Note: Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in. x 11 in., (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: CR-3005-96 reconciles the replacement studs which were certified to ASME III-2, 1989 Ed., No Add.  
CR-3005-00 reconciles the replacement nuts which were certified to ASME III-2, 1989 Ed., No Add.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizat~~on~~ No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 3/31/03  
Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 1/22/03 to 3/31/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1574 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date 3/31/03



FORM NIS-2 (back)

9. Remarks: None.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this repair conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizatoin No: N/A

Expiration Date: N/A

Signed: [Signature]  
Owner or Owner's Designee, Title

Supervising ASME Codes Engineer Date: 3/28/03

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 2/1/03 to 3/28/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature]  
Inspector's Signature

Commissions 1574 California  
National Board, State, Province, and Endorsements

Date 3/28/03



FORM NIS-2 (back)

9. Remarks: None.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this repair conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizat~~on~~ No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 3/31/03  
Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 3/19/98 to 3/31/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1574 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date 3/31/03



FORM NIS-2 (back)

9. Remarks: None.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this repair conforms to the rules of the ASME Code, Section XI.   
 repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizat<sup>o</sup>n No: N/A

Expiration Date: N/A

Signed: [Signature]  
Owner or Owner's Designee, Title

Supervising ASME Codes Engineer Date: 7/16/01

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 12/03/1996 to 07/23/2001, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1862 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date July 23, 2001



# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

- |  |  |
|--|--|
| <p>1. Owner: Southern California Edison Company<br/>2244 Walnut Grove Avenue<br/>Rosemead, California 91770</p> <p>2. Plant: San Onofre Nuclear Generating Station<br/>San Clemente, California 92674-012</p> <p>3. Work Performed by: Southern California Edison Company</p> <p>4. Identification of System: Feedwater</p> <p>5. (a) Applicable Construction Code <u>ASME Section III, Class 2, 1974 Ed., S '74 Add. (material, design, and fabrication); Section III, NC-5000, 1992 Ed., No Add. (NDE); Code Case: None</u></p> <p>5. (b) Applicable Edition of Section XI Utilized for Repairs or Replacements: <u>1989 Edition, No Addenda; 1992 Ed., No Add. (VT-2); Code Case: N-416-1</u></p> <p>6. Identification of Components Repaired or Replaced and Replacement Components:</p> | <p>Unit: 3<br/>MO: 96090333001<br/>FCN: F12993M, F12997M<br/>Rspec: 186-98, 055-96<br/>PID: 40156BSO3 (F1)<br/>N5: S3-1305-8</p> <p>Type Code Symbol Stamp: N/A<br/>Authorization No: N/A<br/>Expiration Date: N/A</p> |
|--|--|

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
2" 1500# Globe Valve	Kerotest	TD11-13	N/A	S31305MR793	1976	Replaced	Yes
2" 6000# 45 Degree Elbow	Energy & Process Corp.	Ht./lot# 78053 (38053)	N/A	RSO-0028-01, SA105 (CR-3001-96)	N/A	Replacement	No
2" 6000# 90 Degree Elbow	Tioga Pipe Supply	Ht. #24505	N/A	RSO-1788-98, SA105 (CR-3001-96)	N/A	Replacement	No
2" NPS Sch 160 Pipe	Tioga Pipe Supply	Ht. Code N06364	N/A	RSO-0046-99, SA333 Gr. 6	N/A	Replacement	No
2" 1500# Flanges (1 ea. Socket Weld) & (1 ea. Blind Flange)	WFI Nuclear Products	Ht. Code 750ZNF1	N/A	RSO-0143-99, SA350 Gr. LF2	N/A	Replacement	No
7/8" x 36" All Thread Stud (2)	Nova Machine Products	Ht. #55051/Ht. #69541	N/A	RSO-0666-98/RSO-1440-00, SA193 Gr. B7 (CR-3005-96)	N/A	Replacement	No
7/8"-9 Heavy Hex Nuts (16)	Vitco Nucl. Products	Ht. #6019676, Tr. Code X57 (8) /Ht. Code DJP (8)	N/A	RSO-0675-95/RSO-1485-98, SA194 Gr. 2H (CR-3005-00)	N/A	Replacement	No

7. Description of Work:

Removed the existing body drain valve MR-793 from 3HV4048 per FCN F12997M and replaced it with new piping and flanges. Fabrication and installation of the new replacement body drain piping, flanges and subsequent PT and MT examinations, was performed in accordance with weld record WR3-98-601, Repair Specification 186-98, and FCN's F12993M and F12997M.

8. Tests Conducted: System Leakage Pressure Test      Pressure: NOP      Temp: NOT  
See: AR 980701365-12

**This test was performed in lieu of a hydrostatic pressure test as allowed under Code Case N-416-1.**

Note: Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in. x 11 in., (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: CR-3001-96, CR-3005-96 and CR-3005-00 reconciles the replacement material which was certified to ASME III-2, '86 Ed., '86 Add. (elbow); '86 Ed., No Add. (elbow); '89 Ed., No Add. (bolting).

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this repair and replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizaton No: N/A

Expiration Date: N/A

Signed: *A. Meil* Supervising ASME Codes Engineer Date: 7/16/01  
Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 01/17/01 to 07/23/01, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

*D. Thompson* Commissions 1862 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date July 23, 2001

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

- |  |   |
|--|---|
| <p>1. Owner: Southern California Edison Company<br/>2244 Walnut Grove Avenue<br/>Rosemead, California 91770</p> <p>2. Plant: San Onofre Nuclear Generating Station<br/>San Clemente, California 92674-0128</p> <p>3. Work Performed by: Southern California Edison Company</p> <p>4. Identification of System: Feedwater</p> <p>5. (a) Applicable Construction Code <u>ASME Section III, Class 2, 1974 Ed., S-74 Add (material, design, and fabrication); Section III, NC-5340, 1992 Ed., No Add. (NDE); Code Case: N-416-1</u></p> <p>5. (b) Applicable Edition of Section XI Utilized for Repairs or Replacements: <u>1989 Edition, No Addenda; 1992 Ed., No Add. (VT-2); Code Case: N-416-1</u></p> <p>6. Identification of Components Repaired or Replaced and Replacement Components:</p> | <p>Unit: 3<br/>MO: 96090335000<br/>FCN: F12994M, F12998M<br/>Rspec: 001-00<br/>PID: 40145BSO3 (B2)<br/>NS: S3-1305-7<br/>Type Code Symbol Stamp: N/A<br/>Authorization No: N/A<br/>Expiration Date: N/A</p> |
|--|---|

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
2" 1500# Globe Valve	Kerotest	TD11-6	N/A	S31305MR792	1976	Replaced	Yes
2" 6000# 90 Degree Elbow	Energy & Process Corp.	Ht./lot# 77791 (37791)	N/A	RSO-0921-00, SA105 (CR-3001-96)	N/A	Replacement	No
2" 6000# 45 Degree Elbow	Energy & Process Corp.	Ht./lot# 78053 (38053)	N/A	RSO-0921-00, SA105 (CR-3001-96)	N/A	Replacement	No
2" NPS Sch 160 Pipe	Energy & Process Corp.	Ht Code 74016	N/A	RSO-0921-00, SA333 Gr. 6	N/A	Replacement	No
2" 1500# Flanges (1 ea. Socket Weld) & (1 ea. Blind Flange)	Energy & Process Corp.	Ht. Code 1289ANF	N/A	RSO-0921-00, SA350 Gr. LF2	N/A	Replacement	No
7/8" x 36" All Thread Stud (3.5)	Nova Machine Products	Ht. #84830/Ht. #69541	N/A	RSO-0185-00/RSO-1440-00, SA193 Gr. B7 (CR-3005-96)	N/A	Replacement	No
7/8"-9 Heavy Hex Nuts (20)	Nova Machine Products	Ht. #8077124, Ht. Code DJP	N/A	RSO-0675-RSO-1256-99, SA194 Gr. 2H (CR-3005-00)	N/A	Replacement	No

7. Description of Work:

Removed the existing body drain valve S31305MR792 from 3HV4052 per FCN F12998M and replaced it with new piping and flanges. Fabrication and installation of the new replacement body drain piping, flanges and subsequent MT examination, was performed in accordance with weld record WR3-00-027 Rev. 1, Repair Specification 001-00, and FCN's F12994M and F12998M.

8. Tests Conducted: System Leakage Pressure Test      Pressure: NOP      Temp: NOT  
See: AR 020701574-20

**This test was performed in lieu of a hydrostatic pressure test as allowed under Code Case N-416-1.**

Note. Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in x 11 in., (2) information in Items 1 through 6 on this report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each sheet is initialed and dated by the Owner or Owner's designee and the AIA.

FORM NIS-2 (back)

9. Remarks: CR-3001-96, CR-3005-96 and CR-3005-00 reconciles the replacement material which was certified to ASME III-2, '86 Ed., No Add. (elbows); ASME III-2, '89 Ed., No Add. (bolting).

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this repair and replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizatoin No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 3/31/03  
Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 12/31/02 to 3/31/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1574 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date 3/31/03



FORM NIS-2 (back)

9. Remarks:

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizaton No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 3/31/03  
Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 1/14/03 to 3/31/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1574 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date 3/31/03



FORM NIS-2 (back)

9. Remarks: CR-3005-96 R1 reconciles the replacement studs which were certified to ASME III-2, 1989 Edition, No Addenda.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizaton No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 11/6/01  
Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 12/06/01 to 11/07/01, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1862 California  
Inspector's Signature National Board, State, Province, and Endorsements

Date Nov 7, 2001





FORM NIS-2 (back)

9. Remarks: None.

(Applicable Manufacturer's Data Reports are available on-site)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp: N/A

Certificate of Authorizatn No: N/A

Expiration Date: N/A

Signed: [Signature] Supervising ASME Codes Engineer Date: 1/14/03  
Owner or Owner's Designee, Title

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 9/12/02 to 1/14/03, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 1862 California  
Inspector's Signature, National Board, State, Province, and Endorsements

Date Jan. 14, 2003