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 FACIL: 50-361 San Onofre Nuclear Station, Unit 2, Southern Californ 05000361
 AUTH. NAME AUTHOR AFFILIATION
 MORGAN, H. E. Southern California Edison Co.
 RECIP. NAME RECIPIENT AFFILIATION
 MARTIN, J. B. Region 5, Ofc of the Director

SUBJECT: Forwards abstract of work performed & Form NIS-1, Owners Data
 Rept for Inservice Insp for repairs or replacements
 completed during Cycle 4 refueling. Info provided not
 completed in time for inclusion in util 880310 submittal.

DISTRIBUTION CODE: A047D COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 38
 TITLE: OR Submittal: Inservice Inspection/Testing/Relief from ASME Code

NOTES:

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	HICKMAN, D	1 1			
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	NRR/DEST/MEB 9H	1 1		NRR/DEST/MTB 9H	1 1
	NRR/BMAS/ILRB12	1 1		OGC 15-B-18	1 0
	<u>REG FILE</u> 01	1 1		RES/DE/EIB	1 1
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	NL 007 HEMMING	1 1		NRC PDR	1 1
	NSIC	1 1			

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RECEIVED
Southern California Edison Company

SAN ONOFRE NUCLEAR GENERATING STATION

P. O. BOX 128

SAN CLEMENTE, CALIFORNIA 92672

H. E. MORGAN
STATION MANAGER

April 8, 1988

TELEPHONE
(714) 368-6241

Mr. John B. Martin, Regional Administrator
U. S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
1450 Maria Lane, Suite 210
Walnut Creek, California 94596-5368

Dear Mr. Martin:

Subject: Owner's Report of Inservice Inspection, Form NIS-1 for Cycle 4 Refueling
San Onofre Nuclear Generating Station, Unit 2

Reference: (a) Letter from H. E. Morgan to Mr. John B. Martin dated March 10,
1988; Subject: Submittal of Owner's Report of Inservice Inspection,
Form NIS-1, San Onofre Nuclear Generating Station, Unit 2

Enclosed herein are copies of the Abstract of work performed and Form NIS-2, Owner's Report of Repair or Replacement, for eleven (11) repairs or replacements completed during the San Onofre Unit 2 Cycle 4 refueling outage. These documents were not completed in time for inclusion in the subject outage report, which was transmitted by reference (a). Attachment 1 lists the pages and provides instruction for their insertion into your file copy of the report.

Our review of repair and replacement activities conducted prior to the conclusion of the Cycle 4 Refueling is continuing. There are two repairs or replacements for which the physical work has been completed, but completed documentation of these activities is not yet available. Another supplementary report, summarizing these additional activities completed during the Cycle 4 Refueling Outage will be provided upon completion of documentation.

If you require any additional information, please so advise.

Sincerely,

HEMog—

Enclosures

cc: C. R. Erickson, State of California
R. C. Robbins, Kemper Group

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ATTACHMENT 1

<u>TRAVELER NUMBER</u>	<u>VOLUME</u>	<u>WHERE TO INSERT</u>
S02-057-86	2	preceding S02-060-86
S02-076-86	2	following S02-060-86
S02-137-86	2	following S02-130-86
S02-138-86	2	following S02-137-86
S02-142-86	2	following S02-141-86
S02-146-86	2	following S02-144-86
S02-152-86	2	following S02-151-86
S02-87-099	2	following S02-87-098
S02-87-103	2	following S02-87-102
S02-87-108	2	following S02-87-107
S02-87-109	2	following S02-87-108

Southern California Edison Company

SAN ONOFRE NUCLEAR GENERATING STATION

P. O. BOX 128

SAN CLEMENTE, CALIFORNIA 92672

H. E. MORGAN
STATION MANAGER

April 8, 1988

TELEPHONE
(714) 368-6241

Mr. R. C. Robbins, Unit Manager
Special Inspection Services Section
Lumbermen's Mutual Casualty Company
Kemper Group
11770 Warner Avenue, Suite 222
Fountain Valley, California 92708

Dear Mr. Robbins:

Subject: Owner's Report of Inservice Inspection, Form NIS-1 for Cycle 4 Refueling
San Onofre Nuclear Generating Station, Unit 2

Reference: (a) Letter from H. E. Morgan to Mr. R. C. Robbins dated March 10, 1988;
Subject: Submittal of Owner's Report of Inservice Inspection, Form
NIS-1, San Onofre Nuclear Generating Station, Unit 2

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If you require any additional information, please so advise.

Sincerely,

HEMog

Enclosures

cc: C. R. Erickson, State of California
J. B. Martin, U.S. Nuclear Regulatory Commission

Southern California Edison Company

SAN ONOFRE NUCLEAR GENERATING STATION

P. O. BOX 128

SAN CLEMENTE, CALIFORNIA 92672

H. E. MORGAN
STATION MANAGER

April 8, 1988

TELEPHONE
(714) 368-6241

Mr. Clifford R. Erickson, Principal Safety Engineer
Division of Occupational Safety and Health
Pressure Vessel Section
525 Golden Gate Avenue, 3rd Floor
San Francisco, California 94102

Dear Mr. Erickson:

Subject: Owner's Report of Inservice Inspection, Form NIS-1 for Cycle 4 Refueling
San Onofre Nuclear Generating Station, Unit 2

Reference: (a) Letter from H. E. Morgan to Mr. Clifford R. Erickson dated March 10,
1988; Subject: Submittal of Owner's Report of Inservice Inspection,
Form NIS-1, San Onofre Nuclear Generating Station, Unit 2

Enclosed herein are copies of the Abstract of work performed and Form NIS-2, Owner's Report of Repair or Replacement, for eleven (11) repairs or replacements completed during the San Onofre Unit 2 Cycle 4 refueling outage. These documents were not completed in time for inclusion in the subject outage report, which was transmitted by reference (a). Attachment 1 lists the pages and provides instruction for their insertion into your file copy of the report.

Our review of repair and replacement activities conducted prior to the conclusion of the Cycle 4 Refueling is continuing. There are two repairs or replacements for which the physical work has been completed, but completed documentation of these activities is not yet available. Another supplementary report, summarizing these additional activities completed during the Cycle 4 Refueling Outage will be provided upon completion of documentation.

If you require any additional information, please so advise.

Sincerely,

H. E. Morgan

Enclosures

cc: J. B. Martin, U.S. Nuclear Regulatory Commission
R. C. Robbins, Kemper Group

*Corrected Report
See Supplemental Sheet
(Page 2 of 2)

FORM NIS-1 OWNERS' DATA REPORT FOR INSERVICE INSPECTIONS

As required by the Provisions of the ASME Code Rules

Page 1 of 2

1. Owner SOUTHERN CALIFORNIA EDISON CO. 2244 Walnut Grove Rosemead, CA 92770 (Name and Address of Owner) SAN DIEGO GAS AND ELECTRIC CO. 101 Ash Street San Diego, CA 92112
2. Plant SAN ONOFRE NUCLEAR GENERATING STATION, SAN CLEMENTE, CA
(Name and Address of Plant)
3. Plant Unit 2 4. Owner Certificate of Authorization (if required) N/A
5. Commercial Service Date 08/17/83 6. National Board Number for Unit N/A
7. Components Inspected

Component or Appurtenance	Manufacturer or Installer	Manufacturer or Installer Serial No.	State or Province No.	National Board No.
Reactor Vessel	Combustion Engineering	71170	N/A	22000
Steam Gen. ME088	Combustion Engineering	71270-2	35203-82	22219
Steam Gen. ME089	Combustion Engineering	71270-1	35203-82	22218
Pressurizer	Combustion Engineering	70602	N/A	21495
Reactor Cool. Pump MP001	Byron Jackson	701-N-0558	N/A	N/A
Reactor Cool. Pump MP002	Byron Jackson	701-N-0559	N/A	N/A
Reactor Cool. Pump MP003	Byron Jackson	701-N-0560	N/A	N/A
Reactor Cool. Pump MP004	Byron Jackson	701-N-0557	N/A	N/A
Letdown Heat Exch. ME062	Combustion Engineering	78826	N/A	10781
Regen. Heat Exch. ME063	Combustion Engineering	78827	N/A	10782
Shutdown Cool. HTX ME003	Engineers and Fabricators, Inc.	S-16644-A	N/A	1353
Shutdown Cool. HTX ME004	Engineers and Fabricators, Inc.	S-16644-B	N/A	1354
Comp. Cool. HTX ME001	Struthers Wells	1-74-06-32404-1	N/A	14214
Comp. Cool. HTX ME002	Struthers Wells	1-74-06-32404-2	N/A	14215
Spent Fuel HTX ME005	Struthers Wells	1-74-06-32405-1	N/A	14216
Spent Fuel HTX ME006	Struthers Wells	1-74-06-32405-2	N/A	14217

Note: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8½ in. x 11 in., (2) information in items 1 through 6 on this data report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-1 (back)

8. Examination Dates 8/15/87 to 12/11/87 9. Inspection Interval from 8/18/83 to 8/17/93
10. Abstract of Examinations. Include a list of examinations and a statement concerning status of work required for current interval. SEE ISI REPORT
11. Abstract of Conditions Noted
SEE ISI REPORT
12. Abstract of Corrective Measures Recommended and Taken
SEE ISI REPORT AND FOOTNOTE 1 BELOW

We certify that the statements made in this report are correct and the examinations and corrective measures taken conform to the rules of the ASME Code, Section XI.

Date March 9 19 88 Signed SOUTHERN CALIFORNIA EDISON COMPANY By Brian Katz
Owner

Certificate of Authorization No. (if applicable) N/A Expiration Date N/A

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of California and employed by Lumbermens Mutual Casualty Co. of Long Grove, IL have inspected the components described in this Owners' Data Report during the period 8/15/87 to 12/11/87, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owners' Data 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 Owners' Data 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.

Date 3/11 19 88

J. J. H. [Signature]
Inspector's Signature

Commissions Calif. 1272
National Board, State, Province and No.

NOTE 1: This Outage Summary Report and Owner's Data Report for Inservice Inspections (form NIS-1) includes the results of examinations and repair and replacement activities conducted prior to the conclusion of the Cycle 4 Refueling. There are several repairs or replacements for which the physical work may have been completed, but completed documentation of these activities is not yet available. A supplementary report, summarizing these remaining activities, with their status, will be provided under separate cover, within 30 days of this report.

Brian Katz

B. KATZ
MANAGER, O&M SUPPORT

Supplemental Sheet

Page 2 of 2

1. Owner: SOUTHERN CALIFORNIA EDISON CO. SAN DIEGO GAS AND ELECTRIC CO.
2244 Walnut Grove 101 Ash Street
Rosemead, CA 92770 San Diego, CA 92112

(Name and Address of Owner)

2. Plant: SAN ONOFRE NUCLEAR GENERATING STATION, SAN CLEMENTE, CA.

(Name and Address of Plant)

3. Plant Unit 2 4. Owner Certificate of Authorization (if required) N/A

5. Commercial Service Date 08/17/83 6. National Board Number for Unit N/A

The following list of repairs or replacements is provided as documented in Note 1 of the original Owner's Data Report for Inservice Inspections (Form NIS-1) submitted on March 11, 1988:

Traveler Number

S02-057-86
S02-076-86
S02-137-86
S02-138-86
S02-142-86
S02-146-86
S02-152-86
S02-87-099
S02-87-103
S02-87-108
S02-87-109

Date - April 14, 1988 Signed - Southern California
Edison Company, Owner, by: Brian Katz

Date: 4/14/88

J. Z. [Signature]
Authorized Nuclear Inservice
Inspectors Signature

Commissions: CALIF. 1272
National Board, State,
Province and No.

ASME SECTION XI ABSTRACTOWNER'S SUMMARY OF REPAIR OR REPLACEMENTSheet 1 of 1

1. Owner - Southern California Edison Company
2244 Walnut Grove Ave., Rosemead, CA 91770

Date 11-19-86

2. Plant - San Onofre Nuclear Generating Station
P.O. Box 128, San Clemente, CA 92672

Unit 2S02-057-86

Traveler No.

86033278

M.O., P.O., etc.,

3. Work Performed by Southern California Edison

4. System Identification (1204) Safety Injection System (Line S2-1204-ML-064)

5. Plant Tag No./Equipment Serial No.

6. Component/Name/Size

7. Code and Class

S2-SI-064-H-030

S/N 2587

Pacific Scientific

Snubber/PSA 1/2

ASME Sect. III.

Div. 1 Subsect. NF

8. Purpose: (Statement of Problem)

The forward bracket (PSA Part No. 1801353-09) required replacement.

9. Narrative Summary: (Brief description of work performed)

The forward bracket was replaced on snubber S2-SI-064-H-030. A VT-4 examination was performed to assure freedom of motion and proper cold setting and a VT-3 examination was performed to assure that the connections were secure.

10. Materials Used:

Pacific Scientific Forward Bracket, Part Number 1801353-09, Heat Number N2160.

Prepared by

*R. G. Sears*Date 11-19-86

R. G. SEARS

OWNER'S REPORT OF REPAIR OR REPLACEMENT
As Required by the Provisions of ASME Code Section XI

=====

	ASME SECTION XI
1. Owner - Southern California Edison Company 2244 Walnut Grove Ave., Rosemead, CA. 91770	WNF No. <u>S02-057-86</u>
	Date <u>11-19-86</u>
2. Plant - San Onofre Nuclear Generating Station P.O. Box 128, San Clemente, CA 92672	Unit <u>2</u>
3. Work Performed by - Southern California Edison	<u>86033278</u> M.O., P.O., etc.
4. System Identification <u>(1204) Safety Injection System (Line S2-1204-ML-064)</u>	
(a) Applicable Construction Code <u>ASME III</u> <u>1974</u> Edition, <u>S'74</u> Addenda Code Cases <u>None</u> ASME Code Class <u>NF</u>	
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements - <u>1977, S'79</u> Addenda, Code Cases <u>None</u>	

6. Identification of Components Repaired or Replaced.

Name of Component	Name of Mfr.	Mfrs. Ser. No.	Nat'l Bd. No.	Other Identification	Year Built	Repaired Replaced, or Replacement	ASME Code Stamped Yes/No
Forward Bracket	Pacific Scientific	Heat #N2160	N/A	Part No. 1801353-09		Replaced	No

7. Work Description The forward bracket of Pacific Scientific Snubber S2-SI-064-H-030 was replaced. A VT-3 examination was performed to assure that the connections were secure and a VT-4 examination was performed to assure freedom of motion and proper cold setting.

8. Hydrostatic Pressure Other Visual inspection

Nominal/Operating Pressure N/A Test Pressure N/A psi Test Temp. N/A °F

9. Remarks _____

(Applicable Manufacturer's Data Reports to be attached)

NIS-2

ASME SECTION XI

WAVE NO. 2: 057-86

CERTIFICATE OF COMPLIANCE

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

Signed Robert G. Sans Station ASME Codes Engineer
 (Owner or Owner's Designee) Title

19 November 19 86
 (Date)

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,
 employed by Lumbermens Mutual Casualty Company of Long Grove, Illinois,
 have inspected the components described in this Owner's Report during the period from
4/9/86 to 11/21/86 and state that to the best of my knowledge and
 belief, this repair or replacement has been performed in accordance with Section XI of
 the ASME Code. By signing this certificate, neither the Inspector nor his employer
 makes any warranty, expressed or implied, concerning the repair or replacement in this
 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 Calif. 1272
 (State or Province, National Board)

Date 11/21 19 86

Note: Supplemental sheets in 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 4 on this data report
 is included on each sheet is recorded at the top of this form.

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ASME SECTION XI ABSTRACT

OWNER'S SUMMARY OF REPAIR OR REPLACEMENT

Sheet 1 of 1

1. Owner - Southern California Edison Company
2244 Walnut Grove Ave., Rosemead, CA 91770

Date: 11/20/86

2. Plant - San Onofre Nuclear Generating Station
P. O. Box 128, San Clemente, CA 92672

Unit: 2

S02-076-86
Traveler No.

3. Worked Performed by Southern California Edison

86042266
M.O., P.O., etc.

4. System Identification: Chemical and Volume Control System (BGA)
P&ID 40123

5. Plant Tag No./Equipment
Serial No.

6. Component/Name/Size

7. Code and Class

S2PSV9207/N59368-00-0001

Relief Valve/Crosby
Valve & Gage/1"

ASME Sec. III
Class 2

8. Purpose: (Statement of Problem)

Valve 2PSV9207 is leaking by. Replace disc, spindle, spring and spring washer with qualified in-kind parts.

Reference: MERS 524-86

9. Narrative Summary: (Brief Description of Work Performed)

- 1) The documentation for the replacement bolting was reviewed to verify compliance with ASME Section III Cl. 2, 1974 Edition. S'74' Addenda.
- 2) After removing the existing items from Valve S2-PSV-9207, the replacement items were installed.
- 3) A system leakage test (with VT-2) was performed.

10. Materials used:

See NIS-2 for replacement material.

Prepared by:

M. J. Harpin
M. J. HARPIN

Date: 11/20/86

WNF NO. SO 2 076-86

2 OF 10

OWNER'S REPORT OF REPAIR OR REPLACEMENT

As Required by the Provisions of ASME Code Section XI

1. Owner - Southern California Edison Company
2244 Walnut Grove Ave., Rosemead, CA 91770

ASME SECTION XI
WNF No. SO2-076-86

Date: 11/20/86

2. Plant - San Onofre Nuclear Generating Station
P. O. Box 128, San Clemente, CA 92672

Unit: 2

3. Work Performed by Southern California Edison

86042266
M.O., P.O., etc.

4. System Identification: Chemical and Volume Control System (BGA) P&ID 40123

5. (a) Applicable Construction Code: ASME Sec. III, 1974 Edition, S'74' Addenda
Code Cases: N/A ASME Code Class: 2

- (b) Applicable Edition of Section XI Utilized for Repairs or Replacements:
1977, S'79 Addenda, Code Cases N/A

6. Identification of Components Repaired or Replaced

Name of Component	Name of Mfr.	Mfrs. Ser. No.	Nat'l Bd. No.	Other ID	Year Built	Repaired Replaced, or Replacement	ASME Code Stamped Yes/No
1" Globe Valve	Crosby Vlv&Gage	N59368-00-0001	N/A	2PSV9207	1980	----	Yes
Valve Disc	Al-Tech Spec. Stl. Corp	Ht. #04553 S/N-N91246-33-0057	N/A	RS02-P-294	1979	Replacement	No
Valve Spindle	Crosby Valve& Gage	Ht. #1G6134 S/N-K65019-33-0014	N/A	RS0-2750-86	1985	Replacement	No
Valve Spring	Duer Spring& Mfg. Co.	Ht. #04243 S/N-NX2657-0035	N/A	RS0-7204-85	1980	Replacement	No
Valve Washer	Cyclops/ Cytemp Spec. Stl. Div.	Ht. #1G5645 S/N-N89058-66 0591# 0592	N/A	RS0-7204-85	1980	Replacement	No

7. Work Description A replacement disc, spindle, spring, and washer were installed in Valve 2PSV9207 IAW MERS 524-86.

8. Tests: Hydrostatic ☐ Pneumatic ☐ Other ☒ *

Nominal/Operating Pressure Test Pressure 30 psi Test Temp. 82° F

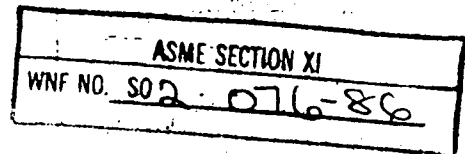
9. Remarks

*A system leakage test (with VT-2) was performed.

(Applicable Manufacturer's Data Reports to be attached)

0170
3 OF 10

NIS-2



CERTIFICATE OF COMPLIANCE

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

Signed: Michael J. Hargis December 4, 1986
(Owner or Owner's Designee) Title (Date)

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, employed by Lumbermens Mutual Casualty Company of Long Grove, Illinois have inspected the components described in this Owner's Report during the period from 4/25/86 to 11/5/86 and state that to the best of my knowledge and belief, this repair or replacement has been performed in accordance with Section XI of the ASME Code. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair or replacement in this 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.

J. H. Hargis Commissions California 1272
Inspector's Signature (State or Province, National Board)
Date 1/11 1987

Note: Supplemental sheets in 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 4 of this data report is included on each sheet is recorded at the top of this form.

ASME SECTION XI ABSTRACT

OWNER'S SUMMARY OF REPAIR OR REPLACEMENT

Sheet 1 of 1

1. Owner - Southern California Edison Company
2244 Walnut Grove Ave., Rosemead, CA 91770

Date: February 26, 1988

2. Plant - San Onofre Nuclear Generating Station
P.O. Box 128, San Clemente, CA 92672

Unit: 2

S02-131-83
Traveler No.

3. Work Performed by Southern California Edison

83712736
M.O., P.O., etc.

4. System Identification: Containment Bldg.: Purge Sys., P&ID 40172

5. Plant Tag No./Equipment Serial No.	6. Component/Name/Size	7. Code and Class
S2-1501-ME-402/906710-C14	Emer. Cooling Unit / Amer. Air Filter / N/A	ASME Sect. III, NC, (Class 2)

8. Purpose (Statement of Problem):

Cooling coil developed a crack in the outlet header, which was not feasible to repair within its plant location. Replaced w/ in-kind cooling unit.

Reference: MERS N/A NCR - 2-573

9. Narrative Summary (Brief Description of Work Performed):

- 1) Existing Cooling Coil was removed and repaired in accordance w/ MO# 84120429.
- 2) Replacement Cooling coil was verified as meeting the requirements of the original construction code.
- 3) Replacement Cooling coil was installed in plant position S2-1501-ME-402.
- 4) A System Leakage Test with a Vt-2 inspection was performed.

10. Material Used:

See NIS-2 form for replacement material.

Prepared By: Les Ousley

Date: 2/26/88

OWNER'S REPORT OF REPAIR OR REPLACEMENT
As Required by the Provisions of ASME Code Section XI

						ASME SECTION XI	
						WNF NO.: <u>S02-131-83</u>	
1. Owner - Southern California Edison Company 2244 Walnut Grove Ave., Rosemead, CA 91770						Date: <u>February</u> , 1988	
2. Plant - San Onofre Nuclear Generating Station P.O. Box 128, San Clemente, CA 92672						Unit: <u>2</u>	
3. Work Performed by Southern California Edison						<u>83712736</u> M.O., P.O., etc.	
4. System Identification: <u>Containment Bldg.: Purge Sys; P&ID 40172</u>							
5. (a) Applicable Construction Code: <u>ASME Sect. III 1974 Edition, S'74 Addenda</u> Code Cases <u>N/A</u> ASME Code Class <u>2</u>							
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements- <u>1977, S'79</u> Addenda, Code Cases <u>N/A</u>							
6. Identification of Components Repaired or Replaced. Tag No. <u>N/A</u>							
Name of Component	Name of Mfr.	Mfr. Serial No.	Nat'l Bd. No.	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
Emer. Cooling Coil	Amer. Air	906710-C14	347	S2-1501-ME-402	1977	Replaced	Yes
Emer. Cooling Coil	Amer. Air	906493-A	2415	RS0#5856-84	1984	Replacement	Yes
-----	-----	-----	---	-----	---	-----	---
-----	-----	-----	---	-----	---	-----	---
7. Work Description: <u>Cooling coil developed a crack in the outlet header, which was not feasible to repair within its plant location. Replaced with in-kind Cooling Unit.</u>							
8. Tests: Hydrostatic <u>N/A</u> Pneumatic <u>N/A</u> Other <u>A</u> System Leakage Test w/ a Vt-2 inspection was performed							
Nominal/Operating Pressure <u>N/A</u> Test Pressure <u>100</u> psi Test Temp. <u>70°</u> F							
9. Remarks: <u>NCR # 2-573</u>							

CERTIFICATE OF COMPLIANCE

3 OF 20

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

Signed *John J. [Signature]* Feb 29 19 88
 (Owner or Owner's Designee) Title (Date)

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, employed by Lumbermens Mutual Casualty Company of Long Grove, Illinois have inspected the components described in this Owner's Report during the period from 12/7/83 to 11/5/87 and state that to the best of my knowledge and belief, this repair or replacement has been performed in accordance with Section XI of the ASME Code. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair or replacement in this 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.

J. J. [Signature] Commissions California 1272
 Inspector's Signature (State or Province, National Board)

Date 2/29 19 88

Note: Supplement sheets in 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 4 on this,
 data report is included on each sheet is recorded at the top of this form.

ASME153

ASME SECTION XI
WNF NO. <u>SO 2-131-83</u>

ASME SECTION XI ABSTRACT

OWNER'S SUMMARY OF REPAIR OR REPLACEMENT Sheet 1 of 1

1. Owner - Southern California Edison Company
2244 Walnut Grove Ave., Rosemead, CA 91770

Date August 18, 1986

2. Plant - San Onofre Nuclear Generating Station
P.O. Box 128, San Clemente, CA 92672

Unit 2

3. Work Performed by Southern California Edison

S02-137-86

Traveler No.

86070424

M.O., P.O., etc.,

4. System Identification Main Steam Dump (ABA), P&ID 40141D-6 (E-617)

5. Plant Tag No./Equipment Serial No.
S2-1301-1 / 8447-3-1
ZHV-8419

6. Component/Name/Size
Main Steam Dump Valve

7. Code and Class
III-2

8. Purpose: (Statement of Problem)

Pipe is leaking by threaded connection at valve body.

9. Narrative Summary: (Brief description of work performed)

- 1) Replaced section of pipe from valve body (threaded connection) to downstream welded flange.
- 2) Liquid Penetrant Test (NDE) was performed at new welded flange connection.
- 3) System Leakage Test (with VT-2) was performed.

10. Materials Used:

See NIS-2 for materials used.

Prepared by M. Harpin Date 8/18/86

NIS-2

OWNER'S REPORT OF REPAIR OR REPLACEMENT
As Required by the Provisions of ASME Code Section XI

ASME SECTION XI

- | | |
|---|--|
| 1. Owner - Southern California Edison Company
2244 Walnut Grove Ave., Rosemead, CA. 91770 | WNF No. <u>S02-137-86</u> |
| 2. Plant - San Onofre Nuclear Generating Station
P.O. Box 128, San Clemente, CA 92672 | Date <u>8/18/86</u> |
| 3. Work Performed by - Southern California Edison | Unit <u>2</u> |
| 4. System Identification <u>Main Steam Dump (ABA), P&ID 40141D-6 (E-617)</u> | M.O. <u>86070424</u>
M.O., P.O., etc. |
| 5. (a) Applicable Construction Code ASME Section III 1974 Edition, Sum. '74 Addenda
Code Cases <u>N/A</u> Code Classified <u>2</u> | |
| (b) Applicable Edition of Section XI Utilized for Repairs or Replacements -
1977, Sum. '79 Addenda, Code Cases <u>N/A</u> | |

6. Identification of Components Repaired or Replaced.

Name of Component	Name of Mfr.	Mfrs. Ser. No.	Nat'l Bd. No.	Other Identification	Year Built	Repaired Replaced, or Replacement	ASME Code Stamped Yes/No
Valve	Control Comp.	18447-3-1	N/A	2HV8419 S2-1301-1	1979	N/A	Yes
Pipe	Gulfalley Inc.	Ht. No. to 7129	N/A	RIDR # RS03570-84	N/A	Replaced	No

7. Work Description Replaced section of pipe from valve body. (threaded connection) to downstream welded flange.

8. Tests: Hydrostatic Pneumatic Other *Nominal Operating Press.
 Test Pressure 920 psi Test Temp. 535 °F

9. Remarks *A System Leakage Test (with VT-2) was performed.

(Applicable Manufacturer's Data Reports to be attached)

ASME SECTION XI
WNT NO. SO 2-137-86

NIS-2

CERTIFICATE OF COMPLIANCE

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

Signed Michael J. Hargis OCE August 18, 1986
 (Owner or Owner's Designee) Title (Date)

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, employed
 by Lumbermens Mutual Casualty Company of Long Grove, Illinois have
 inspected the components described in this Owner's Report during the period from 7/24/86 to
7/18/86 and state that to the best of my knowledge and belief, this repair or replace-
 ment has been performed in accordance with Section XI of the ASME Code. By signing this certifi-
 cate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning
 the repair or replacement in this 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 Calif. 1272
 Inspector's Signature (State or Province, National Board)

Date 8/26 1986

Note: Supplemental sheets in 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 4 on this data report is included on
 each sheet is recorded at the top of this form.

ASME SECTION XI ABSTRACTOWNER'S SUMMARY OF REPAIR OR REPLACEMENT Sheet 1 of 1

1. Owner - Southern California Edison Company
2244 Walnut Grove Ave., Rosemead, CA 91770

Date July 29, 1986

2. Plant - San Onofre Nuclear Generating Station
P.O. Box 128, San Clemente, CA 92672

Unit 2

3. Work Performed by Southern California Edison

S02-138-86Traveler No.86071840M.O., P.O., etc.,

4. System Identification Main Steam System (1301) P&ID 40141C

5. Plant Tag No./Equipment Serial No.	6. Component/Name/Size	7. Code and Class
S2-1301-MU003/3N-635	4", 600# tilting disc check valve	ASME III, Class 3

8. Purpose: (Statement of Problem)

Valve requires disassembly for inspection of internals.

9. Narrative Summary: (Brief description of work performed)

- 1) The valve was disassembled and inspected I.A.W. M.O. 86071840.
- 2) Both hinge pin/body plug dowel pins (non-code) were found sheared, (NCR 2-1885). Replacement dowel pins were fabricated I.A.W. M.O. 86071840.
- 3) The valve was reassembled and the body plugs were sealwelded (WR2-86-654), (disc freedom of movement was verified after welding).
- 4) A Magnetic Particle Inspection was performed on the sealwelds.
- 5) A System Leakage Test and VT-2 inspection was performed.

10. Materials Used:

No code replacement parts were used.

Prepared by R. Holmes Date 7/29/86

NIS-2

OWNER'S REPORT OF REPAIR OR REPLACEMENT
As Required by the Provisions of ASME Code Section XI

- =====
- ASME SECTION XI
1. Owner - Southern California Edison Company WNF No. S02-138-86
2244 Walnut Grove Ave., Rosemead, CA. 91770 Date 7/29/86
2. Plant - San Onofre Nuclear Generating Station
P.O. Box 128, San Clemente, CA 92672 Unit 2
3. Work Performed by - Southern California Edison M.O. 86071840002
M.O., P.O., etc. P&ID 40141C
4. System Identification Main Steam System (1301)
5. (a) Applicable Construction Code ASME III 1971 Edition, S'73 Addenda
Code Cases N/A Code Classified 3
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements -
1977, S'79 Addenda, Code Cases N/A
6. Identification of Components Repaired or Replaced.

Name of Component	Name of Mfr.	Mfrs. Ser. No.	Nat'l Bd. No.	Other Identification	Year Built	Repaired Replaced, or Replacement	ASME Code Stamped Yes/No
4" 600# TD Anchor Check Vv.	Darling	3N-635	N/A	S2-1301-MU003	1976	Repaired	Yes

7. Work Description Valve was disassembled and inspected. No-code parts were re-
placed. Valve was reassembled, hinge pin body plugs were sealwelded. An MT of
sealwelds was performed. Reference: MERS-603-86, NCR-2-1885, Weld record-
WR2-86-654.

8. Tests: Hydrostatic Pneumatic Other *X System Leakage Test
- Nominal/Operating Pressure 885 psig Test Pressure 920 psig Test Temp. ** ° F

9. Remarks * A VT-2 inspection was performed concurrently with the leak test.

** No test temperature was recorded due to there being no plant temperature
guage available to obtain the reading. The plant was in Mode 1 at 100% power.
Therefore, it is assumed to have been at normal operating temperature.
(Applicable Manufacturer's Data Reports to be attached)

SECTION
WNF NO. SO 2-138-86

NIS-2

CERTIFICATE OF COMPLIANCE

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

Signed Roger Helmer Coder Engr. 8/14 1986
(Owner or Owner's Designee) Title (Date)

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, employed by Lumbermens Mutual Casualty Company of Long Grove, Illinois have inspected the components described in this Owner's Report during the period from 7/22/86 to 7/24/86 and state that to the best of my knowledge and belief, this repair or replacement has been performed in accordance with Section XI of the ASME Code. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair or replacement in this 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.

J. H. [Signature] Commissions Calif. 1272
Inspector's Signature (State or Province, National Board)

Date 8/14 19 86

Note: Supplemental sheets in 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 4 on this data report is included on each sheet is recorded at the top of this form.

1 OF 1

ASME SECTION XI ABSTRACT

OWNER'S SUMMARY OF REPAIR OR REPLACEMENT

Sheet 1 of 1

1. Owner - Southern California Edison Company
2244 Walnut Grove Ave., Rosemead, CA 91770

Date 9/26/86

2. Plant - San Onofre Nuclear Generating Station
P.O. Box 128, San Clemente, CA 92672

Unit 2

S02-142-86

Traveler No.

86092365

M.O., P.O., etc.,

3. Work Performed by Southern California Edison

4. System Identification Salt Water Cooling System-Aux. Steam (EPA), P&ID 40126B-6
(D/E-4/1)

5. Plant Tag No./Equipment Serial No. 6. Component/Name/Size 7. Code and Class

S2-SC-003-H-011/12646

Mech. Snubber/Pacific /PSA-35
/Scientific/Design Id.
/50,000 lbs.

III-NF

8. Purpose: (Statement of Problem)

1. Existing Snubber was found to have heavy corrosion.
2. Existing Snubber tested and found to be non-functional.
3. Existing Snubber/Load Pin replaced.

9. Narrative Summary: (Brief description of work performed)

1. A comparative check of Code Data information was completed prior to installation of Mechanical Snubber and Load Pin and verified as class NF.
2. The Snubber and Load Pin were installed in location S2-SC-003-H-011.
3. VT-3 and VT-4 examination was performed.

10. Materials Used:

See NIS-2 for replacement material.

Prepared by M. Harpin

Date 9/26/86

OWNER'S REPORT OF REPAIR OR REPLACEMENT
As Required by the Provisions of ASME Code Section XI

- =====
- | | |
|---|--|
| | <u>ASME SECTION XI</u> |
| 1. Owner - Southern California Edison Company
2244 Walnut Grove Ave., Rosemead, CA. 91770 | WNF No. <u>S02-142-86</u> |
| | Date <u>9/26/86</u> |
| 2. Plant - San Onofre Nuclear Generating Station
P.O. Box 128, San Clemente, CA 92672 | Unit <u>2</u> |
| 3. Work Performed by - Southern California Edison | <u>86092365</u>
<u>M.O., P.O., etc.</u> |
| 4. System Identification <u>Salt Water Cooling System-Aux. Stm. (EPA), P&ID 40126B-6 (D/E-4/1)</u> | |
| 5. (a) Applicable Construction Code <u>ASME SEC. III 19 74</u> Edition, <u>S'74</u> Addenda
Code Cases <u>1644-7, 1651</u> ASME Code Class <u>NF</u> | |
| (b) Applicable Edition of Section XI Utilized for Repairs or Replacements -
<u>19 77</u> , <u>S'79</u> Addenda, Code Cases <u>N/A</u> | |

6. Identification of Components Repaired or Replaced.

Name of Component	Name of Mfr.	Mfrs. Ser. No.	Nat'l Bd. No.	Other Identification	Year Built	Repaired Replaced, or Replacement	ASME Code Stamped Yes/No
Mech. Snubber	Pacific Scientific	10767	N/A	S2-SC-003-H-011-B	N/A	-----	Yes
Mech. Snubber	Pacific Scientific	12646	N/A	RSO-6819-85	N/A	Replacement	Yes
Load Pin	Pacific Scientific	Ht. No. ZA	N/A	RSO-1820-85	N/A	Replacement	No

7. Work Description Existing Snubber was found to have heavy corrosion, when tested it was found to be non-functional. Replacement installed in location S2-SC-003-H-011-B. Ref. MERS No. 632-86.

8. Tests: Hydrostatic__ Pneumatic__ Other__ *
- Nominal/Operating Pressure__ Test Pressure__ psi Test Temp. __ ° F

9. Remarks Documentation for above items available onsite.

*VT-3 and VT-4 examinations were performed.

(Applicable Manufacturer's Data Reports to be attached)

ASME SECTION
WNF NO. <u>SO 2 142-86</u>

NIS-2

CERTIFICATE OF COMPLIANCE

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

Signed Michael J. Harpin ASME Code Engr. Sept. 29 1986
(Owner or Owner's Designee) Title (Date)

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 employed by Lumbermens Mutual Casualty Company of Long Grove, Illinois have inspected the components described in this Owner's Report during the period from 9-25-86 to 10-8-86 and state that to the best of my knowledge and belief, this repair or replacement has been performed in accordance with Section XI of the ASME Code. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair or replacement in this 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 Calif. 1464
Inspector's Signature (State or Province, National Board)
Date OCTOBER 8, 1986

Note: Supplemental sheets in 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 4 on this data report is included on each sheet is recorded at the top of this form.

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ASME SECTION XI ABSTRACT

OWNER'S SUMMARY OF REPAIR OR REPLACEMENT

Sheet 1 of 1

1. Owner - Southern California Edison Company
2244 Walnut Grove Ave., Rosemead, CA 91770

Date: December, 1986

2. Plant - San Onofre Nuclear Generating Station
P. O. Box 128, San Clemente, CA 92672

Unit: 2

S02-146-86
Traveler No.

3. Work Performed by Southern California Edison

86081971
M.O., P.O., etc.

4. System Identification: Boric Acid Make Up P&ID 40125B

5. Plant Tag No./Equipment
Serial No.

6. Component/Name/Size

7. Code and Class

S21218MP174/N749B477-1

Pump/Gould 2x3x8

ASME Sec. III,
ND, CLASS 3
E 1/6/87

8. Purpose (Statement of Problem):

Flange face on frame adaptor of boric acid makeup pump (S21218MP174) was eroded and required a weld repair and remachining. Replace all parts with

Reference: MERS #661-86

9. Narrative Summary (Brief Description of Work Performed):

1) Boric acid makeup pump was removed from plant location S21218MP174 to facilitate weld repair of frame adaptor flange.

2) Weld repair and remachining was performed IAW WR 2-86-848 and NCR #2-1948. The weld repair was MT examined upon completion of machining. No relevant indications found (NDC Test Report #2MT-059-86).

3) A system functional pressure test with VT-2 Exam was performed.

10. Material Used:

Prepared By: LES OUSLEY

LES OUSLEY

Date: 12/17/86

20719

NIS-2

OWNER'S REPORT OF REPAIR OR REPLACEMENT

As Required by the Provisions of ASME Code Section XI

- =====
- ASME SECTION XI
WNF No. S02-146-86
1. Owner - Southern California Edison Company
2244 Walnut Grove Ave., Rosemead, CA 91770
Date: December, 1986
2. Plant - San Onofre Nuclear Generating Station
P. O. Box 128, San Clemente, CA 92672
Unit: 2
3. Work Performed by Southern California Edison
86081971
M.O., P.O., etc.
4. System Identification: Boric Acid Make Up P&ID 40125B
5. (a) Applicable Construction Code: ASME Section III 1977 Edition N/A Addenda
Code Cases N/A ASME Code Class ND Class 3
1/6/67
- (b) Applicable Edition of Section XI Utilized for Repairs or Replacements -
1977, S79 Addenda, Code Cases N/A
6. Identification of Components Repaired or Replaced.

Name of Component	Name of Mfr.	Mfr. Serial No.	Nat'l Bd. No.	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
Pump	Gould	N47949B	N/A	S21218MP174	1977	Repaired	Yes
Valve		47701					

7. Work Description: Flange face on frame adaptor of boric acid makeup pump (S2-1218-MP-174) was eroded and required a weld repair (WR2-86-848) and remachining.
8. Tests: Hydrostatic N/A Pneumatic N/A Other System Functional Pressure Test with VT-2 Exam

Nominal/Operating Pressure N/A Test Pressure 115 psi Test Temp. 171°F

9. Remarks _____
- _____

Reference: MERS #661-86, NCR #2-1948

(Applicable Manufacturer's Data Reports to be Attached)

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ASME SECTION XI ABSTRACTOWNER'S SUMMARY OF REPAIR OR REPLACEMENT

Sheet 1 of 1

1. Owner - Southern California Edison Company
2244 Walnut Grove Ave., Rosemead, CA 91770

Date: January 6, 1987

2. Plant - San Onofre Nuclear Generating Station
P. O. Box 128, San Clemente, CA 92672

Unit: 2

S02-152-86
Traveler No.

3. Work Performed by Southern California Edison

86081669
M.O., P.O., etc.

4. System Identification: Chemical & Volume Control System (1208), P&ID 40124

5. Plant Tag No./Equipment
Serial No.

6. Component/Name/Size

7. Code and Class

S2-1208-MU-102/TNB415

Globe Valve/Kerotest/1"SS

ASME Sec. III
Class 2

8. Purpose (Statement of Problem):

The damaged disc in Valve S2-1208-MU-102 required replacement.

Reference: MERS 693-86

9. Narrative Summary (Brief Description of Work Performed):

- 1) The documentation for the replacement disc was reviewed to verify compliance with ASME Section III, Class 2, 1971 ED., S'73 Addenda.
- 2) After removing the existing damaged disc from Valve S2-1208-MU-102, the replacement disc was installed.
- 3) A system functional pressure test (with VT-2) was performed.

10. Material Used:

See NIS-2 for replacement material

Prepared By: L. Ousley
L. OUSLEY

Date: 01/06/87

NIS-2

OWNER'S REPORT OF REPAIR OR REPLACEMENT
As Required by the Provisions of ASME Code Section XI

1. Owner - Southern California Edison Company
2244 Walnut Grove Ave., Rosemead, CA 91770
WNF NO.: S02-152-86
Date: 01-06-87
2. Plant - San Onofre Nuclear Generating Station
P. O. Box 128, San Clemente, CA 92672
Unit: 2
3. Work Performed by Southern California Edison
86081669
M.O., P.O., etc.
4. System Identification: Chemical & Volume Control (1208) P&ID 40124
5. (a) Applicable Construction Code: ASME Section III 1971 Edition S'73 Addenda
Code Cases N/A ASME Code Class 2
- (b) Applicable Edition of Section XI Utilized for Repairs or Replacements -
1977, S'79 Addenda, Code Cases N/A
6. Identification of Components Repaired or Replaced.

Name of Component	Name of Mfr.	Mfr. Serial No.	Nat'l Bd. No.	Other Identification	Year Built	Repaired, Replaced or Replacement	ASME Code Stamped Yes/No
1"SS Globe Vlv	Kerotest	444 149-87 TNB 415 TNB	N/A	S2-1208-MU-102	1976	-----	YES
Valve Disc	Kerotest	HT#ADT14-4	N/A	RS02-P-807-83	----	Replacement	YES

7. Work Description: A replacement disc was installed in Valve S2-1208-MU-102 in accordance with MERS 693-86.
8. Tests: Hydrostatic ☐ Pneumatic ☐ Other A System Functional Test (with VT-2 was performed.
- Nominal/Operating Pressure ☐ Test Pressure 57 psi Test Temp. 115 F
9. Remarks: _____

(Applicable Manufacturer's Data Reports to be Attached)

NIS-2

ASME SECTION X
WNF NO. <u>SO 2-152-86</u>

CERTIFICATE OF COMPLIANCE

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

Signed *Arthur J. Kelly* Station Code Engineer Jan 14 19 87
(Owner or Owner's Designee) Title (Date)

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, employed by Lumbermens Mutual Casualty Company of Long Grove, Illinois have inspected the components described in this Owner's Report during the period from 12/30/86 to 1/5/87 and state that to the best of my knowledge and belief, this repair or replacement has been performed in accordance with Section XI of the ASME Code. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair or replacement in this 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.

g. j. kelly Commissions California 1272
Inspector's Signature (State or Province, National Board)

Date 1/19 19 87

Note: Supplement sheets in 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 4 on this data report is included on each sheet is recorded at the top of this form.

ASME SECTION XI ABSTRACT

OWNER'S SUMMARY OF REPAIR OR REPLACEMENT

Sheet 1 of 1

1. Owner - Southern California Edison Company
2244 Walnut Grove Ave., Rosemead, CA 91770

Date 4/4/88

2. Plant - San Onofre Nuclear Generating Station
P.O. Box 128, San Clemente, CA 92672

Unit 2

7-244-4/8/88
S02-88-099

3. Work Performed by Southern California Edison

Traveler No.

M.O.87032254

M.O., P.O., etc.,

4. System Identification Reactor Coolant System (1201) P&ID 40111B

5. Plant Tag No./Equipment Serial No.	6. Component/Name/Size	7. Code and Class
S2-1201-ME-087 / CE-70602	Pressurizer Vessel/ Combustion Engr.	ASME III class 1

8. Purpose: (Statement of Problem)

The pressurizer vessel nozzle and thermowell for temperature element 2TE0101 is being replaced. Work will be performed by P.C.I., division of Westinghouse.

References:

MERS 925-87 FCN's S3098M & S3094M
NCR 3-1482, 2-2227, 2-2229
Traveler S02-87-198

9. Narrative Summary: (Brief description of work performed)

All welding proceds. and qual. recs. were verified as complying with ASME IX and XI. Replacement materials were verified as meeting the original construction Code req'ts. The existing nozzle was removed and the weld prep. made. PT exams were performed on the vessel weld prep, at 50% deposit, and on the final welds of the vessel/nozzle and nozzle/thermowell joints. The hydro exemption of IWA-4400(b)(5) was taken; a System Leakage Test and VT-2 exam. was performed.

10. Materials Used:

See NIS-2

Prepared by Roger L. Holmes Date 4/4/88
Roger L. Holmes

FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT
As Required by the Provisions of ASME Code Section XI

FILE: N5-1201-2
Vessel data
report

Traveler S02-87-099

1. Owner Southern California Edison Company
(Name)
2244 Walnut Grove Ave., Rosemead, Ca. 91770 Date 4/4/88
(Address)
2. Plant San Onofre Nuclear Generating Station Sheet 1 of 1
(Name)
P.O. Box 128, San Clemente, Ca. 92672 Unit 2
(Address)
3. Work Performed by Southern California Edison M.O. 87032254
(Name)
P.O. Box 700, San Clemente, Ca. 92672 Repair Organization P.O. NO.,
(Address) Job No., etc.

4. Identification of System Reactor Coolant System (1201) P&ID 40111B

5. (a) Applicable Construction Code ASME III 1971 Edition, Summer '71 addenda
Code Cases N/A ASME Code Class 1
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements -
1977, Summer '79 Addenda, Code cases N/A

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

Name of Component	Name of Mfr.	Mfrs. Ser. No.	Nat'l Bd. No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME CODE Stamped Yes or No
Pressurizer Vessel	Combus. Engr.	CE-70602	21495	S2-1201-ME-087	1976	-----	yes
nozzle	Combus. Engr.	-----	-----	HT#F1723-1 RSO 2021-87	----	replacement	no
Safe-end (integral)	Hub Inc.	-----	-----	HT#1G5935 RSO 2252-87	----	replacement	no
Thermowell	Combus. Engr.	-----	-----	HT#19797 RSO 2224-87	----	replacement	no

7. Description of Work Pressurizer vessel nozzle for temp. element 2TE0101 and thermowell were replaced.

8. Tests Conducted: Hydrostatic * Pneumatic Nominal Operating Pressure Other **
Pressure 2245 Psia Test Temp. 660 of

9. Remarks ⊗ replacement thermowell: ASME III, class 1, '77, W'77; installation was
(Applicable Manufacturer's Data Reports to be attached)
ASME III, class 1, '74, S'74; PT exams were performed on vessel weld prep.,
50% 't' of vessel/nozzle weld, and on final welds of vessel/nozzle and nozzle/
thermowell joints; * hydro exemption of IWA-4400(b)(5) was taken
** System Leakage Test and VT-2 exam. was performed

NIS-2

CERTIFICATE OF COMPLIANCE

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

Signed Roger L Holmes Codes Engr. 4/4/88 19
(Owner or Owner's Designee) Title (Date)

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,
employed by Lumbermens Mutual Casualty Company of Long Grove, Illinois,
have inspected the components described in this Owner's Report during the period from
10/9/87 to 4/8/88 and state that to the best of my knowledge and
belief, this repair or replacement has been performed in accordance with Section XI of
the ASME Code. By signing this certificate, neither the Inspector nor his employer
makes any warranty, expressed or implied, concerning the repair or replacement in this
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.

J. L. Carpenter Commissions Calif. 1272
Inspector's Signature (State or Province, National Board)

Date 4/8 19 88

Note: Supplemental sheets in 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 4 on this data report
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1 OF 13

ASME SECTION XI ABSTRACT

OWNER'S SUMMARY OF REPAIR OR REPLACEMENT Sheet 1 of 1

1. Owner - Southern California Edison Company
2244 Walnut Grove Ave., Rosemead, CA 91770

Date 3/9/88

2. Plant - San Onofre Nuclear Generating Station
P.O. Box 128, San Clemente, CA 92672

Unit 2

S02-87-103

3. Work Performed by Southern California Edison

Traveler No.
M.O. 86083163
M.O., P.O., etc.,

4. System Identification Safety Injection System (1204)

P&ID 40112A

5. Plant Tag No./Equipment Serial No.
S2-1204-M/110 / KX6-17

6. Component/Name/Size
1" - 600# - Kerotest
globe valve

7. Code and Class
ASME III
class 2

-RLH 3/12/88

8. Purpose: (Statement of Problem)

Valve leaks past seat.

9. Narrative Summary: (Brief description of work performed)

The valve was disassembled, after having verified the replacement disc met the original construction code requirements, it was installed and the valve was reassembled. A System Function Test with a VT-2 Examination was performed.

10. Materials Used:

valve disc

Prepared by

Roger L. Holmes
Roger L. Holmes

Date 3/9/88

FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT
As Required by the Provisions of ASME Code Section XI

FILE: N5-S2-1204-21
Valve Data Report

ASME SECTION XI

NO. S02-87-103

Traveler-S02-87-103

2 OF 13

1. Owner Southern California Edison Company
(Name)
2244 Walnut Grove Ave., Rosemead, Ca. 91770 Date 3/9/88
(Address)
2. Plant San Onofre Nuclear Generating Station Sheet 1 of 1
(Name)
P.O. Box 128, San Clemente, Ca. 92672 Unit 2
(Address)
3. Work Performed by Southern California Edison M.O. 86083163
(Name)
P.O. Box 700, San Clemente, Ca. 92672 Repair Organization P.O. NO.,
(Address) Job No., etc.
4. Identification of System Safety Injection System (1204) P&ID 40112A
5. (a) Applicable Construction Code ASME III 19 71 Edition, Summer '73 addenda
Code Cases N/A ASME Code Class 2
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements -
19 77, Summer '79 Addenda, Code cases N/A

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

Name of Component	Name of Mfr.	Mfrs. Ser. No.	Nat'l Bd. No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME CODE Stamped Yes or No
1" - 600# globe	Kerotest	KX6-17	N/A	S2-1204-M-110 RLH 3/12/88 R	1976	-----	yes
disc	Kerotest	ADT68-6	N/A	RSO-5810-85	---	Replacement	yes

7. Description of Work Valve disc was replaced in-kind
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Other ☐
Pressure **85% ~~85%~~ Test Temp. ambient of
9. Remarks * A VT-2 Inspection was performed in conjunction with a System Functional Test
(Applicable Manufacturer's Data Reports to be attached)

** this value represents 85% level in the RFW tank (T006)

NIS-2

ASME SECTION XI

NO. SO 2-87-103CERTIFICATE OF COMPLIANCE

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

Signed

Roger J Holmes Codes Engr.
 (Owner or Owner's Designee) Title

3/9
 (Date)

19 88CERTIFICATE 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,
 employed by Lumbermens Mutual Casualty Company of Long Grove, Illinois,
 have inspected the components described in this Owner's Report during the period from
5/4/87 to 4/5/88 and state that to the best of my knowledge and
 belief, this repair or replacement has been performed in accordance with Section XI of
 the ASME Code. By signing this certificate, neither the Inspector nor his employer
 makes any warranty, expressed or implied, concerning the repair or replacement in this
 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.

J J Hughes
 Inspector's Signature

Commissions

Calif. 1272

(State or Province, National Board)

Date

4/519 88

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1 OF 23

ASME SECTION XI ABSTRACTOWNER'S SUMMARY OF REPAIR OR REPLACEMENTSheet 1 of 1

1. Owner - Southern California Edison Company
2244 Walnut Grove Ave., Rosemead, CA 91770

Date 3/9/88

2. Plant - San Onofre Nuclear Generating Station
P.O. Box 128, San Clemente, CA 92672

Unit 2S02-87-109

3. Work Performed by Southern California Edison

Traveler No.

M.O. 87090628M.O., P.O., etc.,

4. System Identification Mainsteam System (1301)

P&ID 40141C

5. Plant Tag No./Equipment Serial No.

6. Component/Name/Size

7. Code and Class

Line #

6" piping sys. flange

ASME III

S2-1301-ML-583 / N5-S2-1301-2

(mate to 2PSV8416-inlet)

class 2

8. Purpose: (Statement of Problem)

In the process of torch cutting bolting, flange was inadvertently gouged (NCR 2-2098)

9. Narrative Summary: (Brief description of work performed)

Gouged areas on the flange were weld repaired. VT-1 and Magnetic Particle Examinations were performed on the final repair surfaces.

10. Materials Used:

RS02-P-470-84

~~none~~ 3/32" dia. Atom Arc E7018 weld filler electrodes, Lot # 2H211202

Heat # 422S1961

Prepared by

Roger J. HolmesDate 3/9/88

Roger L. Holmes

FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT
As Required by the Provisions of ASME Code Section XI

Traveler-S02-87-109

2 OF 3

ASME SECTION XI

NO. S02-87-109

1. Owner Southern California Edison Company

(Name)

2244 Walnut Grove Ave., Rosemead, Ca. 91770

(Address)

Date 3/7/882. Plant San Onofre Nuclear Generating Station

(Name)

P.O. Box 128, San Clemente, Ca. 92672

(Address)

Sheet 1 of 1Unit 23. Work Performed by Southern California Edison

(Name)

P.O. Box 700, San Clemente, Ca. 92672

(Address)

M.O. 87090628

Repair Organization P.O. NO.,
Job No., etc.4. Identification of System Mainsteam System (1301)

P&ID 40141C

5. (a) Applicable Construction Code ASME III 19 74 Edition, Summer '74 addenda
Code Cases N/A ASME Code Class 2(b) Applicable Edition of Section XI Utilized for Repairs or Replacements -
19 77, Summer '79 Addenda, Code cases N/A

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

Name of Component	Name of Mfr.	Mfrs. Ser. No.	Nat'l Bd. No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME CODE Stamped Yes or No
pipng assy Flange (6")	Pullman, Inc.	(N5) S2-1301-2	N/A	Line # S2-1301-ML-583	1978	Repaired	yes
3/32" dia E7018 elect	Atom Arc	Lot #2H211Z02 Ht #422S1961	N/A	RS02-P-470-84	N/A	Weld Metal Replacement	No

7. Description of Work Piping sys. flange that bolts up to 2PSV8416 inlet was inadvertently gouged when torch cutting bolting. Gouged areas were weld repaired.8. Tests Conducted: Hydrostatic N/A Pneumatic N/A Nominal Operating Pressure N/A Other N/A
Pressure N/A Psia Test Temp. N/A of9. Remarks The weld repaired areas underwent VT-1 and Magnetic Particle Examinations.
(Applicable Manufacturer's Data Reports to be attached)

NIS-2

ASME SECTION XI
NO. <u>SO2-87-109</u>

CERTIFICATE OF COMPLIANCE

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

Signed Roger L Holmes Codes Engr.
(Owner or Owner's Designee) Title

3/9 19 88
(Date)

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,
employed by Lumbermens Mutual Casualty Company of Long Grove, Illinois,
have inspected the components described in this Owner's Report during the period from
9-10-87 to 9-14-88 and state that to the best of my knowledge and
belief, this repair or replacement has been performed in accordance with Section XI of
the ASME Code. By signing this certificate, neither the Inspector nor his employer
makes any warranty, expressed or implied, concerning the repair or replacement in this
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.

AB Penning
Inspector's Signature

Commissions Calif. 1636
(State or Province, National Board)

Date 4-4- 19 88

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