SOUTHERN CALIFORNIA
EDISON
An EDISON INTERNATIONAL℠ Company

Dwight E. Nunn
Vice President

February 26, 2002

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

Subject: **Docket No. 50-361 and 50-362**
Owner's Report of Inservice Inspection, Form NIS-1
San Onofre Nuclear Generating Station, Units 2 & 3

References:
1. Southern California Edison Letter from D. E. Nunn to U.S. Nuclear Regulatory Commission Document Control Desk, dated April 16, 2001
2. Southern California Edison Letter from A. E. Scherer to U.S. Nuclear Regulatory Commission Document Control Desk, dated February 2, 2001
3. Southern California Edison Letter from A. E. Scherer to U.S. Nuclear Regulatory Commission Document Control Desk, dated May 24, 1999

Gentlemen:

In late December, 2001, Southern California Edison (SCE) recognized that the Owner's Report of Inservice Inspections (ASME Section XI Reports) for the cycle 11 outages for Units 2 and 3 were incomplete. Due to an administrative oversight, these reports did not include replacement of the Low Temperature Overpressure Protection valves for their respective unit.

While investigating the cause of these omissions, SCE discovered that the Unit 2 cycle 10 report had also omitted one applicable component replacement. This omission was caused by individual personal error.

A047

P.O. Box 128
San Clemente, CA 92674-0128
949-368-1480
Fax 949-368-1490

Attachments 1, 2, and 3 to this letter provide replacement reports for these previous submittals.

SCE is implementing appropriate corrective actions to prevent recurrence. If you have any questions or require additional information, please advise.

Sincerely,

Attachments

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

Richard Eleinko, Senior Safety Engineer
Division of Industrial Relations
Division of Occupational Safety and Health
Pressure Vessels Unit
2100 East Katella, Suite 145
Anaheim, CA 92806-6040

J. LeMire, Principal Safety Engineer
Division of Occupational Safety and Health
Pressure Vessel Unit
2100 E. Katella Ave.
Anaheim, CA 92806-6040

SOUTHERN CALIFORNIA
EDISON
An EDISON INTERNATIONAL Company

SAN ONOFRE NUCLEAR GENERATING STATION UNIT-2

INSERVICE INSPECTION SUMMARY REPORT

2nd INTERVAL, 2nd PERIOD CYCLE-10 REFUELING OUTAGE

U2C10

SITE TECHNICAL SERVICES

SOUTHERN CALIFORNIA
EDISON
An EDISON INTERNATIONAL Company

SAN ONOFRE NUCLEAR GENERATING STATION UNIT-2

INSERVICE INSPECTION SUMMARY REPORT

CYCLE-10 REFUELING OUTAGE

MAY 11, 1999

TABLE OF CONTENTS

SECTION **PAGE**

1 Introduction....2

2 Plan &. Schedule....3

3 Summary Report....5

Refueling Outage Number....6
Form NIS-1....7
Abstract of Examinations & Tests....9
Abstract of Results of Examinations & Tests....10
Abstract of Corrective Measures....11

4 Abstract of NIS-2 Repair & Replacements....12

5 NDE Records....13
NDE Procedures....13
Personnel Certifications....14

6 ISI Procedures & Construction Work Orders (CWO's)....15
7 Mechanical Seal Assembly (MNSA)
Visual Examination Results....16

8 Steam Generator Examinations....17

ATTACHMENTS

9 Attachment-1, List of Completed ISI NDE Examinations and System Pressure Tests
10 Attachment-2, Form NIS-2 Owner's Reports For Repairs OR Replacements

1 INTRODUCTION

This document refers to the implementation of the Inservice Inspection (ISI) conducted at the San Onofre Nuclear Generating Station (SONGS) Unit 2 for the 2nd 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 2 refueling outages in each period. Adjustments of the intervals to accommodate these refueling outages is allowed by the code to extend or decrease the interval by as much as 1 year. These extension was used in the 1st 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:

PERIODS	DATES	OUTAGES
1	Apr 1, 1994 - Aug 17, 1997	U2C8, U2C9
2	Aug 18, 1997 - Aug 17, 2001	U2C10, U2C11
3	Aug 18, 2001 - Aug 17, 2003	U2C12, U2C13

ASME Code Section XI, Article IWA-6000, Records & Reports, the ISI Program submitted to the NRC (Doc. # 90066 Rev 3) and 90063 Rev 4, 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 2 Cycle 10 outage. Detailed descriptions of these activities are documented, controlled and maintained in accordance with the Owner's Technical Specification commitments.

2 PLAN & SCHEDULE

CLASS	CATEGORY	TOTAL EXAMS REQUIRED	PERIOD 1	PERIOD 2	PERIOD 3
1	B-A	27	3	2	23
	B-B	8	3	2	3
	B-D	34	10	0	24
	B-F	28	10	9	9
	B-G-1	264	84	82	98
	B-G-2	179	63	59	57
	B-H	2	1	0	1
	B-J	165	56	56	53
	B-K-1	29	7	10	12
	B-L-1	2	0	0	2
	B-L-2	1	0	0	1
	B-M-1	8	2	0	6
	B-M-2	6	0	2	4
	B-N-1	1	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 Tech Spec			
2	C-A	20	7	6	7
	C-B	8	2	3	3
	C-C	124	26	49	49
	C-F-1	248	85	83	80
	C-F-2	37	13	12	12
	C-G	5	1	2	2
	C-H	Each Inspection Period			
3	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) Unit-2 has no Integral Attachment in this Category

2 PLAN & SCHEDULE

CLASS	CATEGORY	TOTAL EXAMS REQUIRED	PERIOD 1	PERIOD 2	PERIOD 3
3	D-B (Integral Attachments)	505	104	200	201
	D-C (Integral Attachments)	16	4	6	6
IWF	F-A	279	95	92	92
IWE	E-A	443	1	1	441
	E-C	21	7	7	7
	E-D	105	36	35	36
	E-G	199	69	65	65
	E-P PER 10 CFR 50 APPENDIX J				
IWL	L-A Unit-2 containment structure concrete surfaces			Every five years	
	L-B Six tendons, associated components, Greece and water			Every five years	
Augmented ISI for Reactor Coolant pump flywheels and high energy lines					
Flywheels		12	4	4	4
High Energy line welds		208	69	69	70

Notes : 1) For Class MC components (IWE), 1st Period examination shall be completed by September 9, 2001, as mandated by the NRC final rule August 8, 1996. Remaining two periods for the 1st interval of IWE, 2nd Period : September 9, 2001 to September 8, 2005, 3rd Period : September 9, 2005 to September 8, 2008.

2) For Class CC components (IWL), Inspection Schedule shall comply with IWL-2400.

3 SUMMARY REPORT

Date of Document Completion.....May 11, 1999

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 2

Commercial Service Date for the Unit.....August 18, 1983

REFUELING OUTAGE NO.

Refueling Outage Number:

U2C10

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:** 2

4. **Owner's Certificate of Authorization:** N/A

5. **Commercial Service Date:** 8/18/83

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 2MV1101	Combustion Engineering	71170	35203-82	22000
Pressurizer 2ME087	Combustion Engineering	70602	35203-82	21495
Steam Gen 2ME088	Combustion Engineering	71270-2	35203-82	22219
Steam Gen 2ME089	Combustion Engineering	71270-1	35203-82	22218

FORM NIS-1 (back)

8. **Examination Date:** September 16, 1997 to February 26, 1999
9. **Inspection Period Identification:** _____ 1st Period ___X___ 2nd Period ____ 3rd Period
10. **Inspection Interval:** _____ 1st 10-Yr ___X___ 2nd 10-Yr _____ 3rd 10-Yr _____ 4th 10-Yr
11. **Applicable Edition of Section XI**.....1989 Edition, No Addenda
12. **Date/Revision of Inspection Plan**..... April 20, 1998 Doc # 90063, Rev 4
13. **Abstract of Examination & Test**.....See page 9
14. **Abstract of Results of Examinations & Tests:**.....See page 10
15. **Abstract of Corrective Measures:**.....See page 11

We certify that a) the statement made in this report are correct, b) the examinations and tests meet the Inspection Plan as required by the ASME Code, Section XI, and c) corrective measures taken conform to the rules of the ASME Code, Section XI.

Certificate of Authorization No. N/A **Expiration Date:** N/A

Date: 2-6-02 **Signed:** Southern California Edison (Owner) **By:** [signature] Manager, Maintenance Engineering

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of California and employed by Arkwright Mutual Insurance Company of Waltham, Massachusetts have inspected the components described in this Owner's Report during the period Sept. 16, 1997 to Feb. 26, 1999 and state that to the best of my knowledge and belief, the Owner has performed examinations and tests and taken corrective measures described in this Owner's Report in accordance with the Inspection Plan and as required by the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations, tests, 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 OA, 8024 NB "N," "I," "S," "IS"
Inspector's Signature NB, State, Province or Endorsements

Date: 2/6/02

ABSTRACT OF EXAMINATIONS & TESTS

This report covers the inservice examination activities conducted at the San Onofre Nuclear Generating Station (SONGS), Unit 2. This activity is one of the two that are scheduled for the 2st period of the 2nd 10-year interval as described in the ISI Program Plan submitted to NRC and Doc. 90063, Rev. 4. The inservice examinations were conducted in accordance with the of the ASME Boiler and Pressure Vessel Code Section XI, 1989 Edition No Addenda.

The services of NDE Levels- II & III (UT, PT & MT) were contracted to and provided by Lambert, MacGill, Thomas, Inc. VT Level-II services were provided by SCE.

ISI Visual Examinations (VT-2) performed in conjunction with the Reactor Coolant System pressure test was performed by SCE VT Level-II examiners. List of examinations and tests are included in attachment-1.

Arkwright 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 2 were performed between 9/16/97 and 2/26/99. These examinations were performed to fulfill the requirements of 10CFR50.55a(g)(4) and IWA-1400, Owner's Responsibilities of ASME Code Section XI, 1989 Edition, No Addenda.

The number of components and supports for Class 1 and 2 selected for examination was based on the ISI Program Plan Doc. # 90063, Rev. 4 employing Inspection Program Plan B of the ASME Code Section XI, 1989 Edition, No Addenda. This code edition also employs the Mandatory Appendix VII which requires qualification of NDE personnel for UT examination. All the UT Level-I, UT Level-II and Level-III examination personnel performed the UT examinations were qualified per Appendix VII. For Class CC and MC components governing Code Edition Addenda is 1992 Edition and 1992 Addenda as mandated by NRC final rule.

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 1989 Edition, No Addenda.

IN Class 1 and 2 components 209 welds/components were examined for volumetric examination, 239 for surface, and a total of 91 for a combined VT-1 and VT-3 visual examination.

All the NDE examinations were found Code acceptable.

The Fifteenth year Containment Structure tendon surveillance was conducted between October 1997 and November 1997. The unit-2 containment structure post-tensioning system has met the requirements specified per Technical Specifications, Licensee Controlled Specifications, and per the NRC final rule that amended 10CFR50.55a, Codes and Standards, on August 8, 1996, and Subsection IWL of Section XI, ASME Code. NCR 971001038 was initiated during the surveillance. An operability assessment and engineering calculations were performed and determined that containment structural

ABSTRACT OF RESULTS OF EXAMINATIONS & TESTS

integrity is adequate for its design loads. The containment concrete was inspected as mandated by the NRC final rule. Examination was performed between June and July 1998. Results of the examination concluded that the containment structure's concrete shell is acceptable and will be able to withstand its design loads. Detail reports are enclosed in attachment-1.

ABSTRACT OF CORRECTIVE MEASURES

All the ISI NDE examinations were found Code acceptable, hence corrective measures were not needed.

4 ABSTRACT OF NIS-2 REPAIRS & REPLACEMENTS

Abstract of Records of Repairs and Replacements

	MO	EQID	Class	NIS-2	Worksum
1	95051027003	2LV0110B	III-2	1/26/99	Replaced valve plug
2	95051300000	2LV0227A	III-2	9/16/97	Replaced upper and lower valve plugs
3	95111190000	2PV0201A	III-2	4/26/99	Replaced valve spindle
4	96090159000	2LV0110A	III-2	4/13/98	Replaced valve spindle
5	96100247000	S21208MU166	III-2	1/12/99	Removed/replaced body-to-bonnet seal weld
6	97030391000	S21104CEDM	III-1	2/26/99	Replaced CEDM's #19 & #67 ball seal housings
7	97030424000	026-44409	III-2	9/11/98	Replaced relief valve spindle point
8	97061681000	RS-046-97-H	III-1	3/8/99	Fabricated instrument nozzle
9	97070201000	S21201MU019	III-1	4/13/98	Replaced check valve
10	97070291000	2HV9323	III-2	4/15/99	Removed/replaced body-to-bonnet seal weld
11	97070339000	S21201MU021	III-1	4/13/98	Replaced check valve
12	97080010000	S21301ME089P	III-1	3/16/98	Replaced manway cover bolting
13	97080013000	S21301ME088P	III-1	3/16/98	Replaced manway cover bolting
14	97080542000	S21208MU068	III-2	4/13/98	Replaced valve disc
15	97081627002	S21208MU067	III-2	8/11/98	Replaced check valve
16	97100646000	027-79890	III-1	3/5/98	Fabricated spare Inconel RCS PDT type-2 nozzle
17	97100647000	027-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
18	97100648000	027-79882	III-1	3/30/98	Fabricated spare RCS thermowell
19	97100741000	027-79866	III-1	1/29/99	Fabricated RCS temperature nozzle plugs
20	97100965000	027-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
21	97100966000	027-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
22	97100967000	027-79858	III-1	4/13/98	Fabricated spare RCS instrument nozzle
23	97100968000	027-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
24	97100969000	027-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
25	97100970000	027-79858	III-1	4/13/98	Fabricated spare RCS instrument nozzle
26	97100971000	027-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
27	97100972000	027-79858	III-1	4/13/98	Fabricated spare RCS instrument nozzle
28	97100973000	027-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
29	97100974000	027-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
30	97100975000	027-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
31	97100976000	027-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
32	97100977000	027-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
33	97100978000	027-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
34	97100979000	027-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
35	97100980000	027-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
36	97100981000	027-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
37	97100982000	027-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
38	97100983000	027-79858	III-1	4/13/98	Fabricated spare RCS instrument nozzle
39	97100984000	027-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
40	97100985000	027-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
41	97100986000	027-79858	III-1	4/13/98	Fabricated spare RCS instrument nozzle
42	97100987000	027-79858	III-1	4/13/98	Fabricated spare RCS instrument nozzle
43	97100988000	027-79858	III-1	4/13/98	Fabricated spare RCS instrument nozzle

Abstract of Records of Repairs and Replacements

	MO	EQID	Class	NIS-2	Worksum
44	97100989000	027-79858	III-1	4/13/98	Fabricated spare RCS instrument nozzle
45	97100990000	027-79858	III-1	4/13/98	Fabricated spare RCS instrument nozzle
46	97100991000	027-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
47	97100992000	027-79858	III-1	4/13/98	Fabricated spare RCS instrument nozzle
48	97100995000	027-79858	III-1	4/13/98	Fabricated spare RCS instrument nozzle
49	97100996000	027-79858	III-1	4/13/98	Fabricated spare RCS instrument nozzle
50	97100997000	027-79858	III-1	4/13/98	Fabricated spare RCS instrument nozzle
51	97100998000	027-79858	III-1	4/13/98	Fabricated spare RCS instrument nozzle
52	97100999000	027-79858	III-1	4/13/98	Fabricated spare RCS instrument nozzle
53	97101000000	027-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
54	97101001000	027-79858	III-1	4/13/98	Fabricated spare RCS instrument nozzle
55	97101002000	027-79858	III-1	4/13/98	Fabricated spare RCS instrument nozzle
56	97101007000	027-79882	III-1	3/5/98	Fabricated spare RCS thermowell
57	97101009000	027-79882	III-1	3/30/98	Fabricated spare RCS thermowell
58	97101010000	027-79882	III-1	3/5/98	Fabricated spare RCS thermowell
59	97101011000	027-79882	III-1	3/30/98	Fabricated spare RCS thermowell
60	97101012000	027-79882	III-1	3/30/98	Fabricated spare RCS thermowell
61	97101013000	027-79882	III-1	3/30/98	Fabricated spare RCS thermowell
62	97101015000	027-79882	III-1	3/5/98	Fabricated spare RCS thermowell
63	97101016000	027-79882	III-1	3/5/98	Fabricated spare RCS thermowell
64	97101017000	027-79882	III-1	3/5/98	Fabricated spare RCS thermowell
65	97101018000	027-79882	III-1	3/5/98	Fabricated spare RCS thermowell
66	97101019000	027-79882	III-1	3/5/98	Fabricated spare RCS thermowell
67	97101020000	027-79882	III-1	3/30/98	Fabricated spare RCS thermowell
68	97101021000	027-79882	III-1	3/30/98	Fabricated spare RCS thermowell
69	97101023000	027-79882	III-1	3/5/98	Fabricated spare RCS thermowell
70	97101026000	027-79882	III-1	3/5/98	Fabricated spare RCS thermowell
71	97101027000	027-79882	III-1	3/5/98	Fabricated spare RCS thermowell
72	97101029000	027-79882	III-1	3/5/98	Fabricated spare RCS thermowell
73	97101031000	027-79882	III-1	3/5/98	Fabricated spare RCS thermowell
74	97101034000	027-79882	III-1	3/5/98	Fabricated spare RCS thermowell
75	97101035000	027-79882	III-1	3/30/98	Fabricated spare RCS thermowell
76	97101036000	027-79882	III-1	3/30/98	Fabricated spare RCS thermowell
77	97101038000	027-79882	III-1	3/5/98	Fabricated spare RCS thermowell
78	97101039000	027-79882	III-1	3/5/98	Fabricated spare RCS thermowell
79	97101040000	027-79882	III-1	3/30/98	Fabricated spare RCS thermowell
80	97101041000	027-79882	III-1	3/5/98	Fabricated spare RCS thermowell
81	97101043000	027-79882	III-1	3/5/98	Fabricated spare RCS thermowell
82	97101044000	027-79882	III-1	3/5/98	Fabricated spare RCS thermowell
83	97101045000	027-79882	III-1	3/30/98	Fabricated spare RCS thermowell
84	97101046000	027-79882	III-1	3/30/98	Fabricated spare RCS thermowell
85	97101049000	027-79866	III-1	4/20/99	Fabricated RCS temperature nozzle plugs
86	97101050000	027-79866	III-1	4/20/99	Fabricated RCS temperature nozzle plugs

	MO	EQID	Class	NIS-2	Worksum
87	97101051000	027-79866	III-1	4/20/99	Fabricated RCS temperature nozzle plugs
88	97101053000	027-79866	III-1	4/20/99	Fabricated RCS temperature nozzle plugs
89	97101055000	027-79866	III-1	1/29/99	Fabricated RCS temperature nozzle plugs
90	97101056000	027-79866	III-1	1/29/99	Fabricated RCS temperature nozzle plugs
91	97101057000	027-79866	III-1	1/29/99	Fabricated RCS temperature nozzle plugs
92	97101058000	027-79866	III-1	4/20/99	Fabricated RCS temperature nozzle plugs
93	97101059000	027-79866	III-1	1/29/99	Fabricated RCS temperature nozzle plugs
94	97101060000	027-79866	III-1	1/29/99	Fabricated RCS temperature nozzle plugs
95	97101061000	027-79866	III-1	1/29/99	Fabricated RCS temperature nozzle plugs
96	97101062000	027-79866	III-1	1/29/99	Fabricated RCS temperature nozzle plugs
97	97101063000	027-79866	III-1	4/20/99	Fabricated RCS temperature nozzle plugs
98	97101064000	027-79866	III-1	1/29/99	Fabricated RCS temperature nozzle plugs
99	97101066000	027-79890	III-1	1/6/99	Fabricated spare Inconel RCS PDT type-2 nozzle
100	97101067000	027-79890	III-1	3/27/98	Fabricated spare Inconel RCS PDT type-2 nozzle
101	97101068000	027-79890	III-1	3/5/98	Fabricated spare Inconel RCS PDT type-2 nozzle
102	97101069000	027-79890	III-1	3/27/98	Fabricated spare Inconel RCS PDT type-2 nozzle
103	97101070000	027-79890	III-1	1/26/99	Fabricated spare Inconel RCS PDT type-2 nozzle
104	97101071000	027-79890	III-1	1/26/99	Fabricated spare Inconel RCS PDT type-2 nozzle
105	97101072000	027-79890	III-1	10/27/98	Fabricated spare Inconel RCS PDT type-2 nozzle
106	97101073000	027-79890	III-1	1/26/99	Fabricated spare Inconel RCS PDT type-2 nozzle
107	97101074000	027-79890	III-1	4/22/98	Fabricated spare Inconel RCS PDT type-2 nozzle
108	97101538000	503-01	III-1	6/2/98	Replaced half nozzles and thermowells
109	97101554000	503-03	III-1	4/13/98	Replaced half nozzles and thermowells
110	97101664000	S21208MU164	III-2	1/11/99	Replaced stem & disc assembly
111	97101957001	S21201ME605	III-1	6/2/98	Replaced pressurizer heater
112	97110434000	419-01	III-1	3/17/98	Installed MNSA clamps
113	97110607000	027-79890	III-1	3/5/98	Fabricated spare Inconel RCS PDT type-2 nozzle
114	97110609000	027-79890	III-1	1/6/99	Fabricated spare Inconel RCS PDT type-2 nozzle
115	97110610000	027-79890	III-1	3/27/98	Fabricated spare Inconel RCS PDT type-2 nozzle
116	97110611000	027-79890	III-1	3/5/98	Fabricated spare Inconel RCS PDT type-2 nozzle
117	97110612001	027-79890	III-1	3/27/98	Fabricated spare Inconel RCS PDT type-2 nozzle
118	97110613000	027-79890	III-1	1/26/99	Fabricated spare Inconel RCS PDT type-2 nozzle
119	97110614000	027-79890	III-1	1/26/99	Fabricated spare Inconel RCS PDT type-2 nozzle
120	97110615002	027-79890	III-1	10/27/98	Fabricated spare Inconel RCS PDT type-2 nozzle
121	97110616000	027-79890	III-1	1/26/99	Fabricated spare Inconel RCS PDT type-2 nozzle
122	97110617000	027-79890	III-1	4/22/98	Fabricated spare Inconel RCS PDT type-2 nozzle
123	97110639000	504-01	III-1	6/2/98	Replaced half nozzles and thermowells
124	97110641000	505-04	III-1	6/2/98	Replaced half nozzles and thermowells
125	97110642000	505-01	III-1	6/2/98	Replaced half nozzles and thermowells
126	97110643000	504-04	III-1	6/2/98	Replaced half nozzles and thermowells
127	97111283000	S21208MW219	III-2	4/13/98	Replaced bladder assembly valve stem
128	97120483000	027-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
129	97120484000	027-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle

	MO	EQID	Class	NIS-2	Worksum
130	97120485000	027-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
131	97120486000	027-79858	III-1	4/13/98	Fabricated spare RCS instrument nozzle
132	97120487000	027-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
133	97120488000	027-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
134	97120489000	027-79858	III-1	4/13/98	Fabricated spare RCS instrument nozzle
135	97120490000	027-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
136	97120491000	027-79858	III-1	4/13/98	Fabricated spare RCS instrument nozzle
137	97120492000	027-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
138	97120493000	027-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
139	97120494000	027-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
140	97120495000	027-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
141	97120496000	027-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
142	97120497000	027-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
143	97120498000	027-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
144	97120499000	027-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
145	97120500000	027-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
146	97120502000	027-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
147	97120503000	027-79858	III-1	4/13/98	Fabricated spare RCS instrument nozzle
148	97120504000	027-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
149	97120505000	027-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
150	97120506000	027-79858	III-1	4/13/98	Fabricated spare RCS instrument nozzle
151	97120507000	027-79858	III-1	4/13/98	Fabricated spare RCS instrument nozzle
152	97120508000	027-79858	III-1	4/13/98	Fabricated spare RCS instrument nozzle
153	97120509000	027-79858	III-1	4/13/98	Fabricated spare RCS instrument nozzle
154	97120510000	027-79858	III-1	4/13/98	Fabricated spare RCS instrument nozzle
155	97120511000	027-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
156	97120513000	027-79858	III-1	4/13/98	Fabricated spare RCS instrument nozzle
157	97120514000	027-79858	III-1	4/13/98	Fabricated spare RCS instrument nozzle
158	97120515000	027-79858	III-1	4/13/98	Fabricated spare RCS instrument nozzle
159	97120516000	027-79858	III-1	4/13/98	Fabricated spare RCS instrument nozzle
160	97120517000	027-79858	III-1	4/13/98	Fabricated spare RCS instrument nozzle
161	97120518000	027-79858	III-1	4/13/98	Fabricated spare RCS instrument nozzle
162	97120519000	027-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
163	97120520000	027-79858	III-1	4/13/98	Fabricated spare RCS instrument nozzle
164	97120522000	027-79858	III-1	4/13/98	Fabricated spare RCS instrument nozzle
165	97120525000	027-79858	III-1	1/29/99	Fabricated RCS loop temp nozzle
166	97120530000	027-79890	III-1	3/5/98	Fabricated spare Inconel RCS PDT type-2 nozzle
167	97120531000	027-79890	III-1	1/6/99	Fabricated spare Inconel RCS PDT type-2 nozzle
168	97120532000	027-79890	III-1	3/27/98	Fabricated spare Inconel RCS PDT type-2 nozzle
169	97120533000	027-79890	III-1	3/5/98	Fabricated spare Inconel RCS PDT type-2 nozzle
170	97120534000	027-79890	III-1	3/27/98	Fabricated spare Inconel RCS PDT type-2 nozzle
171	97120535000	027-79890	III-1	1/26/99	Fabricated spare Inconel RCS PDT type-2 nozzle
172	97120536000	027-79890	III-1	1/26/99	Fabricated spare Inconel RCS PDT type-2 nozzle

	MO	EQID	Class	NIS-2	Worksum
173	97120537000	027-79890	III-1	10/27/98	Fabricated spare Inconel RCS PDT type-2 nozzle
174	97120538000	027-79890	III-1	1/26/99	Fabricated spare Inconel RCS PDT type-2 nozzle
175	97120539000	027-79890	III-1	4/22/98	Fabricated spare Inconel RCS PDT type-2 nozzle
176	97120732000	027-79858-236-97	III-1	1/29/99	Fabricated RCS loop temp nozzle
177	97120733000	027-79858-237-97	III-1	1/29/99	Fabricated RCS loop temp nozzle
178	97120735000	027-79858-238-97	III-1	1/29/99	Fabricated RCS loop temp nozzle
179	97120736000	027-79858-239-97	III-1	1/29/99	Fabricated RCS loop temp nozzle
180	97120737000	027-79858-240-97	III-1	1/29/99	Fabricated RCS loop temp nozzle
181	97120739000	027-79858-241-97	III-1	1/29/99	Fabricated RCS loop temp nozzle
182	97120740000	027-79858-242-97	III-1	1/29/99	Fabricated RCS loop temp nozzle
183	97120741000	027-79858-243-97	III-1	1/29/99	Fabricated RCS loop temp nozzle
184	97120742000	027-79858-244-97	III-1	1/29/99	Fabricated RCS loop temp nozzle
185	97120743000	027-79858-245-97	III-1	1/29/99	Fabricated RCS loop temp nozzle
186	97120744000	027-79858-246-97	III-1	1/29/99	Fabricated RCS loop temp nozzle
187	97120746000	027-79858-247-97	III-1	1/29/99	Fabricated RCS loop temp nozzle
188	97120747000	027-79858-248-97	III-1	1/29/99	Fabricated RCS loop temp nozzle
189	97120795000	027-79882-249-97	III-1	3/30/98	Fabricated RCS Loop Thermowell
190	97120796000	027-79882-250-97	III-1	3/30/98	Fabricated RCS Loop Thermowell
191	97120797000	027-79882-251-97	III-1	3/30/98	Fabricated RCS Loop Thermowell
192	97120799000	027-79882-253-97	III-1	3/30/98	Fabricated RCS Loop Thermowell
193	97120801000	027-79882-255-97	III-1	3/30/98	Fabricated RCS Loop Thermowell
194	97120802000	027-79882-256-97	III-1	3/30/98	Fabricated RCS Loop Thermowell
195	97120803000	027-79882-257-97	III-1	3/30/98	Fabricated RCS Loop Thermowell
196	97120808000	027-79882-260-97	III-1	3/30/98	Fabricated RCS Loop Thermowell
197	98010178200	S21204ML111	III-2	8/31/98	Rerated penetration #6 design press. & temp.
198	98010376000	2PSV0200	III-1	4/15/99	Replaced pressurizer safety valve
199	98010393000	S21201ME067	III-1	4/21/99	Replaced pressurizer manway nuts
200	98010421000	2PSV0201	III-1	4/21/99	Replaced pressurizer safety valve
201	98010466000	2PSV8405	III-2	4/30/99	Replaced safety valve & inlet bolting
202	98010485000	2PSV8408	III-2	4/30/99	Replaced safety valve & inlet bolting
203	98010494000	2PSV8411	III-2	4/30/99	Replaced safety valve & inlet bolting
204	98010501000	2PSV8413	III-2	4/30/99	Replaced safety valve & inlet bolting
205	98010509000	2PSV8414	III-2	4/30/99	Replaced safety valve & inlet bolting
206	98010514000	2PSV8415	III-2	4/30/99	Replaced safety valve & inlet bolting
207	98010565000	2PSV9220	III-2	5/6/99	Replaced relief valve
208	98012461000	027-79858	III-1	1/29/99	Fabricated RCS loop temp nozzle
209	98012462000	027-79858	III-1	1/29/99	Fabricated RCS loop temp nozzle
210	98012463000	027-79858	III-1	1/29/99	Fabricated RCS loop temp nozzle
211	98012464000	027-79858	III-1	1/29/99	Fabricated RCS loop temp nozzle
212	98012465000	027-79858	III-1	1/29/99	Fabricated RCS loop temp nozzle
213	98012466000	027-79858	III-1	1/29/99	Fabricated RCS loop temp nozzle
214	98012467000	027-79858	III-1	1/29/99	Fabricated RCS loop temp nozzle
215	98012468000	027-79858	III-1	1/29/99	Fabricated RCS loop temp nozzle

Abstract of Records of Repairs and Replacements

	MO	EQID	Class	NIS-2	Worksum
216	98012469000	027-79858	III-1	1/29/99	Fabricated RCS loop temp nozzle
217	98012470000	027-79858	III-1	1/29/99	Fabricated RCS loop temp nozzle
218	98012471000	027-79858	III-1	1/29/99	Fabricated RCS loop temp nozzle
219	98012472000	027-79858	III-1	1/29/99	Fabricated RCS loop temp nozzle
220	98012729000	027-79874-004-98	III-1	1/6/99	Fabricated spare INCONEL RCS hot leg sample nozzle
221	98012730000	027-79874-005-98	III-1	1/6/99	Fabricated spare INCONEL RCS hot leg sample nozzle
222	98012731000	027-79874-006-98	III-1	4/20/99	Fabricated spare INCONEL RCS hot leg sample nozzle
223	98012733000	027-79874-004-98	III-1	1/6/99	Fabricated spare INCONEL RCS hot leg sample nozzle
224	98012734000	027-79874-005-98	III-1	1/6/99	Fabricated spare INCONEL RCS hot leg sample nozzle
225	98012735000	027-79874-006-98	III-1	4/20/99	Fabricated spare INCONEL RCS hot leg sample nozzle
226	98012736000	027-79874-007-98	III-1	4/20/99	Fabricated spare INCONEL RCS hot leg sample nozzle
227	98012737002	027-79874-007-98	III-1	4/20/99	Fabricated spare INCONEL RCS hot leg sample nozzle
228	98013012000	027-79874-004-98	III-1	1/6/99	Fabricated spare INCONEL RCS hot leg sample nozzle
229	98013015000	027-79874-005-98	III-1	1/6/99	Fabricated spare INCONEL RCS hot leg sample nozzle
230	98013016000	027-79874-006-98	III-1	4/20/99	Fabricated spare INCONEL RCS hot leg sample nozzle
231	98013019000	027-79874-007-98	III-1	4/20/99	Fabricated spare INCONEL RCS hot leg sample nozzle
232	98013163000	S21201MP004	III-1	3/17/98	Replaced mechanical seal cartridge
233	98013319000	503-03	III-1	6/4/98	Installed MNSA Clamps
234	98013356000	503-03	III-1	6/4/98	Installed MNSA Clamps
235	98013360000	S21301ME089P	III-1	3/16/98	Installed MNSA Clamps
236	98020006000	S21301ME089P	III-1	4/13/98	Cut instrument nozzle to facilitate MNSA clamp
237	98020312000	2TW0139B	III-1	6/4/98	Machined OEM RTD nozzle to prep for MNSA clamp
238	98020449000	503-03	III-1	6/4/98	Machined OEM RTD nozzle to prep for MNSA clamp
239	98020665000	S21301ME088P	III-1	3/16/98	Replaced manway cover stud
240	98021133001	027-79932-055-98	III-1	4/21/99	Fabbed partial length pressurizer heater sleeve
241	98021269000	027-79932, BORE	III-1	4/21/99	Fabbed partial length pressurizer heater sleeve
242	98031719000	503-03	III-1	4/1/99	Replaced Inconel nozzles
243	98032390000	503-01	III-1	4/5/99	Replaced Inconel nozzles
244	98040031000	S21201MR187	III-2	4/5/99	Replaced Inconel nozzles
245	98040033000	S21201MR185	III-2	4/5/99	Replaced Inconel nozzles
246	98040284001	2LV0227A	III-2	4/26/99	Replaced valve with a new model
247	98040973000	503-01	III-1	4/9/99	Replaced nozzles and thermowells
248	98040979000	503-03	III-1	4/9/99	Replaced nozzles and thermowells
249	98041018000	503-01	III-1	4/9/99	Replaced nozzle plugs
250	98041020000	503-03	III-1	4/9/99	Fabricated RCS temperature nozzle plugs
251	98041087000	S21201MR189	III-2	4/1/99	Replaced Inconel nozzles
252	98041089000	S21201MR195	III-2	4/1/99	Replaced Inconel nozzles
253	98041092000	503-03	III-1	4/9/99	Installed sample line and replacement nozzle
254	98041093000	503-01	III-1	4/9/99	Installed sample line and replacement nozzle
255	98041975000	S21301ME089	III-2	4/9/99	Replaced SG manway cover bolting
256	98050309000	S21301ME088P	III-1	4/2/99	Replaced manway cover bolting
257	98050342000	S21301ME089P	III-1	4/1/99	Replaced manway cover bolting
258	98050405000	S21301ME089	III-2	4/1/99	Replaced SG hand hole bolting

	MO	EQID	Class	NIS-2	Worksum
259	98050631000	S2-CC-372-H-002	III-2	3/8/99	Deleted spring hanger and pipe clamp assembly
260	98050644000	S2CC375H002	III-2	3/8/99	Deleted snubbers and pipe clamp assemblies
261	98050874000	S2ST014H022	III-2	2/24/99	Deleted snubbers and pipe clamp assemblies
262	98050875000	S2ST014H039	III-2	2/24/99	Replaced snubbers with rigid struts
263	98050876000	S2ST015H004	III-2	2/24/99	Deleted snubbers
264	98050877000	S2ST015H012A	III-2	2/24/99	Deleted snubbers and structural beam
265	98050878000	S2ST015H005	III-2	2/24/99	Replaced snubber with a rigid strut
266	98050879000	S2ST015H013	III-2	2/17/99	Replaced snubber with a rigid strut
267	98050992000	S2CS047H017	III-2	2/24/99	Replaced snubbers with limit stops
268	98050993000	S2SS072H00Y	III-2	2/24/99	Replaced snubber with a limit stop
269	98050994000	S2RC042H00C	III-2	2/24/99	Replaced snubber with a limit stop
270	98050995000	S2RC040H00R	III-2	2/24/99	Replaced snubber with a limit stop
271	98050996000	S2RC154H00B	III-2	2/26/99	Replaced snubber with a limit stop
272	98050998000	S2ST014H011	III-2	2/26/99	Replaced snubbers with limit stops
273	98050999000	S2ST016H00C	III-2	2/26/99	Replaced snubber with a limit stop
274	98051000000	S2ST610H002	III-2	2/26/99	Replaced snubber with a limit stop
275	98051001000	S2RC045H00H	III-2	2/26/99	Replaced snubber with a limit stop
276	98051012000	S2SI139H005	III-2	2/26/99	Replaced snubbers with limit stops
277	98051818000	S21220MX015A	III-2	4/1/99	Replaced transfer tube blind flange
278	98061003000	S21201MU006	III-1	4/9/99	Fabricated sample line
279	98061004000	S21201MU034	III-1	4/9/99	Fabricated sample line
280	98061176000	S21208MU164	III-2	1/11/99	Replaced stem & disc assembly
281	98061716000	S21301ME088P	III-1	4/2/99	Performed SG tube sleeving
282	98061720000	S21301ME089P	III-1	4/2/99	Performed SG tube sleeving
283	98061883000	S21201ME628	III-1	4/2/99	Replaced pressurizer heater
284	98062073000	S2SI087H012	III-2	2/17/99	Replaced rigid strut with a Lisega strut
285	98062983000	S21201ME602	III-1	4/2/99	Replaced pressurizer heater
286	98062984000	S21201ME603	III-1	4/2/99	Replaced pressurizer heater
287	98062985001	S21201ME606	III-1	4/2/99	Replaced pressurizer heater
288	98062986000	S21201ME610	III-1	4/2/99	Replaced pressurizer heater
289	98062987000	S21201ME612	III-1	4/2/99	Replaced pressurizer heater
290	98062988001	S21201ME615	III-1	4/2/99	Replaced pressurizer heater
291	98062989001	S21201ME616	III-1	4/5/99	Replaced pressurizer heater
292	98062990001	S21201ME617	III-1	4/5/99	Replaced pressurizer heater
293	98062991001	S21201ME618	III-1	4/2/99	Replaced pressurizer heater
294	98062992001	S21201ME627	III-1	4/2/99	Replaced pressurizer heater
295	98062994001	S21201ME629	III-1	4/2/99	Replaced pressurizer heater
296	98071086000	027-81177	III-2	4/30/99	Manufactured MSSV studs
297	98071620000	S21201ME614	III-1	4/2/99	Replaced pressurizer heater
298	98081206000	S21201ME630	III-1	4/2/99	Replaced pressurizer heater
299	98081713000	S2-RC-034-H-018	III-1	1/26/99	Relocated sway strut
300	98090051000	S21201ME622	III-1	4/2/99	Replaced pressurizer heater
301	98091413000	S21301ME088P	III-1	12/21/98	Installed tube plug in steam generator

Abstract of Records of Repairs and Replacements

	MO	EQID	Class	NIS-2	Worksum
302	98091651000	S21301ME088P	III-1	4/1/99	Machined SG instrument nozzle
303	98092168000	027-79890	III-1	4/13/99	Fabricated spare Inconel RCS PDT type-2 nozzle
304	98092172000	027-79890	III-1	4/13/99	Fabricated spare Inconel RCS PDT type-2 nozzle
305	98100925000	2HV9326	III-2	4/1/99	Removed and replaced seal weld
306	98101179000	027-79890	III-1	4/13/99	Fabricated spare Inconel RCS PDT type-2 nozzle
307	98120535000	027-83249	III-1	1/15/99	Fabricated RCS thermowells
308	98120838000	505-04	III-1	4/9/99	Replaced thermowell
309	98120848000	505-01	III-1	4/9/99	Replaced thermowells
310	99010142000	027-83249-WEED	III-1	1/15/99	Fabricated RCS thermowells
311	99010178000	2PSV8411	III-2	2/24/99	Weld repaired back side of piping inlet flange
312	99010309000	S2RC011H053	III-1	2/17/99	Replaced load stud with load pin
313	99010468000	027-83249-WEED	III-1	1/15/99	Fabricated RCS thermowells
314	99010524000	S2FW190H018E	III-2	4/2/99	Replaced snubber
315	99010625000	S2FW190H014B	III-2	4/2/99	Replaced snubber
316	99010782000	027-79858-001-99	III-1	4/20/99	Fabricated spare RCS instrument nozzle
317	99010823000	027-79858-001-99	III-1	4/20/99	Fabricated spare RCS instrument nozzle
318	99010872000	027-83249	III-1	3/12/99	Fabricated spare thermowells
319	99011014000	2LV0227A	III-2	2/8/99	Removed the welded code name plate
320	99011031001	S2ST001H007A	III-2	3/8/99	Removed metal on snubber end cap
321	99011054000	S2SI087H012	III-2	1/16/02	Replaced circlip type load pins w/cotter pin type
322	99011125000	S2RC140H00M	III-2	4/2/99	Replaced snubber
323	99011126000	S2RC031H001	III-1	4/2/99	Replaced snubber
324	99011190000	S2ST015H013	III-2	3/1/99	Replaced circlip type load pins w/cotter pin type
325	99011309000	S2SI038H030	III-2	2/24/99	Replaced NPSI strut with Lisega strut
326	99011422000	2HV6216	III-2	5/11/99	Replaced valve disc
327	99011591000	S2ST014H043	III-2	4/2/99	Replaced snubber
328	99011598000	S2RC149H00C	III-2	4/2/99	Replaced snubber
329	99011733001	S21301ME088P	III-1	2/25/99	Installed welded tubesheet plugs in SG
330	99020249000	S2RC150H00B	III-2	4/2/99	Replaced snubber
331	99020652000	S2-1212-ML-030	III-2	3/2/99	Repaired "saw" marks on sample line
332	99020953002	S21415MU236	III-2	5/6/99	Replaced valve disc

5 NDE RECORDS

NDE PROCEDURES:

SO23-XXVII-20.28	Ultrasonic Examination of Reactor Vessel Flange Stud Hole Threads
SO23-XXVII-20.47	Magnetic Particle Examination
SO23-XXVII-20.48	Liquid Penetrant Examination
SO23-XXVII-20.49	Visual Examination Procedure to Determine the Condition of Nuclear Parts, Components and Surfaces
SO23-XXVII-20.50	Visual Examination Procedure for the Evidence of Leakage
SO23-XXVII-20.51	Visual Examination Procedure for Operability of Nuclear Components and Supports and Conditions Relating to their Functional Adequacy
SO23-XXVII-20.52	UT Examination of Nozzle Inner Radius Areas
SO23-XXVII-20.53	UT Examination of Thickness Measurement
SO23-XXVII-20.54	UT Examination of Nuclear Cooling System Ferritic Piping
SO23-XXVII-20.55	UT Examination of Nuclear Cooling System Austenitic Piping
SO23-XXVII-20.56	UT Flaw Sizing
SO23-XXVII-20.57	UT Examination of Steel Forged Bolts & Studs, 2" and Greater in Diameter.
SO23-XXVII-20.58	UT Examination of Ferritic Steel Welds Using Time-of-Flight Diffraction Method
SO23-XXVII-20.59	Planar Size Characterization to ASME Section XI Code Requirements
SO23-XXVII-20.61	Preparation of the "ADAM" System
SO23-XXVII-20.62	Evaluation & Analysis of UT C-Scan Data Using ADAM Plus UT Imaging System
SO23-XXVII-20.63	UT Examination of Reactor Coolant Pump Flywheels
SO23-XXVII-20.66	UT of Vessel Welds & Adjacent Base Metal
SO23-XXVII-20.67	UT Examination of Reactor Coolant Pump Flywheels without Inner Bore Keyways

NDE PERSONNEL CERTIFICATION RECORDS

NAMES	METHOD	LEVEL	Cert	Eye Test
Lambert MacGill & Thomas, Inc.				
Layn R. Davis	UT, PT, MT	III	X	X
William D. Carlin	UT	III	X	X
	PT	II	X	X
Jeffrey M. Johnson	UT, PT, MT	II	X	X
	VT-1,2,3	II	X	X
Travis W. Thomas	UT, PT, MT	II	X	X
	VT-1,3	II	X	X
Jeffery L. Devers	MT, PT, UT	II	X	X
	VT-1	II	X	X
Todd P. Blechinger	UT, PT, MT	II	X	X
Southern California Edison (SCE)				
Barry Seaholts	VT-1,2,3	II	X	X
T.M. Pierno	VT-1,2,3	II	X	X
Robert Keller	VT-2,	II	X	X
H.Edward McNeill	VT-2	II	X	X
P.Fred Haderlie	VT-2	II	X	X

6 ISI PROCEDURES & CONSTRUCTION WORK ORDERS

ISI Procedures

SO23-IN-1	Inservice Inspection Program
SO123-XVII-1	Inservice Inspection Program Implementation
SO123-XVII-1.1	Inservice Inspection Maintenance
SO23-XVII-3.1	Inservice Inspection of Class 1 Components and Their Supports
SO23-XVII-3.1.1	Refueling Outage Interval Examination of the Reactor Coolant Pressure Boundary to Detect Leakage
SO23-XVII-3.2	Inservice Inspection of Class 2 Components and Their Supports
SO23-XVII-3.3	Inservice Inspection of Class 3 Components and Their Supports
SO23-XVII-3.4	Location Reference Markers
SO123-XVII-2	Inservice Inspection of Reactor Coolant Pump Flywheels

ISI Construction Work Orders

Inside Containment.....98061880
Outside Containment.....98061879

7 MECHANICAL SEAL ASSEMBLY (MNSA), VISUAL EXAMINATION RESULTS

As stated in letter from J. L. Rainsberry (SCE) to Document Control Desk (U.S. NRC), dated April 30, 1998; Subject : Docket Nos. 50-361 and 50-362, use of the Mechanical Nozzle Seal Assembly (MNSA), San Onofre Nuclear Generating Station, Units 2 and 3 (Tac Nos. M99558 and M99599), visual examination of all installed MNSA's were performed. Results of the inspection were satisfactory except MNSA on nozzle 2TE0122-4, two locations measurements were slightly above of the tolerance (0.005" and 0.003"). An engineering evaluation was performed (Action Request No. 990100544-01). Evaluation concluded that as found condition is operable and can perform its original designed safety function, however, MNSA clamp was replaced by a welded nozzle design as stated in above letter.

8 STEAM GENERATOR EXAMINATIONS

SOUTHERN CALIFORNIA
EDISON
An EDISON INTERNATIONAL™ Company

A. Edward Scherer
Manager of
Nuclear Regulatory Affairs

February 9, 1999

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

Gentlemen:

Subject: Docket No. 50-361
Special Report: Inservice Inspection of Steam Generator Tubes
San Onofre Nuclear Generating Station, Unit 2

Reference: Steam Generator Program Guidelines, Nuclear Energy Institute Document Number NEI 97-06 [Original], dated December 1997

On January 25, 1999, Southern California Edison (SCE) completed the inservice inspection of steam generator tubes at San Onofre Nuclear Generating Station Unit 2. The attached report satisfies the following reporting requirements of Technical Specification 5.7.2.c:

- Within 15 days of inspection completion, report the number of tubes plugged and tubes sleeved in each steam generator;
- Prior to the resumption of plant operation, report the results of steam generator tube inspections which fall into Category C-3; and
- Within 12 months of inspection completion, report the complete results of steam generator tube inspections.

In addition, the contents of the report were prepared using the guidance contained in the above reference. SCE plans to supplement this report with additional information regarding the steam generator tube integrity assessment in 1999. This supplemental information will conform with the NEI suggested content guidance.

P. O. Box 128
San Clemente, CA 92674-0128
949-368-7501
Fax 949-368-7575

This report contains no new commitments. If you require any additional information, please so advise.

Sincerely,

Attachment:

cc: E. W. Merschoff, Regional Administrator, NRC Region IV
J. W. Clifford, NRC Project Manager, San Onofre Units 2 & 3
J. A. Sloan, NRC Senior Resident, San Onofre Units 2 & 3
Institute of Nuclear Power Operations (INPO)

bcc:

Hard Copy Distribution

Harold B. Ray, Executive Vice
President, Rm 428, GO1
E. K. Aghjayan (City of Anaheim)
Public Utilities Dept.
P.O. Box 3222
Anaheim, CA 92803
B. D. Carnahan (City of Riverside)
Public Utilities Dept.
3900 Main St.
Riverside, CA 92522
CDM Files , D2P, SONGS
Compliance Files, D3D, SONGS
ELFS Files (2), D3E, SONGS
RCTS Files, D3C, SONGS

E-Mail Distribution

R. W. Krieger, Vice President
D14, SONGS
D. E. Nunn, Vice President
E50, SONGS
D. P. Breig, D25, SONGS
G. T. Gibson, D3D, SONGS
J. A. Madigan, D13, SONGS
E. S. Medling, D3D, SONGS
M. R. Olson (SDG&E), L-50, SONGS
D. K. Porter, Rm 337, GO1
K. A. Slagle, D4C, SONGS

C. L. Walsh, D3E, SONGS

Reviewers:

D. E. Nunn ~~See Attached~~ per verbal
M. Short* communication
A. Matheny* with Clay W.
D. Evans*
C. E. Williams CEW
J. L.. Rodriguez JR

*Concurrence received via E-mail

ATTACHMENT

SPECIAL REPORT - INSERVICE INSPECTION OF STEAM GENERATOR TUBES

SPECIAL REPORT - INSERVICE INSPECTION OF STEAM GENERATOR TUBES

Regulatory Reporting Requirements

Reporting Requirement 5.7.2.c of Appendix A, Technical Specification to Facility Operating License NPF-10, requires the number of tubes plugged and tubes sleeved in each steam generator to be reported to the Nuclear Regulatory Commission within 15 days following completion of the inspection.

Reporting Requirement 5.7.2.c of Appendix A, Technical Specification to Facility Operating License NPF-10, requires the results of steam generator tube inspections which fall into Category C-3 to be reported to the Nuclear Regulatory Commission prior to resumption of plant operation.

Reporting Requirement 5.7.2.c of Appendix A, Technical Specification to Facility Operating License NPF-10, requires the complete results of steam generator tube inspections to be reported to the Nuclear Regulatory Commission within 12 months following completion of the inspection.

Planned Inspection Scope

Table 1 summarizes the planned inspection program. Also, when indications by the bobbin probe were non-quantifiable or distorted, the inspection program included inspection with the Plus-Point Probe. Table 4 provides the list of Nondestructive Examination (NDE) techniques utilized for each degradation mechanism.

Inspection Scope Expansion

Table 2 summarizes significant inspection program scope expansion in response to inspection results. The following explanatory details are provided for these expansions.

It should be noted that only one apparently small axial indication was detected in the sludge pile region near the top of the cold leg tubesheet. This was the first time that this specific tube location had been examined with a rotating probe, so the time that this indication may have been present cannot be ascertained. It should be noted that an expansion with the plus point probe to 100% of these locations in both steam generators did not detect further indications of this type. In the course of this first-time 100% inspection of this location with the plus point probe, 5 volumetric indications associated with eddy current indications of foreign object presence were detected. These volumetric indications would not have been detectable in previous bobbin probe inspections, due to their proximity to the top-of-tubesheet. The volumetric indications, and associated tubes with eddy current indications of foreign objects were removed from service by installation of a "stabilizer" spanning the affected region, and plugging. Associated foreign objects were not visible during visual examination of the outer periphery of the tube bundle, and retrieval efforts within the tubing bundle were deemed not practical.

An axial crack indication at a dented eggcrate tube support was found within a defined "buffer zone" (the uppermost hot leg eggcrate tube support) for a "critical area for inspection." In response to this, the critical area was re-defined to include this buffer zone. A new buffer zone was defined as all dented tube supports at the next highest elevation (the hot leg diagonal bar support).

Results

This report satisfies the listed regulatory reporting requirements.

The contents of this report are prepared using the guidance contained in NEI 97-06, Rev. 0, "Steam Generator Program Guidelines." The NEI guidance is an initiative to unify the industry approach towards steam generator issues and strengthen, where necessary, the steam generator program. In accordance with the suggested NEI guidance, the following five (5) report contents are included within this report.

(1) Scope of inspections performed;
(2) Active Degradation Mechanisms found;
(3) Nondestructive Examination (NDE) techniques utilized for each degradation mechanism;
(4) Number of tubes plugged or repaired during the inspection outage for each active degradation mechanism. Repair methods utilized and the number of tubes repaired by each repair method; and
(5) Total number and percentage of tubes plugged and/or repaired to date and the effective plugging percentage in each steam generator.

Although this report satisfies the Technical Specification reporting requirements, an update will provided to include the following additional three NEI suggested content items:

(6) Description of the tube integrity assessment;
(7) Description of corrective actions implemented, if any;
(8) Evaluation of circumstances if condition monitoring results exceeded the previous cycle operational assessment.

Table 3 summarizes significant inspection results, and active degradation mechanisms found. Each tube is only counted once in this listing, although it may also have an eddy current indication of a type below the point in the listing where it appears. The Appendices provide the complete results of the steam generator tubing inservice inspection.

Table 5 summarizes in-situ pressure and leak testing results. This particular testing demonstrated the structural and leakage (i.e., there was no leakage) integrity of the tested tubes.
Preliminary review of eddy current testing results and in-situ pressure and leak testing results indicates that performance criteria in the NEI guidance (structural integrity and accident-induced leakage) were met during operation prior to this inspection.

Repair of Tubes

Table 3 lists the number of tubes repaired (removed from service by plugging, or repaired by sleeving) for each steam generator. Table 6 provides an itemized listing of the tubes plugged in steam generator E-088 along with the corresponding Table 3 category specifying the indication orientation/location. Table 7 provides an itemized listing of the tubes sleeved in steam generator E-088 along with the corresponding Table 3 category specifying the indication orientation/location. Table 8 provides an itemized listing of the tubes plugged in steam generator E-089 along with the corresponding Table 3 category specifying the indication orientation/location. Table 9 provides an itemized listing of the tubes sleeved in steam generator E-089 along with the corresponding Table 3 category specifying the indication orientation/location.

Repair Methods, Number of Tubes Repaired and Effective Plugging Percentage

All tube plugging was performed using the design, materials, and installation methods of FRAMATOME Technologies, Inc. (FTI). A "weld" method was used for two tube plugs, and a "roll" method was used for all other tube plugs. Seventeen tubes were "stabilized" in the vicinity of the top of the tubesheet using the design, materials, and installation methods of FTI.

All tube sleeving was performed using the welded sleeve design, materials, and installation methods of ABB Combustion Engineering. This repair method is specifically addressed in the San Onofre Unit 2 and 3 Technical Specifications.

Fifty-two tubes were plugged, and 85 tubes were sleeved in Steam Generator E-088 during the Cycle 10 refueling outage. A total of 688 tubes have been plugged and 85 tubes have been sleeved to date. The design number of tubes is 9350 tubes and the sleeve to plug equivalency ratio is 38 sleeves per plug. The effective plugging percentage for E-088 is 7.4%.

50 tubes were plugged, and 52 tubes were sleeved in Steam Generator E-089 during the Cycle 10 refueling outage. A total of 708 tubes have been plugged and 52 tubes have been sleeved to date. The design number of tubes is 9350 tubes and the sleeve to plug equivalency ratio is 38 sleeves per plug. The effective plugging percentage for E-089 is 7.6%.

Causes And Corrective Actions

The degradation detected during this inspection remained within the Technical Specification category "C-3". There is no significant update since the previous report of causes and corrective actions for "C-3" category results. Thus, this portion of the previous report is provided below.

Actions have been taken to improve the secondary side chemistry environment for steam generator tubing in both Unit 2 steam generators. These actions have been reviewed by a panel of industry experts for application at SONGS. The expert panel concurs with these measures. The actions include:

1. Chemical cleaning of the entire tube bundle (full bundle) performed during the last refueling outage.

2. Addition of an inhibitor (titanium dioxide) for IGA/SCC immediately after the chemical cleaning for maximum crevice penetration potential.

3. Use of Ethanolamine (ETA) for pH control of the secondary fluids.

4. Boric acid addition in the secondary side to help reduce denting of the tube supports and stress corrosion cracking of tubing.

In addition, SCE has initiated a plan to reduce the reactor coolant temperature at the steam generator inlet (T-hot) by about 13° F. SCE expects this will reduce stress corrosion cracking of the tubing initiating from the inside diameter of the tubing. The first phase of this plan, a reduction of about 4° F, was completed in January 1998.

Description of Tables and Appendices

Table 1 - Summary of the Planned Inspection Program for the Unit 2 Cycle 10 (U2C10) Refueling Outage

Table 2 - Summary of Significant Scope Expansion for the U2C10 Refueling Outage

Table 3 - Number of Tubes Repaired and Active Degradation Mechanisms Found During the U2C10 Refueling Outage

Table 4 - List of Nondestructive Examination (NDE) Techniques Utilized for Each Degradation Mechanism for the U2C10 Refueling Outage

Table 5 - Summary of Results of In-Situ Pressure and Leak Testing for the U2C10 Refueling Outage

Table 6 - U2C10 Refueling Outage Tubes Plugged, Steam Generator E-088

Table 7 - U2C10 Refueling Outage Tubes Sleeved, Steam Generator E-088

Table 8 - U2C10 Refueling Outage Tubes Plugged, Steam Generator E-089

Table 9 - U2C10 Refueling Outage Tubes Sleeved, Steam Generator E-089

Appendix 1 - Steam Generator Reference Information

Appendix 2 - Legend for Appendix 3 and 4

Appendix 3 - Inspection Summary, Steam Generator E-088

Appendix 4 - Inspection Summary, Steam Generator E-089

TABLES

TABLE 1 - Summary of the Planned Inspection Program for the Unit 2 Cycle 10 Refueling Outage

	Number of Tubes/Percentage of Tubes Steam Generator E-088	E-089
Full length of tube with the bobbin probe	8714 / 100%	8692 / 100%
Hot leg expansion transition at the top-of-tubesheet with the Plus Point Probe	8714 / 100%	8692 / 100%
Cold leg expansion transition at the top-of-tubesheet with the Plus Point Probe	1926 / 22%	1900 / 21%
Tight radius U-bend regions Rows 1, 2 and 3 with the Plus-Point Probe	184 / 100%	185 / 100%
Plus-Point Probe examination of all hot leg eggcrate supports with dents > or equal to 2 volts and dings in that region > or equal to 5 volts	3070 / 100%	2260 / 100%
Plus-Point Probe examination of all tube support intersections with quantified wear indications by the bobbin probe	236 / NA	270 / NA
Rotating pancake coil probe exam of INCONEL 690 tube plugs that had been previously installed in the hot leg using a "roll" process	225 / 40%	224 / 40%

TABLE 2 - Summary of Significant Scope Expansion for the Unit 2 Cycle 10 Refueling Outage

	Number of Tubes/Percentage of Tubes Steam Generator E-088	E-089
Cold leg expansion transition at the top-of-tubesheet with the Plus-Point Probe	6788 / 100%	6792 / 100%
Plus-Point Probe examination of all hot leg diagonal bar tube supports with dents > or equal to 2 volts	127 / NA	42 / NA

TABLE 3 - Number of Tubes Repaired and Active Degradation Mechanisms Found During the Unit 2 Cycle 10 Refueling Outage

Category	Indication Orientation/Location	Steam Generator E-088	Steam Generator E-089
1	Tubes with axially oriented ID (initiated on the inside-diameter of the tubing wall) indications at tube support locations	4	3
2	Tubes with axially oriented OD (initiated on the outside-diameter of the tubing wall) indications at tube support locations	11	10
3	Tubes with axially oriented OD indications not associated with a tube support (freespan)	8	7
4	Tubes with circumferentially oriented ID indications near the expansion transition at the top of the hot leg tubesheet	46	15
5	Tubes with circumferentially oriented OD indications near the expansion transition at the top of the hot leg tubesheet	12	19
6	Tubes with axially oriented OD indications in the sludge pile region near the top of the hot leg tubesheet	14	10
7	Tubes with axially oriented OD indications in the sludge pile region near the top of the cold leg tubesheet	1	0
8	Tubes with axially oriented ID indications near the expansion transition at the top of the hot leg tubesheet	19	6
9	Tubes with axially oriented ID indications below the inlet top-of-tubesheet	3	7
10	Tubes with indications of wear at tube support locations	18	12
11	Tubes with volumetric indications associated with the presence of a foreign object	0	5
12	Tubes that were preventatively plugging based on the presence of a foreign object (not an active degradation mechanism)	0	8
13	Miscellaneous preventative plugging (not an active degradation mechanism)	1	0
	Total	137	102

TABLE 4 - List of Nondestructive Examination (NDE) Techniques Utilized for Each Degradation Mechanism During the Unit 2 Cycle 10 Refueling Outage

Category	Indication Orientation/Location	Probe Type for Detection	Probe Type for Characterization
1	Axially oriented ID (initiated on the inside-diameter of the tubing wall) indications at tube support locations	Bobbin Plus Point (Note 1)	Plus Point Plus Point
2	Axially oriented OD (initiated on the outside-diameter of the tubing wall) indications at tube support locations	Bobbin Plus Point (Note 1)	Plus Point Plus Point
3	Axially oriented OD indications not associated with a tube support (freespan)	Bobbin	Plus Point
4	Circumferentially oriented ID indications near the expansion transition at the top of the hot leg tubesheet	Plus Point	Plus Point
5	Circumferentially oriented OD indications near the expansion transition at the top of the hot leg tubesheet	Plus Point	Plus Point
6	Axially oriented indications in the sludge pile region near the top of the hot leg tubesheet	Plus Point	Plus Point
7	Axially oriented OD indications in the sludge pile region near the top of the cold leg tubesheet	Plus Point	Plus Point
8	Axially oriented ID indications near the expansion transition at the top of the hot leg tubesheet	Plus Point	Plus Point
9	Axially oriented indications below the inlet top-of-tubesheet	Bobbin	Plus Point
10	Indications of wear at tube support locations	Bobbin	Plus Point
11	Volumetric indications associated with the presence of a foreign object	Bobbin Plus Point near the top of the tubesheet	Plus Point Plus Point
12	Circumferentially or axially oriented indications within INCONEL 690 tube plugs that had been previously installed in the hot leg using a "roll" process	Pancake Coil	Pancake Coil

Note 1: Plus Point technique is used at Dents > or = to 2 volts, at or below the Diagonal Bar on the Hot leg side (DBH)

TABLE 5 - Summary of Results of In-Situ Pressure and Leak Testing for the Unit 2 Cycle 10 Refueling Outage

Steam Generator E-O88

TUBE AND EDDY CURRENT INFORMATION										IN-SITU TEST RESULTS			
REGION	TUBE INFORMATION			PLUS POINT DATA					SELECTION	GPM @	GPM @	GPM @	MAXIMUM
	ROW	COL	LOCATION	LENGTH	VOLTS	PDA	EST.	ORIENTATION	CRITERIA	NOPD	MSLB	POST MSLB	PRESSURE
EGGCRATE	21	121	04H - 0.05	0.22	1.01	NA	65	ID Axial	L	0	0	NA	4712
			04H + 0.44	0.22	0.83	NA	51	ID Axial	L	0	0	NA	4712
	62	76	06H + 0.65	0.27	1.08	NA	69	ID Axial	L	0	0	NA	4712
			06H + 0.15	0.18	0.84	NA	72	ID Axial	L	0	0	NA	4712
TUBESHEET	29	49	TSH + 0.01	0.81	1.55	16	82	ID Circ	L	0	0	NA	5254

Steam Generator E-O89

TUBE AND EDDY CURRENT INFORMATION										IN-SITU TEST RESULTS			
REGION	TUBE INFORMATION			PLUS POINT DATA					SELECTION	GPM @	GPM @	GPM @	MAXIMUM
	ROW	COL	LOCATION	LENGTH	VOLTS	PDA	EST.	ORIENTATION	CRITERIA	NOPD	MSLB	POST MSLB	PRESSURE
EGGCRATE	65	55	08H + 0.28	0.86	1.76	NA	66	ID Axial	P	0	0	NA	4712
	114	42	06H + 0.29	0.46	0.23	NA	89	OD Axial	P	0	0	NA	4712
FREESPAN	114	42	06H + 2.44	1.10	0.36	NA	NA	OD Axial	P & L	0	0	NA	4712
TUBESHEET	62	88	TSH + 0.30	0.47	0.56	NA	54	OD Axial	P & L	0	0	NA	5254
			TSH + 0.10	0.86	0.58	23.9	57	OD Circ	P	0	0	NA	5254
	12	2	TSC + 0.01	2.99	1.72	NA	NA	OD Vol	P	0	0	NA	4712
	14	2	TSC + 0.12	1.75	2.09	NA	NA	OD Vol	P	0	0	NA	4712

NOTES: The SELECTION CRITERIA column indicates the EPRI In Situ Testing Guidelines' criteria that prompted selection.
P = Pressure testing for structural integrity criteria
L = Testing for criteria for postulation of accident-induced leakage integrity
GPM = Gallons per Minute
NOPD = Normal Operation Pressure Differential
MSLB = Main Steam Line Break Pressure Differential
NA = Not Applicable
OD = Degradation initiated on the outside diameter of the tubing
ID = Degradation initiated on the inside diameter of the tubing
CIRC = Circumferential
PDA = Percent degraded area
VOL = Volumetric
EST. = Estimated maximum per-cent throughwall depth of the degradation
The test pressure that correlates to 3 times NOPD is 4712 psi for axial indications and 5254 psi for circumferential indications.

TABLE 6 - SONGS Unit 2 Cycle 10 Refueling Outage Tubes Plugged
STEAM GENERATOR E-088

Row	Column	Reason for Plugging Tube
86	26	See Table 3, Category 2
80	30	See Table 3, Category 3
82	38	See Table 3, Category 10
1	45	See Table 3, Category 4
29	49	See Table 3, Category 4
25	63	See Table 3, Category 2
9	65	See Table 3, Category 8
29	65	See Table 3, Category 2
39	75	See Table 3, Category 10
62	76	See Table 3, Category 1
145	77	See Table 3, Category 10
47	79	See Table 3, Category 10
71	81	See Table 3, Category 6
147	81	See Table 3, Category 10
53	83	See Table 3, Category 10
54	86	See Table 3, Category 10
138	86	See Table 3, Category 10
53	87	See Table 3, Category 10
147	87	See Table 3, Category 10
53	89	See Table 3, Category 8
53	91	See Table 3, Category 10
52	92	See Table 3, Category 10
144	92	See Table 3, Category 10
49	93	See Table 3, Category 10

TABLE 6 - SONGS Unit 2 Cycle 10 Refueling Outage Tubes Plugged
STEAM GENERATOR E-088

Row	Column	Reason for Plugging Tube
51	93	See Table 3, Category 10
49	97	See Table 3, Category 10
37	101	See Table 3, Category 10
47	103	See Table 3, Category 10
53	105	See Table 3, Category 2
52	106	See Table 3, Category 5
58	108	See Table 3, Category 8
124	108	See Table 3, Category 7
22	110	See Table 3, Category 1
12	112	See Table 3, Category 9
9	113	See Table 3, Category 2
25	113	See Table 3, Category 2
1	115	See Table 3, Category 8
21	115	See Table 3, Category 1
45	119	See Table 3, Category 3
47	119	See Table 3, Category 3
21	121	See Table 3, Category 1
10	124	See Table 3, Category 3
93	131	See Table 3, Category 3
117	137	See Table 3, Category 3
100	138	See Table 3, Category 2
100	140	See Table 3, Category 2
14	142	See Table 3, Category 2
99	145	See Table 3, Category 2
6	146	See Table 3, Category 2

TABLE 6 - SONGS Unit 2 Cycle 10 Refueling Outage Tubes Plugged
STEAM GENERATOR E-088

Row	Column	Reason for Plugging Tube
22	164	See Table 3, Category 3
9	167	See Table 3, Category 13
24	168	See Table 3, Category 3

TABLE 7 - SONGS Unit 2 Cycle 10 Refueling Outage Tubes Sleeved
STEAM GENERATOR E-088

Row	Column	Reason for Sleeving Tube
17	39	See Table 3, Category 5
22	42	See Table 3, Category 4
60	44	See Table 3, Category 4
26	46	See Table 3, Category 4
9	47	See Table 3, Category 4
16	48	See Table 3, Category 4
23	49	See Table 3, Category 4
27	49	See Table 3, Category 4
12	50	See Table 3, Category 4
32	50	See Table 3, Category 5
65	51	See Table 3, Category 4
64	52	See Table 3, Category 4
43	53	See Table 3, Category 4
34	54	See Table 3, Category 4
78	54	See Table 3, Category 4
53	55	See Table 3, Category 5
22	56	See Table 3, Category 4
62	56	See Table 3, Category 4
21	57	See Table 3, Category 4
43	57	See Table 3, Category 4
75	57	See Table 3, Category 4
18	58	See Table 3, Category 4
23	59	See Table 3, Category 4
38	60	See Table 3, Category 5

TABLE 7 - SONGS Unit 2 Cycle 10 Refueling Outage Tubes Sleeved
STEAM GENERATOR E-088

Row	Column	Reason for Sleeving Tube
19	61	See Table 3, Category 5
23	61	See Table 3, Category 4
80	62	See Table 3, Category 4
77	63	See Table 3, Category 4
15	65	See Table 3, Category 8
77	65	See Table 3, Category 5
50	66	See Table 3, Category 6
61	67	See Table 3, Category 4
34	68	See Table 3, Category 8
45	71	See Table 3, Category 6
67	71	See Table 3, Category 4
38	72	See Table 3, Category 8
45	73	See Table 3, Category 8
77	73	See Table 3, Category 4
62	74	See Table 3, Category 6
41	75	See Table 3, Category 8
97	77	See Table 3, Category 4
61	79	See Table 3, Category 5
58	82	See Table 3, Category 6
63	83	See Table 3, Category 6
62	84	See Table 3, Category 4
60	86	See Table 3, Category 8
62	86	See Table 3, Category 6
64	86	See Table 3, Category 6

TABLE 7 - SONGS Unit 2 Cycle 10 Refueling Outage Tubes Sleeved
STEAM GENERATOR E-088

Row	Column	Reason for Sleeving Tube
66	86	See Table 3, Category 6
63	87	See Table 3, Category 6
79	87	See Table 3, Category 4
74	88	See Table 3, Category 6
55	89	See Table 3, Category 9
61	89	See Table 3, Category 6
63	89	See Table 3, Category 5
65	89	See Table 3, Category 6
52	90	See Table 3, Category 9
60	90	See Table 3, Category 8
57	91	See Table 3, Category 8
82	94	See Table 3, Category 4
63	97	See Table 3, Category 5
74	102	See Table 3, Category 5
55	103	See Table 3, Category 4
36	104	See Table 3, Category 8
68	104	See Table 3, Category 4
64	106	See Table 3, Category 4
75	107	See Table 3, Category 4
45	109	See Table 3, Category 8
48	110	See Table 3, Category 6
8	112	See Table 3, Category 8
10	112	See Table 3, Category 5

TABLE 7 - SONGS Unit 2 Cycle 10 Refueling Outage Tubes Sleeved
STEAM GENERATOR E-088

Row	Column	Reason for Sleeving Tube
38	112	See Table 3, Category 8
46	112	See Table 3, Category 8
37	113	See Table 3, Category 8
10	114	See Table 3, Category 4
70	116	See Table 3, Category 4
83	119	See Table 3, Category 4
47	121	See Table 3, Category 4
51	121	See Table 3, Category 4
64	124	See Table 3, Category 4
74	124	See Table 3, Category 4
68	126	See Table 3, Category 4
26	128	See Table 3, Category 8
55	131	See Table 3, Category 4
14	140	See Table 3, Category 4

TABLE 8 - SONGS Unit 2 Cycle 10 Refueling Outage Tubes Plugged
STEAM GENERATOR E-089

Row	Column	Reason for Plugging Tube
11	1	See Table 3, Category 12
12	2	See Table 3, Category 11
14	2	See Table 3, Category 11
13	17	See Table 3, Category 3
49	19	See Table 3, Category 2
93	25	See Table 3, Category 2
57	27	See Table 3, Category 1
101	41	See Table 3, Category 2
114	42	See Table 3, Category 2
65	55	See Table 3, Category 1
23	61	See Table 3, Category 2
2	64	See Table 3, Category 8
120	66	See Table 3, Category 10
143	67	See Table 3, Category 10
143	69	See Table 3, Category 10
131	73	See Table 3, Category 2
106	78	See Table 3, Category 2
75	81	See Table 3, Category 10
146	82	See Table 3, Category 10
147	85	See Table 3, Category 10
62	88	See Table 3, Category 5
146	90	See Table 3, Category 10
147	93	See Table 3, Category 10
47	97	See Table 3, Category 10

TABLE 8 - SONGS Unit 2 Cycle 10 Refueling Outage Tubes Plugged
STEAM GENERATOR E-089

Row	Column	Reason for Plugging Tube
49	101	See Table 3, Category 2
36	102	See Table 3, Category 10
103	109	See Table 3, Category 9
18	116	See Table 3, Category 1
15	117	See Table 3, Category 3
20	118	See Table 3, Category 2
48	126	See Table 3, Category 9
41	127	See Table 3, Category 3
125	129	See Table 3, Category 12
126	130	See Table 3, Category 12
121	131	See Table 3, Category 12
123	131	See Table 3, Category 11
125	131	See Table 3, Category 11
120	132	See Table 3, Category 12
122	132	See Table 3, Category 12
124	132	See Table 3, Category 11
121	133	See Table 3, Category 12
123	133	See Table 3, Category 12
57	141	See Table 3, Category 9
76	148	See Table 3, Category 10
6	152	See Table 3, Category 3
92	154	See Table 3, Category 2
49	157	See Table 3, Category 10
21	163	See Table 3, Category 3

TABLE 8 - SONGS Unit 2 Cycle 10 Refueling Outage Tubes Plugged
STEAM GENERATOR E-089

Row	Column	Reason for Plugging Tube
25	163	See Table 3, Category 3
30	164	See Table 3, Category 3

TABLE 9 - SONGS Unit 2 Cycle 10 Refueling Outage Tubes Sleeved
STEAM GENERATOR E-089

Row	Column	Reason for Sleeving Tube
43	39	See Table 3, Category 4
22	50	See Table 3, Category 4
40	50	See Table 3, Category 5
46	50	See Table 3, Category 4
48	50	See Table 3, Category 5
79	51	See Table 3, Category 4
83	51	See Table 3, Category 4
62	52	See Table 3, Category 4
47	53	See Table 3, Category 6
83	53	See Table 3, Category 4
26	54	See Table 3, Category 4
29	55	See Table 3, Category 5
22	56	See Table 3, Category 4
39	61	See Table 3, Category 5
74	62	See Table 3, Category 9
47	65	See Table 3, Category 5
65	65	See Table 3, Category 8
74	70	See Table 3, Category 4
102	70	See Table 3, Category 4
47	71	See Table 3, Category 6
52	72	See Table 3, Category 5
40	74	See Table 3, Category 5
54	74	See Table 3, Category 5
51	75	See Table 3, Category 8

TABLE 9 - SONGS Unit 2 Cycle 10 Refueling Outage Tubes Sleeved
STEAM GENERATOR E-089

Row	Column	Reason for Sleeving Tube
63	85	See Table 3, Category 8
65	85	See Table 3, Category 6
64	86	See Table 3, Category 5
59	87	See Table 3, Category 5
63	87	See Table 3, Category 5
72	88	See Table 3, Category 6
59	89	See Table 3, Category 9
110	94	See Table 3, Category 6
78	96	See Table 3, Category 9
63	97	See Table 3, Category 5
109	97	See Table 3, Category 6
62	98	See Table 3, Category 5
64	100	See Table 3, Category 6
79	101	See Table 3, Category 5
63	103	See Table 3, Category 4
52	106	See Table 3, Category 6
65	107	See Table 3, Category 6
40	108	See Table 3, Category 8
46	108	See Table 3, Category 5
33	109	See Table 3, Category 9
45	109	See Table 3, Category 5
25	111	See Table 3, Category 5
12	114	See Table 3, Category 8

TABLE 9 - SONGS Unit 2 Cycle 10 Refueling Outage Tubes Sleeved
STEAM GENERATOR E-089

Row	Column	Reason for Sleeving Tube
24	116	See Table 3, Category 5
30	126	See Table 3, Category 6
34	126	See Table 3, Category 4
29	133	See Table 3, Category 4
20	148	See Table 3, Category 4

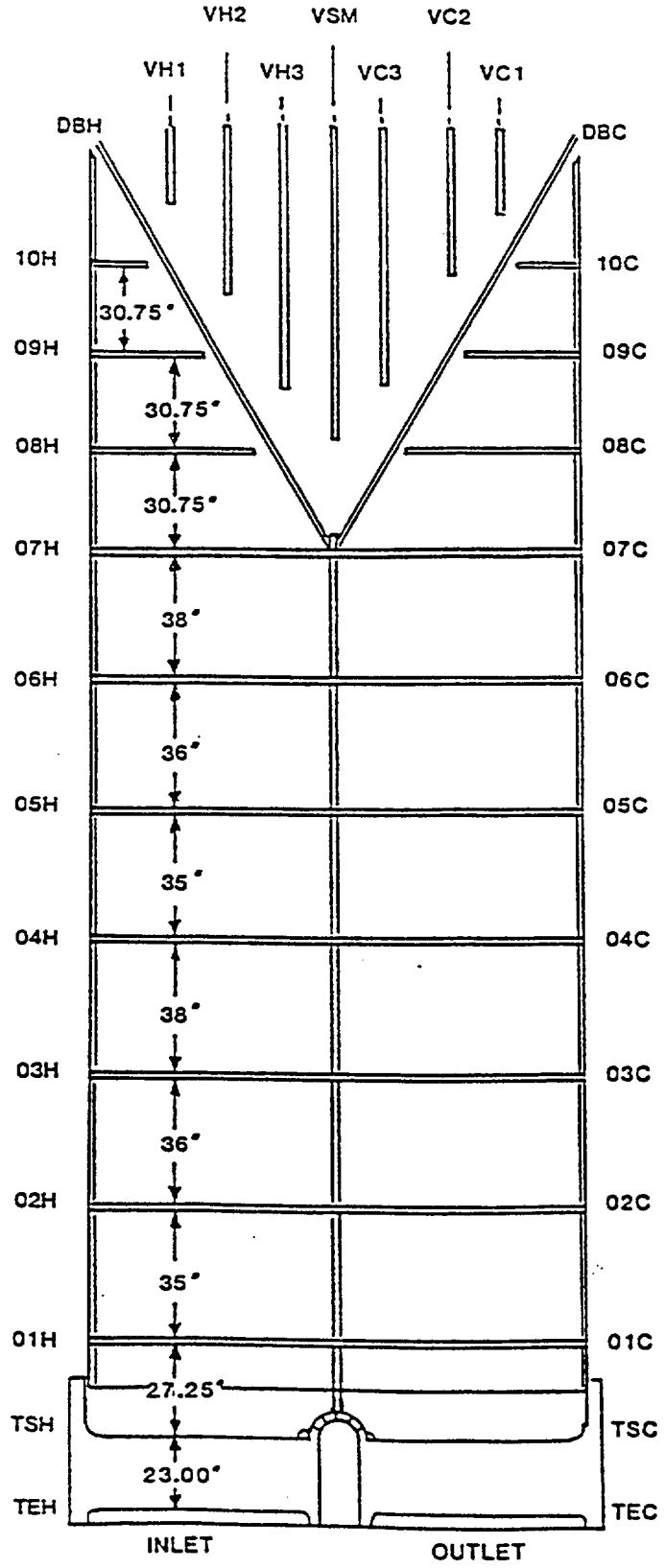
Appendix

Appendix 1

CE MODEL 3410 TUBE SUPPORT DRAWING

APPENDIX 1

CE MODEL 3410 TUBE SUPPORT DRAWING



Appendix 1

CLARIFICATION OF TUBING/SUPPORT INTERFACES

APPENDIX 1

CLARIFICATION OF TUBING/SUPPORT INTERFACES

ABOVE THE 7TH FULL EGGCRATE SUPPORT

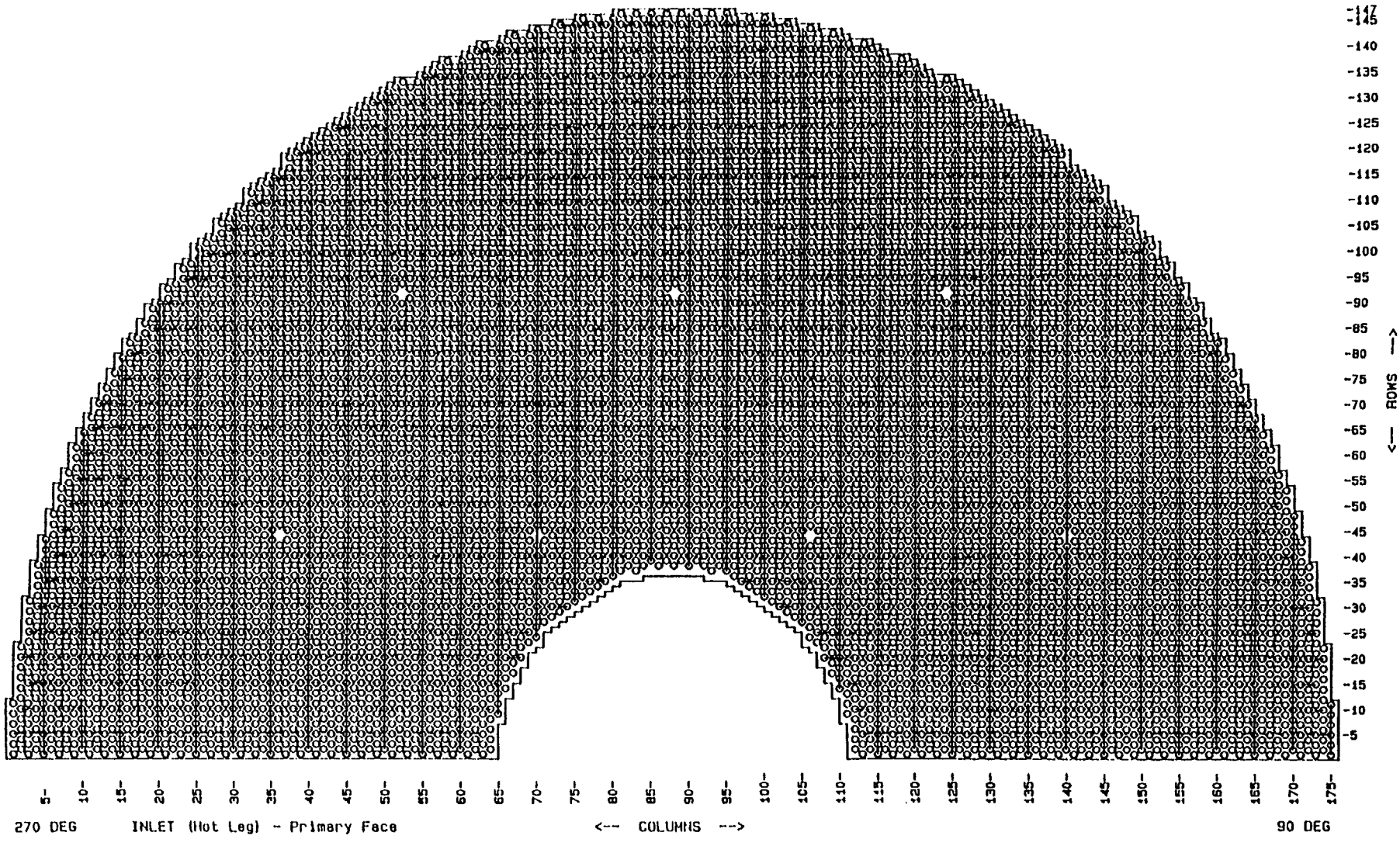
ROW(S)	TUBING/SUPPORT INTERFACES
120-147	08H,09H,10H,DBH,VH1,VH2,VH3,VSM,VC3,VC2,VC1,DBC,10C,09C,08C
115-119	08H,09H DBH,VH1,VH2,VH3,VSM,VC3,VC2,VC1,DBC 09C,08C
84-114	08H,09H DBH VH2,VH3,VSM,VC3,VC2 DBC 09C,08C
83	08H DBH VH2,VH3,VSM,VC3,VC2 DBC 08C
51-82	08H DBH VH3,VSM,VC3, DBC 08C
49-50	08H DBH VSM DBC 08C
19-48	DBH VSM DBC
1-18	DBH DBC

Appendix 1

COMBUSTION ENGINEERING MODEL 3410 STEAM GENERATOR TUBESHEET MAP

COMBUSTION ENGINEERING MODEL 3410 STEAM GENERATOR TUBESHEET MAP

TOTAL TUBES : 9350



APPENDIX 1

Appendix 2

LIST OF ABBREVIATIONS AND FORMAT USED TO DESCRIBE THE INDICATIONS FROM ROTATING PROBE TESTING

Abbreviation	Explanation of the Abbreviations
SCI	Single Circumferential Indication
MCI	Multiple Circumferential Indications
SAI	Single Axial Indication
MAI	Multiple Axial Indications
MMI	Mixed Mode Indication
SVI	Single Volumetric Indication (i.e., no special axial or circumferential aspect)
MVI	Multiple Volumetric Indications (i.e., no special axial or circumferential aspect)

FORMAT

In Appendix 3 and 4 there are 3 lines of data associated with each individual rotating probe indication. This is a descriptive example of that format.

Type	Row	Col	Volts	MIL	DEG	%	CH
SCI, MCI	XXX	XXX	1.00 1.25 40.000		0.55 1.60 27.000	SCI SCI SCI	1 P1 P1
SAI, MAI	XXX	XXX	1.28 1.25 26.000		0.59 1.00 50.000	SAI SAI SAI	1 2 2
SVI, MVI	XXX	XXX	1.84 1.25 30.000		0.48 2.00 40.000	SVI SVI SVI	1 2 2

Notes:
1. Each of the above codes must contain three entries
2. First Entry -The volts column represents Ch1 pancake coil Volts and the degree column represents Ch1 pancake coil Max Length
3. Second Entry -The volts column represents Ch2 or P1 plus-point coil Volts and the degree column represents Ch2 or P1 plus-point coil Max Length
4. Third Entry -The volts column represent Ch1 pancake coil degrees and the degree column represents Ch2 or P1 plus-point coil degrees

MMI	XXX	XXX	1.84 1.25		0.70 1.90	MMI MMI	1 2

Notes:
1. Each of the above codes must contain two entries
2. First Entry -The volts column represents Ch1 pancake coil Volts and the degree column represents axial Length
3. Second Entry -The volts column represents Ch2 or P1 plus-point coil Volts and the degree column represents Circ Length

Appendix 3

INSPECTION SUMMARY, STEAM GENERATOR 88

MAI, MCI, MMI, MVI, SAI, SCI, SVI & 0-100% TWD

UTILITY: Southern California Edison, Jan. 26,1999 15:08

PLANT: San Onofre

UNIT: 2

SG: 88

DATABASE: SONGS_U2_S088_0199 PAGE 1

	ROW	COL	VOLTS	DEG	PCT	CHN	FLAW	LOCATION	EXTENT	UTIL1	UTIL2	NAME	TYPE	CAL GROUP	LEG	PROBE SIZE
1	13	9	0.38		13	P2	05H	-[illegible].06	TEHTEC			J2362	rsec	88C00079	C	600UL
2	31	11	0.27		10	P2	DBH	-[illegible].15	TEHTEC			M4882	rsec	88C00086	C	600UL
3	43	19	0.69		23	P2	02H	-[illegible].95	TEHTEC			W9658	rsec	88C00088	C	600UL
4	78	22	0.65		21	P2	VC3	.91	TEHTEC			N2574	reso	88C00099	C	600UL
5	81	23	0.32		9	P2	DBC	-[illegible].66	TEHTEC			J9815	rpri	88C00103	C	600UL
6	86	26			SAI	2	06H	-[illegible].33	06H06H			F6623	reso	88H00151	H	500DP
7			0.26	.33	SAI	2	06H	-[illegible].33	06H06H			F6623	reso	88H00151	H	500DP
8				100	SAI	2	06H	-[illegible].33	06H06H			F6623	reso	88H00151	H	500DP
9	92	26	0.56		19	P2	VH2	-[illegible].60	TEHTEC			K3270	rsec	88C00102	C	600UL
10	102	26	0.39		16	P2	06H	-[illegible].86	TEHTEC			J1220	rpri	88C00102	C	600UL
11	80	30	0.14	.29	SAI	1	06H	-[illegible].13	06H06H			M7262	reso	88H00133	H	500DP
12			0.14	.43	SAI	2	06H	-[illegible].13	06H06H			M7262	reso	88H00133	H	500DP
13			73.00	108	SAI	2	06H	-[illegible].13	06H06H			M7262	reso	88H00133	H	500DP
14	106	30	0.36		14	P2	06H	-[illegible].86	TEHTEC			J1220	rpri	88C00102	C	600UL
15	77	33	0.38		16	P2	VSM	-[illegible].38	TEHTEC			T5565	rpri	88C00095	C	600UL
16	92	36	0.60		22	P2	VH2	-[illegible].74	TEHTEC			J1220	rpri	88C00102	C	600UL
17	89	37	0.44		22	P2	VH2	-[illegible].77	TEHTEC			P4578	rsec	88C00104	C	600UL
18			0.33		18	P2	VH2	-[illegible].90	TEHTEC			P4578	rsec	88C00104	C	600UL
19	111	37	0.37		19	P2	DBH	-[illegible].82	TSHTEC			P4578	rsec	88C00104	C	600UL
20	82	38	0.83		32	P2	VC3	-[illegible].80	TEHTEC			P4578	rsec	88C00104	C	600UL
	84	38	0.33		18	P2	09C	-[illegible].05	TEHTEC			N2574	reso	88C00104	C	600UL
	17	39	159.00	81	SCI	P1	TSH	-[illegible].01	TSHTSH			E4963	reso	88H00099	H	600PP
23			0.35	.27	SCI	1	TSH	-[illegible].01	TSHTSH			E4963	reso	88H00099	H	600PP
24			0.42	.38	SCI	P1	TSH	-[illegible].01	TSHTSH			E4963	reso	88H00099	H	600PP
25	93	39	0.29		16	P2	VC3	-[illegible].02	TEHTEC			P4578	rsec	88C00104	C	600UL
26	113	39	0.31		19	P2	DBH	-[illegible].84	TEHTEC			N2574	reso	88C00104	C	600UL
27	121	39	0.43		22	P2	03C	-[illegible].99	TEHTEC			P4578	rsec	88C00104	C	600UL
28	77	41	0.23		10	P2	VSM	-[illegible].11	TEHTEC			T5565	rpri	88C00095	C	600UL
29	113	41	0.48		17	P2	VH2	-[illegible].53	TEHTEC			R3710	rpri	88C00131	C	600UL
30	22	42	0.69	.24	MCI	P1	TSH	-[illegible].04	TSHTSH			T9924	reso	88H00099	H	600PP
31			23.00	27	MCI	P1	TSH	-[illegible].04	TSHTSH			T9924	reso	88H00099	H	600PP
32			0.69	.35	MCI	1	TSH	-[illegible].04	TSHTSH			M7262	reso	88H00099	H	600PP
33			1.03	.19	MCI	P1	TSH	-[illegible].04	TSHTSH			M7262	reso	88H00099	H	600PP
34			21.00	26	MCI	P1	TSH	-[illegible].04	TSHTSH			M7262	reso	88H00099	H	600PP
35			0.73	.43	MCI	1	TSH	-[illegible].04	TSHTSH			T9924	reso	88H00099	H	600PP
36	85	43	0.27		13	P2	VH2	-[illegible].64	TEHTEC			W3386	reso	88C00109	C	600UL
37	18	44	0.32		11	P2	DBH	-[illegible].75	TEHTEC			E4963	reso	88C00091	C	600UL
38	60	44	20.00	30	SCI	P1	TSH	-[illegible].05	TSHTSH			N2574	reso	88H00096	H	600PP
39			0.24	.17	SCI	1	TSH	-[illegible].05	TSHTSH			N2574	reso	88H00096	H	600PP
40			0.31	.17	SCI	P1	TSH	-[illegible].05	TSHTSH			N2574	reso	88H00096	H	600PP
41	1	45	1.41	.22	SCI	P1	TSH	-[illegible].88	TSHTSH			E4963	reso	88H00105	H	600PP
42			20.00	26	SCI	P1	TSH	-[illegible].88	TSHTSH			E4963	reso	88H00105	H	600PP
43			1.43	.36	SCI	1	TSH	-[illegible].88	TSHTSH			E4963	reso	88H00105	H	600PP
44	26	46	0.68	.21	SCI	P1	TSH	-[illegible].03	TSHTSH			M7262	reso	88H00099	H	600PP
45			25.00	19	SCI	P1	TSH	-[illegible].03	TSHTSH			M7262	reso	88H00099	H	600PP
			0.51	.35	SCI	1	TSH	-[illegible].03	TSHTSH			M7262	reso	88H00099	H	600PP
	9	47	24.00	15	SCI	P1	TSH	-[illegible].48	TSHTSH			E4963	reso	88H00137	H	500DP
48			0.26	.21	SCI	1	TSH	-[illegible].48	TSHTSH			F3453	reso	88H00137	H	500DP
49			0.35	.21	SCI	P1	TSH	-[illegible].48	TSHTSH			E4963	reso	88H00137	H	500DP

MAI, MCI, MMI, MVI, SAI, SCI, SVI & 0-100% TWD

UTILITY: Southern California Edison, Jan. 26,1999 15:08

PLANT: San Onofre

UNIT: 2

SG: 88

DATABASE: SONGS_U2_M88_0199 PAGE 2

	ROW	COL	VOLTS	DEG	PCT	CHN	FLAW	LOCATION	EXTENT	UTIL1	UTIL2	NAME	TYPE	CAL GROUP	LEG	PROBE SIZE
50	37	47	0.65		19	P2	VSM	-.95	TEHTEC			K6733	rpri	88C00093	C	600UL
51	111	47	0.27		12	P2	VH2	-.93	TEHTEC			R3710	rpri	88C00108	C	600UL
52	16	48	0.26	.23	SCI	P1	TSH	-.04	TSHTSH			R1509	reso	88H00102	H	600PP
53			22.00	18	SCI	P1	TSH	-.04	TSHTSH			R1509	reso	88H00102	H	600PP
54			0.31	.20	SCI	1	TSH	-.04	TSHTSH			R1509	reso	88H00102	H	600PP
55	23	49		24	SCI	P1	TSH	--0.00	TSHTSH			R1509	reso	88H00098	H	600PP
56					SCI	1	TSH	--0.00	TSHTSH			R1509	reso	88H00098	H	600PP
57			0.52	.26	SCI	P1	TSH	--0.00	TSHTSH			R1509	reso	88H00098	H	600PP
58	27	49	29.00	27	SCI	P1	TSH	-.01	TSHTSH			R1509	reso	88H00098	H	600PP
59			0.61	.29	SCI	1	TSH	-.01	TSHTSH			R1509	reso	88H00098	H	600PP
60			0.65	.27	SCI	P1	TSH	-.01	TSHTSH			R1509	reso	88H00098	H	600PP
61	29	49	34.00	29	SCI	P1	TSH	-.01	TSHTSH			M7262	reso	88H00099	H	600PP
62			1.38	.89	SCI	1	TSH	-.01	TSHTSH			T9924	reso	88H00099	H	600PP
63			1.55	.81	SCI	P1	TSH	-.01	TSHTSH			M7262	reso	88H00099	H	600PP
64	12	50	0.44	.18	SCI	P1	TSH	-.08	TSHTSH			T9924	reso	88H00106	H	600PP
65				24	SCI	P1	TSH	-.08	TSHTSH			T9924	reso	88H00106	H	600PP
66					SCI	1	TSH	-.08	TSHTSH			N2574	reso	88H00106	H	600PP
67	32	50		84	SCI	P1	TSH	-.04	TSHTSH			M7262	reso	88H00001	H	600PP
68					SCI	1	TSH	-.04	TSHTSH			M7262	reso	88H00001	H	600PP
			0.18	.21	SCI	P1	TSH	-.04	TSHTSH			M7262	reso	88H00001	H	600PP
	88	50	0.45		17	P2	VC2	-.86	TEHTEC			J2362	rsec	88C00121	C	600UL
71	96	50	0.36		13	P2	VSM	-.75	TEHTEC			L0601	rpri	88C00075	C	600UL
72			0.46		16	P2	VC2	-.79	TEHTEC			L0601	rpri	88C00075	C	600UL
73	43	51	0.81		25	P2	VSM	-.87	TEHTEC			B4370	rsec	88C00045	C	600UL
74	65	51	0.51	.24	SCI	P1	TSH	-.00	TSHTSH			W2545	reso	88H00006	H	600PP
75				20	SCI	P1	TSH	-.00	TSHTSH			W2545	reso	88H00006	H	600PP
76					SCI	1	TSH	-.00	TSHTSH			W2545	reso	88H00006	H	600PP
77	89	51	0.35		13	P2	VH3	-.92	TEHTEC			L0601	rpri	88C00075	C	600UL
78	64	52	0.39	.20	SCI	P1	TSH	-.09	TSHTSH			G1311	reso	88H00005	H	600PP
79			11.00	24	SCI	P1	TSH	-.09	TSHTSH			G1311	reso	88H00005	H	600PP
80			1.08	.32	SCI	1	TSH	-.09	TSHTSH			G1311	reso	88H00005	H	600PP
81	43	53		19	SCI	P1	TSH	-.05	TSHTSH			M7262	reso	88H00001	H	600PP
82					SCI	1	TSH	-.05	TSHTSH			M7262	reso	88H00001	H	600PP
83			0.50	.19	SCI	P1	TSH	-.05	TSHTSH			M7262	reso	88H00001	H	600PP
84	34	54		21	MCI	P1	TSH	-.09	TSHTSH			D3858	reso	88H00001	H	600PP
85			0.30	.14	MCI	1	TSH	-.09	TSHTSH			D3858	reso	88H00001	H	600PP
86			0.31	.16	MCI	P1	TSH	-.09	TSHTSH			D3858	reso	88H00001	H	600PP
87			0.60	.14	MCI	1	TSH	-.09	TSHTSH			D3858	reso	88H00001	H	600PP
88			0.58	.19	MCI	P1	TSH	-.09	TSHTSH			D3858	reso	88H00001	H	600PP
89			13.00	24	MCI	P1	TSH	-.07	TSHTSH			D3858	reso	88H00001	H	600PP
90	78	54	0.26	.30	MCI	1	TSH	-.00	TSHTSH			D3858	reso	88H00006	H	600PP
91			0.54	.20	MCI	P1	TSH	-.00	TSHTSH			D3858	reso	88H00006	H	600PP
92					MCI	1	TSH	-.00	TSHTSH			D3858	reso	88H00006	H	600PP
93			0.16	.17	MCI	P1	TSH	-.00	TSHTSH			D3858	reso	88H00006	H	600PP
94				42	MCI	P1	TSH	-.00	TSHTSH			D3858	reso	88H00006	H	600PP
			24.00	24	MCI	P1	TSH	-.00	TSHTSH			W2545	reso	88H00006	H	600PP
	82	54	0.75		25	P2	VH3	-.74	TEHTEC			R3710	rpri	88C00078	C	600UL
97	53	55	128.00	80	SCI	P1	TSH	-.19	TSHTSH			G1311	reso	88H00002	H	600PP
98			0.28	.21	SCI	1	TSH	-.19	TSHTSH			G1311	reso	88H00002	H	600PP

MAI, MCI, MMI, MVI, SAI, SCI, SVI & 0-100% TWD

UTILITY: Southern California Edison, Jan. 26,1999 15:08

PLANT: San Onofre

UNIT: 2

SG: 88

DATABASE: SONGS_U2_SG88_0199 PAGE 3

	ROW	COL	VOLTS	DEG	PCT	CHN	FLAW	LOCATION	EXTENT	UTIL1	UTIL2	NAME	TYPE	CAL GROUP	LEG	PROBE SIZE
99			0.19	.37	SCI	P1	TSH	+0.19	TSHTSH			G1311	reso	88H00002	H	600PP
100	119	55	0.30		11	P2	DBH	-1.54	TEHTEC			F6623	reso	88C00076	C	600UL
101	22	56	0.55	.18	SCI	P1	TSH	-0.06	TSHTSH			T9924	reso	88H00107	H	600PP
102				25	SCI	P1	TSH	-0.06	TSHTSH			T9924	reso	88H00107	H	600PP
103					SCI	1	TSH	-0.06	TSHTSH			T9924	reso	88H00107	H	600PP
104	62	56	26.00	26	SCI	P1	TSH	-0.00	TSHTSH			W2545	reso	88H00006	H	600PP
105			1.18	.42	SCI	1	TSH	-0.00	TSHTSH			W2545	reso	88H00006	H	600PP
106			0.69	.26	SCI	P1	TSH	-0.00	TSHTSH			W2545	reso	88H00006	H	600PP
107	21	57	15.00	22	SCI	P1	TSH	-0.05	TSHTSH			N2574	reso	88H00106	H	600PP
108			1.03	.31	SCI	1	TSH	-0.05	TSHTSH			N2574	reso	88H00106	H	600PP
109			1.03	.21	SCI	P1	TSH	-0.05	TSHTSH			N2574	reso	88H00106	H	600PP
110	43	57	19.00	23	SCI	P1	TSH	-0.10	TSHTSH			M7262	reso	88H00001	H	600PP
111			0.91	.30	SCI	1	TSH	-0.10	TSHTSH			M7262	reso	88H00001	H	600PP
112			0.66	.22	SCI	P1	TSH	-0.10	TSHTSH			M7262	reso	88H00001	H	600PP
113	75	57	1.12	.30	SCI	P1	TSH	-0.09	TSHTSH			G1311	reso	88H00005	H	600PP
114			15.00	29	SCI	P1	TSH	-0.09	TSHTSH			G1311	reso	88H00005	H	600PP
115			1.67	.41	SCI	1	TSH	-0.09	TSHTSH			G1311	reso	88H00005	H	600PP
116	18	58	0.34	.26	SCI	P1	TSH	-0.08	TSHTSH			T9924	reso	88H00107	H	600PP
117			5.00	17	SCI	P1	TSH	-0.08	TSHTSH			T9924	reso	88H00107	H	600PP
			1.46	.46	SCI	1	TSH	-0.08	TSHTSH			T9924	reso	88H00107	H	600PP
	44	58	0.40		14	P2	VSM	-0.80	TEHTEC			B4370	rsec	88C00045	C	600UL
	23	59	0.20	.34	SCI	1	TSH	-0.05	TSHTSH			T9924	reso	88H00107	H	600PP
121			0.48	.20	SCI	P1	TSH	-0.05	TSHTSH			T9924	reso	88H00107	H	600PP
122			36.00	30	SCI	P1	TSH	-0.05	TSHTSH			T9924	reso	88H00107	H	600PP
123	38	60	0.16	.16	SCI	P1	TSH	-0.06	TSHTSH			G1311	reso	88H00002	H	600PP
124				85	SCI	P1	TSH	-0.06	TSHTSH			G1311	reso	88H00002	H	600PP
125					SCI	1	TSH	-0.06	TSHTSH			G1311	reso	88H00002	H	600PP
126	136	60	0.42		15	P2	VH1	-1.77	TEHTEC			B2153	rsec	88C00075	C	600UL
127	19	61	19.00	20	SAI	2	TSH	-1.54	TSHTSH			T9924	reso	88H00107	H	600PP
128			1.09	.29	SAI	1	TSH	-1.54	TSHTSH			T9924	reso	88H00107	H	600PP
129			1.25	.21	SAI	2	TSH	-1.54	TSHTSH			T9924	reso	88H00107	H	600PP
130			0.76	.43	SAI	1	TSH	-1.07	TSHTSH			T9924	reso	88H00107	H	600PP
131			0.80	.29	SAI	2	TSH	-1.07	TSHTSH			T9924	reso	88H00107	H	600PP
132			12.00	23	SAI	2	TSH	-1.07	TSHTSH			T9924	reso	88H00107	H	600PP
133					SCI	1	TSH	-0.05	TSHTSH			T9924	reso	88H00107	H	600PP
134			0.11	.14	SCI	P1	TSH	-0.05	TSHTSH			T9924	reso	88H00107	H	600PP
135				59	SCI	P1	TSH	-0.05	TSHTSH			T9924	reso	88H00107	H	600PP
136	23	61	0.77		SCI	1	TSH	-0.05	TSHTSH			T9924	reso	88H00107	H	600PP
137			0.25	.23	SCI	P1	TSH	-0.05	TSHTSH			T9924	reso	88H00107	H	600PP
138			16.00	30	SCI	P1	TSH	-0.05	TSHTSH			T9924	reso	88H00107	H	600PP
139	37	61	0.41		14	P2	VSM	-0.94	TEHTEC			J9815	rpri	88C00046	C	600UL
140	80	62	16.00	20	SCI	P1	TSH	-0.06	TSHTSH			G1311	reso	88H00005	H	600PP
141			1.59	.36	SCI	1	TSH	-0.06	TSHTSH			R1509	reso	88H00005	H	600PP
142			0.48	.20	SCI	P1	TSH	0.06	TSHTSH			G1311	reso	88H00005	H	600PP
143	122	62	0.50		18	P2	VH1	-1.89	TEHTEC			J9815	rpri	88C00075	C	600UL
	126	62	0.50		18	P2	10H	-1.07	TEHTEC			J9815	rpri	88C00075	C	600UL
	25	63	0.56		21	P2	07H	-0.89	TEHTEC			B4370	rsec	88C00048	C	600UL
146					SAI	1	07H	+0.95	07H07H			E4963	reso	88H00177	H	500DP
147			0.15	.32	SAI	2	07H	+0.95	07H07H			E4963	reso	88H00177	H	500DP

MAI, MCI, MMI, MVI, SAI, SCI, SVI & 0-100% TWD

UTILITY: Southern California Edison, Jan. 26,1999 15:08

PLANT: San Onofre

UNIT: 2

SG: 88

DATABASE: SONGS_U2_SG88_0199 PAGE 4

	ROW	COL	VOLTS	DEG	PCT	CHN	FLAW	LOCATION	EXTENT	UTIL1	UTIL2	NAME	TYPE	CAL GROUP	LEG	PROBE SIZE
148					72	SAI	2	07H	+1.95	07H07H			E4963	reso	88H00177	H 500DP
149	77	63	0.49	.21	SCI	P1	TSH	+0.00	TSHTSH			W2545	reso	88H00006	H	600PP
150			21.00	17	SCI	P1	TSH	+0.00	TSHTSH			W2545	reso	88H00006	H	600PP
151			0.55	.16	SCI	1	TSH	+0.00	TSHTSH			W2545	reso	88H00006	H	600PP
152	129	63	0.32		11	P2	10H	-0.15	TEHTEC			F3453	reso	88C00073	C	600UL
153	124	64	0.68		23	P2	10H	-0.92	TEHTEC			J1220	rpri	88C00121	C	600UL
154	9	65	8.00	21	SAI	2	TSH	-0.18	TSHTSH			N2574	reso	88H00106	H	600PP
155			1.53	.22	SAI	1	TSH	-0.18	TSHTSH			N2574	reso	88H00106	H	600PP
156			0.83	.14	SAI	2	TSH	-0.18	TSHTSH			N2574	reso	88H00106	H	600PP
157	15	65	1.32	.45	SAI	2	TSH	-1.12	TSHTSH			T9924	reso	88H00107	H	600PP
158			13.00	22	SAI	2	TSH	-1.12	TSHTSH			T9924	reso	88H00107	H	600PP
159			1.98	.48	SAI	1	TSH	-1.12	TSHTSH			T9924	reso	88H00107	H	600PP
160	29	65			SAI	1	07H	-0.42	07H07H			E4963	reso	88H00177	H	500DP
161			0.28	.18	SAI	2	07H	+0.42	07H07H			E4963	reso	88H00177	H	500DP
162					88	SAI	2	07H	-1.42	07H07H			E4963	reso	88H00177	H 500DP
163			0.18	.18	SAI	2	07H	-0.79	07H07H			E4963	reso	88H00177	H 500DP
164					93	SAI	2	07H	-1.79	07H07H			E4963	reso	88H00177	H 500DP
165						SAI	1	07H	-0.79	07H07H			E4963	reso	88H00177	H 500DP
166	77	65	0.21	.16	SCI	P1	TSH	-0.05	TSHTSH			M7262	reso	88H00006	H	600PP
					70	SCI	P1	TSH	+0.05	TSHTSH			M7262	reso	88H00006	H	600PP
						SCI	1	TSH	-0.05	TSHTSH			M7262	reso	88H00006	H	600PP
169	123	65	0.32		14	P2	DBH	+0.00	TEHTEC			W9658	rsec	88C00074	C	600UL
170	50	66	0.35	.64	MAI	2	TSH	-0.66	TSHTSH			M7262	reso	88H00003	H	600PP
171			69.00	108	MAI	2	TSH	-0.66	TSHTSH			M7262	reso	88H00003	H	600PP
172			0.65	.50	MAI	1	TSH	+0.66	TSHTSH			M7262	reso	88H00003	H	600PP
173	61	67	1.25	.22	SCI	P1	TSH	+0.00	TSHTSH			W2545	reso	88H00006	H	600PP
174			22.00	27	SCI	P1	TSH	+0.00	TSHTSH			W2545	reso	88H00006	H	600PP
175			1.02	.30	SCI	1	TSH	-0.00	TSHTSH			W2545	reso	88H00006	H	600PP
176	141	67	0.52		19	P2	VCL	-0.05	TEHTEC			J1220	rpri	88C00073	C	600UL
177	22	68	0.94		27	P2	VSM	+0.88	TEHTEC			E4963	reso	88C00086	C	600UL
178	34	68	6.00	17	SAI	2	TSH	-0.47	TSHTSH			D3858	reso	88H00003	H	600PP
179			0.33	.19	SAI	1	TSH	-0.47	TSHTSH			D3858	reso	88H00003	H	600PP
180			0.31	.27	SAI	2	TSH	-0.47	TSHTSH			D3858	reso	88H00003	H	600PP
181	45	71			98	SAI	2	TSH	-1.07	TSHTSH			M7262	reso	88H00003	H 600PP
182						SAI	1	TSH	-1.07	TSHTSH			M7262	reso	88H00003	H 600PP
183			0.22	.29	SAI	2	TSH	-1.07	TSHTSH			M7262	reso	88H00003	H	600PP
184	67	71	0.21	.22	SCI	P1	TSH	-0.12	TSHTSH			G1311	reso	88H00005	H	600PP
185					26	SCI	P1	TSH	-0.12	TSHTSH			G1311	reso	88H00005	H 600PP
186						SCI	1	TSH	-0.12	TSHTSH			G1311	reso	88H00005	H 600PP
187	123	71	0.33		14	P2	VHI	-0.77	TEHTEC			W9658	rsec	88C00074	C	600UL
188	38	72	19.00	27	SAI	2	TSH	-0.75	TSHTSH			M7262	reso	88H00003	H	600PP
189			0.14	.30	SAI	1	TSH	-0.75	TSHTSH			M7262	reso	88H00003	H	600PP
190			0.79	.19	SAI	2	TSH	-0.75	TSHTSH			M7262	reso	88H00003	H	600PP
191	120	72	0.60		23	P2	09C	-1.02	TEHTEC			W9658	rsec	88C00074	C	600UL
192	37	73	0.65		22	P2	DBH	-1.51	TEHTEC			G2927	rpri	88C00120	C	600UL
	41	73	0.33		13	P2	VSM	+0.88	TEHTEC			G2927	rpri	88C00120	C	600UL
	45	73	0.47	.18	SAI	2	TSH	-0.60	TSHTSH			D3858	reso	88H00057	H	600PP
195			14.00	15	SAI	2	TSH	-0.60	TSHTSH			D3858	reso	88H00057	H	600PP
196			0.62	.18	SAI	1	TSH	-0.60	TSHTSH			D3858	reso	88H00057	H	600PP

MAI, MCI, MMI, MVI, SAI, SCI, SVI & 0-100% TWD

UTILITY: Southern California Edison, Jan. 26,1999 15:08

PLANT: San Onofre

UNIT: 2

SG: 88

DATABASE: SONGS_U2_SG88_0199 PAGE 5

	ROW	COL	VOLTS	DEG	PCT	CHN	FLAW	LOCATION	EXTENT	UTIL1	UTIL2	NAME	TYPE	CAL GROUP	LEG	PROBE SIZE
197			0.41		16	P2	DBC	-1.86	TEHTEC			G1311	reso	88C00120	C	600UL
198	73	73	0.39		15	P2	VSM	-1.01	TEHTEC			G2927	rpri	88C00120	C	600UL
199	77	73	0.34	.66	MCI	P1	TSH	-0.10	TSHTSH			G1311	reso	88H00057	H	600PP
200			17.00	34	MCI	P1	TSH	-0.10	TSHTSH			G1311	reso	88H00057	H	600PP
201					MCI	1	TSH	-0.10	TSHTSH			D3858	reso	88H00057	H	600PP
202			0.28	.22	MCI	P1	TSH	-0.10	TSHTSH			D3858	reso	88H00057	H	600PP
203				23	MCI	P1	TSH	-0.10	TSHTSH			D3858	reso	88H00057	H	600PP
204			0.53	.78	MCI	1	TSH	-0.10	TSHTSH			G1311	reso	88H00057	H	600PP
205	145	73	0.72		25	P2	DBH	-1.86	TEHTEC			K6733	rpri	88C00074	C	600UL
206	46	74	0.84		27	P2	VSM	-0.79	TEHTEC			B5926	rsec	88C00119	C	600UL
207			0.48		19	P2	VSM	-0.96	TEHTEC			B5926	rsec	88C00119	C	600UL
208	62	74	0.15	.23	SAI	2	TSH	-1.08	TSHTSH			D3858	reso	88H00057	H	600PP
209				84	SAI	2	TSH	-1.08	TSHTSH			D3858	reso	88H00057	H	600PP
210					SAI	1	TSH	-1.08	TSHTSH			D3858	reso	88H00057	H	600PP
211	120	74	0.30		12	P2	10H	-1.05	TEHTEC			H3464	rpri	88C00066	C	600UL
212	130	74	0.67		23	P2	10H	-0.99	TEHTEC			F7460	rpri	88C00065	C	600UL
213	136	74	0.59		22	P2	10H	-1.97	TEHTEC			H3464	rpri	88C00066	C	600UL
214	39	75	0.83		26	P2	VSM	-1.08	TEHTEC			S2720	rsec	88C00120	C	600UL
215			1.47		36	P2	DBC	-1.45	TEHTEC			N2574	reso	88C00120	C	600UL
	41	75	0.33	.25	SAI	2	TSH	-0.58	TSHTSH			W3386	reso	88H00056	H	600PP
			16.00	18	SAI	2	TSH	-0.58	TSHTSH			G1311	reso	88H00056	H	600PP
218			0.49	.20	SAI	1	TSH	-0.58	TSHTSH			W3386	reso	88H00056	H	600PP
219			0.68		24	P2	DBC	-1.48	TEHTEC			G2927	rpri	88C00119	C	600UL
220	43	75	0.33		13	P2	VSM	-0.95	TEHTEC			G1311	reso	88C00120	C	600UL
221	45	75	0.66		23	P2	DBH	-1.63	TEHTEC			B5926	rsec	88C00119	C	600UL
222			0.33		14	P2	DBC	-1.70	TEHTEC			M7262	reso	88C00119	C	600UL
223	49	75	0.33		14	P2	DBH	-1.71	TEHTEC			B5926	rsec	88C00119	C	600UL
224	79	75	0.42		16	P2	VH3	-0.77	TEHTEC			G2927	rpri	88C00119	C	600UL
225	133	75	0.40		15	P2	DBH	-1.81	TEHTEC			F7460	rpri	88C00065	C	600UL
226	145	75	0.60		23	P2	DBH	-1.85	TEHTEC			R5555	rsec	88C00074	C	600UL
227	46	76	0.58		21	P2	DBH	-1.55	TEHTEC			G1311	reso	88C00120	C	600UL
228	50	76	0.49		19	P2	DBC	-1.68	TEHTEC			S2720	rsec	88C00120	C	600UL
229	62	76			MAI	1	06H	-0.15	06H06H			R1509	reso	88H00154	H	500DP
230			0.84	.18	MAI	2	06H	-0.15	06H06H			R1509	reso	88H00154	H	500DP
231				14	MAI	2	06H	-0.15	06H06H			R1509	reso	88H00154	H	500DP
232			1.08	.27	SAI	2	06H	-0.65	06H06H			R1509	reso	88H00154	H	500DP
233				15	SAI	2	06H	-0.65	06H06H			R1509	reso	88H00154	H	500DP
234					SAI	1	06H	-0.65	06H06H			R1509	reso	88H00154	H	500DP
235	97	77	0.76	.18	SCI	P1	TSH	-0.10	TSHTSH			F3453	reso	88H00049	H	600PP
236			9.00	24	SCI	P1	TSH	-0.10	TSHTSH			F3453	reso	88H00049	H	600PP
237			1.10	.31	SCI	1	TSH	-0.10	TSHTSH			F3453	reso	88H00049	H	600PP
238	101	77	0.59		20	P2	DBH	-0.94	TEHTEC			J1220	rpri	88C00069	C	600UL
239	131	77	0.53		22	P2	DBH	-2.00	TEHTEC			F6623	reso	88C00066	C	600UL
240	145	77	1.46		38	P2	VC1	-0.92	TEHTEC			K6733	rpri	88C00074	C	600UL
241	90	78	0.56		19	P2	03H	-1.12	TEHTEC			J1220	rpri	88C00069	C	600UL
	138	78	0.34		13	P2	VH1	-0.79	TEHTEC			N2574	reso	88C00065	C	600UL
	47	79	1.06		30	P2	DBC	-1.80	TEHTEC			G2927	rpri	88C00118	C	600UL
244	61	79	0.33	1.0	MCI	P1	TSH	-0.04	TSHTSH			D3858	reso	88H00056	H	600PP
245			27.00	49	MCI	P1	TSH	-0.04	TSHTSH			D3858	reso	88H00056	H	600PP

MAI, MCI, MMI, MVI, SAI, SCI, SVI & 0-100% TWD

UTILITY: Southern California Edison, Jan. 26,1999 15:08

PLANT: San Onofre

UNIT: 2

SG: 88

DATABASE: SONGS_U2_SG88_0199

	ROW	COL	VOLTS	DEG	PCT	CHN	FLAW	LOCATION	EXTENT	UTIL1	UTIL2	NAME	TYPE	CAL GROUP	LEG	PROBE SIZE
246			0.73	.48	MCI	1	TSH	-[illegible].04	TSHTSH			D3858	reso	88H00056	H	600PP
247			0.32	.51	MCI	P1	TSH	-[illegible].04	TSHTSH			D3858	reso	88H00056	H	600PP
248			36.00	124	MCI	P1	TSH	-[illegible].04	TSHTSH			D3858	reso	88H00056	H	600PP
249			0.74	.85	MCI	1	TSH	-[illegible].04	TSHTSH			D3858	reso	88H00056	H	600PP
250	119	79	0.44		17	P2	DBH	-[illegible].99	TEHTEC			H3464	rpri	88C00066	C	600UL
251	54	80	0.47		16	P2	DBC	-[illegible].00	TEHTEC			G1311	reso	88C00118	C	600UL
252	56	80	0.27		10	P2	VSM	-[illegible].85	TEHTEC			F7460	rpri	88C00117	C	600UL
253	64	80	0.35		13	P2	DBH	-[illegible].79	TEHTEC			M7262	reso	88C00117	C	600UL
254	80	80	0.36		14	P2	VSM	-[illegible].65	TEHTEC			F7460	rpri	88C00117	C	600UL
255			0.26		10	P2	VSM	-[illegible].96	TEHTEC			F7460	rpri	88C00117	C	600UL
256	120	80	0.37		15	P2	DBH	-[illegible].00	TEHTEC			F6623	reso	88C00066	C	600UL
257	144	80	0.33		13	P2	DBH	-[illegible].75	TEHTEC			K6733	rpri	88C00074	C	600UL
258	53	81	0.55		19	P2	DBH	-[illegible].75	TEHTEC			M7262	reso	88C00117	C	600UL
259	71	81		107	SAI	2	TSH	-[illegible].29	TSHTSH			D3858	reso	88H00057	H	600PP
260					SAI	1	TSH	-[illegible].29	TSHTSH			D3858	reso	88H00057	H	600PP
261			0.19	.21	SAI	2	TSH	-[illegible].29	TSHTSH			D3858	reso	88H00057	H	600PP
262	145	81	0.51		18	P2	VH1	-[illegible].74	TEHTEC			J1220	rpri	88C00073	C	600UL
263			0.82		27	P2	DBC	-[illegible].79	TEHTEC			J1220	rpri	88C00073	C	600UL
264	147	81	1.02		32	P2	DBC	-[illegible].81	TEHTEC			K6733	rpri	88C00074	C	600UL
	58	82	0.22	.27	SAI	1	TSH	-[illegible].85	TSHTSH			G1311	reso	88H00057	H	600PP
			0.35	.23	SAI	2	TSH	-[illegible].85	TSHTSH			G1311	reso	88H00057	H	600PP
267			117.00	117	SAI	2	TSH	-[illegible].85	TSHTSH			G1311	reso	88H00057	H	600PP
268	74	82	0.44		15	P2	VSM	-[illegible].95	TEHTEC			M4882	rsec	88C00118	C	600UL
269	144	82	0.34		14	P2	DBC	-[illegible].79	TEHTEC			K6733	rpri	88C00074	C	600UL
270	53	83	1.05		30	P2	DBC	-[illegible].89	TEHTEC			G2927	rpri	88C00118	C	600UL
271	55	83	0.36		14	P2	DBH	-[illegible].76	TEHTEC			F7460	rpri	88C00117	C	600UL
272	63	83	0.19	.20	SAI	2	TSH	-[illegible].15	TSHTSH			W3386	reso	88H00056	H	600PP
273				100	SAI	2	TSH	-[illegible].15	TSHTSH			W3386	reso	88H00056	H	600PP
274					SAI	1	TSH	-[illegible].15	TSHTSH			W3386	reso	88H00056	H	600PP
275	125	83	0.70		24	P2	DBH	-[illegible].94	TEHTEC			F7460	rpri	88C00065	C	600UL
276	131	83	0.19		8	P2	DBH	-[illegible].91	TEHTEC			F6623	reso	88C00066	C	600UL
277	133	83	0.55		20	P2	10H	-[illegible].89	TEHTEC			F7460	rpri	88C00065	C	600UL
278	62	84			SCI	1	TSH	-[illegible].11	TSHTSH			G1311	reso	88H00056	H	600PP
279			0.41	.21	SCI	P1	TSH	-[illegible].11	TSHTSH			W3386	reso	88H00056	H	600PP
280					22	SCI	P1	TSH	-[illegible].11	TSHTSH		W3386	reso	88H00056	H	600PP
281			0.29	1.0	SCI	P1	TSH	-[illegible].11	TSHTSH			W3386	reso	88H00056	H	600PP
282			0.84	1.0	SCI	1	TSH	-[illegible].11	TSHTSH			W3386	reso	88H00056	H	600PP
283			136.00	74	SCI	P1	TSH	-[illegible].11	TSHTSH			G1311	reso	88H00056	H	600PP
284	134	84	0.72		24	P2	10H	-[illegible].92	TEHTEC			F7460	rpri	88C00065	C	600UL
285	144	84	0.44		18	P2	DBC	-[illegible].80	TEHTEC			R5555	rsec	88C00074	C	600UL
286	71	85	0.58		20	P2	DBC	-[illegible].82	TEHTEC			M7262	reso	88C00117	C	600UL
287	143	85	0.90		29	P2	VC1	-[illegible].90	TEHTEC			K6733	rpri	88C00074	C	600UL
288			0.25		9	P2	VC1	-[illegible].90	TEHTEC			K6733	rpri	88C00074	C	600UL
289	147	85	0.30		13	P2	DBH	-[illegible].75	TEHTEC			R5555	rsec	88C00074	C	600UL
290			0.33		15	P2	VC1	-[illegible].13	TEHTEC			F3453	reso	88C00074	C	600UL
			0.56		22	P2	VC1	-[illegible].94	TEHTEC			R5555	rsec	88C00074	C	600UL
			0.42		18	P2	DBC	-[illegible].78	TEHTEC			M7262	reso	88C00074	C	600UL
293	52	86	0.31		10	P2	DBH	-[illegible].97	TEHTEC			M4882	rsec	88C00118	C	600UL
294			0.85		25	P2	DBH	-[illegible].34	TEHTEC			M4882	rsec	88C00118	C	600UL

MAI, MCI, MMI, MVI, SAI, SCI, SVI & 0-100% TWD

UTILITY: Southern California Edison, Jan. 26,1999 15:08

PLANT: San Onofre

UNIT: 2

SG: 88

DATABASE: SONGS_U2_N88_0199 PAGE 9

	ROW	COL	VOLTS	DEG	PCT	CHN	FLAW	LOCATION	EXTENT	UTIL1	UTIL2	NAME	TYPE	CAL	GROUP	LEG	PROBE	SIZE
393	144	92	1.01		31	P2	VC1	-0.97	TEHTEC			K6733	rpri	88C00074		C	600UL	
394	49	93	1.89		40	P2	DBH	-1.91	TEHTEC			J2362	rsec	88C00115		C	600UL	
395			0.31		14	P2	DBC	-0.72	TEHTEC			D3858	reso	88C00115		C	600UL	
396	51	93	1.54		37	P2	DBH	-1.71	TEHTEC			J2362	rsec	88C00115		C	600UL	
397	53	93	0.49		16	P2	DBH	-0.83	07HTEC			W9658	rsec	88C00116		C	600UL	
398	135	93	0.42		16	P2	10H	-0.92	TEHTEC			K6733	rpri	88C00068		C	600UL	
399	147	93	0.84		28	P2	VC1	-0.05	TEHTEC			K6733	rpri	88C00074		C	600UL	
400			0.26		10	P2	DBC	-0.92	TEHTEC			M7262	reso	88C00074		C	600UL	
401			0.13		3	P2	DBC	-1.09	TEHTEC			M7262	reso	88C00074		C	600UL	
402	76	94	0.30	89	12	P2	VH3	-0.77	TEHTEC			G2927	rpri	88C00116		C	600UL	
403	82	94	6.00	26	SCI	P1	TSH	-0.09	TSHTSH			F3453	reso	88H00052		H	600PP	
404			0.61	.29	SCI	1	TSH	-0.09	TSHTSH			F3453	reso	88H00052		H	600PP	
405			0.78	.16	SCI	P1	TSH	-0.09	TSHTSH			F3453	reso	88H00052		H	600PP	
406	130	94	0.39		15	P2	10H	-1.00	TEHTEC			J1220	rpri	88C00067		C	600UL	
407	132	94	0.69		24	P2	10H	-0.96	TEHTEC			K6733	rpri	88C00068		C	600UL	
408	119	95	0.39		15	P2	DBH	-0.81	TEHTEC			K6733	rpri	88C00068		C	600UL	
409	129	95	0.41		15	P2	DBH	-0.16	TEHTEC			W4786	rsec	88C00067		C	600UL	
410	48	96	0.78		24	P2	DBH	-0.93	TEHTEC			F7460	rpri	88C00115		C	600UL	
411	50	96	0.72		22	P2	DBH	-0.81	TEHTEC			W9658	rsec	88C00116		C	600UL	
			0.36		11	P2	DBC	-0.88	TEHTEC			W9658	rsec	88C00116		C	600UL	
	122	96	0.49		18	P2	DBH	-1.96	TEHTEC			J1220	rpri	88C00067		C	600UL	
414	49	97	1.33		35	P2	DBH	+0.04	TEHTEC			R1509	reso	88C00115		C	600UL	
415	63	97	0.10	.16	SCI	P1	TSH	-0.00	TSHTSH			T1089	reso	88H00059		H	600PP	
416				93	SCI	P1	TSH	-0.00	TSHTSH			T1089	reso	88H00059		H	600PP	
417					SCI	1	TSH	+0.00	TSHTSH			T1089	reso	88H00059		H	600PP	
418	135	97	0.29		12	P2	10H	-0.92	TEHTEC			B4865	rsec	88C00068		C	600UL	
419	85	99	0.47		15	P2	09C	-1.40	TEHTEC			J1220	rpri	88C00071		C	600UL	
420	134	100	0.43		16	P2	10H	-0.90	TEHTEC			W4786	rsec	88C00067		C	600UL	
421	146	100	0.66		24	P2	DBH	-1.81	TEHTEC			W9658	rsec	88C00074		C	600UL	
422	37	101	1.89		40	P2	DBC	-0.76	TEHTEC			R1509	reso	88C00115		C	600UL	
423	43	101	0.42		14	P2	DBC	-0.91	TEHTEC			G2927	rpri	88C00114		C	600UL	
424	111	101	0.23		10	P2	DBH	-0.87	TEHTEC			K6733	rpri	88C00072		C	600UL	
425	119	101	0.38		15	P2	DBH	-1.75	TEHTEC			G1311	reso	88C00068		C	600UL	
426	127	101	0.24		10	P2	VH3	+0.77	TEHTEC			K6733	rpri	88C00068		C	600UL	
427	131	101	0.26		10	P2	VH2	+1.31	TEHTEC			K6733	rpri	88C00068		C	600UL	
428	74	102		53	SCI	P1	TSH	+0.11	TSHTSH			M7262	reso	88H00017		H	600PP	
429					SCI	1	TSH	+0.11	TSHTSH			M7262	reso	88H00017		H	600PP	
430			0.37	.54	SCI	P1	TSH	+0.11	TSHTSH			M7262	reso	88H00017		H	600PP	
431	116	102	0.48		19	P2	DBH	+0.76	TEHTEC			K6733	rpri	88C00044		C	600UL	
432	35	103	0.65		23	P2	DBH	1.52	TEHTEC			F0037	rpri	88C00111		C	600UL	
433	47	103	1.06		31	P2	VSM	+0.95	TEHTEC			R4201	rpri	88C00110		C	600UL	
434	55	103	7.00	21	SCI	P1	TSH	-0.09	TSHTSH			R1509	reso	88H00017		H	600PP	
435			0.80	.37	SCI	1	TSH	-0.09	TSHTSH			R1509	reso	88H00017		H	600PP	
436			0.36	.27	SCI	P1	TSH	-0.09	TSHTSH			R1509	reso	88H00017		H	600PP	
437	36	104	0.90	.32	SAI	1	TSH	-1.25	TSHTSH			M7262	reso	88H00082		H	600PP	
			0.40	.29	SAI	2	TSH	-1.25	TSHTSH			E4963	reso	88H00082		H	600PP	
			15.00	16	SAI	2	TSH	-1.25	TSHTSH			E4963	reso	88H00082		H	600PP	
440	68	104	14.00	20	SCI	P1	TSH	-0.11	TSHTSH			T1089	reso	88H00018		H	600PP	
441			0.65	.12	SCI	1	TSH	-0.11	TSHTSH			T1089	reso	88H00018		H	600PP	

MAI, MCI, MMI, MVI, SAI, SCI, SVI & 0-100% TWD

UTILITY: Southern California Edison, Jan. 26,1999 15:08

PLANT: San Onofre

UNIT: 2

SG: 88

DATABASE: SONGS_U2_SG88_0199

	ROW	COL	VOLTS	DEG	PCT	CHN	FLAW	LOCATION	EXTENT	UTIL1	UTIL2	NAME	TYPE	CAL GROUP	LEG	PROBE SIZE
442			0.80	.21	SCI	P1	TSH	- .11	TSHTSH			T1089	reso	88H00018	H	600PP
443	142	104	0.24		11	P2	DBH	-.93	TEHTEC			M7262	reso	88C00043	C	600UL
444	53	105			SAI	1	02H	-.54	02H02H			F3453	reso	88H00125	H	500DP
445			0.30	.36	SAI	2	02H	- .54	02H02H			F3453	reso	88H00125	H	500DP
446				114	SAI	2	02H	-.54	02H02H			F3453	reso	88H00125	H	500DP
447	139	105	0.57		22	P2	10H	- .89	TEHTEC			K6733	rpri	88C00044	C	600UL
448	42	106	0.46		18	P2	VSM	-.85	TEHTEC			P4578	rsec	88C00111	C	600UL
449	52	106	0.67	.40	MCI	1	TSH	-.08	TSHTSH			T1089	reso	88H00018	H	600PP
450			0.30	.28	MCI	P1	TSH	-.08	TSHTSH			T1089	reso	88H00018	H	600PP
451			103.00	129	MCI	P1	TSH	- .08	TSHTSH			T1089	reso	88H00018	H	600PP
452			0.32	.58	MCI	P1	TSH	- .11	TSHTSH			T1089	reso	88H00018	H	600PP
453			79.00	106	MCI	P1	TSH	- .11	TSHTSH			T1089	reso	88H00018	H	600PP
454			0.27	.31	MCI	1	TSH	- .11	TSHTSH			T1089	reso	88H00018	H	600PP
455			0.08	.24	SAI	2	TSH	- .13	TSHTSH			F3453	reso	88H00018	H	600PP
456				117	SAI	2	TSH	- .13	TSHTSH			F3453	reso	88H00018	H	600PP
457					SAI	1	TSH	- .13	TSHTSH			F3453	reso	88H00018	H	600PP
458	64	106	0.59	.22	MCI	P1	TSH	-.11	TSHTSH			G1311	reso	88H00018	H	600PP
459					MCI	1	TSH	- .11	TSHTSH			G1311	reso	88H00018	H	600PP
460			0.26	.19	MCI	P1	TSH	-.11	TSHTSH			G1311	reso	88H00018	H	600PP
[illegible]				15	MCI	P1	TSH	-.11	TSHTSH			G1311	reso	88H00018	H	600PP
					MCI	1	TSH	-.11	TSHTSH			R1509	reso	88H00018	H	600PP
[illegible]				22	MCI	P1	TSH	-.11	TSHTSH			R1509	reso	88H00018	H	600PP
464	126	106	0.24		10	P2	VH1	.93	TEHTEC			W3386	reso	88C00043	C	600UL
465	128	106	0.37		16	P2	10H	- .97	TEHTEC			K6733	rpri	88C00044	C	600UL
466	130	106	0.33		14	P2	VH1	- .84	TEHTEC			J1220	rpri	88C00043	C	600UL
467	144	106	0.80		27	P2	DBC	-.90	TEHTEC			K6733	rpri	88C00044	C	600UL
468	75	107	0.91	.18	SCI	P1	TSH	-.12	TSHTSH			M7262	reso	88H00017	H	600PP
469			9.00	20	SCI	P1	TSH	-.12	TSHTSH			M7262	reso	88H00017	H	600PP
470			0.68	.21	SCI	1	TSH	-.12	TSHTSH			M7262	reso	88H00017	H	600PP
471	58	108	1.01	.53	SAI	2	TSH	-1.85	TSHTSH			M7262	reso	88H00017	H	600PP
472				21	SAI	2	TSH	-1.85	TSHTSH			M7262	reso	88H00017	H	600PP
473					SAI	1	TSH	-1.85	TSHTSH			M7262	reso	88H00017	H	600PP
474	124	108	27.00	92	SAI	2	TSC	-.46	TSCTSC			N2574	reso	88C00140	C	600PP
475			0.28	.22	SAI	1	TSC	-.46	TSCTSC			N2574	reso	88C00140	C	600PP
476			0.19	.17	SAI	2	TSC	-.46	TSCTSC			N2574	reso	88C00140	C	600PP
477	128	108	0.26		11	P2	VH1	- .82	TEHTEC			J1220	rpri	88C00043	C	600UL
478	45	109	1.20	.29	SAI	1	TSH	-.16	TSHTSH			M7262	reso	88H00082	H	600PP
479			1.05	.27	SAI	2	TSH	-.16	TSHTSH			E4963	reso	88H00082	H	600PP
480			22.00	21	SAI	2	TSH	.16	TSHTSH			E4963	reso	88H00082	H	600PP
481	111	109	0.27		7	P2	VH3	-.23	TEHTEC			G1311	reso	88C00041	C	600UL
482	143	109	0.24		10	P2	DBH	-.70	TEHTEC			K6733	rpri	88C00044	C	600UL
483	22	110	0.24	.25	SAI	2	04H	-.13	04H04H			M7262	reso	88H00109	H	500DP
484				54	SAI	2	04H	-.13	04H04H			M7262	reso	88H00109	H	500DP
485					SAI	1	04H	-.13	04H04H			M7262	reso	88H00109	H	500DP
486	48	110	0.24	.20	SAI	2	TSH	-.36	TSHTSH			E4963	reso	88H00083	H	600PP
			10.00	119	SAI	2	TSH	-.36	TSHTSH			E4963	reso	88H00083	H	600PP
			0.99	.26	SAI	1	TSH	-.36	TSHTSH			G1311	reso	88H00083	H	600PP
489	114	110	0.37		15	P2	DBH	.69	TEHTEC			F7460	rpri	88C00043	C	600UL
490	142	110	0.44		18	P2	DBH	-.86	TEHTEC			F3453	reso	88C00044	C	600UL

MAI, MCI, MMI, MVI, SAI, SCI, SVI & 0-100% TWD

UTILITY: Southern California Edison, Jan. 26,1999 15:08

PLANT: San Onofre

UNIT: 2

SG: 88

DATABASE: SONGS_U2_SG88_0199 PAGE 11

	ROW	COL	VOLTS	DEG	PCT	CHN	FLAW	LOCATION	EXTENT	UTIL1	UTIL2	NAME	TYPE	CAL GROUP	LEG	PROBE SIZE
491	123	111	0.59		23	P2	DBH	-1.00	TEHTEC			K6733	rpri	88C00044	C	600UL
492	8	112	0.39	.26	SAI	2	TSH	-1.73	TSHTSH			T1089	reso	88H00036	H	600PP
493			19.00	12	SAI	2	TSH	-1.73	TSHTSH			T1089	reso	88H00036	H	600PP
494			0.89	.42	SAI	1	TSH	-1.73	TSHTSH			T1089	reso	88H00036	H	600PP
495	10	112	0.40	.20	SCI	P1	TSH	- .02	TSHTSH			T1089	reso	88H00037	H	600PP
496				51	SCI	P1	TSH	- .02	TSHTSH			T1089	reso	88H00037	H	600PP
497					SCI	1	TSH	- .02	TSHTSH			T1089	reso	88H00037	H	600PP
498	12	112			SAI	3	TEH	-1.04	TEHTSH			F3453	reso	88H00186	H	600HF
499			1.10	.33	SAI	4	TEH	-1.04	TEHTSH			F3453	reso	88H00186	H	600HF
500				16	SAI	4	TEH	-1.04	TEHTSH			F3453	reso	88H00186	H	600HF
501			8.66	.90	SAI	1	TEH	-1.93	TEHTEH			W3386	reso	88H00175	H	500ID
502			5.33	.90	SAI	2	TEH	-1.93	TEHTEH			W3386	reso	88H00175	H	500ID
503			32.00	39	SAI	2	TEH	-1.93	TEHTEH			W3386	reso	88H00175	H	500ID
504			2.40	.94	SAI	2	TEH	-1.02	TEHTEH			W3386	reso	88H00175	H	500ID
505			21.00	26	SAI	2	TEH	-1.02	TEHTEH			W3386	reso	88H00175	H	500ID
506			4.92	.94	SAI	1	TEH	-1.02	TEHTEH			W3386	reso	88H00175	H	500ID
507	38	112	17.00	18	SAI	2	TSH	- .61	TSHTSH			E4963	reso	88H00082	H	600PP
508			0.71	.36	SAI	1	TSH	- .61	TSHTSH			M7262	reso	88H00082	H	600PP
509			0.61	.16	SAI	2	TSH	- .61	TSHTSH			E4963	reso	88H00082	H	600PP
	46	112	1.32	.43	SAI	1	TSH	-1.16	TSHTSH			M7262	reso	88H00082	H	600PP
			0.59	.27	SAI	2	TSH	-1.16	TSHTSH			E4963	reso	88H00082	H	600PP
			15.00	14	SAI	2	TSH	-1.16	TSHTSH			E4963	reso	88H00082	H	600PP
513	70	112	0.29		12	P2	VSM	-1.83	TEHTEC			W9213	rsec	88C00055	C	600UL
514	98	112	0.28		13	P2	VCI	- .81	TEHTEC			B4865	rsec	88C00042	C	600UL
515	122	112	0.34		14	P2	10H	- .92	TEHTEC			W3386	reso	88C00043	C	600UL
516	126	112	0.44		17	P2	DBH	-1.67	TEHTEC			F7460	rpri	88C00043	C	600UL
517	9	113	0.22	.17	SAI	2	07H	- .75	07HDBH			W2545	reso	88H00175	H	500ID
518			60.00	64	SAI	2	07H	- .75	07HDBH			W2545	reso	88H00175	H	500ID
519			0.26	.27	SAI	1	07H	- .80	07HDBH			W2545	reso	88H00175	H	500ID
520	25	113	0.53		SAI	1	05H	- .13	05H05H			S3018	reso	88H00148	H	500DP
521			0.31	.17	SAI	2	05H	- .13	05H05H			S3018	reso	88H00148	H	500DP
522			21.00	117	SAI	2	05H	- .13	05H05H			S3018	reso	88H00148	H	500DP
523	37	113	0.41	.49	SAI	2	TSH	-1.12	TSHTSH			E4963	reso	88H00083	H	600PP
524			7.00	15	SAI	2	TSH	-1.12	TSHTSH			E4963	reso	88H00083	H	600PP
525			0.95	.36	SAI	1	TSH	- .12	TSHTSH			E4963	reso	88H00083	H	600PP
526			5.00	17	SAI	2	TSH	- .00	TSHTSH			G1311	reso	88H00083	H	600PP
527			0.52	.20	SAI	2	TSH	- .00	TSHTSH			E4963	reso	88H00083	H	600PP
528			0.45	.26	SAI	1	TSH	- .00	TSHTSH			G1311	reso	88H00083	H	600PP
529	10	114	0.48	.20	SCI	P1	TSH	- .11	TSHTSH			T1089	reso	88H00037	H	600PP
530			8.00	23	SCI	P1	TSH	- .11	TSHTSH			T1089	reso	88H00037	H	600PP
531			0.69	.23	SCI	1	TSH	- .11	TSHTSH			T1089	reso	88H00037	H	600PP
532	122	114	0.42		16	P2	10H	- .99	TEHTEC			F7460	rpri	88C00043	C	600UL
533	1	115		15	SAI	2	TSH	- .40	TSHTSH			M7262	reso	88H00037	H	600PP
534					SAI	1	TSH	- .40	TSHTSH			T1089	reso	88H00037	H	600PP
535			0.46	.15	SAI	2	TSH	- .40	TSHTSH			T1089	reso	88H00037	H	600PP
	21	115	0.66	.13	SAI	2	06H	- .19	06H06H			S3018	reso	88H00110	H	500DP
			16.00	19	SAI	2	06H	- .19	06H06H			S3018	reso	88H00110	H	500DP
538			0.63	.15	SAI	1	06H	- .19	06H06H			G1311	reso	88H00110	H	500DP
539	133	115	0.53		20	P2	10H	-1.86	TEHTEC			F7460	rpri	88C00043	C	600UL

MAI, MCI, MMI, MVI, SAI, SCI, SVI & 0-100% TWD

UTILITY: Southern California Edison, Jan. 26,1999 15:08

PLANT: San Onofre

UNIT: 2

SG: 88

DATABASE: SONGS_U2_S088_0199 PAGE 12

	ROW	COL	VOLTS	DEG	PCT	CHN	FLAW	LOCATION	EXTENT	UTIL1	UTIL2	NAME	TYPE	CAL GROUP	LEG	PROBE SIZE
540	70	116	0.67	.18	SCI	P1	TSH	-.15	TSHTSH			M7262	reso	88H00017	H	600PP
541				19	SCI	P1	TSH	-.15	TSHTSH			M7262	reso	88H00017	H	600PP
542					SCI	1	TSH	.15	TSHTSH			M7262	reso	88H00017	H	600PP
543	112	116	0.21	9		P2	VH3	-.82	TEHTEC			F7460	rpri	88C00039	C	600UL
544	45	119	0.18		SAI	1	01H	-.80	01H02H			S3018	reso	88H00149	H	500DP
545			0.06	.23	SAI	2	01H	-.80	01H02H			S3018	reso	88H00149	H	500DP
546			18.00	126	SAI	2	01H	-.80	01H02H			S3018	reso	88H00149	H	500DP
547			0.77	.30	SAI	1	01H	-.05	01H02H			S3018	reso	88H00149	H	500DP
548			0.11	.30	SAI	2	01H	-.05	01H02H			S3018	reso	88H00149	H	500DP
549			33.00	107	SAI	2	01H	-.05	01H02H			S3018	reso	88H00149	H	500DP
550	47	119	62.00	96	SAI	2	02H	-7.24	02H03H			S3018	reso	88H00149	H	500DP
551			0.14		SAI	1	02H	-7.24	02H03H			S3018	reso	88H00149	H	500DP
552			0.13	.29	SAI	2	02H	-7.24	02H03H			S3018	reso	88H00149	H	500DP
553	83	119	0.76	.24	SCI	P1	TSH	-.10	TSHTSH			F6623	reso	88H00012	H	600PP
554			28.00	20	SCI	P1	TSH	.10	TSHTSH			F6623	reso	88H00012	H	600PP
555			0.40	.37	SCI	1	TSH	-.10	TSHTSH			F6623	reso	88H00012	H	600PP
556	78	120	0.27	9		P2	VC3	-.81	TEHTEC			P4578	rsec	88C00052	C	600UL
557			0.34	12		P2	VC3	-.94	TEHTEC			P4578	rsec	88C00052	C	600UL
558	21	121	1.70	.45	SAI	2	04H	-.05	04H04H			S3018	reso	88H00149	H	500DP
[illegible]			1.01	.22	SAI	2	04H	-.05	04H04H			S3018	reso	88H00149	H	500DP
			18.00	18	SAI	2	04H	-.05	04H04H			S3018	reso	88H00149	H	500DP
[illegible]			0.83	.22	SAI	2	04H	-.44	04H04H			S3018	reso	88H00149	H	500DP
562			18.00	18	SAI	2	04H	-.44	04H04H			S3018	reso	88H00149	H	500DP
563			2.01	.43	SAI	1	04H	-.44	04H04H			S3018	reso	88H00149	H	500DP
564	47	121		21	SCI	P1	TSH	-.04	TSHTSH			E4963	reso	88H00084	H	600PP
565					SCI	1	TSH	-.04	TSHTSH			E4963	reso	88H00084	H	600PP
566			0.19	.18	SCI	P1	TSH	-.04	TSHTSH			E4963	reso	88H00084	H	600PP
567	51	121			SCI	1	TSH	-.01	TSHTSH			E4963	reso	88H00084	H	600PP
568			0.39	.18	SCI	P1	TSH	-.01	TSHTSH			E4963	reso	88H00084	H	600PP
569				16	SCI	P1	TSH	-.01	TSHTSH			E4963	reso	88H00084	H	600PP
570	64	122	0.95	29		P2	VH3	-.89	TEHTEC			H3464	rpri	88C00052	C	600UL
571	100	122	0.28	12		P2	VH3	-.75	TEHTEC			F7460	rpri	88C00039	C	600UL
572	10	124			SAI	1	06H	-2.08	06H06H			G1311	reso	88H00135	H	500DP
573			0.15	.34	SAI	2	06H	-2.08	06H06H			G1311	reso	88H00135	H	500DP
574				87	SAI	2	06H	-2.08	06H06H			G1311	reso	88H00135	H	500DP
575	64	124	15.00	22	SCI	P1	TSH	-.11	TSHTSH			T1089	reso	88H00016	H	600PP
576			0.60	.31	SCI	1	TSH	-.11	TSHTSH			T1089	reso	88H00016	H	600PP
577			0.67	.18	SCI	P1	TSH	-.11	TSHTSH			T1089	reso	88H00016	H	600PP
578			0.22	7		P2	VH3	-.74	TEHTEC			P4578	rsec	88C00052	C	600UL
579	74	124	15.00	20	SCI	P1	TSH	-.04	TSHTSH			M7262	reso	88H00015	H	600PP
580			2.14	.52	SCI	1	TSH	-.04	TSHTSH			M7262	reso	88H00015	H	600PP
581			0.75	.49	SCI	P1	TSH	-.04	TSHTSH			M7262	reso	88H00015	H	600PP
582	122	124	0.53	21		P2	DBH	-.71	TEHTEC			B4865	rsec	88C00042	C	600UL
583	43	125	0.23	11		P2	VSM	-.80	TEHTEC			G6920	rsec	88C00019	C	600UL
584	53	125	0.21	6		P2	VH3	-.89	TEHTEC			P4578	rsec	88C00052	C	600UL
			0.27	9		P2	VC3	-.82	TEHTEC			P4578	rsec	88C00052	C	600UL
	121	125	0.23	11		P2	10H	-.57	TEHTEC			J9815	rpri	88C00042	C	600UL
587	68	126	2.13	.40	SCI	1	TSH	-.11	TSHTSH			D3858	reso	88H00017	H	600PP
588			1.29	.33	SCI	P1	TSH	-.11	TSHTSH			D3858	reso	88H00017	H	600PP

	ROW	COL	VOLTS	DEG	PCT	CHN	FLAW	LOCATION	EXTENT	UTIL1	UTIL2	NAME	TYPE	CAL	GROUP	LEG	PROBE	SIZE
589			25.00	25	SCI	P1	TSH	- .11	TSHTSH			M7262	reso		88H00017	H	600PP	
590	89	127	0.29		13	P2	VSM	- .71	TEHTEC			D9424	rpri		88C00032	C	600UL	
591	131	127	0.23		10	P2	05C	-[illegible].81	TEHTEC			D9424	rpri		88C00032	C	600UL	
592			0.65		25	P2	03C	- .91	TEHTEC			D9424	rpri		88C00032	C	600UL	
593	26	128	0.72	.36	SAI	2	TSH	-1.24	TSHTSH			T1089	reso		88H00031	H	600PP	
594			8.00	10	SAI	2	TSH	-1.24	TSHTSH			T1089	reso		88H00031	H	600PP	
595			0.64	.49	SAI	1	TSH	-1.24	TSHTSH			T1089	reso		88H00031	H	600PP	
596	90	128	0.35		16	P2	VH2	- .81	TEHTEC			M7262	reso		88C00032	C	600UL	
597	130	128	0.37		17	P2	VH2	-[illegible].50	TEHTEC			D9424	rpri		88C00032	C	600UL	
598	85	129	0.24		10	P2	VH2	- .71	TEHTEC			B4865	rsec		88C00030	C	600UL	
599	90	130	0.39		17	P2	VH2	- .73	TEHTEC			D9424	rpri		88C00032	C	600UL	
600	55	131	0.69	.18	SCI	P1	TSH	- .01	TSHTSH			N2574	reso		88H00019	H	600PP	
601			39.00	25	SCI	P1	TSH	- .01	TSHTSH			N2574	reso		88H00019	H	600PP	
602			0.43	.27	SCI	1	TSH	- .01	TSHTSH			N2574	reso		88H00019	H	600PP	
603	93	131	0.12	.20	SAI	2	01H	- 3.51	01H02H			E4963	reso		88H00178	H	500DP	
604			147.00	84	SAI	2	01H	-[illegible]3.51	01H02H			E4963	reso		88H00178	H	500DP	
605			0.32	.22	SAI	1	01H	-[illegible]3.53	01H02H			E4963	reso		88H00178	H	500DP	
606	117	131	0.33		15	P2	VH1	- .97	TEHTEC			D9424	rpri		88C00032	C	600UL	
607	47	133	0.45		16	P2	VSM	- .72	TEHTEC			J9815	rpri		88C00020	C	600UL	
608	73	133	0.46		18	P2	VH3	- .98	TEHTEC			R3710	rpri		88C00021	C	600UL	
	28	134	0.27		11	P2	VSM	-1.18	TEHTEC			B4865	rsec		88C00014	C	600UL	
	72	134	0.34		13	P2	VH3	- .80	TEHTEC			J9815	rpri		88C00020	C	600UL	
611	76	134	0.37		15	P2	VH3	- .95	TEHTEC			B4865	rsec		88C00020	C	600UL	
612	36	136	0.26		11	P2	VSM	- .83	TEHTEC			B4865	rsec		88C00014	C	600UL	
613	78	136	0.51		21	P2	DBH	-[illegible].00	TEHTEC			J2362	rsec		88C00021	C	600UL	
614	117	137			SAI	1	04H	-14.57	04H05H			E4963	reso		88H00178	H	500DP	
615			0.17	.22	SAI	2	04H	-14.57	04H05H			E4963	reso		88H00178	H	500DP	
616					135	SAI	2	04H	-14.57	04H05H			E4963	reso		88H00178	H	500DP
617			0.15	.15	SAI	2	04H	-15.20	04H05H			E4963	reso		88H00178	H	500DP	
618					104	SAI	2	04H	-15.20	04H05H			E4963	reso		88H00178	H	500DP
619						SAI	1	04H	-15.20	04H05H			E4963	reso		88H00178	H	500DP
620	100	138	0.29	.15	SAI	2	06H	-[illegible].83	06H06H			E4963	reso		88H00178	H	500DP	
621					108	SAI	2	06H	-[illegible].83	06H06H			E4963	reso		88H00178	H	500DP
622						SAI	1	06H	-[illegible].84	06H06H			E4963	reso		88H00178	H	500DP
623	110	138	0.48		20	P2	VC3	- .94	TEHTEC			H3464	rpri		88C00029	C	600UL	
624	75	139	0.34		14	P2	VH3	- .83	TEHTEC			B4865	rsec		88C00018	C	600UL	
625			0.42		17	P2	VSM	- .31	TEHTEC			B4865	rsec		88C00018	C	600UL	
626	113	139	0.27		13	P2	VH2	- .71	TEHTEC			S8538	rsec		88C00029	C	600UL	
627	14	140	0.36	.20	SCI	P1	TSH	- .05	TSHTSH			T1089	reso		88H00033	H	600PP	
628			13.00	18	SCI	P1	TSH	-[illegible].05	TSHTSH			T1089	reso		88H00033	H	600PP	
629			0.50	.16	SCI	1	TSH	- .05	TSHTSH			T1089	reso		88H00033	H	600PP	
630	100	140	0.41	.37	SAI	2	09H	-[illegible].63	09H09H			F3453	reso		88H00178	H	500DP	
631					134	SAI	2	09H	-[illegible].63	09H09H			F3453	reso		88H00178	H	500DP
632						SAI	1	09H	-[illegible].64	09H09H			F3453	reso		88H00178	H	500DP
633	85	141	0.48		20	P2	09H	-1.29	TEHTEC			B5926	rsec		88C00029	C	600UL	
	89	141	0.39		17	P2	VH2	-[illegible].85	TEHTEC			B5926	rsec		88C00029	C	600UL	
			0.38		17	P2	VC2	-[illegible].90	TEHTEC			B5926	rsec		88C00029	C	600UL	
636	97	141	0.36		17	P2	VH2	- .79	TEHTEC			B5926	rsec		88C00029	C	600UL	
637	14	142	0.32	.42	SAI	1	06H	-[illegible].01	06H06H			R1509	reso		88H00188	H	500DP	

MAI, MCI, MMI, MVI, SAI, SCI, SVI & 0-100% TWD

UTILITY: Southern California Edison, Jan. 26,1999 15:08

PLANT: San Onofre

UNIT: 2

SG: 88

DATABASE: SONGS_U2_SG88_0199

	ROW	COL	VOLTS	DEG	PCT	CHN	FLAW	LOCATION	EXTENT	UTIL1	UTIL2	NAME	TYPE	CAL GROUP	LEG	PROBE SIZE
638			0.19	.39	SAI	2	06H	-[illegible].01	06H06H			R1509	reso	88H00188	H	500DP
639			108.00	91	SAI	2	06H	-[illegible].01	06H06H			R1509	reso	88H00188	H	500DP
640	78	142	0.45		18	P2	VH3	-[illegible].89	TEHTEC			D2003	rpri	88C00019	C	600UL
641	79	143	0.18		11	P2	DBC	-[illegible].18	TEHTEC			N2574	reso	88C00018	C	600UL
642	87	143	0.50		21	P2	VH2	-[illegible].74	TEHTEC			H3071	rsec	88C00027	C	600UL
643	95	143	0.47		17	P2	VH2	-[illegible].91	TEHTEC			B2027	rpri	88C00027	C	600UL
644			0.46		16	P2	VH2	-[illegible].78	TEHTEC			B2027	rpri	88C00027	C	600UL
645	111	143	0.26		12	P2	VH3	-[illegible].95	TEHTEC			H3071	rsec	88C00027	C	600UL
646	54	144	0.35		15	P2	VH3	-[illegible].89	TEHTEC			D2003	rpri	88C00019	C	600UL
647	78	144	0.36		15	P2	VH3	-[illegible].80	TEHTEC			F3453	reso	88C00019	C	600UL
648	112	144	0.86		27	P2	DBH	-[illegible].74	TEHTEC			F7460	rpri	88C00026	C	600UL
649	47	145	0.34		14	P2	VSM	-[illegible].45	TEHTEC			N2574	reso	88C00018	C	600UL
650	99	145			SAI	1	07H	-[illegible].26	07H07H			F3453	reso	88H00180	H	500DP
651			0.34	.21	SAI	2	07H	-[illegible].26	07H07H			F3453	reso	88H00180	H	500DP
652					127	SAI	2	07H	-[illegible].26	07H07H		F3453	reso	88H00180	H	500DP
653	6	146	0.18	.33	SAI	1	07C	-[illegible].49	07C07C			T9924	reso	88C00189	C	600PP
654			0.23	.23	SAI	2	07C	-[illegible].49	07C07C			T9924	reso	88C00189	C	600PP
655			34.00	73	SAI	2	07C	-[illegible].49	07C07C			T9924	reso	88C00189	C	600PP
656	68	146	0.37		10	P2	VC3	-[illegible].76	TEHTEC			J9815	rpri	88C00024	C	600UL
	74	146	0.66		24	P2	VH3	-[illegible].92	TEHTEC			V6131	rpri	88C00025	C	600UL
			0.57		22	P2	VC3	-[illegible].95	TEHTEC			V6131	rpri	88C00025	C	600UL
[illegible]			0.72		26	P2	VC3	-[illegible].99	TEHTEC			V6131	rpri	88C00025	C	600UL
660	98	146	0.26		12	P2	VH2	-[illegible].81	TEHTEC			H3071	rsec	88C00027	C	600UL
661	89	147	0.32		14	P2	VH2	-[illegible].78	TEHTEC			H3071	rsec	88C00027	C	600UL
662			0.32		14	P2	VH2	-[illegible].87	TEHTEC			H3071	rsec	88C00027	C	600UL
663	101	147	0.44		19	P2	VSM	-[illegible].74	TEHTEC			H3071	rsec	88C00027	C	600UL
664	78	148	0.60		23	P2	08C	-[illegible].01	TEHTEC			V6131	rpri	88C00025	C	600UL
665	86	148	0.34		15	P2	VH2	-[illegible].85	TEHTEC			G6920	rsec	88C00027	C	600UL
666	90	148	0.46		19	P2	VH2	-[illegible].82	TEHTEC			N2574	reso	88C00027	C	600UL
667	94	148	0.37		12	P2	VSM	-[illegible].74	TEHTEC			B2027	rpri	88C00027	C	600UL
668	86	150	0.38		12	P2	VH2	-[illegible].87	TEHTEC			B2027	rpri	88C00027	C	600UL
669	81	151	0.26		12	P2	VH3	-[illegible].80	TEHTEC			N2574	reso	88C00027	C	600UL
670	85	151	0.47		20	P2	VH2	-[illegible].80	TEHTEC			N2574	reso	88C00027	C	600UL
671	99	151	0.43		18	P2	VH2	-[illegible].91	TEHTEC			G6920	rsec	88C00027	C	600UL
672	83	153	0.35		16	P2	VH3	-[illegible].94	TEHTEC			N2574	reso	88C00027	C	600UL
673			0.31		14	P2	VC3	-[illegible].00	TEHTEC			N2574	reso	88C00027	C	600UL
674	93	153	0.49		17	P2	05C	-[illegible].88	TEHTEC			E4963	reso	88C00026	C	600UL
675			0.38		14	P2	03C	-[illegible].90	TEHTEC			E4963	reso	88C00026	C	600UL
676	78	154	0.36		16	P2	VC3	-[illegible].88	TEHTEC			R3710	rpri	88C00025	C	600UL
677	87	155	0.39		13	P2	VH2	-[illegible].73	TEHTEC			B2027	rpri	88C00027	C	600UL
678	74	156	0.42		18	P2	VH3	-[illegible].02	TEHTEC			R3710	rpri	88C00023	C	600UL
679			0.29		13	P2	VSM	-[illegible].32	TEHTEC			R3710	rpri	88C00023	C	600UL
680	81	159	0.29		13	P2	VH3	-[illegible].96	TEHTEC			G6920	rsec	88C00027	C	600UL
681	40	160	0.31		13	P2	VSM	-[illegible].66	TEHTEC			H3464	rpri	88C00058	C	600UL
682	64	162	0.29		12	P2	VH3	-[illegible].76	TEHTEC			G6920	rsec	88C00023	C	600UL
			0.27		11	P2	VH3	-[illegible].90	TEHTEC			N2574	reso	88C00023	C	600UL
	51	163	0.44		17	P2	VH3	-[illegible].99	TEHTEC			B4865	rsec	88C00022	C	600UL
685	22	164	0.21	1.1	SAI	2	06H	-[illegible]3.34	05H07H			W3386	reso	88H00185	H	500DP
686			106.00	106	SAI	2	06H	-[illegible]3.34	05H07H			W3386	reso	88H00185	H	500DP

MAI, MCI, MMI, MVI, SAI, SCI, SVI & 0-100% TWD

UTILITY: Southern California Edison, Jan. 26,1999 15:08

PLANT: San Onofr

UNIT: 2

SG: 88

DATABASE: SONGS_U2_SG88_0199 PAGE 15

	ROW	COL	VOLTS	DEG	PCT	CHN	FLAW	LOCATION		EXTENT	UTIL1	UTIL2	NAME	TYPE	CAL GROUP	LEG	PROBE SIZE
687			0.15	1.1	SAI	1	06H	+13.34		05H07H			W3386	reso	88H00185	H	500DP
688	50	164	0.37		14	P2	VSM	-.95		TEHTEC			J1220	rpri	88C00022	C	600UL
689	67	165	0.85		26	P2	VH3	.77		TEHTEC			J1220	rpri	88C00022	C	600UL
690	57	167	0.26		12	P2	02C	-.00		TEHTEC			R3710	rpri	88C00023	C	600UL
691			0.49		20	P2	02C	-.85		TEHTEC			R3710	rpri	88C00023	C	600UL
692	24	168	0.30	2.5	SAI	1	06H	-.57	TO+16.94	06H07H			F3453	reso	88H00185	H	500DP
693			0.14	2.5	SAI	2	06H	-.57	TO+16.94	06H07H			F3453	reso	88H00185	H	500DP
694			56.00	67	SAI	2	06H	-.57	TO+16.94	06H07H			F3453	reso	88H00185	H	500DP

QUERY REPORT SUMMARY:

QUERY PARAMETER	ENTRIES	TUBES
0 to 100 Percent	271	236
MAI Indication Code	6	2
MCI Indication Code	42	7
MMI Indication Code	0	0
MVI Indication Code	0	0
SAI Indication Code	219	61
SCI Indication Code	156	51
SVI Indication Code	0	0

TOTAL ENTRIES: 694

TOTAL TUBES: 348

Appendix 4

INSPECTION SUMMARY, STEAM GENERATOR 89

MAI, MCI, MMI, MVI, SAI, SCI, SVI & 0-100% TWD

UTILITY: Southern California Edison, Jan. 26,1999 15:10

PLANT: San Onofre

UNIT: 2

SG: 89

DATABASE: SONGS_U2_9989_0199 PAGE 1

	ROW	COL	VOLTS	DEG	PCT	CHN	FLAW	LOCATION	EXTENT	UTIL1	UTIL2	NAME	TYPE	CAL GROUP	LEG	PROBE SIZE
1	12	2	1.72	2.1	SVI	2	TSC	-0.01	TSCTSC			W3386	reso	89C00218	C 1	600PP
2			62.00	93	SVI	2	TSC	-0.01	TSCTSC			W3386	reso	89C00218	C 1	600PP
3			3.40	2.1	SVI	1	TSC	-0.01	TSCTSC			W3386	reso	89C00218	C 1	600PP
4	14	2	2.09	1.5	SVI	2	TSC	-0.12	TSCTSC			R1509	reso	89C00219	C 1	600PP
5			85.00	81	SVI	2	TSC	-0.12	TSCTSC			R1509	reso	89C00219	C 1	600PP
6			2.56	1.1	SVI	1	TSC	-0.12	TSCTSC			R1509	reso	89C00219	C 1	600PP
7	22	2	0.56		18	P2	VSM	-0.75	TEHTEC			B2153	rsec	89C00115	C 0	600UL
8	36	10	0.38		17	P2	VSM	-0.94	TEHTEC			W9213	rsec	89C00080	C 0	600UL
9	64	10	0.48		20	P2	03C	-0.07	TEHTEC			G2927	rpri	89C00090	C 0	600UL
10	15	11	0.21		10	P2	03H	-0.13	TEHTEC			R4201	rpri	89C00113	C 0	600UL
11	54	12	0.36		14	P2	VH3	-0.81	TEHTEC			S9098	rpri	89C00091	C 0	600UL
12	55	13	0.25		10	P2	VSM	-0.92	TEHTEC			W3386	reso	89C00091	C 0	600UL
13	59	13	0.25		10	P2	VH3	-0.83	TEHTEC			S9098	rpri	89C00091	C 0	600UL
14	13	17	67.00	84	SAI	2	06H	-0.11	06H07H			G1311	reso	89H00122	H 9	500DP
15			0.20	.19	SAI	1	06H	-0.11	06H07H			F6623	reso	89H00122	H 2	500DP
16			0.13	.30	SAI	2	06H	-0.11	06H07H			F6623	reso	89H00122	H 2	500DP
17	44	18	0.34		16	P2	VSM	-0.80	TEHTEC	VER		F3453	reso	89C00082	C 0	600UL
18	49	19				SAI	1	07H	-0.11	07H07H			D3858	reso	89H00117	H12	500DP
19			0.21	.20	SAI	2	07H	-0.11	07H07H			D3858	reso	89H00117	H12	500DP
20				117	SAI	2	07H	-0.11	07H07H			D3858	reso	89H00117	H12	500DP
	6	22	0.30		10	P2	02H	-0.75	TEHTEC			R4201	rpri	89C00075	C 0	600UL
	93	23	0.78		27	P2	02C	-0.88	TEHTEC			H1274	rsec	89C00064	C 0	600UL
23	90	24	0.33		15	P2	VSM	-0.73	TEHTEC			N2574	reso	89C00064	C 0	600UL
24	93	25	109.00	98	SAI	2	06H	-1.86	06H07H			D3858	reso	89H00120	H 2	500DP
25			0.35	.50	SAI	1	06H	-1.86	06H07H			D3858	reso	89H00120	H 2	500DP
26			0.28	.46	SAI	2	06H	-1.86	06H07H			D3858	reso	89H00120	H 2	500DP
27				93	SAI	2	06H	-0.74	06H07H			D3858	reso	89H00120	H 2	500DP
28					SAI	1	06H	-0.74	06H07H			D3858	reso	89H00120	H 2	500DP
29			0.25	.21	SAI	2	06H	-0.74	06H07H			D3858	reso	89H00120	H 2	500DP
30			30.00	87	MAI	2	06H	-0.87	06H07H			D3858	reso	89H00120	H 2	500DP
31			0.35	.58	MAI	1	06H	-0.87	06H07H			D3858	reso	89H00120	H 2	500DP
32			0.25	.73	MAI	2	06H	-0.87	06H07H			D3858	reso	89H00120	H 2	500DP
33	94	26	0.31		11	P2	VH2	-0.86	TSHTEC			B5926	rsec	89C00065	C 0	600UL
34	96	26	0.31		14	P2	VH2	-0.98	TEHTEC			G2927	rpri	89C00064	C 0	600UL
35	57	27	0.68	.12	SAI	1	06H	-0.71	06H06H			W3386	reso	89H00117	H11	500DP
36			0.97	.18	SAI	2	06H	-0.71	06H06H			W3386	reso	89H00117	H11	500DP
37			6.00	18	SAI	2	06H	-0.71	06H06H			W3386	reso	89H00117	H11	500DP
38	73	27	0.39		17	P2	VH3	-0.60	TEHTEC			G2927	rpri	89C00092	C 0	600UL
39	45	29	0.23		8	P2	05H	-0.78	TEHTEC			G1311	reso	89C00093	C 0	600UL
40	99	29	0.27		12	P2	VH2	-0.73	TEHTEC			H1274	rsec	89C00064	C 0	600UL
41	88	30	0.53		17	P2	09H	-0.71	TEHTEC			V7107	rpri	89C00065	C 0	600UL
42	47	33	0.52		26	P2	DBH	-0.76	TEHTEC			G2927	rpri	89C00086	C 0	600UL
43	81	33	0.29		11	P2	VSM	-0.70	TEHTEC			B5926	rsec	89C00065	C 0	600UL
44	97	35	0.36		12	P2	VH2	0.67	TEHTEC			S9098	rpri	89C00067	C 0	600UL
45	101	35	0.42		14	P2	VH3	-0.60	TEHTEC			S9098	rpri	89C00067	C 0	600UL
	89	37	0.29		12	P2	VC3	-0.93	TEHTEC			P4578	rsec	89C00066	C 0	600UL
	70	38	0.37		13	P2	VC3	-0.83	TEHTEC			E4963	reso	89C00115	C 0	600UL
48	110	38	0.32		12	P2	03H	0.81	TEHTEC			D9424	rpri	89C00066	C 0	600UL
49	43	39	0.66	.34	SCI	1	TSH	-0.10	TSHTSH			W2545	reso	89H00085	H 2	600PP

MAI, MCI, MMI, MVI, SAI, SCI, SVI & 0-100% TWD

UTILITY: Southern California Edison, Jan. 26,1999 15:10

PLANT: San Onofre

UNIT: 2

SG: 89

DATABASE: SONGS_U2_SG89_0199 PAGE 2

	ROW	COL	VOLTS	DEG	PCT	CHN	FLAW	LOCATION	EXTENT	UTIL1	UTIL2	NAME	TYPE	CAL	GROUP	LEG	PROBE	SIZE
50			0.52	.21	SCI	P1	TSH	-0.10	TSHTSH			W2545	reso	89H00085	H	2	600PP	
51			12.00	18	SCI	P1	TSH	-0.10	TSHTSH			W2545	reso	89H00085	H	2	600PP	
52	114	40	0.46		18	P2	DBH	-1.90	TEHTEC			D9424	rpri	89C00066	C	0	600UL	
53	122	40	0.26		10	P2	02C	-0.19	TEHTEC			G1311	reso	89C00066	C	0	600UL	
54	101	41	0.23	.33	SAI	2	02H	- .85	02H02H			D3858	reso	89H00120	H	2	500DP	
55				95	SAI	2	02H	- .85	02H02H			D3858	reso	89H00120	H	2	500DP	
56					SAI	1	02H	-0.85	02H02H			D3858	reso	89H00120	H	2	500DP	
57	76	42	0.38		13	P2	DBC	-1.83	TEHTEC			G2927	rpri	89C00088	C	0	600UL	
58	108	42	0.43		17	P2	DBH	-1.00	TEHTEC			D9424	rpri	89C00066	C	0	600UL	
59			0.33		13	P2	DBH	-2.00	TEHTEC			D9424	rpri	89C00066	C	0	600UL	
60	114	42		63	SAI	2	06H	-0.29	06H07H			F3453	reso	89H00120	H	2	500DP	
61					SAI	1	06H	-0.29	06H07H			F3453	reso	89H00120	H	2	500DP	
62			0.23	.46	SAI	2	06H	- .29	06H07H			F3453	reso	89H00120	H	2	500DP	
63			89.00	102	SAI	2	06H	-0.44	06H07H			F3453	reso	89H00120	H	2	500DP	
64			0.50	1.1	SAI	1	06H	-0.44	06H07H			F3453	reso	89H00120	H	2	500DP	
65			0.36	1.1	SAI	2	06H	-0.44	06H07H			F3453	reso	89H00120	H	2	500DP	
66	79	43	0.30		10	P2	VH3	-0.49	TEHTEC			G2927	rpri	89C00088	C	0	600UL	
67	81	43	0.67		21	P2	VSM	-0.97	TEHTEC			B4340	rsec	89C00069	C	0	600UL	
68	111	43	0.66		20	P2	VH3	-0.91	TEHTEC			B4340	rsec	89C00069	C	0	600UL	
	50	44	0.30		10	P2	VSM	-0.77	TEHTEC			S9098	rpri	89C00089	C	0	600UL	
	121	45	0.48		17	P2	10H	-1.02	TEHTEC			B2027	rpri	89C00069	C	0	600UL	
71			0.69		22	P2	VC2	-0.54	TEHTEC			B2027	rpri	89C00069	C	0	600UL	
72	97	47	0.33		15	P2	VH2	-0.89	TEHTEC			V6131	rpri	89C00068	C	0	600UL	
73	101	47	0.51		21	P2	VC2	-1.11	TEHTEC			V6131	rpri	89C00068	C	0	600UL	
74	103	47	0.57		19	P2	VH2	-0.77	TEHTEC			B2027	rpri	89C00069	C	0	600UL	
75	44	48	0.40		16	P2	VSM	- .88	TEHTEC			R3710	rpri	89C00084	C	0	600UL	
76	87	49	0.36		16	P2	VH2	-0.71	TEHTEC			V6131	rpri	89C00068	C	0	600UL	
77	101	49	0.50		17	P2	VC2	- .04	TEHTEC			B2027	rpri	89C00069	C	0	600UL	
78	117	49	0.31		14	P2	VC3	-0.75	TEHTEC			V6131	rpri	89C00068	C	0	600UL	
79	22	50	0.95	.24	SCI	1	TSH	- .09	TSHTSH			G1311	reso	89H00094	H	2	600PP	
80			1.21	.18	SCI	P1	TSH	-0.09	TSHTSH			G1311	reso	89H00094	H	2	600PP	
81			21.00	22	SCI	P1	TSH	-0.09	TSHTSH			G1311	reso	89H00094	H	2	600PP	
82	40	50		98	SCI	P1	TSH	-0.10	TSHTSH			G1311	reso	89H00001	H	2	600PP	
83					SCI	1	TSH	-0.10	TSHTSH			G1311	reso	89H00001	H	2	600PP	
84			0.15	.23	SCI	P1	TSH	-0.10	TSHTSH			G1311	reso	89H00001	H	2	600PP	
85	46	50	1.52	.48	SCI	1	TSH	-0.09	TSHTSH			T1089	reso	89H00002	H	2	600PP	
86			0.79	.23	SCI	P1	TSH	-0.09	TSHTSH			T1089	reso	89H00002	H	2	600PP	
87			12.00	16	SCI	P1	TSH	- .09	TSHTSH			T1089	reso	89H00002	H	2	600PP	
88	48	50	0.65	1.5	SCI	P1	TSH	-0.04	TSHTSH			G1311	reso	89H00001	H	2	600PP	
89					SCI	1	TSH	-0.04	TSHTSH			G1311	reso	89H00001	H	2	600PP	
90				72	SCI	P1	TSH	-0.04	TSHTSH			G1311	reso	89H00001	H	2	600PP	
91	94	50	0.21		7	P2	05C	-0.21	TEHTEC			S9098	rpri	89C00095	C	0	600UL	
92	43	51	0.17	128	6	P2	DBH	-1.28	TEHTEC			T1089	reso	89C00037	C	0	600UL	
93	75	51	0.16		5	P2	DBH	-1.00	TEHTEC			B4370	rsec	89C00041	C	0	600UL	
94	79	51	0.81	.29	SCI	1	TSH	-0.04	TSHTSH			S3018	reso	89H00005	H	2	600PP	
			0.44	.18	SCI	P1	TSH	-0.04	TSHTSH			S3018	reso	89H00005	H	2	600PP	
			14.00	17	SCI	P1	TSH	-0.04	TSHTSH			S3018	reso	89H00005	H	2	600PP	
97	83	51	1.45	.39	SCI	1	TSH	-0.00	TSHTSH			M7262	reso	89H00052	H	2	600PP	
98			0.59	.33	SCI	P1	TSH	-0.00	TSHTSH			M7262	reso	89H00052	H	2	600PP	

MAI, MCI, MMI, MVI, SAI, SCI, SVI & 0-100% TWD

UTILITY: Southern California Edison, Jan. 26,1999 15:10

PLANT: San Onofre

UNIT: 2

SG: 89

DATABASE: SONGS_U2_SG89_0199

	ROW	COL	VOLTS	DEG	PCT	CHN	FLAW	LOCATION	EXTENT	UTIL1	UTIL2	NAME	TYPE	CAL GROUP	LEG	PROBE SIZE
99			19.00	27	SCI	P1	TSH	+0.00	TSHTSH			M7262	reso	89H00052	H 2	600PP
100	62	52	9.00	26	SCI	P1	TSH	-0.05	TSHTSH			T1089	reso	89H00006	H 2	600PP
101			0.34	.11	SCI	1	TSH	-0.05	TSHTSH			T1089	reso	89H00006	H 2	600PP
102			0.43	.18	SCI	P1	TSH	-0.05	TSHTSH			T1089	reso	89H00006	H 2	600PP
103	47	53	0.25	.16	SAI	2	TSH	+1.82	TSHTSH			G1311	reso	89H00001	H 2	600PP
104			180.00	120	SAI	2	TSH	+1.82	TSHTSH			G1311	reso	89H00001	H 2	600PP
105			0.37	.24	SAI	1	TSH	+1.82	TSHTSH			G1311	reso	89H00001	H 2	600PP
106	83	53			SCI	1	TSH	-0.03	TSHTSH			M7262	reso	89H00052	H 2	600PP
107			0.59	.18	SCI	P1	TSH	-0.03	TSHTSH			W2545	reso	89H00052	H 2	600PP
108				29	SCI	P1	TSH	-0.03	TSHTSH			W2545	reso	89H00052	H 2	600PP
109	125	53	0.56		18	P2	VH1	+0.80	TEHTEC			S9098	rpri	89C00071	C 0	600UL
110	26	54	16.00	30	MCI	P1	TSH	-0.10	TSHTSH			T1089	reso	89H00002	H 2	600PP
111			0.28	.27	MCI	1	TSH	-0.10	TSHTSH			T1089	reso	89H00002	H 2	600PP
112			0.48	.23	MCI	P1	TSH	-0.10	TSHTSH			T1089	reso	89H00002	H 2	600PP
113					MCI	1	TSH	-0.06	TSHTSH			T1089	reso	89H00002	H 2	600PP
114			0.44	.18	MCI	P1	TSH	-0.06	TSHTSH			T1089	reso	89H00002	H 2	600PP
115				14	MCI	P1	TSH	-0.06	TSHTSH			T1089	reso	89H00002	H 2	600PP
116	29	55	0.24	.36	SCI	P1	TSH	+0.07	TSHTSH			S3018	reso	89H00002	H 2	600PP
117			18.00	75	SCI	P1	TSH	+0.07	TSHTSH			S3018	reso	89H00002	H 2	600PP
			1.20	.72	SCI	1	TSH	+0.07	TSHTSH			S3018	reso	89H00002	H 2	600PP
	65	55	18.00	19	SAI	2	08H	+0.28	08H08H			W3386	reso	89H00113	H11	500DP
120			3.76	.55	SAI	1	08H	-0.28	08H08H			G1311	reso	89H00113	H11	500DP
121			1.76	.86	SAI	2	08H	-0.28	08H08H			W3386	reso	89H00113	H11	500DP
122	22	56	14.00	27	SCI	P1	TSH	-0.03	TSHTSH			G1311	reso	89H00096	H 2	600PP
123			0.51	.28	SCI	1	TSH	-0.03	TSHTSH			G1311	reso	89H00096	H 2	600PP
124			0.57	.18	SCI	P1	TSH	-0.03	TSHTSH			G1311	reso	89H00096	H 2	600PP
125	74	56	0.26		10	P2	DBH	+1.37	TEHTEC			D2003	rpri	89C00042	C 0	600UL
126	102	58	0.26		9	P2	VC3	+0.75	TEHTEC			R3710	rpri	89C00095	C 0	600UL
127	23	61		84	SAI	2	06H	+0.66	06H06H			F3453	reso	89H00124	H 3	500DP
128					SAI	1	06H	+0.66	06H06H			F3453	reso	89H00124	H 3	500DP
129			0.25	.20	SAI	2	06H	+0.66	06H06H			F3453	reso	89H00124	H 3	500DP
130	39	61	0.26	.61	SCI	P1	TSH	+0.10	TSHTSH			F3453	reso	89H00001	H 2	600PP
131				116	SCI	P1	TSH	-0.10	TSHTSH			F3453	reso	89H00001	H 2	600PP
132					SCI	1	TSH	+0.10	TSHTSH			F3453	reso	89H00001	H 2	600PP
133	74	62	0.47	.15	SAI	2	TSH	+0.72	TSHTSH			T1089	reso	89H00006	H 2	600PP
134			4.00	10	SAI	2	TSH	+0.72	TSHTSH			T1089	reso	89H00006	H 2	600PP
135			4.26	.27	SAI	1	TSH	+0.72	TSHTSH			T1089	reso	89H00006	H 2	600PP
136	106	62	0.27		11	P2	VC2	+0.91	TEHTEC			L0211	rpri	89C00097	C 0	600UL
137	85	63	0.29		12	P2	VH3	+0.84	TEHTEC			F3453	reso	89C00097	C 0	600UL
138			0.47		17	P2	OSC	+1.62	TEHTEC			F3453	reso	89C00097	C 0	600UL
139	2	64	11.00	22	SAI	2	TSH	+0.55	TSHTSH			G1311	reso	89H00095	H 2	600PP
140			2.21	.25	SAI	1	TSH	+0.55	TSHTSH			G1311	reso	89H00095	H 2	600PP
141			0.83	.16	SAI	2	TSH	+0.55	TSHTSH			G1311	reso	89H00095	H 2	600PP
142	64	64	0.25		9	P2	VSM	+0.83	TEHTEC			D3858	reso	89C00041	C 0	600UL
143	47	65		88	SCI	P1	TSH	+0.03	TSHTSH			F3453	reso	89H00001	H 2	600PP
					SCI	1	TSH	+0.03	TSHTSH			F3453	reso	89H00001	H 2	600PP
			0.27	.31	SCI	P1	TSH	+0.03	TSHTSH			F3453	reso	89H00001	H 2	600PP
146			0.28	.40	SAI	1	TSH	+0.22	TSHTSH			F3453	reso	89H00001	H 2	600PP
147			0.20	.20	SAI	2	TSH	+0.22	TSHTSH			F3453	reso	89H00001	H 2	600PP

MAI, MCI, MMI, MVI, SAI, SCI, SVI & 0-100% TWD

UTILITY: Southern California Edison, Jan. 26,1999 15:10

PLANT: San Onofre

UNIT: 2

SG: 89

DATABASE: SONGS_U2_S89_0199 PAGE 4

	ROW	COL	VOLTS	DEG	PCT	CHN	FLAW	LOCATION	EXTENT	UTIL1	UTIL2	NAME	TYPE	CAL	GROUP	LEG	PROBE	SIZE
148			82.00	111	SAI	2	TSH	+0.22	TSHTSH			F3453	reso	89H00001	H	2	600PP	
149	49	65	0.31		9	P2	VSM	-0.82	TEHTEC			F6623	reso	89C00040	C	0	600UL	
150	65	65	6.03	.36	SAI	1	TSH	-0.97	TSHTSH			E4963	reso	89H00006	H	2	600PP	
151			1.26	.18	SAI	2	TSH	-0.97	TSHTSH			T1089	reso	89H00006	H	2	600PP	
152			8.00	11	SAI	2	TSH	-0.97	TSHTSH			T1089	reso	89H00006	H	2	600PP	
153	48	66	0.54		18	P2	VSM	-0.77	TEHTEC			S3018	reso	89C00039	C	0	600UL	
154	94	66	0.51		18	P2	VC2	-0.74	TEHTEC			F3453	reso	89C00097	C	0	600UL	
155	104	66	0.24		7	P2	VH3	-0.83	TEHTEC			F3453	reso	89C00096	C	0	600UL	
156	110	66	0.40		15	P2	VC2	-0.87	TEHTEC			F3453	reso	89C00097	C	0	600UL	
157	120	66	1.31		36	P2	10H	-1.08	TEHTEC			G1311	reso	89C00073	C	0	600UL	
158	113	67	0.31		11	P2	05H	-0.23	TEHTEC			N2574	reso	89C00072	C	0	600UL	
159	141	67	0.49		18	P2	09C	-1.03	TEHTEC			B5926	rsec	89C00072	C	0	600UL	
160	143	67	1.31		36	P2	DBH	-1.69	TEHTEC			G1311	reso	89C00073	C	0	600UL	
161			1.28		35	P2	DBH	-1.84	TEHTEC			G1311	reso	89C00073	C	0	600UL	
162	82	68	0.63		20	P2	VH3	-0.79	TEHTEC			R3710	rpri	89C00099	C	0	600UL	
163			0.37		11	P2	VH3	-0.83	TEHTEC			M7262	reso	89C00099	C	0	600UL	
164	132	68	0.37		12	P2	VH1	-0.35	TEHTEC			S9098	rpri	89C00073	C	0	600UL	
165	136	68	0.43		14	P2	VH1	-0.84	TEHTEC			S9098	rpri	89C00073	C	0	600UL	
166	137	69	0.41		15	P2	VH1	-0.67	TEHTEC			V6131	rpri	89C00072	C	0	600UL	
	143	69	0.98		31	P2	10H	-0.88	TEHTEC			B2153	rsec	89C00073	C	0	600UL	
	74	70				MCI	1	TSH	-0.10	TSHTSH			D3858	reso	89H00006	H	2	600PP
169			0.19	.30	MCI	P1	TSH	-0.10	TSHTSH			D3858	reso	89H00006	H	2	600PP
170					26	MCI	P1	TSH	-0.10	TSHTSH			D3858	reso	89H00006	H	2	600PP
171						MCI	1	TSH	-0.10	TSHTSH			D3858	reso	89H00006	H	2	600PP
172			0.46	.13	MCI	P1	TSH	-0.10	TSHTSH			D3858	reso	89H00006	H	2	600PP
173					17	MCI	P1	TSH	-0.10	TSHTSH			D3858	reso	89H00006	H	2	600PP
174	102	70	0.40	.24	SCI	P1	TSH	+0.04	TSHTSH			R1509	reso	89H00053	H	2	600PP
175					22	SCI	P1	TSH	+0.04	TSHTSH			R1509	reso	89H00053	H	2	600PP
176						SCI	1	TSH	+0.04	TSHTSH			R1509	reso	89H00053	H	2	600PP
177	138	70	0.40		14	P2	DBH	-0.83	TEHTEC			L0211	rpri	89C00072	C	0	600UL	
178	31	71	0.33		10	P2	DBH	-1.51	TEHTEC			K6733	rpri	89C00040	C	0	600UL	
179			0.33		10	P2	DBC	-1.67	TEHTEC			K6733	rpri	89C00040	C	0	600UL	
180	47	71	0.26	.42	SAI	1	TSH	-0.13	TSHTSH			T1089	reso	89H00003	H	2	600PP	
181			0.19	.29	SAI	2	TSH	-0.13	TSHTSH			T1089	reso	89H00003	H	2	600PP	
182			107.00	73	SAI	2	TSH	-0.13	TSHTSH			T1089	reso	89H00003	H	2	600PP	
183	133	71	0.30		10	P2	VH1	-0.75	TEHTEC			N2574	reso	89C00072	C	0	600UL	
184			0.27		10	P2	VH1	+0.92	TEHTEC			B5926	rsec	89C00072	C	0	600UL	
185	137	71	0.41		15	P2	DBH	-1.63	TEHTEC			L0211	rpri	89C00072	C	0	600UL	
186	143	71	0.37		15	P2	DBH	+2.05	TEHTEC			G1311	reso	89C00073	C	0	600UL	
187			0.35		15	P2	VH1	-0.83	TEHTEC			B2153	rsec	89C00073	C	0	600UL	
188	52	72	0.83	.47	SCI	1	TSH	-0.11	TSHTSH			E4963	reso	89H00004	H	2	600PP	
189			0.24	.65	SCI	P1	TSH	+0.11	TSHTSH			E4963	reso	89H00004	H	2	600PP	
190			11.00	99	SCI	P1	TSH	-0.11	TSHTSH			E4963	reso	89H00004	H	2	600PP	
191	112	72	0.51		19	P2	VH3	-0.89	TEHTEC			B4370	rsec	89C00099	C	0	600UL	
192	128	72	0.16		5	P2	10H	-1.00	TEHTEC			F3453	reso	89C00073	C	0	600UL	
			0.40		17	P2	10H	-0.92	TEHTEC			G1311	reso	89C00073	C	0	600UL	
	121	73	0.49		17	P2	10C	-1.00	TEHTEC			T9924	reso	89C00153	C	0	600UL	
195	129	73	0.39		13	P2	DBH	+2.05	TEHTEC			J9815	rpri	89C00153	C	0	600UL	
196	131	73				SAI	1	07H	+0.17	07H07H			D3858	reso	89H00130	H	2	500DP

MAI, MCI, MMI, MVI, SAI, SCI, SVI & 0-100% TWD

UTILITY: Southern California Edison, Jan. 26,1999 15:10

PLANT: San Onofre

UNIT: 2

SG: 89

DATABASE: SONGS_U2_SG89_0199

	ROW	COL	VOLTS	DEG	PCT	CHN	FLAW	LOCATION	EXTENT	UTIL1	UTIL2	NAME	TYPE	CAL	GROUP	LEG	PROBE	SIZE
197			0.14	.21	SAI	2	07H	-0.17	07H07H			D3858	reso	89H00130	H	2	500DP	
198				85	SAI	2	07H	-0.17	07H07H			D3858	reso	89H00130	H	2	500DP	
199			0.36		14	P2	DBH	-0.09	TEHTEC			L0211	rpri	89C00100	C	0	600UL	
200	143	73	0.27		11	P2	DBC	-1.65	TEHTEC			L0211	rpri	89C00100	C	0	600UL	
201			0.26		10	P2	DBC	-1.97	TEHTEC			L0211	rpri	89C00100	C	0	600UL	
202	145	73	0.93		27	P2	VC1	-0.84	TEHTEC			L0601	rpri	89C00059	C	0	600UL	
203			0.52		18	P2	DBC	-1.67	TEHTEC			L0601	rpri	89C00059	C	0	600UL	
204	40	74	143.00	103	SCI	P1	TSH	-0.10	TSHTSH			G1311	reso	89H00050	H	2	600PP	
205			0.59	.45	SCI	1	TSH	-0.10	TSHTSH			G1311	reso	89H00050	H	2	600PP	
206			0.28	.30	SCI	P1	TSH	-0.10	TSHTSH			G1311	reso	89H00050	H	2	600PP	
207	50	74	0.26		12	P2	DBC	-2.02	TEHTEC			V7107	rpri	89C00111	C	0	600UL	
208			0.38		15	P2	DBC	-1.74	TEHTEC			F3453	reso	89C00111	C	0	600UL	
209	54	74	0.19	.18	SCI	P1	TSH	-0.12	TSHTSH			M7262	reso	89H00049	H	2	600PP	
210			39.00	120	SCI	P1	TSH	-0.12	TSHTSH			M7262	reso	89H00049	H	2	600PP	
211			0.49	.21	SCI	1	TSH	-0.12	TSHTSH			M7262	reso	89H00049	H	2	600PP	
212	60	74	0.32		13	P2	VC3	-0.76	TEHTEC			F6623	reso	89C00112	C	0	600UL	
213	130	74	0.32		10	P2	10H	-0.93	TEHTEC			J9815	rpri	89C00153	C	0	600UL	
214	144	74	0.52		18	P2	VC1	-0.94	TEHTEC			L0601	rpri	89C00059	C	0	600UL	
215	51	75	14.00	12	SAI	2	TSH	-0.00	TSHTSH			M7262	reso	89H00049	H	2	600PP	
[illegible]			0.67	.21	SAI	1	TSH	-0.00	TSHTSH			M7262	reso	89H00049	H	2	600PP	
			0.64	.23	SAI	2	TSH	-0.00	TSHTSH			M7262	reso	89H00049	H	2	600PP	
[illegible]	81	75	0.39		14	P2	VC3	-0.75	TEHTEC			K6733	rpri	89C00052	C	0	600UL	
219	145	75	0.41		14	P2	DBH	-1.83	TEHTEC			B4865	rsec	89C00059	C	0	600UL	
220	44	76	0.80		27	P2	DBC	-1.96	TEHTEC			V7107	rpri	89C00111	C	0	600UL	
221	50	76	0.30		10	P2	DBC	-1.68	TEHTEC			F6623	reso	89C00112	C	0	600UL	
222	52	76	0.26		12	P2	DBC	-1.61	TEHTEC			V7107	rpri	89C00111	C	0	600UL	
223	138	76	0.32		10	P2	VH1	-0.76	TEHTEC			J9815	rpri	89C00153	C	0	600UL	
224	125	77	0.29		9	P2	VH1	-0.92	TEHTEC			J9815	rpri	89C00153	C	0	600UL	
225	72	78	0.48		19	P2	VH3	-0.83	TEHTEC			V7107	rpri	89C00111	C	0	600UL	
226			0.27		12	P2	VC3	-0.90	TEHTEC			V7107	rpri	89C00111	C	0	600UL	
227	76	78	0.24		11	P2	VC3	-0.85	TEHTEC			V7107	rpri	89C00111	C	0	600UL	
228			0.40		17	P2	VC3	-1.00	TEHTEC			V7107	rpri	89C00111	C	0	600UL	
229	106	78			SAI	1	VH2	-0.78	VH2VH2			D3858	reso	89H00174	H	10	560PP	
230			0.18	.22	SAI	2	VH2	-0.78	VH2VH2			D3858	reso	89H00174	H	10	560PP	
231				119	SAI	2	VH2	-0.78	VH2VH2			D3858	reso	89H00174	H	10	560PP	
232			0.38		14	P2	VH2	-0.80	TEHTEC			K6733	rpri	89C00052	C	0	600UL	
233	130	78	0.26		12	P2	10H	-1.00	TEHTEC			N2574	reso	89C00054	C	0	600UL	
234			0.38		17	P2	VH2	-0.78	TEHTEC			R5555	rsec	89C00054	C	0	600UL	
235	63	79	0.50		19	P2	DBC	-2.00	TEHTEC			B4865	rsec	89C00111	C	0	600UL	
236	71	79	0.35		15	P2	DBC	-1.54	TEHTEC			V7107	rpri	89C00111	C	0	600UL	
237	75	79	0.31		14	P2	DBC	-1.75	TEHTEC			V7107	rpri	89C00111	C	0	600UL	
238	81	79	0.37		15	P2	VH3	-0.72	TEHTEC			W4786	rsec	89C00052	C	0	600UL	
239	113	79	0.55		21	P2	VSM	-1.55	TEHTEC			R4201	rpri	89C00054	C	0	600UL	
240	119	79	0.41		14	P2	VH3	-0.97	TEHTEC			P4578	rsec	89C00055	C	0	600UL	
241	66	80	0.23		10	P2	DBC	-1.73	TEHTEC			V7107	rpri	89C00111	C	0	600UL	
	72	80	0.35		15	P2	VC3	-0.79	TEHTEC			V7107	rpri	89C00111	C	0	600UL	
	55	81	0.33		14	P2	DBC	-2.29	TEHTEC			V7107	rpri	89C00111	C	0	600UL	
244	75	81	0.96		30	P2	VH3	-0.83	TEHTEC			V7107	rpri	89C00111	C	0	600UL	
245	121	81	0.34		16	P2	VH3	-0.76	TEHTEC			R5555	rsec	89C00054	C	0	600UL	

MAI, MCI, MMI, MVI, SAI, SCI, SVI & 0-100% TWD

UTILITY: Southern California Edison.

PLANT: San Onofre

UNIT: 2

SG: 89

DATABASE: SONGS_U2_U89_0199

Jan. 26,1999 15:10

	ROW	COL	VOLTS	DEG	PCT	CHN	PLAN	LOCATION	EXTENT	UTIL1	UTIL2	NAME	TYPE	CAL	GROUP	LEG	PROBE	SIZE
246	133	81	0.47		18	P2	VH1	-.91	TEHTEC			R4201	rpri	89C00054	C	0	600UL	
247	145	81	0.73		24	P2	VH1	-.89	TEHTEC			L0211	rpri	89C00100	C	0	600UL	
248	147	81	0.34		13	P2	DBC	-.91	TEHTEC			L0601	rpri	89C00059	C	0	600UL	
249	48	82	0.85		25	P2	DBH	-.92	TEHTEC			F6623	reso	89C00112	C	0	600UL	
250			0.52		17	P2	DBH	-.74	TEHTEC			F6623	reso	89C00112	C	0	600UL	
251			0.60		19	P2	DBC	-1.97	TEHTEC			F6623	reso	89C00112	C	0	600UL	
252	56	82	0.72		25	P2	VH3	-.81	TEHTEC			V7107	rpri	89C00111	C	0	600UL	
253			0.32		14	P2	VH3	-.95	TEHTEC			V7107	rpri	89C00111	C	0	600UL	
254	126	82	0.32		15	P2	VH2	-1.00	TEHTEC			R5555	rsec	89C00054	C	0	600UL	
255	146	82	1.72		37	P2	DBH	-.91	TEHTEC			L0601	rpri	89C00059	C	0	600UL	
256			0.30		12	P2	DBC	-.90	TEHTEC			M7262	reso	89C00059	C	0	600UL	
257	53	83	0.36		12	P2	DBC	-.95	TEHTEC			F6623	reso	89C00112	C	0	600UL	
258	55	83	0.49		19	P2	DBC	-.87	TEHTEC			V7107	rpri	89C00111	C	0	600UL	
259	59	83	0.68		24	P2	DBC	-.00	TEHTEC			N2574	reso	89C00111	C	0	600UL	
260	63	83	0.20		9	P2	DBC	-1.09	TEHTEC			B4865	rsec	89C00111	C	0	600UL	
261	67	83	0.33		14	P2	DBH	-.56	TEHTEC			V7107	rpri	89C00111	C	0	600UL	
262			0.32		14	P2	DBC	-1.77	TEHTEC			V7107	rpri	89C00111	C	0	600UL	
263	121	83	0.48		20	P2	VC3	-.95	TEHTEC			R5555	rsec	89C00054	C	0	600UL	
264	147	83	0.34		12	P2	10H	-.19	TEHTEC			B4865	rsec	89C00059	C	0	600UL	
[illegible]			0.90		27	P2	DBH	-1.00	TEHTEC			M7262	reso	89C00059	C	0	600UL	
			0.55		19	P2	VH1	-.88	TEHTEC			L0601	rpri	89C00059	C	0	600UL	
[illegible]	58	84	0.46		19	P2	DBC	-.95	TEHTEC			V7107	rpri	89C00111	C	0	600UL	
268			0.55		21	P2	DBC	-1.59	TEHTEC			V7107	rpri	89C00111	C	0	600UL	
269	62	84	0.40		13	P2	DBH	-.00	TEHTEC			F6623	reso	89C00112	C	0	600UL	
270	64	84	0.20		9	P2	DBH	-.89	TEHTEC			B4865	rsec	89C00111	C	0	600UL	
271	72	84	0.31		14	P2	VH3	-.94	TEHTEC			V7107	rpri	89C00111	C	0	600UL	
272			0.19		9	P2	VC3	-.81	TEHTEC			V7107	rpri	89C00111	C	0	600UL	
273			0.40		17	P2	DBC	-.78	TEHTEC			N2574	reso	89C00111	C	0	600UL	
274	118	84	0.35		16	P2	VC2	-.52	TEHTEC			R5555	rsec	89C00054	C	0	600UL	
275	57	85	0.60		19	P2	DBH	-1.79	TEHTEC			F6623	reso	89C00112	C	0	600UL	
276	63	85	30.00	17	SAI	2	TSH	-1.77	TSHTSH			G1311	reso	89H00050	H	2	600PP	
277			1.01	.28	SAI	1	TSH	-1.77	TSHTSH			G1311	reso	89H00050	H	2	600PP	
278			0.96	.12	SAI	2	TSH	-1.77	TSHTSH			G1311	reso	89H00050	H	2	600PP	
279			10.00	21	SAI	2	TSH	-.95	TSHTSH			G1311	reso	89H00050	H	2	600PP	
280			0.73	.47	SAI	1	TSH	-.95	TSHTSH			G1311	reso	89H00050	H	2	600PP	
281			0.59	.28	SAI	2	TSH	-.95	TSHTSH			G1311	reso	89H00050	H	2	600PP	
282	65	85		117	SAI	2	TSH	-.32	TSHTSH			M7262	reso	89H00049	H	2	600PP	
283					SAI	1	TSH	-.32	TSHTSH			M7262	reso	89H00049	H	2	600PP	
284			0.35	.15	SAI	2	TSH	-.32	TSHTSH			M7262	reso	89H00049	H	2	600PP	
285	81	85	0.33		12	P2	VH3	-.88	TEHTEC			K6733	rpri	89C00052	C	0	600UL	
286	89	85	0.36		13	P2	VH2	-.70	TEHTEC			K6733	rpri	89C00052	C	0	600UL	
287	145	85	0.79		28	P2	DBC	-1.65	TEHTEC			J9815	rpri	89C00058	C	0	600UL	
288	147	85	0.43		16	P2	DBH	-1.90	TEHTEC			L0601	rpri	89C00059	C	0	600UL	
289			1.08		30	P2	DBC	-1.80	TEHTEC			L0601	rpri	89C00059	C	0	600UL	
290	64	86	12.00	19	SAI	2	TSH	-.73	TSHTSH			M7262	reso	89H00049	H	2	600PP	
			1.19	.26	SAI	1	TSH	-.73	TSHTSH			M7262	reso	89H00049	H	2	600PP	
			0.87	.15	SAI	2	TSH	.73	TSHTSH			M7262	reso	89H00049	H	2	600PP	
293					MCI	1	TSH	-.08	TSHTSH			T1089	reso	89H00049	H	2	600PP	
294			0.10	.24	MCI	P1	TSH	-.08	TSHTSH			T1089	reso	89H00049	H	2	600PP	

MAI, MCI, MMI, MVI, SAI, SCI, SVI & 0-100% TWD

UTILITY: Southern California Edison, Jan. 26,1999 15:10
PLANT: San Onofre
UNIT: 2
SG: 89
DATABASE: SONGS_U2_S089_0199 PAGE 7

	ROW	COL	VOLTS	DEG	PCT	CHN	FLAW	LOCATION	EXTENT	UTIL1	UTIL2	NAME	TYPE	CAL GROUP	LEG	PROBE SIZE
295				120	MCI	P1	TSH	-0.08	TSHTSH			T1089	reso	89H00049	H 2	600PP
296					MCI	1	TSH	-0.10	TSHTSH			M7262	reso	89H00049	H 2	600PP
297			0.14	.18	MCI	P1	TSH	-0.10	TSHTSH			T1089	reso	89H00049	H 2	600PP
298				104	MCI	P1	TSH	-0.10	TSHTSH			T1089	reso	89H00049	H 2	600PP
299	108	86	0.38		15	P2	VSM	-0.82	TEHTEC			R4201	rpri	89C00051	C 0	600UL
300	59	87		121	SCI	P1	TSH	-0.12	TSHTSH			M7262	reso	89H00049	H 2	600PP
301					SCI	1	TSH	-0.12	TSHTSH			M7262	reso	89H00049	H 2	600PP
302			0.25	.42	SCI	P1	TSH	-0.12	TSHTSH			M7262	reso	89H00049	H 2	600PP
303			0.32		13	P2	DBH	-1.75	TEHTEC			W4786	rsec	89C00110	C 0	600UL
304	63	87		130	MCI	P1	TSH	-0.04	TSHTSH			T1089	reso	89H00049	H 2	600PP
305					MCI	1	TSH	-0.04	TSHTSH			T1089	reso	89H00049	H 2	600PP
306			0.19	.28	MCI	P1	TSH	-0.04	TSHTSH			T1089	reso	89H00049	H 2	600PP
307				89	MCI	P1	TSH	-0.07	TSHTSH			M7262	reso	89H00049	H 2	600PP
308					MCI	1	TSH	-0.07	TSHTSH			M7262	reso	89H00049	H 2	600PP
309			0.24	.18	MCI	P1	TSH	-0.07	TSHTSH			T1089	reso	89H00049	H 2	600PP
310	143	87	0.42		15	P2	DBC	-1.94	TEHTEC			L0601	rpri	89C00059	C 0	600UL
311			0.27		10	P2	10C	-0.78	TEHTEC			L0601	rpri	89C00059	C 0	600UL
312	147	87	0.23		9	P2	09H	-0.04	TEHTEC			L0601	rpri	89C00059	C 0	600UL
313			0.29		11	P2	10H	-0.64	TEHTEC			L0601	rpri	89C00059	C 0	600UL
[illegible]			0.90		27	P2	DBC	-0.82	TEHTEC			M7262	reso	89C00059	C 0	600UL
	54	88	0.44		16	P2	DBH	-0.93	TEHTEC			W4786	rsec	89C00110	C 0	600UL
[illegible]			0.41		15	P2	VSM	-0.90	TEHTEC			W4786	rsec	89C00110	C 0	600UL
317			0.40		15	P2	DBC	-1.02	TEHTEC			M7262	reso	89C00110	C 0	600UL
318	58	88	0.27		12	P2	DBH	-2.00	TEHTEC			B4865	rsec	89C00109	C 0	600UL
319	62	88	1.14	.80	SCI	1	TSH	-0.10	TSHTSH			G1311	reso	89H00050	H 2	600PP
320			0.58	.86	SCI	P1	TSH	-0.10	TSHTSH			G1311	reso	89H00050	H 2	600PP
321			110.00	96	SCI	P1	TSH	-0.10	TSHTSH			G1311	reso	89H00050	H 2	600PP
322			0.56	.47	MAI	2	TSH	-0.30	TSHTSH			G1311	reso	89H00050	H 2	600PP
323			107.00	113	MAI	2	TSH	-0.30	TSHTSH			G1311	reso	89H00050	H 2	600PP
324			1.20	.63	MAI	1	TSH	-0.30	TSHTSH			G1311	reso	89H00050	H 2	600PP
325	72	88	51.00	91	SAI	2	TSH	-2.23	TSHTSH			M7262	reso	89H00049	H 2	600PP
326			0.37	.48	SAI	1	TSH	-2.23	TSHTSH			M7262	reso	89H00049	H 2	600PP
327			0.41	.43	SAI	2	TSH	-2.23	TSHTSH			M7262	reso	89H00049	H 2	600PP
328	84	88	0.46		15	P2	VH2	-0.77	TEHTEC			B4865	rsec	89C00049	C 0	600UL
329	134	88	0.40		17	P2	VH1	-0.86	TEHTEC			L0211	rpri	89C00056	C 0	600UL
330	136	88	0.34		12	P2	VH2	-0.86	TEHTEC			N2574	reso	89C00057	C 0	600UL
331	59	89	17.00	15	SAI	2	TSH	-1.71	TSHTSH			G1311	reso	89H00050	H 2	600PP
332			0.44	.28	SAI	1	TSH	-2.71	TSHTSH			G1311	reso	89H00050	H 2	600PP
333			0.46	.16	SAI	2	TSH	-2.71	TSHTSH			G1311	reso	89H00050	H 2	600PP
334	145	89	0.34		13	P2	VC2	-0.90	TEHTEC			L0601	rpri	89C00059	C 0	600UL
335	110	90	0.35		11	P2	VH2	-0.92	TEHTEC			J9815	rpri	89C00048	C 0	600UL
336	146	90	1.47		35	P2	DBH	-0.82	TEHTEC			M7262	reso	89C00059	C 0	600UL
337			0.28		11	P2	DBC	-0.85	TEHTEC			M7262	reso	89C00059	C 0	600UL
338			0.68		22	P2	DBC	-0.80	TEHTEC			M7262	reso	89C00059	C 0	600UL
339	51	91	0.72		26	P2	DBH	-0.79	TEHTEC			S2720	rsec	89C00148	C 0	600UL
	145	91	0.96		28	P2	DBC	-0.94	TEHTEC			M7262	reso	89C00059	C 0	600UL
	52	92	0.43		16	P2	DBH	-0.85	TEHTEC			M7262	reso	89C00110	C 0	600UL
342	146	92	0.56		19	P2	DBC	-0.97	TEHTEC			M7262	reso	89C00059	C 0	600UL
343	55	93	0.52		18	P2	DBH	-1.80	TEHTEC			W4786	rsec	89C00110	C 0	600UL

MAI, MCI, MMI, MVI, SAI, SCI, SVI & 0-100% TWD

UTILITY: Southern California Edison, Jan. 26,1999 15:10

PLANT: San Onofre

UNIT: 2

SG: 89

DATABASE: SONGS_U2_S389_0199

	ROW	COL	VOLTS	DEG	PCT	CHN	FLAW	LOCATION	EXTENT	UTIL1	UTIL2	NAME	TYPE	CAL GROUP	LEG	PROBE SIZE
344	147	93	1.35		33	P2	DBH	-1.34	TEHTEC			L0601	rpri	89C00059	C 0	600UL
345			0.37		14	P2	VC3	-1.83	TEHTEC			L0601	rpri	89C00059	C 0	600UL
346			0.73		23	P2	VC1	-1.94	TEHTEC			L0601	rpri	89C00059	C 0	600UL
347			0.35		13	P2	09C	-1.70	TEHTEC			L0601	rpri	89C00059	C 0	600UL
348	54	94	0.46		17	P2	DBH	-1.76	TEHTEC			W4786	rsec	89C00110	C 0	600UL
349	56	94	0.53		21	P2	DBH	1.78	TEHTEC			B2153	rsec	89C00146	C 0	600UL
350	66	94	0.30		14	P2	VSM	-1.73	TEHTEC			B4865	rsec	89C00107	C 0	600UL
351			0.43		19	P2	DBC	-1.75	TEHTEC			B4865	rsec	89C00107	C 0	600UL
352	72	94	0.30		15	P2	VH3	-1.73	TEHTEC			B4865	rsec	89C00107	C 0	600UL
353			0.55		23	P2	VH3	-0.88	TEHTEC			B4865	rsec	89C00107	C 0	600UL
354			0.65		25	P2	VSM	-1.66	TEHTEC			B4865	rsec	89C00107	C 0	600UL
355			0.24		12	P2	VSM	-1.94	TEHTEC			B4865	rsec	89C00107	C 0	600UL
356			0.49		21	P2	VC3	-1.81	TEHTEC			B4865	rsec	89C00107	C 0	600UL
357			0.72		27	P2	VC3	-0.90	TEHTEC			B4865	rsec	89C00107	C 0	600UL
358	90	94	0.68		21	P2	VSM	-1.46	TEHTEC			B4865	rsec	89C00049	C 0	600UL
359	110	94		91	SAI	2	TSH	-2.25	TSHTSH			F3453	reso	89H00048	H 2	600PP
360					SAI	1	TSH	-2.25	TSHTSH			F3453	reso	89H00048	H 2	600PP
361			0.13	.60	SAI	2	TSH	-2.25	TSHTSH			F3453	reso	89H00048	H 2	600PP
362	130	94	0.18		8	P2	DBH	-1.80	TEHTEC			L0211	rpri	89C00056	C 0	600UL
[illegible]	134	94	0.38		16	P2	10H	-1.92	TEHTEC			G1311	reso	89C00056	C 0	600UL
			0.24		11	P2	VH3	-1.64	TEHTEC			T5565	rpri	89C00056	C 0	600UL
[illegible]	146	94	0.41		14	P2	DBH	-1.98	TEHTEC			B4865	rsec	89C00059	C 0	600UL
366			0.42		15	P2	DBC	-2.00	TEHTEC			M7262	reso	89C00059	C 0	600UL
367	55	95	0.75		25	P2	DBC	-1.78	TEHTEC			S9098	rpri	89C00108	C 0	600UL
368	57	95	0.80		29	P2	DBH	-1.75	TEHTEC			B4865	rsec	89C00107	C 0	600UL
369	109	95	0.37		13	P2	VSM	-0.32	TEHTEC			F3453	reso	89C00048	C 0	600UL
370	117	95	0.52		18	P2	DBC	-1.79	TEHTEC			F3453	reso	89C00057	C 0	600UL
371	133	95	0.25		11	P2	VH1	-1.01	TEHTEC			T5565	rpri	89C00056	C 0	600UL
372	78	96	1.70	.28	SAI	1	TSH	-1.29	TSHTSH			W2545	reso	89H00052	H 2	600PP
373			1.69	.28	SAI	2	TSH	-1.29	TSHTSH			W2545	reso	89H00052	H 2	600PP
374			14.00	25	SAI	2	TSH	-1.29	TSHTSH			W2545	reso	89H00052	H 2	600PP
375	98	96	0.29		8	P2	VH2	-1.83	TEHTEC			J9815	rpri	89C00048	C 0	600UL
376	47	97	1.16		33	P2	DBH	-1.75	TEHTEC			P4578	rsec	89C00108	C 0	600UL
377			0.36		14	P2	DBC	-1.50	TEHTEC			S9098	rpri	89C00108	C 0	600UL
378	63	97		113	SCI	P1	TSH	-0.03	TSHTSH			W2545	reso	89H00052	H 2	600PP
379					SCI	1	TSH	-0.03	TSHTSH			M7262	reso	89H00052	H 2	600PP
380			0.31	.51	SCI	P1	TSH	-0.03	TSHTSH			W2545	reso	89H00052	H 2	600PP
381	75	97	0.24		9	P2	VC3	-1.56	TEHTEC			S9098	rpri	89C00108	C 0	600UL
382	95	97	0.46		16	P2	VH3	-1.77	TEHTEC			J1220	rpri	89C00049	C 0	600UL
383	109	97			SAI	1	TSH	-2.59	TSHTSH			F3453	reso	89H00048	H 2	600PP
384			0.21	.23	SAI	2	TSH	-2.59	TSHTSH			F3453	reso	89H00048	H 2	600PP
385				88	SAI	2	TSH	-2.59	TSHTSH			F3453	reso	89H00048	H 2	600PP
386					SAI	1	TSH	-2.07	TSHTSH			F3453	reso	89H00048	H 2	600PP
387			0.13	.28	SAI	2	TSH	-2.07	TSHTSH			F3453	reso	89H00048	H 2	600PP
388				64	SAI	2	TSH	-2.07	TSHTSH			F3453	reso	89H00048	H 2	600PP
	125	97	0.26		12	P2	VH3	-1.31	TEHTEC			T5565	rpri	89C00056	C 0	600UL
	62	98	23.00	12	SAI	2	TSH	-1.70	TSHTSH			F6623	reso	89H00051	H 2	600PP
391			0.43	.28	SAI	1	TSH	-1.70	TSHTSH			F6623	reso	89H00051	H 2	600PP
392			0.50	.20	SAI	2	TSH	-1.70	TSHTSH			F6623	reso	89H00051	H 2	600PP

MAI, MCI, MMI, MVI, SAI, SCI, SVI & 0-100% TWD

UTILITY: Southern California Edison, Jan. 26,1999 15:10

PLANT: San Onofre

UNIT: 2

SG: 89

DATABASE: SONGS_U2_SG89_0199

	ROW	COL	VOLTS	DEG	PCT	CHN	FLAW	LOCATION	EXTENT	UTIL1	UTIL2	NAME	TYPE	CAL GROUP	LEG	PROBE SIZE
393			0.41	.31	MCI	1	TSH	-0.05	TSHTSH			D3858	reso	89H00051	H 2	600PP
394			0.31	.34	MCI	P1	TSH	-0.05	TSHTSH			D3858	reso	89H00051	H 2	600PP
395			139.00	121	MCI	P1	TSH	-0.05	TSHTSH			D3858	reso	89H00051	H 2	600PP
396			0.29	.24	MCI	1	TSH	-0.08	TSHTSH			D3858	reso	89H00051	H 2	600PP
397			0.21	.21	MCI	P1	TSH	-0.08	TSHTSH			D3858	reso	89H00051	H 2	600PP
398			32.00	111	MCI	P1	TSH	-0.08	TSHTSH			D3858	reso	89H00051	H 2	600PP
399	45	99	0.70		25	P2	DBC	-1.59	TEHTEC			R3710	rpri	89C00107	C 0	600UL
400	49	99	0.38		15	P2	DBH	-1.81	TEHTEC			P4578	rsec	89C00108	C 0	600UL
401			0.46		17	P2	DBC	-1.57	TEHTEC			S9098	rpri	89C00108	C 0	600UL
402	51	99	0.29		14	P2	VH2	-0.87	TEHTEC			B4865	rsec	89C00107	C 0	600UL
403			0.46		20	P2	VSM	-0.85	TEHTEC			B4865	rsec	89C00107	C 0	600UL
404			0.35		17	P2	VC3	-1.02	TEHTEC			B4865	rsec	89C00107	C 0	600UL
405	42	100	0.67		23	P2	DBC	-1.92	TEHTEC			S9098	rpri	89C00108	C 0	600UL
406	64	100		117	SAI	2	TSH	-0.47	TSHTSH			F3453	reso	89H00051	H 2	600PP
407					SAI	1	TSH	-0.47	TSHTSH			F3453	reso	89H00051	H 2	600PP
408			0.19	.30	SAI	2	TSH	-0.47	TSHTSH			F3453	reso	89H00051	H 2	600PP
409			43.00	117	MAI	2	TSH	-0.89	TSHTSH			F3453	reso	89H00051	H 2	600PP
410			0.13	.19	MAI	1	TSH	-0.89	TSHTSH			F3453	reso	89H00051	H 2	600PP
411			0.13	.26	MAI	2	TSH	-0.89	TSHTSH			F3453	reso	89H00051	H 2	600PP
4[illegible]	114	100	0.30		15	P2	VC2	-0.67	TEHTEC			W4786	rsec	89C00058	C 0	600UL
	49	101		117	SAI	2	08H	-1.50	08H08H			D3858	reso	89H00130	H 2	500DP
					SAI	1	08H	-1.50	08H08H			D3858	reso	89H00130	H 2	500DP
415			0.25	.14	SAI	2	08H	-1.50	08H08H			D3858	reso	89H00130	H 2	500DP
416	79	101		98	SCI	P1	TSH	-0.07	TSHTSH			F3453	reso	89H00051	H 2	600PP
417					SCI	1	TSH	-0.07	TSHTSH			F3453	reso	89H00051	H 2	600PP
418			0.25	.24	SCI	P1	TSH	-0.07	TSHTSH			F3453	reso	89H00051	H 2	600PP
419	36	102	1.22		33	P2	DBH	-1.71	TEHTEC	VER		F3453	reso	89C00106	C 0	600UL
420	50	102	0.37		17	P2	08H	-1.17	TEHTEC			L0211	rpri	89C00105	C 0	600UL
421	144	102	0.29		14	P2	DBH	-1.95	TEHTEC			M7262	reso	89C00036	C 0	600UL
422	41	103	0.32		12	P2	VSM	-0.92	TEHTEC			W9213	rsec	89C00106	C 0	600UL
423	63	103	0.27	.21	SCI	P1	TSH	-0.14	TSHTSH			T1089	reso	89H00028	H 2	600PP
424				21	SCI	P1	TSH	-0.14	TSHTSH			T1089	reso	89H00028	H 2	600PP
425					SCI	1	TSH	-0.14	TSHTSH			T1089	reso	89H00028	H 2	600PP
426	139	103	0.51		22	P2	VH2	-0.90	TEHTEC			D2003	rpri	89C00036	C 0	600UL
427	143	103	0.56		24	P2	DBH	-0.00	TEHTEC			M7262	reso	89C00036	C 0	600UL
428	145	103	0.71		28	P2	DBH	-1.83	TEHTEC			M7262	reso	89C00036	C 0	600UL
429	46	104	0.41		18	P2	VSM	-0.75	TEHTEC			L0211	rpri	89C00105	C 0	600UL
430			0.26		13	P2	VSM	-0.00	TEHTEC			F3453	reso	89C00105	C 0	600UL
431			0.33		16	P2	VSM	-1.05	TEHTEC			L0211	rpri	89C00105	C 0	600UL
432	52	106	0.28	.28	SAI	1	TSH	-0.20	TSHTSH			T1089	reso	89H00028	H 2	600PP
433			0.44	.20	SAI	2	TSH	-0.20	TSHTSH			T1089	reso	89H00028	H 2	600PP
434			82.00	87	SAI	2	TSH	-0.20	TSHTSH			T1089	reso	89H00028	H 2	600PP
435	80	106	0.31		12	P2	VH3	-0.91	TEHTEC			P4578	rsec	89C00045	C 0	600UL
436	132	106	0.37		16	P2	10H	-0.98	TEHTEC			L0211	rpri	89C00034	C 0	600UL
437	65	107	31.00	89	SAI	2	TSH	-0.41	TSHTSH			G1311	reso	89H00027	H 2	600PP
			0.10	.12	SAI	1	TSH	-0.41	TSHTSH			D3858	reso	89H00027	H 2	600PP
			0.11	.15	SAI	2	TSH	-0.41	TSHTSH			D3858	reso	89H00027	H 2	600PP
440	79	107	0.35		13	P2	VC3	-0.64	TEHTEC			T5565	rpri	89C00045	C 0	600UL
441	143	107	0.19		6	P2	VC1	-0.92	TEHTEC			L0211	rpri	89C00034	C 0	600UL

UTILITY: Southern California Edison, Jan. 26,1999 15:10
PLANT: San Onofre
UNIT: 2
SG: 89
DATABASE: SONGS_U2_SG89_0199

	ROW	COL	VOLTS	DEG	PCT	CHN	FLAW	LOCATION	EXTENT	UTIL1	UTIL2	NAME	TYPE	CAL	GROUP	LEG	PROBE	SIZE
442	30	108	0.31		15	P2	06C	-0.96	TEHTEC			M7262	reso	89C00105	C	0	600UL	
443	40	108	0.29	.15	SAI	2	TSH	-0.98	TSHTSH			T9924	reso	89H00070	H	2	600PP	
444				25	SAI	2	TSH	-0.98	TSHTSH			T9924	reso	89H00070	H	2	600PP	
445					SAI	1	TSH	-0.98	TSHTSH			G1311	reso	89H00070	H	2	600PP	
446	46	108			SCI	1	TSH	-0.14	TSHTSH			M7262	reso	89H00069	H	2	600PP	
447			0.32	.28	SCI	P1	TSH	-0.14	TSHTSH			M7262	reso	89H00069	H	2	600PP	
448				131	SCI	P1	TSH	-0.14	TSHTSH			M7262	reso	89H00069	H	2	600PP	
449	56	108	0.39		15	P2	VSM	-0.84	TEHTEC			R4201	rpri	89C00044	C	0	600UL	
450	33	109	0.81	2.2	MAI	2	TSH	-0.44	TSHTSH			T9924	reso	89H00070	H	2	600PP	
451			22.00	24	MAI	2	TSH	-0.44	TSHTSH			T9924	reso	89H00070	H	2	600PP	
452			1.29	2.0	MAI	1	TSH	-0.44	TSHTSH			D3858	reso	89H00070	H	2	600PP	
453	45	109		132	SCI	P1	TSH	-0.12	TSHTSH			T9924	reso	89H00070	H	2	600PP	
454					SCI	1	TSH	-0.12	TSHTSH			G1311	reso	89H00070	H	2	600PP	
455			0.31	.45	SCI	P1	TSH	-0.12	TSHTSH			T9924	reso	89H00070	H	2	600PP	
456	103	109	4.55	.35	SAI	1	TEH	-0.25	TEH01H			W3386	reso	89H00114	H	9	500DP	
457			2.62	.21	SAI	2	TEH	-0.25	TEH01H			W3386	reso	89H00114	H	9	500DP	
458			11.00	27	SAI	2	TEH	-0.25	TEH01H			W3386	reso	89H00114	H	9	500DP	
459	121	109	0.40		14	P2	10H	-1.47	TEHTEC			J9815	rpri	89C00033	C	0	600UL	
460	129	109	0.39		13	P2	10H	-1.00	TEHTEC			J9815	rpri	89C00033	C	0	600UL	
[illegible]	131	109	0.28		12	P2	10H	-0.86	TEHTEC			L0211	rpri	89C00034	C	0	600UL	
	141	109	0.50		17	P2	VH3	-0.00	TEHTEC			J9815	rpri	89C00033	C	0	600UL	
[illegible]	143	109	0.63		25	P2	DBC	-1.64	TEHTEC			L0211	rpri	89C00034	C	0	600UL	
464	130	110	0.26		11	P2	VH2	-0.87	TEHTEC			L0211	rpri	89C00034	C	0	600UL	
465	25	111	22.00	119	SCI	P1	TSH	-0.00	TSHTSH			T9924	reso	89H00068	H	2	600PP	
466			0.48	.30	SCI	1	TSH	-0.00	TSHTSH			M7262	reso	89H00068	H	2	600PP	
467			0.27	.27	SCI	P1	TSH	-0.00	TSHTSH			T9924	reso	89H00068	H	2	600PP	
468	75	111	0.46		17	P2	VH3	-0.13	TEHTEC			T5565	rpri	89C00045	C	0	600UL	
469			0.46		17	P2	VC3	-1.19	TEHTEC			T5565	rpri	89C00045	C	0	600UL	
470	44	112	0.45		20	P2	VSM	-0.77	TEHTEC			L0211	rpri	89C00105	C	0	600UL	
471	77	113	0.29		12	P2	VH3	-0.92	TEHTEC			W4786	rsec	89C00044	C	0	600UL	
472			0.32		15	P2	VH3	-0.81	TEHTEC			F6623	reso	89C00044	C	0	600UL	
473	12	114	0.66	.63	SAI	2	TSH	-1.01	TSHTSH			T1089	reso	89H00037	H	2	600PP	
474			15.00	20	SAI	2	TSH	-1.01	TSHTSH			T1089	reso	89H00037	H	2	600PP	
475			1.15	.50	SAI	1	TSH	-1.01	TSHTSH			T1089	reso	89H00037	H	2	600PP	
476	132	114	0.29		12	P2	VH1	-0.80	TEHTEC			L0211	rpri	89C00034	C	0	600UL	
477			0.27		11	P2	VH1	-0.82	TEHTEC			L0211	rpri	89C00034	C	0	600UL	
478	140	114	0.21		7	P2	VH2	-0.77	TEHTEC			L0211	rpri	89C00034	C	0	600UL	
479	69	115	0.31		11	P2	VH3	-0.75	TEHTEC			L0211	rpri	89C00047	C	0	600UL	
480	18	116	1.35	.28	SAI	2	05H	-0.51	05H05H			M7262	reso	89H00099	H	3	500DP	
481			17.00	15	SAI	2	05H	-0.51	05H05H			M7262	reso	89H00099	H	3	500DP	
482			2.63	.35	SAI	1	05H	-0.51	05H05H			M7262	reso	89H00099	H	3	500DP	
483	24	116	0.33	.69	MCI	P1	TSH	-0.21	TSHTSH			G1311	reso	89H00068	H	2	600PP	
484				47	MCI	P1	TSH	-0.21	TSHTSH			G1311	reso	89H00068	H	2	600PP	
485				98	MCI	P1	TSH	-0.21	TSHTSH			T9924	reso	89H00068	H	2	600PP	
486					MCI	1	TSH	-0.21	TSHTSH			M7262	reso	89H00068	H	2	600PP	
			0.20	.24	MCI	P1	TSH	-0.21	TSHTSH			G1311	reso	89H00068	H	2	600PP	
					MCI	1	TSH	-0.21	TSHTSH			G1311	reso	89H00068	H	2	600PP	
489	60	116	0.51		17	P2	DBC	-1.24	TEHTEC			L0211	rpri	89C00047	C	0	600UL	
490	15	117	0.49	.45	SAI	1	02H	-0.50	02H03H			W3386	reso	89H00162	H	3	500DP	

MAI, MCI, MMI, MVI, SAI, SCI, SVI & 0-100% TWD

UTILITY: Southern California Edison, Jan. 26,1999 15:10

PLANT: San Onofre

UNIT: 2

SG: 89

DATABASE: SONGS_U2_S089_0199

	ROW	COL	VOLTS	DEG	PCT	CHN	FLAW	LOCATION	EXTENT	UTIL1	UTIL2	NAME	TYPE	CAL GROUP	LEG	PROBE	SIZE
491			0.17	.26	SAI	2	02H	-2.50	02H03H			W3386	reso	89H00162	H 3	500DP	
492			162.00	91	SAI	2	02H	-[illegible].50	02H03H			W3386	reso	89H00162	H 3	500DP	
493	31	117	0.32		17	P2	07C	-[illegible].40	TEHTEC			M7262	reso	89C00103	C 0	600UL	
494	20	118			SAI	1	04H	-[illegible].52	04H04H			N2574	reso	89H00132	H11	500DP	
495			0.25	.15	SAI	2	04H	-[illegible].52	04H04H			N2574	reso	89H00132	H11	500DP	
496				96	SAI	2	04H	-[illegible].52	04H04H			N2574	reso	89H00132	H11	500DP	
497	11	119	0.34		11	P2	07H	-[illegible].26	TEHTEC			V6131	rpri	89C00005	C 0	600UL	
498	119	119	0.34		11	P2	10H	-[illegible].10	TEHTEC	LOCOK		F6623	reso	89C00033	C 0	600UL	
499	133	119	0.33		11	P2	VH1	-[illegible].79	TEHTEC			J9815	rpri	89C00033	C 0	600UL	
500	70	120	0.30		11	P2	VC3	-[illegible].69	TEHTEC			M7262	reso	89C00047	C 0	600UL	
501	47	121	0.29		13	P2	VSM	-[illegible].74	TEHTEC			G2886	rsec	89C00103	C 0	600UL	
502	79	121	0.59		22	P2	VH3	-[illegible].79	TEHTEC			D2003	rpri	89C00046	C 0	600UL	
503	119	121	0.56		22	P2	10H	-[illegible].23	TEHTEC	LOCOK		F6623	reso	89C00031	C 0	600UL	
504	78	122	0.25		10	P2	08H	-[illegible].89	TEHTEC			S8538	rsec	89C00046	C 0	600UL	
505	102	122	0.34		10	P2	VC2	-[illegible].72	TEHTEC			N2574	reso	89C00028	C 0	600UL	
506	43	125	0.37		14	P2	VSM	-[illegible].93	TEHTEC			F6623	reso	89C00013	C 0	600UL	
507	77	125	0.65		21	P2	VC3	-[illegible].86	TEHTEC			L0211	rpri	89C00047	C 0	600UL	
508			0.50		17	P2	VC3	-[illegible].00	TEHTEC			F3453	reso	89C00047	C 0		
509			0.54		18	P2	VC2	-[illegible].83	TEHTEC			L0211	rpri	89C00047	C 0	600UL	
5[illegible]	30	126			SAI	1	TSH	-1.31	TSHTSH			F3453	reso	89H00033	H 2	600PP	
[illegible]			0.29	.49	SAI	2	TSH	-1.31	TSHTSH			F3453	reso	89H00033	H 2	600PP	
[illegible]				108	SAI	2	TSH	-1.31	TSHTSH			F3453	reso	89H00033	H 2	600PP	
513	34	126	0.53	.27	MCI	1	TSH	-0.06	TSHTSH			F3453	reso	89H00033	H 2	600PP	
514			0.59	.30	MCI	P1	TSH	-0.06	TSHTSH			F3453	reso	89H00033	H 2	600PP	
515			12.00	13	MCI	P1	TSH	-[illegible].06	TSHTSH			F3453	reso	89H00033	H 2	600PP	
516			0.44	.21	MCI	P1	TSH	-[illegible].03	TSHTSH			F3453	reso	89H00033	H 2	600PP	
517			2.00	16	MCI	P1	TSH	-[illegible].03	TSHTSH			F3453	reso	89H00033	H 2	600PP	
518			1.00	.27	MCI	1	TSH	-[illegible].03	TSHTSH			F3453	reso	89H00033	H 2	600PP	
519	48	126	2.77	.55	SAI	1	TEH	-[illegible].70	TEHTSH			S3018	reso	89H00171	H11	500DP	
520			1.23	.33	SAI	2	TEH	-[illegible].70	TEHTSH			S3018	reso	89H00171	H11	500DP	
521			18.00	27	SAI	2	TEH	-[illegible].70	TEHTSH			S3018	reso	89H00171	H11	500DP	
522	72	126	0.45		17	P2	VSM	-[illegible].69	TEHTEC			F6623	reso	89C00013	C 0	600UL	
523	41	127	0.18	3.0	SAI	1	01H	+28.86 TO+31.71	01H02H			W3386	reso	89H00163	H15	500DP	
524			0.22	3.0	SAI	2	01H	+28.86 TO+31.71	01H02H			W3386	reso	89H00163	H15	500DP	
525			116.00	113	SAI	2	01H	-28.86 TO+31.71	01H02H			W3386	reso	89H00163	H15	500DP	
526	66	128	0.29		12	P2	VSM	-[illegible].88	TEHTEC			L0211	rpri	89C00014	C 0	600UL	
527	68	128	0.34		15	P2	VH3	-[illegible].75	TEHTEC			W4786	rsec	89C00013	C 0	600UL	
528	118	128	0.30		11	P2	05H	-[illegible].67	TEHTEC			F7460	rpri	89C00026	C 0	600UL	
529	61	129	0.51		19	P2	VH3	-[illegible].14	TEHTEC			N2574	reso	89C00014	C 0	600UL	
530	78	130	0.46		18	P2	VSM	-[illegible].87	TEHTEC			D9424	rpri	89C00014	C 0	600UL	
531	108	130	0.43		17	P2	VH2	-[illegible].84	TEHTEC			B2027	rpri	89C00025	C 0	600UL	
532	123	131	0.26	.35	SVI	2	TSC	-[illegible].30	TSCTSC			N2574	reso	89C00159	C 9	600PP	
533			104.00	108	SVI	2	TSC	-[illegible].30	TSCTSC			N2574	reso	89C00159	C 9	600PP	
534			0.29	.35	SVI	1	TSC	-[illegible].30	TSCTSC			N2574	reso	89C00159	C 9	600PP	
535	125	131	0.55	.39	SVI	2	TSC	-[illegible].21	TSCTSC			N2574	reso	89C00159	C 9	600PP	
[illegible]			110.00	103	SVI	2	TSC	+[illegible].21	TSCTSC			N2574	reso	89C00159	C 9	600PP	
[illegible]			0.94	.39	SVI	1	TSC	-[illegible].21	TSCTSC			N2574	reso	89C00159	C 9	600PP	
538	74	132	0.39		16	P2	VC3	-[illegible].85	TEHTEC			D9424	rpri	89C00014	C 0	600UL	
539	78	132	0.26		11	P2	VH3	-[illegible].89	TEHTEC			B5926	rsec	89C00014	C 0	600UL	

UTILITY: Southern California Edison, Jan. 26,1999 15:10
PLANT: San Onofre
UNIT: 2
SG: 89
DATABASE: SONGS_U2_W89_0199

	ROW	COL	VOLTS	DEG	PCT	CHN	FLAW	LOCATION	EXTENT	UTIL1	UTIL2	NAME	TYPE	CAL	GROUP	LEG	PROBE	SIZE
540	84	132	0.42		17	P2	VC2	.70	TEHTEC			B5926	rsec	89C00023	C	0	600UL	
541	108	132	0.38		15	P2	VH2	.80	TEHTEC			B2027	rpri	89C00023	C	0	600UL	
542	124	132	0.27		11	P2	VH1	.90	TEHTEC			B2027	rpri	89C00023	C	0	600UL	
543			0.38	.40	SVI	2	TSC	.15	TSCTSC			M7262	reso	89C00143	C	1	600PP	
544			94.00	122	SVI	2	TSC	.15	TSCTSC			M7262	reso	89C00143	C	1	600PP	
545			0.41	.46	SVI	1	TSC	.15	TSCTSC			M7262	reso	89C00143	C	1	600PP	
546	29	133	0.47	.17	SCI	1	TSH	0.00	TSHTSH			F6623	reso	89H00034	H	2	600PP	
547			0.43	.20	SCI	P1	TSH	0.00	TSHTSH			F6623	reso	89H00034	H	2	600PP	
548			3.00	20	SCI	P1	TSH	0.00	TSHTSH			F6623	reso	89H00034	H	2	600PP	
549	58	134	0.50		19	P2	VSM	.83	TEHTEC			D9424	rpri	89C00014	C	0	600UL	
550	50	136	0.29		12	P2	08H	1.21	TEHTEC			W9213	rsec	89C00016	C	0	600UL	
551	54	136	0.29		12	P2	VH3	.66	TEHTEC			W9213	rsec	89C00016	C	0	600UL	
552			0.32		12	P2	VSM	.99	TEHTEC			F6623	reso	89C00016	C	0	600UL	
553	78	136	0.33		13	P2	VC3	.85	TEHTEC			W9213	rsec	89C00016	C	0	600UL	
554	114	136	0.40		16	P2	VC3	.81	TEHTEC			B4340	rsec	89C00024	C	0	600UL	
555	77	137	0.56		19	P2	VSM	1.96	TEHTEC			P1465	rpri	89C00016	C	0	600UL	
556	113	137	0.37		15	P2	VH2	.66	TEHTEC			B5926	rsec	89C00023	C	0	600UL	
557	77	139	0.38		14	P2	VH3	1.04	TEHTEC			M7262	reso	89C00016	C	0		
558			0.64		21	P2	VC3	.68	TEHTEC			P1465	rpri	89C00016	C	0	600UL	
[illegible]	58	140	0.31		14	P2	VH3	.86	TEHTEC			V6131	rpri	89C00015	C	0	600UL	
	62	140	0.65		24	P2	VSM	.86	TEHTEC			V6131	rpri	89C00015	C	0	600UL	
561	88	140	0.46		18	P2	VH2	.85	TEHTEC			N2574	reso	89C00023	C	0	600UL	
562			0.37		15	P2	VH2	1.15	TEHTEC			N2574	reso	89C00023	C	0	600UL	
563	57	141	4.17	.55	SAI	1	TEH	.92	TEHTSH			W2545	reso	89H00177	H11		600PP	
564			3.24	.47	SAI	2	TEH	.92	TEHTSH			W2545	reso	89H00177	H11		600PP	
565			19.00	26	SAI	2	TEH	.92	TEHTSH			W2545	reso	89H00177	H11		600PP	
566	76	142	0.43		18	P2	08C	.56	TEHTEC			F6623	reso	89C00015	C	0	600UL	
567	92	142	0.22		10	P2	VH2	.53	TEHTEC			L0601	rpri	89C00021	C	0	600UL	
568	71	143	0.28		13	P2	VH3	.88	TEHTEC			V6131	rpri	89C00015	C	0	600UL	
569	66	144	0.42		15	P2	VH3	1.70	TEHTEC			B2027	rpri	89C00016	C	0	600UL	
570			0.51		18	P2	VSM	.83	TEHTEC			B2027	rpri	89C00016	C	0	600UL	
571	70	144	0.37		13	P2	VC3	.58	TEHTEC			B2027	rpri	89C00016	C	0	600UL	
572	112	144	0.42		17	P2	DBC	1.81	TEHTEC			L0601	rpri	89C00021	C	0	600UL	
573	49	145	0.72		23	P2	08H	1.25	TEHTEC			W9213	rsec	89C00016	C	0	600UL	
574	56	146	0.44		19	P2	VH3	.77	TEHTEC			B5926	rsec	89C00017	C	0	600UL	
575	74	146	0.36		12	P2	VH3	.89	TEHTEC			S9098	rpri	89C00018	C	0	600UL	
576	88	146	0.32		14	P2	VC3	.79	TEHTEC			L0601	rpri	89C00021	C	0	600UL	
577	94	146	0.23		10	P2	VH3	.90	TEHTEC			J2362	rsec	89C00022	C	0	600UL	
578	71	147	0.36		14	P2	VH3	.90	TEHTEC			V7107	rpri	89C00017	C	0	600UL	
579			0.36		14	P2	VC3	.92	TEHTEC			G1311	reso	89C00017	C	0	600UL	
580	79	147	0.41		16	P2	VH3	.81	TEHTEC			V7107	rpri	89C00017	C	0	600UL	
581	20	148			SCI	1	TSH	.09	TSHTSH			T1089	reso	89H00029	H	2	600PP	
582			0.60	.21	SCI	P1	TSH	.09	TSHTSH			T1089	reso	89H00029	H	2	600PP	
583				21	SCI	P1	TSH	.09	TSHTSH			T1089	reso	89H00029	H	2	600PP	
584	76	148	1.11		34	P2	VH3	.73	TEHTEC			V7107	rpri	89C00017	C	0	600UL	
			0.47		18	P2	VSM	.85	TEHTEC			V7107	rpri	89C00017	C	0	600UL	
			0.50		19	P2	VSM	.85	TEHTEC			V7107	rpri	89C00017	C	0	600UL	
587	82	148	0.66		23	P2	VH3	.79	TEHTEC			J2362	rsec	89C00022	C	0	600UL	
588	84	148	0.32		14	P2	VH2	.81	TEHTEC			L0601	rpri	89C00021	C	0	600UL	

MAI, MCI, MMI, MVI, SAI, SCI, SVI & 0-100% TWD

UTILITY: Southern California Edison, Jan. 26,1999 15:10

PLANT: San Onofre

UNIT: 2

SG: 89

DATABASE: SONGS_U2_S089_0199 PAGE 13

	ROW	COL	VOLTS	DEG	PCT	CHN	FLAW	LOCATION	EXTENT	UTIL1	UTIL2	NAME	TYPE	CAL GROUP	LEG	PROBE SIZE
589	88	148	0.32		14	P2	VH2	-0.77	TEHTEC			L0601	rpri	89C00021	C 0	600UL
590			0.23		10	P2	VC3	-0.62	TEHTEC			L0601	rpri	89C00021	C 0	600UL
591	31	149	0.37		12	P2	VSM	+0.80	TEHTEC			V6131	rpri	89C00005	C 0	600UL
592	35	149	0.45		14	P2	VSM	+0.83	TEHTEC			M7262	reso	89C00005	C 0	600UL
593	73	149	0.31		14	P2	VC3	-0.73	TEHTEC			B5926	rsec	89C00017	C 0	600UL
594	79	149	0.30		13	P2	VSM	-0.75	TEHTEC			F3453	reso	89C00017	C 0	600UL
595	6	152	0.15	.23	SAI	2	04H	+17.72	04H05H			F3453	reso	89H00165	H11	500DP
596			131.00	103	SAI	2	04H	+17.72	04H05H			F3453	reso	89H00165	H11	500DP
597			0.22	.39	SAI	1	04H	+17.72	04H05H			F3453	reso	89H00165	H11	500DP
598			147.00	102	SAI	2	04H	+20.38 TO+31.39	04H05H			F3453	reso	89H00165	H11	500DP
599			0.41	.57	SAI	1	04H	+20.38 TO+31.39	04H05H			F3453	reso	89H00165	H11	500DP
600			0.15	1.4	SAI	2	04H	+20.38 TO+31.39	04H05H			F3453	reso	89H00165	H11	500DP
601	56	152	0.31		12	P2	DBH	+1.07	TEHTEC			G1311	reso	89C00017	C 0	600UL
602	66	152	0.30		10	P2	VH3	+0.71	TEHTEC			S9098	rpri	89C00018	C 0	600UL
603	80	152	0.56		21	P2	VSM	+0.71	TEHTEC			V7107	rpri	89C00017	C 0	600UL
604			0.48		19	P2	VSM	+0.92	TEHTEC			V7107	rpri	89C00017	C 0	600UL
605			0.65		24	P2	VC3	+0.82	TEHTEC			V7107	rpri	89C00017	C 0	600UL
606			0.72		26	P2	VC3	+0.82	TEHTEC			V7107	rpri	89C00017	C 0	600UL
607	35	153	0.33		14	P2	VSM	+0.69	TEHTEC			V6131	rpri	89C00007	C 0	600UL
608	55	153	0.32		14	P2	VC3	+0.96	TEHTEC			B5926	rsec	89C00017	C 0	600UL
	92	154	0.73		26	P2	03H	+1.16	TEHTEC			G1311	reso	89C00021	C 0	600UL
			0.24	.67	SAI	2	03H	+0.95	03H03H			F6623	reso	89H00166	H 3	500DP
611			145.00	109	SAI	2	03H	+0.95	03H03H			F6623	reso	89H00166	H 3	500DP
612			0.34	.58	SAI	1	03H	+0.95	03H03H			F6623	reso	89H00166	H 3	500DP
613			0.40	.65	SAI	2	03H	+2.79	03H03H			F6623	reso	89H00166	H 3	500DP
614			132.00	88	SAI	2	03H	+2.79	03H03H			F6623	reso	89H00166	H 3	500DP
615			0.87	.69	SAI	1	03H	+2.79	03H03H			F6623	reso	89H00166	H 3	500DP
616	94	154	0.26		11	P2	VH2	+1.16	TEHTEC			L0601	rpri	89C00021	C 0	600UL
617	71	155	0.30		11	P2	VH3	+0.85	TEHTEC			V7107	rpri	89C00017	C 0	600UL
618	66	156	0.51		17	P2	VH3	+0.71	TEHTEC			W9213	rsec	89C00020	C 0	600UL
619	72	156	0.28		12	P2	VC3	+0.83	TEHTEC			K3270	rsec	89C00019	C 0	600UL
620	74	156	0.39		14	P2	VH3	+0.85	TEHTEC			W9213	rsec	89C00020	C 0	600UL
621			0.59		19	P2	VSM	+1.75	TEHTEC			W9213	rsec	89C00020	C 0	600UL
622			0.49		16	P2	VC3	+0.66	TEHTEC			W9213	rsec	89C00020	C 0	600UL
623	49	157	1.39		32	P2	VSM	+0.61	TEHTEC			W9213	rsec	89C00020	C 0	600UL
624	71	157	0.26		11	P2	VH3	+0.79	TEHTEC			K3270	rsec	89C00019	C 0	600UL
625	56	158	0.38		16	P2	VH3	+0.66	TEHTEC			K3270	rsec	89C00019	C 0	600UL
626	73	159	0.27		10	P2	VC3	+0.81	TEHTEC			W9213	rsec	89C00020	C 0	600UL
627	79	159	0.39		16	P2	VH3	+0.83	TEHTEC			K3270	rsec	89C00019	C 0	600UL
628	74	160	0.86		24	P2	VH3	+0.81	TEHTEC			W9213	rsec	89C00020	C 0	600UL
629			0.56		18	P2	VC3	+0.83	TEHTEC			W9213	rsec	89C00020	C 0	600UL
630	21	163	0.34	.95	SAI	2	04H	+10.37	04H07H			T9924	reso	89H00164	H 3	500DP
631			112.00	107	SAI	2	04H	+10.37	04H07H			T9924	reso	89H00164	H 3	500DP
632			0.37	.67	SAI	1	04H	+10.37	04H07H			F6623	reso	89H00164	H 3	500DP
633			131.00	101	SAI	2	04H	+15.63	04H07H			T9924	reso	89H00164	H 3	500DP
			0.27	1.0	SAI	1	04H	+15.63	04H07H			T9924	reso	89H00164	H 3	500DP
			0.20	.74	SAI	2	04H	+15.63	04H07H			T9924	reso	89H00164	H 3	500DP
636					SAI	1	04H	+24.24	04H07H			T9924	reso	89H00164	H 3	500DP
637				102	SAI	2	04H	+24.24	04H07H			G1311	reso	89H00164	H11	500DP

MAI, MCI, MMI, MVI, SAI, SCI, SVI & 0-100% TWD

Jan. 26,1999 15:10

UTILITY: Southern California Edison,
PLANT: San Onofre
UNIT: 2
SG: 89
DATABASE: SONGS_U2_S089_0199

	ROW	COL	VOLTS	DEG	PCT	CHN	FLAW	LOCATION	EXTENT	UTIL1	UTIL2	NAME	TYPE	CAL	GROUP	LEG	PROBE	SIZE
638			0.20	.93	SAI	2	04H	+24.24	04H07H			T9924	reso	89H00164	H	3	500DP	
639			0.27	.93	SAI	2	04H	+18.20	04H07H			T9924	reso	89H00164	H	3	500DP	
640			0.14	.83	SAI	2	04H	+18.20	04H07H			T9924	reso	89H00164	H	3	500DP	
641			147.00	69	SAI	2	04H	+ 8.20	04H07H			T9924	reso	89H00164	H	3	500DP	
642					SAI	1	05H	+[illegible].78	04H07H			T9924	reso	89H00164	H	3	500DP	
643			0.20	.65	SAI	2	05H	+[illegible].78	04H07H			T9924	reso	89H00164	H	3	500DP	
644				124	SAI	2	05H	+[illegible].78	04H07H			T9924	reso	89H00164	H	3	500DP	
645			0.13	2.1	SAI	2	06H	+23.60	04H07H			T9924	reso	89H00164	H	3	500DP	
646			116.00	106	SAI	2	06H	+23.60	04H07H			T9924	reso	89H00164	H	3	500DP	
647			0.32	2.0	SAI	1	06H	+23.60	04H07H			T9924	reso	89H00164	H	3	500DP	
648	25	163	0.15	.28	SAI	2	05H	+29.65	05H07H			F6623	reso	89H00164	H	3	500DP	
649				94	SAI	2	05H	+29.65	05H07H			F6623	reso	89H00164	H	3	500DP	
650					SAI	1	05H	+29.65	05H07H			F6623	reso	89H00164	H	3	500DP	
651				86	SAI	2	06H	+11.78	05H07H			F6623	reso	89H00164	H	3	500DP	
652					SAI	1	06H	+11.78	05H07H			F6623	reso	89H00164	H	3	500DP	
653			0.11	.26	SAI	2	06H	+11.78	05H07H			F6623	reso	89H00164	H	3	500DP	
654			0.28	.68	SAI	2	06H	+12.92 TO+17.71	05H07H			F3453	reso	89H00164	H	3	500DP	
655					SAI	1	06H	+12.92 TO+17.71	05H07H			F6623	reso	89H00164	H	3	500DP	
656				128	SAI	2	06H	+12.92 TO+17.71	05H07H			F6623	reso	89H00164	H	3	500DP	
657			0.24	.41	SAI	1	06H	+18.70	05H07H			F6623	reso	89H00164	H	3	500DP	
			0.15	.37	SAI	2	06H	+18.70	05H06H			F6623	reso	89H00164	H	3	500DP	
			126.00	117	SAI	2	06H	+18.70	05H07H			F6623	reso	89H00164	H	3	500DP	
660	30	164	117.00	115	SAI	2	05H	+32.42	05H07H			T9924	reso	89H00164	H	3	500DP	
661			0.22	6.1	SAI	1	05H	+32.42	05H07H			T9924	reso	89H00164	H	3	500DP	
662			0.17	2.7	SAI	2	05H	+32.42	05H07H			T9924	reso	89H00164	H	3	500DP	
663	45	167	0.55		18	P2	VSM	+[illegible].79	TEHTEC			W9213	rsec	89C00020	C	0	600UL	
664	42	168	0.60		19	P2	VSM	+[illegible].06	TEHTEC			T0507	rsec	89C00010	C	0	600UL	
665	42	170	0.59		18	P2	VSM	+[illegible].29	TEHTEC			T0507	rsec	89C00010	C	0	600UL	
666	19	173	0.27		12	P2	VSM	+[illegible].89	TEHTEC			D2003	rpri	89C00009	C	0	600UL	

QUERY REPORT SUMMARY:

QUERY PARAMETER	ENTRIES	TUBES
0 to 100 Percent	339	270
MAI Indication Code	12	4
MCI Indication Code	42	7
MMI Indication Code	0	0
MVI Indication Code	0	0
SAI Indication Code	177	45
SCI Indication Code	81	27
SVI Indication Code	15	5

TOTAL ENTRIES: 666
TOTAL TUBES: 347

9 ATTACHMENT- 1

LIST OF COMPLETED ISI NDE EXAMINATIONS AND SYSTEM PRESSURE TESTS

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

ISI ID NO.	Area Description	Cat	Item	Method	Scan Angle	Exam Date	Report No	Results
ZONE: 01								
02-001-054-19	REACTOR VESSEL FLANGE LIGAMENT #19	BG1	B6.40	UT	0°	01/08/99	299-10IUT-005	ACCEPT
02-001-054-20	REACTOR VESSEL FLANGE LIGAMENT #20	BG1	B6.40	UT	0°	01/08/99	299-10IUT-005	ACCEPT
02-001-054-21	REACTOR VESSEL FLANGE LIGAMENT #21	BG1	B6.40	UT	0°	01/08/99	299-10IUT-005	ACCEPT
02-001-054-22	REACTOR VESSEL FLANGE LIGAMENT #22	BG1	B6.40	UT	0°	01/08/99	299-10IUT-005	ACCEPT
02-001-054-23	REACTOR VESSEL FLANGE LIGAMENT #23	BG1	B6.40	UT	0°	01/08/99	299-10IUT-005	ACCEPT
02-001-054-24	REACTOR VESSEL FLANGE LIGAMENT #24	BG1	B6.40	UT	0°	01/08/99	299-10IUT-005	ACCEPT
02-001-054-25	REACTOR VESSEL FLANGE LIGAMENT #25	BG1	B6.40	UT	0°	01/08/99	299-10IUT-005	ACCEPT
02-001-054-26	REACTOR VESSEL FLANGE LIGAMENT #26	BG1	B6.40	UT	0°	01/08/99	299-10IUT-005	ACCEPT
02-001-054-27	REACTOR VESSEL FLANGE LIGAMENT #27	BG1	B6.40	UT	0°	01/08/99	299-10IUT-005	ACCEPT
02-001-054-28	REACTOR VESSEL FLANGE LIGAMENT #28	BG1	B6.40	UT	0°	01/08/99	299-10IUT-005	ACCEPT
02-001-054-29	REACTOR VESSEL FLANGE LIGAMENT #29	BG1	B6.40	UT	0°	01/08/99	299-10IUT-005	ACCEPT
02-001-054-30	REACTOR VESSEL FLANGE LIGAMENT #30	BG1	B6.40	UT	0°	01/08/99	299-10IUT-005	ACCEPT
02-001-054-31	REACTOR VESSEL FLANGE LIGAMENT #31	BG1	B6.40	UT	0°	01/08/99	299-10IUT-005	ACCEPT
02-001-054-32	REACTOR VESSEL FLANGE LIGAMENT #32	BG1	B6.40	UT	0°	01/08/99	299-10IUT-005	ACCEPT
02-001-054-33	REACTOR VESSEL FLANGE LIGAMENT #33	BG1	B6.40	UT	0°	01/08/99	299-10IUT-005	ACCEPT
02-001-054-34	REACTOR VESSEL FLANGE LIGAMENT #34	BG1	B6.40	UT	0°	01/08/99	299-10IUT-005	ACCEPT
02-001-054-35	REACTOR VESSEL FLANGE LIGAMENT #35	BG1	B6.40	UT	0°	01/08/99	299-10IUT-005	ACCEPT
02-001-054-36	REACTOR VESSEL FLANGE LIGAMENT #36	BG1	B6.40	UT	0°	01/08/99	299-10IUT-005	ACCEPT
02-001-056-19	REACTOR VESSEL CLOSURE STUD #19	BG1	B6.30	UT	0°	01/18/99	299-10IUT-011	ACCEPT
02-001-056-20	REACTOR VESSEL CLOSURE STUD #20	BG1	B6.30	UT	0°	01/18/99	299-10IUT-011	ACCEPT
02-001-056-21	REACTOR VESSEL CLOSURE STUD #21	BG1	B6.30	UT	0°	01/18/99	299-10IUT-011	ACCEPT
02-001-056-22	REACTOR VESSEL CLOSURE STUD #22	BG1	B6.30	UT	0°	01/18/99	299-10IUT-011	ACCEPT
02-001-056-23	REACTOR VESSEL CLOSURE STUD #23	BG1	B6.30	UT	0°	01/18/99	299-10IUT-011	ACCEPT
02-001-056-24	REACTOR VESSEL CLOSURE STUD #24	BG1	B6.30	UT	0°	01/18/99	299-10IUT-011	ACCEPT

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

ISI ID NO.	Area Description	Cat	Item	Method	Scan Angle	Exam Date	Report No	Results
02-001-056-25	REACTOR VESSEL CLOSURE STUD #25	BG1	B6.30	UT	0°	01/18/99	299-10IUT-011	ACCEPT
02-001-056-26	REACTOR VESSEL CLOSURE STUD #26	BG1	B6.30	UT	0°	01/18/99	299-10IUT-011	ACCEPT
02-001-056-27	REACTOR VESSEL CLOSURE STUD #27	BG1	B6.30	UT	0°	01/18/99	299-10IUT-011	ACCEPT
02-001-056-28	REACTOR VESSEL CLOSURE STUD #28	BG1	B6.30	UT	0°	01/18/99	299-10IUT-011	ACCEPT
02-001-056-29	REACTOR VESSEL CLOSURE STUD #29	BG1	B6.30	UT	0°	01/18/99	299-10IUT-011	ACCEPT
02-001-056-30	REACTOR VESSEL CLOSURE STUD #30	BG1	B6.30	UT	0°	01/18/99	299-10IUT-011	ACCEPT
02-001-056-31	REACTOR VESSEL CLOSURE STUD #31	BG1	B6.30	UT	0°	01/18/99	299-10IUT-011	ACCEPT
02-001-056-32	REACTOR VESSEL CLOSURE STUD #32	BG1	B6.30	UT	0°	01/18/99	299-10IUT-011	ACCEPT
02-001-056-33	REACTOR VESSEL CLOSURE STUD #33	BG1	B6.30	UT	0°	01/18/99	299-10IUT-011	ACCEPT
02-001-056-34	REACTOR VESSEL CLOSURE STUD #34	BG1	B6.30	UT	0°	01/18/99	299-10IUT-011	ACCEPT
02-001-056-35	REACTOR VESSEL CLOSURE STUD #35	BG1	B6.30	UT	0°	01/18/99	299-10IUT-011	ACCEPT
02-001-056-36	REACTOR VESSEL CLOSURE STUD #36	BG1	B6.30	UT	0°	01/18/99	299-10IUT-011	ACCEPT
02-001-056-19	REACTOR VESSEL CLOSURE STUD #19	BG1	B6.30	MT	N/A	01/15/99	299-10IMT-008	ACCEPT
02-001-056-20	REACTOR VESSEL CLOSURE STUD #20	BG1	B6.30	MT	N/A	01/15/99	299-10IMT-008	ACCEPT
02-001-056-21	REACTOR VESSEL CLOSURE STUD #21	BG1	B6.30	MT	N/A	01/15/99	299-10IMT-008	ACCEPT
02-001-056-22	REACTOR VESSEL CLOSURE STUD #22	BG1	B6.30	MT	N/A	01/15/99	299-10IMT-008	ACCEPT
02-001-056-23	REACTOR VESSEL CLOSURE STUD #23	BG1	B6.30	MT	N/A	01/15/99	299-10IMT-008	ACCEPT
02-001-056-24	REACTOR VESSEL CLOSURE STUD #24	BG1	B6.30	MT	N/A	01/15/99	299-10IMT-008	ACCEPT
02-001-056-25	REACTOR VESSEL CLOSURE STUD #25	BG1	B6.30	MT	N/A	01/15/99	299-10IMT-008	ACCEPT
02-001-056-26	REACTOR VESSEL CLOSURE STUD #26	BG1	B6.30	MT	N/A	01/15/99	299-10IMT-008	ACCEPT
02-001-056-27	REACTOR VESSEL CLOSURE STUD #27	BG1	B6.30	MT	N/A	01/15/99	299-10IMT-008	ACCEPT
02-001-056-28	REACTOR VESSEL CLOSURE STUD #28	BG1	B6.30	MT	N/A	01/15/99	299-10IMT-008	ACCEPT
02-001-056-29	REACTOR VESSEL CLOSURE STUD #29	BG1	B6.30	MT	N/A	01/18/99	299-10IMT-010	ACCEPT
02-001-056-30	REACTOR VESSEL CLOSURE STUD #30	BG1	B6.30	MT	N/A	01/18/99	299-10IMT-010	ACCEPT

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

ISI ID NO.	Area Description	Cat	Item	Method	Scan Angle	Exam Date	Report No	Results
02-001-056-31	REACTOR VESSEL CLOSURE STUD #31	BG1	B6.30	MT	N/A	01/18/99	299-10IMT-010	ACCEPT
02-001-056-32	REACTOR VESSEL CLOSURE STUD #32	BG1	B6.30	MT	N/A	01/18/99	299-10IMT-010	ACCEPT
02-001-056-33	REACTOR VESSEL CLOSURE STUD #33	BG1	B6.30	MT	N/A	01/18/99	299-10IMT-010	ACCEPT
02-001-056-34	REACTOR VESSEL CLOSURE STUD #34	BG1	B6.30	MT	N/A	01/18/99	299-10IMT-010	ACCEPT
02-001-056-35	REACTOR VESSEL CLOSURE STUD #35	BG1	B6.30	MT	N/A	01/18/99	299-10IMT-010	ACCEPT
02-001-056-36	REACTOR VESSEL CLOSURE STUD #36	BG1	B6.30	MT	N/A	01/18/99	299-10IMT-010	ACCEPT
02-001-057-19	REACTOR VESSEL CLOSURE NUT #19	BG1	B6.10	MT	N/A	01/15/99	299-10IMT-009	ACCEPT
02-001-057-20	REACTOR VESSEL CLOSURE NUT #20	BG1	B6.10	MT	N/A	01/15/99	299-10IMT-009	ACCEPT
02-001-057-21	REACTOR VESSEL CLOSURE NUT #21	BG1	B6.10	MT	N/A	01/15/99	299-10IMT-009	ACCEPT
02-001-057-22	REACTOR VESSEL CLOSURE NUT #22	BG1	B6.10	MT	N/A	01/15/99	299-10IMT-009	ACCEPT
02-001-057-23	REACTOR VESSEL CLOSURE NUT #23	BG1	B6.10	MT	N/A	01/15/99	299-10IMT-009	ACCEPT
02-001-057-24	REACTOR VESSEL CLOSURE NUT #24	BG1	B6.10	MT	N/A	01/15/99	299-10IMT-009	ACCEPT
02-001-057-25	REACTOR VESSEL CLOSURE NUT #25	BG1	B6.10	MT	N/A	01/15/99	299-10IMT-009	ACCEPT
02-001-057-26	REACTOR VESSEL CLOSURE NUT #26	BG1	B6.10	MT	N/A	01/15/99	299-10IMT-009	ACCEPT
02-001-057-27	REACTOR VESSEL CLOSURE NUT #27	BG1	B6.10	MT	N/A	01/15/99	299-10IMT-009	ACCEPT
02-001-057-28	REACTOR VESSEL CLOSURE NUT #28	BG1	B6.10	MT	N/A	01/15/99	299-10IMT-009	ACCEPT
02-001-057-29	REACTOR VESSEL CLOSURE NUT #29	BG1	B6.10	MT	N/A	01/18/99	299-10IMT-011	ACCEPT
02-001-057-30	REACTOR VESSEL CLOSURE NUT #30	BG1	B6.10	MT	N/A	01/18/99	299-10IMT-011	ACCEPT
02-001-057-31	REACTOR VESSEL CLOSURE NUT #31	BG1	B6.10	MT	N/A	01/18/99	299-10IMT-011	ACCEPT
02-001-057-32	REACTOR VESSEL CLOSURE NUT #32	BG1	B6.10	MT	N/A	01/18/99	299-10IMT-011	ACCEPT
02-001-057-33	REACTOR VESSEL CLOSURE NUT #33	BG1	B6.10	MT	N/A	01/18/99	299-10IMT-011	ACCEPT
02-001-057-34	REACTOR VESSEL CLOSURE NUT #34	BG1	B6.10	MT	N/A	01/18/99	299-10IMT-011	ACCEPT
02-001-057-35	REACTOR VESSEL CLOSURE NUT #35	BG1	B6.10	MT	N/A	01/18/99	299-10IMT-011	ACCEPT
02-001-057-36	REACTOR VESSEL CLOSURE NUT #36	BG1	B6.10	MT	N/A	01/18/99	299-10IMT-011	ACCEPT

UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

ISI ID NO.	Area Description	Cat	Item	Method	Scan Angle	Exam Date	Report No	Results
02-001-058-19	REACTOR VESSEL CLOSURE WASHER #19	BG1	B6.50	VT-1	N/A	01/15/99	299-10IVT-001	ACCEPT
02-001-058-20	REACTOR VESSEL CLOSURE WASHER #20	BG1	B6.50	VT-1	N/A	01/15/99	299-10IVT-001	ACCEPT
02-001-058-21	REACTOR VESSEL CLOSURE WASHER #21	BG1	B6.50	VT-1	N/A	01/15/99	299-10IVT-001	ACCEPT
02-001-058-22	REACTOR VESSEL CLOSURE WASHER #22	BG1	B6.50	VT-1	N/A	01/15/99	299-10IVT-001	ACCEPT
02-001-058-23	REACTOR VESSEL CLOSURE WASHER #23	BG1	B6.50	VT-1	N/A	01/15/99	299-10IVT-001	ACCEPT
02-001-058-24	REACTOR VESSEL CLOSURE WASHER #24	BG1	B6.50	VT-1	N/A	01/15/99	299-10IVT-001	ACCEPT
02-001-058-25	REACTOR VESSEL CLOSURE WASHER #25	BG1	B6.50	VT-1	N/A	01/15/99	299-10IVT-001	ACCEPT
02-001-058-26	REACTOR VESSEL CLOSURE WASHER #26	BG1	B6.50	VT-1	N/A	01/15/99	299-10IVT-001	ACCEPT
02-001-058-27	REACTOR VESSEL CLOSURE WASHER #27	BG1	B6.50	VT-1	N/A	01/15/99	299-10IVT-001	ACCEPT
02-001-058-28	REACTOR VESSEL CLOSURE WASHER #28	BG1	B6.50	VT-1	N/A	01/15/99	299-10IVT-001	ACCEPT
02-001-058-29	REACTOR VESSEL CLOSURE WASHER #29	BG1	B6.50	VT-1	N/A	01/15/99	299-10IVT-001	ACCEPT
02-001-058-30	REACTOR VESSEL CLOSURE WASHER #30	BG1	B6.50	VT-1	N/A	01/15/99	299-10IVT-001	ACCEPT
02-001-058-31	REACTOR VESSEL CLOSURE WASHER #31	BG1	B6.50	VT-1	N/A	01/15/99	299-10IVT-001	ACCEPT
02-001-058-32	REACTOR VESSEL CLOSURE WASHER #32	BG1	B6.50	VT-1	N/A	01/15/99	299-10IVT-001	ACCEPT
02-001-058-33	REACTOR VESSEL CLOSURE WASHER #33	BG1	B6.50	VT-1	N/A	01/15/99	299-10IVT-001	ACCEPT
02-001-058-34	REACTOR VESSEL CLOSURE WASHER #34	BG1	B6.50	VT-1	N/A	01/15/99	299-10IVT-001	ACCEPT
02-001-058-35	REACTOR VESSEL CLOSURE WASHER #35	BG1	B6.50	VT-1	N/A	01/15/99	299-10IVT-001	ACCEPT
02-001-058-36	REACTOR VESSEL CLOSURE WASHER #36	BG1	B6.50	VT-1	N/A	01/15/99	299-10IVT-001	ACCEPT
02-001-080	AREAS ABOVE AND BELOW REACTOR CORE	BN1	B13.10	VT-3	N/A	01/17/99	299-10IVT-002	ACCEPT
ZONE: 02								
02-002-004	PEEL SEGMENT WELD @ 162 DEGREES	B-A	B1.22	UT	0°	01/19/99	299-10IUT-012	ACCEPT
02-002-004	PEEL SEGMENT WELD @ 162 DEGREES	B-A	B1.22	UT	45°	01/19/99	299-10IUT-013	ACCEPT
02-002-004	PEEL SEGMENT WELD @ 162 DEGREES	B-A	B1.22	UT	60°	01/19/99	299-10IUT-014	ACCEPT
02-002-012	DOME WELD	B-A	B1.21	UT	0°	01/19/99	299-10IUT-012	ACCEPT
02-002-012	DOME WELD	B-A	B1.21	UT	45°	01/19/99	299-10IUT-013	ACCEPT

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

ISI ID NO.	Area Description	Cat	Item	Method	Scan Angle	Exam Date	Report No	Results
02-002-012	DOME WELD	B-A	B1.21	UT	60°	01/19/99	299-10IUT-014	ACCEPT
ZONE: 03								
02-003-027-08	PRIMARY MANWAY STUD @ 0 DEGREES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-006	ACCEPT
02-003-027-09	PRIMARY MANWAY STUD @ 0 DEGREES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-006	ACCEPT
02-003-027-10	PRIMARY MANWAY STUD @ 0 DEGREES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-006	ACCEPT
02-003-027-11	PRIMARY MANWAY STUD @ 0 DEGREES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-006	ACCEPT
02-003-027-12	PRIMARY MANWAY STUD @ 0 DEGREES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-006	ACCEPT
02-003-027-13	PRIMARY MANWAY STUD @ 0 DEGREES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-006	ACCEPT
02-003-028-08	PRIMARY MANWAY NUT @ 0 DEGREES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-006	ACCEPT
02-003-028-09	PRIMARY MANWAY NUT @ 0 DEGREES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-006	ACCEPT
02-003-028-10	PRIMARY MANWAY NUT @ 0 DEGREES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-006	ACCEPT
02-003-028-11	PRIMARY MANWAY NUT @ 0 DEGREES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-006	ACCEPT
02-003-028-12	PRIMARY MANWAY NUT @ 0 DEGREES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-006	ACCEPT
02-003-028-13	PRIMARY MANWAY NUT @ 0 DEGREES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-006	ACCEPT
02-003-029-08	PRIMARY MANWAY STUD @ 112 DEGREES, 30 MINUTES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-006	ACCEPT
02-003-029-09	PRIMARY MANWAY STUD @ 112 DEGREES, 30 MINUTES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-006	ACCEPT
02-003-029-10	PRIMARY MANWAY STUD @ 112 DEGREES, 30 MINUTES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-006	ACCEPT
02-003-029-11	PRIMARY MANWAY STUD @ 112 DEGREES, 30 MINUTES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-006	ACCEPT
02-003-029-12	PRIMARY MANWAY STUD @ 112 DEGREES, 30 MINUTES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-006	ACCEPT
02-003-029-13	PRIMARY MANWAY STUD @ 112 DEGREES, 30 MINUTES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-006	ACCEPT
02-003-029-14	PRIMARY MANWAY STUD @ 112 DEGREES, 30 MINUTES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-006	ACCEPT
02-003-030-08	PRIMARY MANWAY NUT @ 112 DEGREES, 30 MINUTES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-006	ACCEPT
02-003-030-09	PRIMARY MANWAY NUT @ 112 DEGREES, 30 MINUTES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-006	ACCEPT
02-003-030-10	PRIMARY MANWAY NUT @ 112 DEGREES, 30 MINUTES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-006	ACCEPT
02-003-030-11	PRIMARY MANWAY NUT @ 112 DEGREES, 30 MINUTES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-006	ACCEPT

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

ISI ID NO.	Area Description	Cat	Item	Method	Scan Angle	Exam Date	Report No	Results
02-003-030-12	PRIMARY MANWAY NUT @ 112 DEGREES, 30 MINUTES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-006	ACCEPT
02-003-030-13	PRIMARY MANWAY NUT @ 112 DEGREES, 30 MINUTES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-006	ACCEPT
02-003-030-14	PRIMARY MANWAY NUT @ 112 DEGREES, 30 MINUTES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-006	ACCEPT
ZONE: 04								
02-004-027-08	PRIMARY MANWAY STUD @ O DEGREES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-008	ACCEPT
02-004-027-09	PRIMARY MANWAY STUD @ O DEGREES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-008	ACCEPT
02-004-027-10	PRIMARY MANWAY STUD @ O DEGREES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-008	ACCEPT
02-004-027-11	PRIMARY MANWAY STUD @ O DEGREES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-008	ACCEPT
02-004-027-12	PRIMARY MANWAY STUD @ O DEGREES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-008	ACCEPT
02-004-027-13	PRIMARY MANWAY STUD @ O DEGREES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-008	ACCEPT
02-004-028-08	PRIMARY MANWAY NUT @ 0 DEGREES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-008	ACCEPT
02-004-028-09	PRIMARY MANWAY NUT @ 0 DEGREES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-008	ACCEPT
02-004-028-10	PRIMARY MANWAY NUT @ 0 DEGREES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-008	ACCEPT
02-004-028-11	PRIMARY MANWAY NUT @ 0 DEGREES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-008	ACCEPT
02-004-028-12	PRIMARY MANWAY NUT @ 0 DEGREES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-008	ACCEPT
02-004-028-13	PRIMARY MANWAY NUT @ 0 DEGREES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-008	ACCEPT
02-004-029-08	PRIMARY MANWAY STUD @ 112 DEGREES, 30 MIN	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-008	ACCEPT
02-004-029-09	PRIMARY MANWAY STUD @ 112 DEGREES, 30 MIN	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-008	ACCEPT
02-004-029-10	PRIMARY MANWAY STUD @ 112 DEGREES, 30 MIN	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-008	ACCEPT
02-004-029-11	PRIMARY MANWAY STUD @ 112 DEGREES, 30 MIN	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-008	ACCEPT
02-004-029-12	PRIMARY MANWAY STUD @ 112 DEGREES, 30 MIN	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-008	ACCEPT
02-004-029-13	PRIMARY MANWAY STUD @ 112 DEGREES, 30 MIN	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-008	ACCEPT
02-004-030-08	PRIMARY MANWAY NUT @ 112 DEGREES, 30 MIN	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-008	ACCEPT
02-004-030-09	PRIMARY MANWAY NUT @ 112 DEGREES, 30 MIN	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-008	ACCEPT
02-004-030-10	PRIMARY MANWAY NUT @ 112 DEGREES, 30 MIN	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-008	ACCEPT

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

ISI ID NO.	Area Description	Cat	Item	Method	Scan Angle	Exam Date	Report No	Results
02-004-030-11	PRIMARY MANWAY NUT @ 112 DEGREES, 30 MIN	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-008	ACCEPT
02-004-030-12	PRIMARY MANWAY NUT @ 112 DEGREES, 30 MIN	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-008	ACCEPT
02-004-030-13	PRIMARY MANWAY NUT @ 112 DEGREES, 30 MIN	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-008	ACCEPT
ZONE: 05								
02-005-019-08	PRIMARY MANWAY BOLTING (STUD)	BG2	B7.20	VT-1	N/A	01/10/99	299-10IVT-007	ACCEPT
02-005-019-09	PRIMARY MANWAY BOLTING (STUD)	BG2	B7.20	VT-1	N/A	01/10/99	299-10IVT-007	ACCEPT
02-005-019-10	PRIMARY MANWAY BOLTING (STUD)	BG2	B7.20	VT-1	N/A	01/10/99	299-10IVT-007	ACCEPT
02-005-019-11	PRIMARY MANWAY BOLTING (STUD)	BG2	B7.20	VT-1	N/A	01/10/99	299-10IVT-007	ACCEPT
02-005-019-12	PRIMARY MANWAY BOLTING (STUD)	BG2	B7.20	VT-1	N/A	01/10/99	299-10IVT-007	ACCEPT
02-005-019-13	PRIMARY MANWAY BOLTING (STUD)	BG2	B7.20	VT-1	N/A	01/10/99	299-10IVT-007	ACCEPT
02-005-019-14	PRIMARY MANWAY BOLTING (STUD)	BG2	B7.20	VT-1	N/A	01/10/99	299-10IVT-007	ACCEPT
02-005-037-008	PRIMARY MANWAY BOLTING (NUT)	BG2	B7.20	VT-1	N/A	01/10/99	299-10IVT-007	ACCEPT
02-005-037-009	PRIMARY MANWAY BOLTING (NUT)	BG2	B7.20	VT-1	N/A	01/10/99	299-10IVT-007	ACCEPT
02-005-037-010	PRIMARY MANWAY BOLTING (NUT)	BG2	B7.20	VT-1	N/A	01/10/99	299-10IVT-007	ACCEPT
02-005-037-011	PRIMARY MANWAY BOLTING (NUT)	BG2	B7.20	VT-1	N/A	01/10/99	299-10IVT-007	ACCEPT
02-005-037-012	PRIMARY MANWAY BOLTING (NUT)	BG2	B7.20	VT-1	N/A	01/10/99	299-10IVT-007	ACCEPT
02-005-037-013	PRIMARY MANWAY BOLTING (NUT)	BG2	B7.20	VT-1	N/A	01/10/99	299-10IVT-007	ACCEPT
02-005-037-014	PRIMARY MANWAY BOLTING (NUT)	BG2	B7.20	VT-1	N/A	01/10/99	299-10IVT-007	ACCEPT
ZONE: 07								
02-007-001	S/G #2 INLET NOZZLE PIECE-TO-ELBOW WELD	B-J	B9.11	MT	N/A	01/14/99	299-10IMT-006	ACCEPT
02-007-002 SG	ELBOW LONGITUDINAL WELD (BOTTOM) - SG END	B-J	B9.12	MT	N/A	01/14/99	299-10IMT-006	ACCEPT
02-007-003 SG	ELBOW LONGITUDINAL WELD (TOP) - S/G END	B-J	B9.12	MT	N/A	01/14/99	299-10IMT-006	ACCEPT
02-007-001	S/G #2 INLET NOZZLE PIECE-TO-ELBOW WELD	B-J	B9.11	UT	45°	01/15/99	299-10IUT-009	ACCEPT
02-007-002 SG	ELBOW LONGITUDINAL WELD (BOTTOM) - SG END	B-J	B9.12	UT	45°	01/15/99	299-10IUT-009	ACCEPT
02-007-003 SG	ELBOW LONGITUDINAL WELD (TOP) - SG END	B-J	B9.12	UT	45°	01/15/99	299-10IUT-009	ACCEPT

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

ISI ID NO.	Area Description	Cat	Item	Method	Scan Angle	Exam Date	Report No	Results
02-007-009	SHUTDOWN COOLING NOZZLE-TO-SAFE END WELD	B-F	B5.130	PT	N/A	01/09/99	299-10IPT-018	ACCEPT
02-007-009	SHUTDOWN COOLING NOZZLE-TO-SAFE END WELD	B-F	B5.130	UT	45°	01/16/99	299-10IUT-030	ACCEPT
ZONE: 08								
02-008-001	SAFE END-TO-PUMP SUCTION NOZZLE WELD	B-J	B9.11	UT	45°	01/19/99	299-10IUT-019	ACCEPT
02-008-001	SAFE END-TO-PUMP SUCTION NOZZLE WELD	B-J	B9.11	PT	N/A	01/12/99	299-10IPT-013	ACCEPT
02-008-002	SAFE END-TO-ELBOW WELD	B-F	B5.130	UT	45°	01/19/99	299-1-IUT-019	ACCEPT
02-008-002	SAFE END-TO-ELBOW WELD	B-F	B5.130	PT	N/A	01/12/99	299-10IUT-013	ACCEPT
02-008-003 P	ELBOW LONGITUDINAL WELD (BOTTOM) - PUMP END	B-J	B9.12	MT	N/A	01/12/99	299-10IMT-004	ACCEPT
02-008-003 P	ELBOW LONGITUDINAL WELD (BOTTOM) - PUMP END	B-J	B9.12	UT	45°	01/12/99	299-10IUT-016	ACCEPT
02-008-004 P	ELBOW LONGITUDINAL WELD (TOP) - PUMP END	B-J	B9.12	MT	N/A	01/12/99	299-10IMT-004	ACCEPT
02-008-004 P	ELBOW LONGITUDINAL WELD (TOP) - PUMP END	B-J	B9.12	UT	45°	01/16/99	299-10IUT-016	ACCEPT
02-008-012 SG	ELBOW LONGITUDINAL WELD - S/G END	B-J	B9.12	MT	N/A	01/12/99	299-1OIMT-004	ACCEPT
02-008-012 SG	ELBOW LONGITUDINAL WELD - S/G END	B-J	B9.12	UT	45°	01/16/99	299-10IUT-016	ACCEPT
02-008-013 SG	ELBOW LONGITUDINAL WELD - S/G END	B-J	B9.12	MT	N/A	01/12/99	299-10IMT-004	ACCEPT
02-008-013 SG	ELBOW LONGITUDINAL WELD - S/G END	B-J	B9.12	UT	45°	01/16/99	299-10IUT-016	ACCEPT
02-008-014	ELBOW-TO-PIPE WELD	B-J	B9.11	UT	60°	01/16/99	299-10IUT-016	ACCEPT
02-008-014	ELBOW-TO-PIPE WELD	B-J	B9.11	MT	N/A	01/12/99	299-10IMT-004	ACCEPT
02-008-014	ELBOW-TO-PIPE WELD	B-J	B9.11	UT	45°	01/16/99	299-10IUT-016	ACCEPT
02-008-015	PIPE LONGITUDINAL WELD	B-J	B9.12	MT	N/A	01/12/99	299-10IMT-004	ACCEPT
02-008-015	PIPE LONGITUDIANL WELD	B-J	B9.12	UT	45°	01/16/99	299-10IUT-016	ACCEPT
02-008-016	PIPE LONGITUDINAL WELD	B-J	B9.12	MT	N/A	01/12/99	299-10IMT-004	ACCEPT
02-008-016	PIPE LONGITUDINAL WELD	B-J	B9.12	UT	45°	01/16/99	299-10IUT-016	ACCEPT
02-008-017	PIPE-TO-S/G NOZZLE EXTENSION PIECE WELD	B-J	B9.11	MT	N/A	01/12/99	299-10IMT-004	ACCEPT
02-008-017	PIPE-TO-S/G NOZZLE EXTENSION PIECE WELD	B-J	B9.11	UT	60°	01/16/99	299-10IUT-016	ACCEPT
02-008-017	PIPE-TO-S/G NOZZLE EXTENSION PIECE WELD	B-J	B9.11	UT	45°	01/16/99	299-10IUT-016	ACCEPT

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

ISI ID NO.	Area Description	Cat	Item	Method	Scan Angle	Exam Date	Report No	Results
02-008-019	DRAIN NOZZLE-TO-SAFE END WELD 2"	B-F	B5.140	PT	N/A	01/13/99	299-10IUT-017	ACCEPT
ZONE: 09								
02-009-001	PUMP-TO-SAFE END WELD	B-J	B9.11	UT	45°	01/19/99	299-10IUT-020	ACCEPT
02-009-001	PUMP-TO-SAFE END WELD	B-J	B9.11	PT	N/A	01/14/99	299-10IPT-019	ACCEPT
02-009-002	SAFE END-TO-PIPE WELD (AREA 2C9, 30' ELEV	B-F	B5.130	UT	45°	01/19/99	299-10IUT-020	ACCEPT
02-009-002	SAFE END-TO-PIPE WELD (AREA 2C9, 30' ELEV	B-F	B5.130	PT	N/A	01/14/99	299-10IPT-019	ACCEPT
02-009-003 P	PIPE LONGITUDINAL WELD - PUMP END	B-J	B9.12	UT	45°	01/16/99	299-10IUT-017	ACCEPT
02-009-003 P	PIPE LONGITUDINAL WELD - PUMP END	B-J	B9.12	MT	N/A	01/19/99	299-10IMT-001	ACCEPT
02-009-004 P	PIPE LONGITUDINAL WELD - PUMP END	B-J	B9.12	UT	45°	01/16/99	299-10IUT-017	ACCEPT
02-009-004 P	PIPE LONGITUDINAL WELD - PUMP END	B-J	B9.12	MT	N/A	01/09/99	299-10IMT-001	ACCEPT
02-009-009	SAFETY INJECTION NOZZLE-TO-PIPE WELD	B-J	B9.31	UT	45°	01/16/99	299-10IUT-017	ACCEPT
02-009-009	SAFETY INJECTION NOZZLE-TO-PIPE WELD	B-J	B9.31	UT	60°	01/16/99	299-10IUT-017	ACCEPT
02-009-009	SAFETY INJECTION NOZZLE-TO-PIPE WELD	B-J	B9.31	MT	N/A	01/09/99	299-10IMT-001	ACCEPT
02-009-011	CHARGING NOZZLE-TO-PIPE WELD	B-J	B.932	UT	60°	01/16/99	299-10IUT-017	ACCEPT
02-009-011	CHARGING NOZZLE-TO-PIPE WELD	B-J	B9.32	UT	45°	01/16/99	299-10IUT-017	ACCEPT
02-009-011	CHARGING NOZZLE-TO-PIPE WELD	B-J	B9.32	MT	N/A	01/09/99	299-10IMT-001	ACCEPT
02-009-012	SAFETY INJECTION NOZZLE-TO-SAFE END WELD	B-F	B5.130	UT	45°	01/16/99	299-10IUT-029	ACCEPT
02-009-012	SAFETY INJECTION NOZZLE-TO-SAFE END WELD	B-F	B5.130	PT	N/A	01/11/99	299-10IPT-010	ACCEPT
02-009-013	SPRAY NOZZLE-TO-SAFE END WELD 3"	B-F	B5.140	PT	N/A	01/09/99	299-10IPT-007	ACCEPT
02-009-014	CHARGING NOZZLE-TO-SAFE END WELD 2"	B-F	B5.140	PT	N/A	01/09/99	299-10IPT-007	ACCEPT
ZONE: 10								ACCEPT
02-010-001	SAFE END-TO-PUMP SUCTION NOZZLE WELD	B-J	B9.11	UT	45°	01/19/99	299-10IUT-021	ACCEPT
02-010-001	SAFE END-TO-PUMP SUCTION NOZZLE WELD	B-J	B9.11	PT	N/A	01/13/99	299-10IUT-014	ACCEPT
02-010-002	SAFE END-TO-PUMP SUCTION NOZZLE WELD	B-F	B5.130	UT	45°	01/19/99	299-10IUT-021	ACCEPT
02-010-002	SAFE END-TO-PUMP SUCTION NOZZLE WELD	B-F	B5.130	PT	N/A	01/13/99	299/10IPT-014	ACCEPT

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

ISI ID NO.	Area Description	Cat	Item	Method	Scan Angle	Exam Date	Report No	Results
02-010-003 P	ELBOW LONGITUDINAL WELD-PUMP END	B-J	B9.12	UT	45°	01/16/99	299-10IUT-018	ACCEPT
02-010-003 P	ELBOW LONGITUDINAL WELD-PUMP END	B-J	B9.12	MT	N/A	01/13/99	299-10IMT-005	ACCEPT
02-010-004 P	ELBOW LONGITUDINAL WELD- PUMP END	B-J	B9.12	UT	45°	01/16/99	299-10IUT-018	ACCEPT
02-010-004 P	ELBOW LONGITUDINAL WELD- PUMP END	B-J	B9.12	MT	N/A	01/13/99	299-10IMT-005	ACCEPT
02-010-012 SG	ELBOW LONGITUDINAL WELD- S/G- END	B-J	B9.12	UT	45°	01/16/99	299-10IUT-018	ACCEPT
02-010-012 SG	ELBOW LONGITUDINAL WELD- PUMP END	B-J	B9.12	MT	N/A	01/13/99	299-10IMT-005	ACCEPT
02-010-013 SG	ELBOW LONGITUDINAL WELD- S/G END	B-J	B9.12	UT	45°	01/16/99	299-10IUT-018	ACCEPT
02-010-013 SG	ELBOW LONGITUDINAL WELD- S/G END	B-J	B9.12	MT	N/A	01/13/99	299-10IMT-005	ACCEPT
02-010-014	ELBOW-TO-PIPE WELD	B-J	B9.11	UT	45°	01/16/99	299-10IUT-018	ACCEPT
02-010-014	ELBOW-TO-PIPE WELD	B-J	B9.11	MT	N/A	01/13/99	299-10IMT-005	ACCEPT
02-010-015	PIPE LONGITUDINAL WELD	B-J	B9.12	UT	45°	01/16/99	299-10IUT-018	ACCEPT
02-010-015	PIPE LONGITUDINAL WELD	B-J	B9.12	MT	N/A	01/13/99	299-10IMT-005	ACCEPT
02-010-016	PIPE LONGITUDINAL WELD	B-J	B9.12	UT	45°	01/16/99	299-10IUT-018	ACCEPT
02-010-016	PIPE LONGITUDINAL WELD	B-J	B9.12	MT	N/A	01/13/99	299-10IMT-005	ACCEPT
02-010-017	PIPE-TO-S/G NOZZLE EXTENSION PIECE WELD	B-J	B9.11	UT	45°	01/16/99	299-10IUT-018	ACCEPT
02-010-017	PIPE-TO-S/G NOZZLE EXTENSION PIECE WELD	B-J	B9.11	MT	N/A	01/13/99	299-10IMT-005	ACCEPT
ZONE: 11								
02-011-001	PUMP-TO-SAFE END WELD	B-J	B9.11	UT	45°	01/19/99	299-10IUT-022	ACCEPT
02-011-001	PUMP-TO-SAFE END WELD	B-J	B9.11	PT	N/A	01/09/99	299-10IPT-009	ACCEPT
02-011-002	SAFE END-TO-PIPE WELD	B-F	B5.130	UT	45°	01/19/99	299-10IUT-022	ACCEPT
02-011-002	SAFE-END-TO-PIPE WELD	B-F	B5.130	PT	N/A	01/09/99	299-10IPT-009	ACCEPT
02-011-003 P	PIPE LONGITUDINAL WELD - PUMP END	B-J	B9.12	MT	N/A	01/09/99	299-10IMT-002	ACCEPT
02-011-003 P	PIPE LONGITUDINAL WELD - PUMP END	B-J	B9.12	UT	45°	01/16/99	299-10IUT-015	ACCEPT
02-011-004 P	PIPE LONGITUDINAL WELD - PUMP END	B-J	B9.12	MT	N/A	01/09/99	299-10IMT-002	ACCEPT
02-011-004 P	PIPE LONGITUDINAL WELD - PUMP END	B-J	B9.12	UT	45°	01/16/99	299-10IUT-015	ACCEPT

UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

ISI ID NO.	Area Description	Cat	Item	Method	Scan Angle	Exam Date	Report No	Results
ZONE: 16								
02-016-009	12" SCH 160 PIPE-TO-ELBOW	B-J	B9.11	UT	45°	01/14/99	299-10IUT-008	ACCEPT
02-016-009	12" SCH 160 PIPE-TO-ELBOW	B-J	B9.11	PT	N/A	01/14/99	299-10IUT-020	ACCEPT
02-016-010	12" SCH 160 PIPE-TO-ELBOW	B-J	B9.11	UT	45°	01/14/99	299-10IUT-008	ACCEPT
02-016-010	12" SCH 160 PIPE-TO-ELBOW	B-J	B9.11	PT	N/A	01/14/99	299-10IUT-020	ACCEPT
02-016-013	12" SCH 160 ELBOW-TO-PIPE	B-J	B9.11	UT	45°	01/14/99	299-10IUT-008	ACCEPT
02-016-013	12"SCH 160 ELBOW-TO-PIPE	B-J	B.9.11	PT	N/A	01/14/99	299-10IUT-020	ACCEPT
02-016-014	12" SCH 160 ELBOW-TO-PIPE	B-J	B9.11	UT	45°	01/14/99	299-10IUT-008	ACCEPT
02-016-014	12" SCH 160 ELBOW-TO-PIPE	B-J	B9.11	PT	N/A	01/14/99	299-10IUT-020	ACCEPT
ZONE: 17								
02-017-003	SIDE PLATE BOLTING(STUDS & NUTS)	BG2	B7.70	VT-1	N/A	01/24/99	299-10IVT-005	ACCEPT
02-017-036	12" SCH 160 VALVE-TO-PIPE	B-J	B9.11	UT	45°	01/12/99	299-10IUT-006	ACCEPT
02-017-036	12" SCH 160 VALVE-TO-PIPE	B-J	B9.11	UT	60°	01/12/99	299-10IUT-006	ACCEPT
02-017-036	12" SCH 160 VALVE-TO-PIPE	B-J	B9.11	PT	N/A	01/11/99	299-10IUT-012	ACCEPT
02-017-037	12" SCH 160 PIPE-TO-ELBOW	B-J	B9.11	UT	45°	01/12/99	299-10IUT-006	ACCEPT
02-017-037	12" SCH 160 PIPE-TO-ELBOW	B-J	B9.11	PT	N/A	01/09/99	299-10IPT-006	ACCEPT
02-017-038	12" SCH 160 ELBOW-TO-PIPE	B-J	B9.11	UT	45°	01/12/99	299-10IUT-006	ACCEPT
02-017-038	12" SCH 160 ELBOW-TO-PIPE	B-J	B9.11	PT	N/A	01/09/99	299-10IPT-006	ACCEPT
02-017-039	12" SCH 160 PIPE-TO-NOZZLE	B-J	B9.11	UT	45°	01/12/99	299-10IUT-006	ACCEPT
01-017-039	12" SCH 160 PIPE-TO-NOZZLE	B-J	B9.11	PT	N/A	01/09/99	299-10IPT-006	ACCEPT
02-017-040	8" SCH 140 REDUCER TEE-TO-PIPE	B-J	B9.11	UT	43°	01/06/99	299-10IUT-001	ACCEPT
02-017-040	8" SCH 140 REDUCER TEE-TO-PIPE	B-J	B9.11	UT	45°	01/07/99	299-10IUT-001	ACCEPT
02-017-040	8" SCH 140 REDUCER TEE-TO-PIPE	B-J	B9.11	UT	60°	01/07/99	299-10IUT-001	ACCEPT
02-017-040	8" SCH 140 REDUCER TEE-TO-PIPE	B-J	B9.11	PT	N/A	01/06/99	299-10IPT-001	ACCEPT
02-017-041	8" SCH 140 PIPE-TO-ELBOW	B-J	B9.11	UT	43°	01/06/99	299-10IUT-001	ACCEPT

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

ISI ID NO.	Area Description	Cat	Item	Method	Scan Angle	Exam Date	Report No	Results
02-017-041	8" SCH 140 PIPE-TO-ELBOW	B-J	B9.11	UT	45°	01/07/99	299-10IUT-001	ACCEPT
02-017-041	8" SCH 140 PIPE-TO-ELBOW	B-J	B9.11	PT	N/A	01/06/99	299-10IPT-001	ACCEPT
02-017-042	8" SCH 140 ELBOW-TO-PIPE	B-J	B9.11	UT	43°	01/06/99	299-10IUT-001	ACCEPT
02-017-042	8" SCH 140 ELBOW-TO-PIPE	B-J	B9.11	UT	45°	01/07/99	299-10IUT-001	ACCEPT
02-0170042	8" SCH 140 ELBOW-TO-PIPE	B-J	B9.11	PT	N/A	01/06/99	299-10IPT-001	ACCEPT
02-017-043	8" SCH 140 PIPE-TO-REDUCER TEE	B-J	B9.11	UT	43°	01/06/99	299-10IUT-001	ACCEPT
02-017-043	8" SCH 140 PIPE-TO-REDUCER TEE	B-J	B9.11	UT	45°	01/07/99	299-10IUT-001	ACCEPT
02-017-043	8" SCH 140 PIPE-TO-REDUCER TEE	B-J	B9.11	PT	N/A	01/06/99	299-10IPT-001	ACCEPT
02-017-044	8" SCH 140 REDUCER TEE-TO-PIPE	B-J	B9.11	UT	43°	01/06/99	299-10IUT-001	ACCEPT
02-017-044	8" SCH 140 REDUCER TEE-TO-PIPE	B-J	B9.11	UT	45°	01/07/99	299-10IUT-001	ACCEPT
02-017-044	8" SCH 140 REDUCER TEE-TO-PIPE	B-J	B9.11	PT	N/A	01/06/99	299-10IPT-001	ACCEPT
02-017-046	8" SCH 140 PIPE-TO-VALVE	B-J	B9.11	UT	43°	01/06/99	299-10IUT-001	ACCEPT
02-017-046	8" SCH 140 PIPE-TO-VALVE	B-J	B9.11	UT	45°	01/07/99	299-10IUT-001	ACCEPT
02-017-046	8" SCH 140 PIPE-TO-VALVE	B-J	B9.11	UT	60°	01/07/99	299-10IUT-001	ACCEPT
02-017-046	8" SCH 140 PIPE-TO-VALVE	B-J	B9.11	PT	N/A	01/06/99	299-10IPT-001	ACCEPT
02-017-049	4" SCH 120 REDUCER TEE-TO-PIPE	B-J	B9.11	UT	44°	01/07/99	299-10IUT-003	ACCEPT
02-017-049	4" SCH 120 REDUCER TEE-TO-PIPE	B-J	B9.11	UT	45°	01/07/99	299-10IUT-003	ACCEPT
02-017-049	4" SCH 120 REDUCER TEE-TO-PIPE	B-J	B9.11	UT	60°	01/07/99	299-10IUT-003	ACCEPT
02-017-049	4" SCH 120 REDUCER TEE-TO-PIPE	B-J	B9.11	PT	N/A	01/06/99	299-10IPT-001	ACCEPT
ZONE: 18								
02-018-035	12" SCH 160 VALVE-TO-PIPE	B-J	B9.11	UT	44°	01/09/99	299-10IUT-023	ACCEPT
02-018-035	12" SCH 160 VALVE-TO-PIPE	B-J	B9.11	UT	60°	01/09/99	299-10IUT-023	ACCEPT
02-018-035	12" SCH 160 VALVE-TO-PIPE	B-J	B9.11	PT	N/A	01/09/99	299-IOIPT-005	ACCEPT
02-018-042	12" SCH 160 PIPE-TO-NOZZLE	B-J	B9.11	UT	44°	01/09/99	299-10IUT-023	ACCEPT
02-018-042	12" SCH 160 PIPE-TO-NOZZLE	B-J	B9.11	UT	60°	01/09/99	299-10IUT-023	ACCEPT

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

ISI ID NO.	Area Description	Cat	Item	Method	Scan Angle	Exam Date	Report No	Results
02-018-042	12" SCH 160 PIPE-TO-NOZZLE	B-J	B9.11	PT	N/A	01/09/99	299-10IUT-005	ACCEPT
02-018-043	8" SCH SCH 140 REDUCING TEE-TO-PIPE	B-J	B9.11	UT	43°	01/07/99	299-10IUT-002	ACCEPT
02-018-043	8" SCH SCH 140 REDUCING TEE-TO-PIPE	B-J	B9.11	UT	45°	01/07/99	299-10IUT-002	ACCEPT
02-018-043	8" SCH SCH 140 REDUCING TEE-TO-PIPE	B-J	B9.11	UT	60°	01/07/99	299-10IUT-002	ACCEPT
02-018-043	8" SCH SCH 140 REDUCING TEE-TO-PIPE	B-J	B9.11	PT	N/A	01/06/99	299-10IPT-003	ACCEPT
02-018-050	8" SCH 140 PIPE-TO-VALVE	B-J	B9.11	UT	43°	01/07/99	299-10IUT-002	ACCEPT
02-018-050	8" SCH 140 PIPE-TO-VALVE	B-J	B9.11	UT	45°	01/07/99	299-10IUT-002	ACCEPT
02-018-050	8" SCH 140 PIPE-TO-VALVE	B-J	B9.11	UT	60°	01/07/99	299-10IUT-002	ACCEPT
02-018-050	8" SCH 140 PIPE-TO-VALVE	B-J	B9.11	PT	N/A	01/06/99	299-10IUT-003	ACCEPT
02-018-054	4" SCH 120 REDUCING TEE-TO-PIPE	B-J	B9.11	UT	44°	01/07/99	299-10IUT-004	ACCEPT
02-018-054	4" SCH 120 REDUCING TEE-TO-PIPE	B-J	B9.11	UT	45°	01/07/99	299-10IUT-004	ACCEPT
02-018-054	4" SCH 120 REDUCING TEE-TO-PIPE	B-J	B9.11	UT	60°	01/07/99	299-10IUT-004	ACCEPT
02-018-054	4" SCH 120 REDUCING TEE-TO-PIPE	B-J	B9.11	PT	N/A	01/06/99	299-10IPT-003	ACCEPT
ZONE: 22								
02-022-001	3" SCH 160 NOZZLE-TO-PIPE	B-J	B9.21	PT	N/A	01/09/99	299-10IPT-004	ACCEPT
02-022-004	3" SCH 160 PIPE-TO-ELBOW	B-J	B9.21	PT	N/A	01/09/99	299-10IPT-004	ACCEPT
02-022-005	3" SCH 160 ELBOW-TO-PIPE	B-J	B9.21	PT	N/A	01/09/99	299-10IPT-004	ACCEPT
ZONE: 23								
02-023-001	3" SCH 160 PIPE-TO-NOZZLE	B-J	B9.21	PT	N/A	01/09/99	299-10IPT-008	ACCEPT
02-023-002	3" SCH 160 PIPE-TO-ELBOW	B-J	B9.21	PT	N/A	01/09/99	299-10IPT-008	ACCEPT
02-023-003	3" SCH 160 ELBOE-TO-PIPE	B-J	B9.21	PT	N/A	01/06/99	299-10IPT-025	ACCEPT
02-023-210	4" SCH 120 PIPE-TO-VALVE 2PV0100A(SO23-950-156)	B-J	B9.11	PT	N/A	01/11/99	299-10IPT-011	ACCEPT
02-023-210	4" SCH 120 PIPE-TO-VALVE 2PV0100A(SO23-950-156)	B-J	B9.11	UT	44°	01/12/99	299-10IPT-007	ACCEPT
02-023-210	4" SCH 120 PIPE-TO-VALVE 2PV0100A(SO23-950-156)	BJ	B9.11	UT	45°	01/12/99	299-10IPT-007	ACCEPT
02-023-210	4" SCH 120 PIPE-TO-VALVE 2PV0100A(SO23-950-156)	BJ	B9.11	UT	60°	01/12/99	299-10IPT-007	ACCEPT

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

ISI ID NO.	Area Description	Cat	Item	Method	Scan Angle	Exam Date	Report No	Results
02-023-220	CONTROL VALVE TO 4" SCH 120 PIPE	B-J	B9.11	PT	N/A	01/11/99	299-10IPT-011	ACCEPT
02-023-220	CONTROL VALVE TO 4" SCH 120 PIPE	B-J	B9.11	UT	44°	01/12/99	299-10IPT-007	ACCEPT
02-023-220	CONTROL VALVE TO 4" SCH 120 PIPE	B-J	B9.11	UT	45°	01/12/99	299-10IPT-007	ACCEPT
02-023-220	CONTROL VALVE TO 4" SCH 120 PIPE	B-J	B9.11	UT	60°	01/12/99	299-10IPT-007	ACCEPT
02-023-230	4" SCH 120 PIPE-TO-VALVE	B-J	B9.11	PT	N/A	01/11/99	299-10IPT-011	ACCEPT
02-023-230	4" SCH 120 PIPE-TO-VALVE	B-J	B9.11	UT	44°	01/12/99	299-10IPT-007	ACCEPT
02-023-230	4" SCH 120 PIPE-TO-VALVE	B-J	B9.11	UT	45°	01/12/99	299-10IPT-007	ACCEPT
02-023-230	4" SCH 120 PIPE-TO-VALVE	B-J	B9.11	UT	60°	01/12/99	299-10IPT-007	ACCEPT
02-023-240	CHECK VALVE TO 4" SCH 120 PIPE	B-J	B9.11	PT	N/A	01/11/99	299-10IPT-011	ACCEPT
02-023-240	CHECK VALVE TO 4" SCH 120 PIPE	B-J	B9.11	UT	44°	01/12/99	299-10IPT-007	ACCEPT
02-023-240	CHECK VALVE TO 4" SCH 120 PIPE	B-J	B9.11	UT	45°	01/12/99	299-10IPT-007	ACCEPT
02-023-240	CHECK VALVE TO 4" SCH 120 PIPE	B-J	B9.11	UT	60°	01/12/99	299-10IPT-007	ACCEPT
ZONE: 24								
02-024-190	4" SCH 120 PIPE-TO-NOZZLE	B-J	B9.11	UT	44°	01/09/99	299-10IUT-024	ACCEPT
02-024-190	4" SCH 120 PIPE-TO-NOZZLE	B-J	B9.11	PT	N/A	01/09/99	299-10IPT-026	ACCEPT
02-024-190	4" SCH 120 PIPE-TO-NOZZLE	B-J	B9.11	UT	45°	01/09/99	299-10IUT-024	ACCEPT
ZONE: 25								
02-025-013	2PSV0200 6" SAFETY VALVE BODY (DRAWING NO. SO23-921-6)	BM2	B12.50	VT-3	NA	01/28/99	299-10IVT-003	ACCEPT
02-025-014	2PSV0200 2" HEX NUTS (INLET FLANGE)	BG2	B7.70	VT-1	NA	01/28/99	299-10IVT-003	ACCEPT
02-025-015	2PSV0200 2" HEX NUTS (INLET FLANGE)	BG2	B7.70	VT-1	NA	01/28/99	299-10IVT-003	ACCEPT
02-025-029	2PSV0201 6" SAFETY VALVE BODY (DRAWING NO. SO23-921-6)	BM2	B12.50	VT-3	N/A	01/28/99	299-10IVT-004	ACCEPT
02-025-030	2PSV0201 2" STUD BOLTS (INLET FLANGE)	BG2	B7.70	VT-1	N/A	01/28/99	299-10IVT-004	ACCEPT
02-025-031	2PSV0201 2" HEX NUTS (INLET FLANGE)	BG2	B7.70	VT-1	N/A	01/28/99	299-10IVT-004	ACCEPT
ZONE: 28								
02-028-015	2" SCH 160 PIPE-TO-VALVE	B-J	B.9.21	PT	N/A	01/16/99	299-10IPT-024	ACCEPT

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

ISI ID NO.	Area Description	Cat	Item	Method	Scan Angle	Exam Date	Report No	Results
02-028-017	VALVE-TO-2" SCH 160 PIPE	B-J	B.9.21	PT	N/A	01/16/99	299-10IPT-024	ACCEPT
02-028-019	2" SCH 160 PIPE-TO-VALVE	B-J	B.9.21	PT	N/A	01/16/99	299-10IPT-024	ACCEPT
02-028-030	2" SCH 160 PIPE-TO-VALVE	B-J	B.9.21	PT	N/A	01/16/99	299-10IPT-024	ACCEPT
02-028-040	2" SCH 160 PIPE-TO-PIPE	B-J	B.9.21	PT	N/A	01/16/99	299-10IPT-024	ACCEPT
ZONE: 29								
02-029-001	2" SCH 160 NOZZLE-TO-PIPE	B-J	B9.21	PT	N/A	01/16/99	299-10IPT-022	ACCEPT
02-029-001C	2" SCH 160 PIPE-TO-TEE	B-J	B9.21	PT	N/A	01/16/99	299-10IPT-022	ACCEPT
02-029-001D	2" SCH 160 TEE-TO-PIPE	B-J	B9.21	PT	N/A	01/16/99	299-10IPT-022	ACCEPT
ZONE: 31								
02-031-001	2" SCH 160 NOZZLE-TO-PIPE	B-J	B9.21	PT	N/A	01/13/99	299-10IPT-016	ACCEPT
ZONE: 32								
02-032-016	2" SCH 160 TEE-TO-PIPE	B-J	B9.21	PT	N/A	01/13/99	299-10IPT-015	ACCEPT
02-032-020	2" SCH 160 TEE-TO-VALVE	B-J	B9.21	PT	N/A	01/13/99	299-10IPT-015	ACCEPT
ZONE: 39								
02-039-044	3" SCH 160 PIPE-TO-ELBOW	B-J	B9.21	PT	N/A	01/06/99	299-10IPT-002	ACCEPT
02-039-045	3" SCH 160 ELBOW-TO-PIPE	B-J	B9.21	PT	N/A	01/06/99	299-10IPT-002	ACCEPT
02-039-046	3" SCH 160 PIPE-TO-ELBOW	B-J	B9.21	PT	N/A	01/06/99	299-10IPT-002	ACCEPT
02-039-047	3" SCH 160 ELBOW-TO-PIPE	B-J	B9.21	PT	N/A	01/06/99	299-10IPT-002	ACCEPT
02-039-048	3" SCH 160 PIPE-TO-VALVE	B-J	B9.21	PT	N/A	01/06/99	299-10IPT-002	ACCEPT
02-039-050	3" SCH 160 VALVE-TO-PIPE	B-J	B9.21	PT	N/A	01/06/99	299-10IPT-002	ACCEPT
02-039-052	3" SCH 160 PIPE-TO-VALVE	B-J	B9.21	PT	N/A	01/06/99	299-10IPT-002	ACCEPT
ZONE: 46								
02-046-001	SWEEP-O-LET-TO-6" SCH 120 PIPE	CF2	C5.51	UT	45°	01/09/99	299-10IUT-025	ACCEPT
02-046-001	SWEEP-O-LET-TO-6" SCH 120 PIPE	CF2	C5.51	UT	60°	01/09/99	299-10IUT-025	ACCEPT
02-046-001	SWEEP-O-LET-TO-6" SCH 120 PIPE	CF2	C5.51	MT	N/A	01/09/99	299-10IMT-003	ACCEPT
ZONE: 51								
02-051-001	STEAM GENERATOR #2 NOZZLE-TO-42" PIPE	CF2	C5.51	MT	N/A	01/15/99	299-10IMT-007	ACCEPT

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

ISI ID NO.	Area Description	Cat	Item	Method	Scan Angle	Exam Date	Report No	Results
02-051-001	STEAM GENERATOR #2 NOZZLE-TO-42" PIPE	CF2	C5.51	UT	45°	01/15/99	299-10IUT-010	ACCEPT
02-051-003A-SG	42" ELBOW LONGITUDINAL-OUTER RADIUS	CF2	C5.52	MT	N/A	01/15/99	299-10IMT-007	ACCEPT
02-051-003A-SG	42" ELBOW LONGITUDINAL-OUTER RADIUS	CF2	C5.52	UT	45°	01/15/99	299-10IUT-010	ACCEPT
02-051-003B-SG	42" ELBOW LONGITUDINAL-INNER RADIUS	CF2	C5.52	MT	N/A	01/15/99	299-10IMT-007	ACCEPT
02-051-003B-SG	42" ELBOW LONGITUDINAL - INNER RADIUS	CF2	C5.52	UT	45°	01/15/99	299-10IUT-010	ACCEPT
ZONE: 59								
02-059-001	16" SCH 160 PIPE-TO-VALVE	CF1	C5.11	UT	60°	01/19/99	299-10IUT-026	ACCEPT
02-059-001	16" SCH 160 PIPE-TO-VALVE	CF1	C5.11	UT	45°	01/19/99	299-10-UT-026	ACCEPT
02-059-001	16" SCH 160 PIPE-TO-VALVE	CF1	C5.11	PT	N/A	01/16/99	299-10IPT-023	ACCEPT
02-059-002	16" SCH 160 PIPE-TO-ELBOW	CF1	C5.11	UT	60°	01/19/99	299-10IUT-026	ACCEPT
02-059-002	16" SCH 160 PIPE-TO-ELBOW	CF1	C5.11	UT	45°	01/19/99	299-10IUT-026	ACCEPT
02-059-002	16" SCH 160 PIPE-TO-ELBOW	CF1	C5.11	PT	N/A	01/16/99	299-10IPT-023	ACCEPT
02-059-008	10" SCH 140 PIPE-TO-VALVE	CF1	C5.11	UT	45°	01/19/99	299-10IUT-027	ACCEPT
02-008-008	10" SCH 140 PIPE-TO-VALVE	CF1	C5.11	PT	N/A	01/16/99	299-10IPT-023	ACCEPT
02-059-024	18" SCH 40 PIPE-TO-6" DIA. BRANCH WELD	CF1	C5.41	PT	N/A	01/16/99	299-10IPT-023	ACCEPT
02-059-025	18" SCH 40 PIPE-TO-6" DIA. BRANCH WELD	CF1	C5.41	PT	N/A	01/16/99	299-10IPT-023	ACCEPT
ZONE: 61								
02-061-031	12" CONTROL VALVE BODY (DRAWING NO. SO23-5-1-199)	C-G	C6.20	PT	N/A	12/12/98	298-10IPT-005	ACCEPT
02-061-075	8" CONTROL VALVE BODY (DRAWING NO. SO23-507-5-1-109)	C-G	C6.20	PT	N/A	12/14/98	298-10IPT-008	ACCEPT
ZONE: 70								
02-070-1520	2" SCH 160 PIPE-TO-2" ELBOW	CF1	C5.21	UT	44°	12/17/98	298-10IUT-007	ACCEPT
02-070-1530	2" ELBOW-TO-2" SCH 160 PIPE	CF1	C5.21	UT	44°	12/17/98	298-10IUT-007	ACCEPT
02-070-1540	2" SCH 160 PIPE-TO-2" FLANGE (2FO9424)	CF1	C5.21	UT	44°	12/17/98	298-10IUT-007	ACCEPT
02-070-1550	2" FLANGE-TO-2" ELBOW	CF1	C5.21	UT	44°	12/17/98	298-10IUT-007	ACCEPT
02-070-1560	2" ELBOW-TO-2" SCH 160 PIPE	CF1	C5.21	UT	44°	12/17/98	298-10IUT-007	ACCEPT

UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

ISI ID NO.	Area Description	Cat	Item	Method	Scan Angle	Exam Date	Report No	Results
02-070-1570	2" SCH 160 PIPE-TO-TEE	CF1	C5.21	UT	44°	12/17/98	298-10IUT-007	ACCEPT
02-070-1590	2" X 2" X 3/4" REDUCING TEE-TO-2" ELBOW	CF1	C5.21	UT	44°	12/17/98	298-10IUT-007	ACCEPT
02-070-1600	2" ELBOW-TO-2" SCH 160 PIPE	CF1	C5.21	UT	44°	12/17/98	298-10IUT-007	ACCEPT
02-070-1610	2" SCH 160 PIPE-TO-2" ELBOW	CF1	C5.21	UT	44°	12/17/98	298-10IUT-007	ACCEPT
02-070-1620	2" ELBOW-TO-2" SCH 160 PIPE	CF1	C5.21	UT	44°	12/17/98	298-10IUT-007	ACCEPT
02-070-1630	2" SCH 160 PIPE-TO-2" VALVE	CF1	C5.21	UT	44°	12/17/98	298-10IUT-007	ACCEPT
02-070-1520	2" SCH 160 PIPE-TO-2" ELBOW	CF1	C5.21	UT	45°	12/17/98	298-10IUT-007	ACCEPT
02-070-1530	2" ELBOW-TO-2" SCH 160 PIPE	CF1	C5.21	UT	45°	12/17/98	298-10IUT-007	ACCEPT
02-070-1540	2" SCH 160 PIPE-TO-2" FLANGE (2FO9424)	CF1	C5.21	UT	45°	12/17/98	298-10IUT-007	ACCEPT
02-070-1550	2" FLANGE-TO-2" ELBOW	CF1	C5.21	UT	45°	12/17/98	298-10IUT-007	ACCEPT
02-070-1560	2" ELBOW-TO-2" SCH 160 PIPE	CF1	C5.21	UT	45°	12/17/98	298-10IUT-007	ACCEPT
02-070-1570	2" SCH 160 PIPE-TO-TEE	CF1	C5.21	UT	45°	12/17/98	298-10IUT-007	ACCEPT
02-070-1590	2" X 2" X 3/4" REDUCING TEE-TO-2" ELBOW	CF1	C5.21	UT	45°	12/17/98	298-10IUT-007	ACCEPT
02-070-1600	2" ELBOW-TO-2" SCH 160 PIPE	CF1	C5.21	UT	45°	12/17/98	298-10IUT-007	ACCEPT
02-070-1610	2" SCH 160 PIPE-TO-2" ELBOW	CF1	C5.21	UT	45°	12/17/98	298-10IUT-007	ACCEPT
02-070-1620	2" ELBOW-TO-2" SCH 160 PIPE	CF1	C5.21	UT	45°	12/17/98	298-10IUT-007	ACCEPT
02-070-1630	2" SCH 160 PIPE-TO-2" VALVE	CF1	C5.21	UT	45°	12/17/98	298-10IUT-007	ACCEPT
02-070-1520	2" SCH 160 PIPE-TO-2" ELBOW	CF1	C5.21	PT	N/A	12/17/98	298-10IPT-012	ACCEPT
02-070-1530	2" ELBOW-TO-2" SCH 160 PIPE	CF1	C5.21	PT	N/A	12/17/98	298-10IPT-012	ACCEPT
02-070-1540	2" SCH 160 PIPE-TO-2" FLANGE (2FO9424)	CF1	C5.21	PT	N/A	12/17/98	298-10IPT-012	ACCEPT
02-070-1550	2" FLANGE-TO-2" ELBOW	CF1	C5.21	PT	N/A	12/17/98	298-10IPT-012	ACCEPT
02-070-1560	2" ELBOW-TO-2" SCH 160 PIPE	CF1	C5.21	PT	N/A	12/17/98	298-10IPT-012	ACCEPT
02-070-1570	2" SCH 160 PIPE-TO-TEE	CF1	C5.21	PT	N/A	12/17/98	298-10IPT-012	ACCEPT
02-070-1590	2" X 2" X 3/4" REDUCING TEE-TO-2" ELBOW	CF1	C5.21	PT	N/A	12/17/98	298-10IPT-012	ACCEPT

UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

ISI ID NO.	Area Description	Cat	Item	Method	Scan Angle	Exam Date	Report No	Results
02-070-1600	2" ELBOW-TO-2" SCH 160 PIPE	CF1	C5.21	PT	N/A	12/17/98	298-10IPT-012	ACCEPT
02-070-1610	2" SCH 160 PIPE-TO-2" ELBOW	CF1	C5.21	PT	N/A	12/17/98	298-10IPT-012	ACCEPT
02-070-1620	2" ELBOW-TO-2" SCH 160 PIPE	CF1	C5.21	PT	N/A	12/17/98	298-10IPT-012	ACCEPT
02-070-1630	2" SCH 160 PIPE-TO-2" VALVE	CF1	C5.21	PT	N/A	12/17/98	298-10IPT-012	ACCEPT
02-070-1790	3" SCH 160 PIPE-TO-3" ELBOW	CF1	C5.21	UT	45°	12/18/98	298-10IUT-005	ACCEPT
02-070-1790	3" SCH 160 PIPE-TO-3" ELBOW	CF1	C5.21	UT	44°	12/18/98	298-10IUT-005	ACCEPT
02-070-1790	3" SCH 160 PIPE-TO-3" ELBOW	CF1	C5.21	PT	N/A	12/17/98	298-10IPT-013	ACCEPT
02-070-1800	3" ELBOW-TO-3" SCH 160 PIPE	CF1	C5.21	UT	44°	12/18/98	298-10IUT-005	ACCEPT
02-070-1820	3" SCH 160 PIPE-TO-FLANGE (2FE9435)	CF1	C5.21	UT	44°	12/18/98	298-10IUT-005	ACCEPT
02-070-1850	3" FLANGE-TO-3" SCH 160 PIPE	CF1	C5.21	UT	44°	12/18/98	298-10IUT-005	ACCEPT
02-070-1860	3" SCH 160 PIPE-TO-ELBOW	CF1	C5.21	UT	44°	12/18/98	298-10IUT-005	ACCEPT
02-070-1870	3" ELBOW-TO-3" SCH 160 PIPE	CF1	C5.21	UT	44°	12/18/98	298-10IUT-005	ACCEPT
02-070-1880	3" SCH 160 PIPE-TO-ELBOW	CF1	C5.21	UT	44°	12/18/98	298-10IUT-005	ACCEPT
02-070-1890	3" ELBOW-TO-3" SCH 160 PIPE	CF1	C5.21	UT	44°	12/18/98	298-10IUT-005	ACCEPT
02-070-1900	3" SCH 160 PIPE-TO-3" ELBOW	CF1	C5.21	UT	44°	12/18/98	298-10IUT-005	ACCEPT
02-070-1910	3" ELBOW-TO-3" SCH 160 PIPE	CF1	C5.21	UT	44°	12/18/98	298-10IUT-005	ACCEPT
02-070-1920	3" SCH 160 PIPE-TO-3" VALVE	CF1	C5.21	UT	44°	12/18/98	298-10IUT-005	ACCEPT
02-070-1930	3" VALVE-TO-3" SCH 160 PIPE	CF1	C5.21	UT	44°	12/18/98	298-10IUT-005	ACCEPT
02-070-1940	3" SCH 160 PIPE-TO-PENETRATION 67	CF1	C5.21	UT	44°	12/18/98	298-10IUT-005	ACCEPT
02-070-1800	3" ELBOW-TO-3" SCH 160 PIPE	CF1	C5.21	UT	45°	12/18/98	298-10IUT-005	ACCEPT
02-070-1820	3" SCH 160 PIPE-TO-FLANGE (2FE9435)	CF1	C5.21	UT	45°	12/18/98	298-10IUT-005	ACCEPT
02-070-1850	3" FLANGE-TO-3" SCH 160 PIPE	CF1	C5.21	UT	45°	12/18/98	298-10IUT-005	ACCEPT
02-070-1860	3" SCH 160 PIPE-TO-ELBOW	CF1	C5.21	UT	45°	12/18/98	298-10IUT-005	ACCEPT
02-070-1870	3" ELBOW-TO-3" SCH 160 PIPE	CF1	C5.21	UT	45°	12/18/98	298-10IUT-005	ACCEPT

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

ISI ID NO.	Area Description	Cat	Item	Method	Scan Angle	Exam Date	Report No	Results
02-070-1880	3" SCH 160 PIPE-TO-ELBOW	CF1	C5.21	UT	45°	12/18/98	298-10IUT-005	ACCEPT
02-070-1890	3" ELBOW-TO-3" SCH 160 PIPE	CF1	C5.21	UT	45°	12/18/98	298-10IUT-005	ACCEPT
02-070-1900	3" SCH 160 PIPE-TO-3" ELBOW	CF1	C5.21	UT	45°	12/18/98	298-10IUT-005	ACCEPT
02-070-1910	3" ELBOW-TO-3" SCH 160 PIPE	CF1	C5.21	UT	45°	12/18/98	298-10IUT-005	ACCEPT
02-070-1920	3" SCH 160 PIPE-TO-3" VALVE	CF1	C5.21	UT	45°	12/18/98	298-10IUT-005	ACCEPT
02-070-1930	3" VALVE-TO-3" SCH 160 PIPE	CF1	C5.21	UT	45°	12/18/98	298-10IUT-005	ACCEPT
02-070-1940	3" SCH 160 PIPE-TO-PENETRATION 67	CF1	C5.21	UT	45°	12/18/98	298-10IUT-005	ACCEPT
02-070-1800	3" ELBOW-TO-3" SCH 160 PIPE	CF1	C5.21	PT	N/A	12/17/98	298-10IPT-013	ACCEPT
02-070-1820	3" SCH 160 PIPE-TO-FLANGE (2FE9435)	CF1	C5.21	PT	N/A	12/17/98	298-10IPT-013	ACCEPT
02-070-1850	3" FLANGE-TO-3" SCH 160 PIPE	CF1	C5.21	PT	N/A	12/17/98	298-10IPT-013	ACCEPT
02-070-1860	3" SCH 160 PIPE-TO-ELBOW	CF1	C5.21	PT	N/A	12/17/98	298-10IPT-013	ACCEPT
02-070-1870	3" ELBOW-TO-3" SCH 160 PIPE	CF1	C5.21	PT	N/A	12/17/98	298-10IPT-013	ACCEPT
02-070-1880	3" SCH 160 PIPE-TO-ELBOW	CF1	C5.21	PT	N/A	12/17/98	298-10IPT-013	ACCEPT
02-070-1890	3" ELBOW-TO-3" SCH 160 PIPE	CF1	C5.21	PT	N/A	12/17/98	298-10IPT-013	ACCEPT
02-070-1900	3" SCH 160 PIPE-TO-3" ELBOW	CF1	C5.21	PT	N/A	12/17/98	298-10IPT-013	ACCEPT
02-070-1910	3" ELBOW-TO-3" SCH 160 PIPE	CF1	C5.21	PT	N/A	12/17/98	298-10IPT-013	ACCEPT
02-070-1920	3" SCH 160 PIPE-TO-3" VALVE	CF1	C5.21	PT	N/A	12/17/98	298-10IPT-013	ACCEPT
02-070-1930	3" VALVE-TO-3" SCH 160 PIPE	CF1	C5.21	PT	N/A	12/17/98	298-10IPT-013	ACCEPT
02-070-1940	3" SCH 160 PIPE-TO-PENETRATION 67	CF1	C5.21	PT	N/A	12/17/98	298-10IPT-013	ACCEPT
02-070-420	4" SCH 120 PIPE-TO-ELBOW	CF1	C5.21	UT	44°	12/15/98	298-10IUT-004	ACCEPT
02-070-430	4" ELBOW-TO-4" SCH 120 PIPE	CF1	C5.21	UT	44°	12/15/98	298-10IUT-004	ACCEPT
02-070-450	4" SCH 120 PIPE-TO-4" TEE	CF1	C5.21	UT	44°	12/15/98	298-10IUT-004	ACCEPT
02-070-460	4" X 4" X 2" REDUCING TEE-TO-4" SCH 120 P	CF1	C5.21	UT	44°	12/15/98	298-10IUT-004	ACCEPT
02-070-470	4" SCH 120 PIPE-TO-4" TEE	CF1	C5.21	UT	44°	12/15/98	298-10IUT-004	ACCEPT

UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

ISI ID NO.	Area Description	Cat	Item	Method	Scan Angle	Exam Date	Report No	Results
02-070-480	4" SCH 120 TEE-TO-PIPE	CF1	C5.21	UT	44°	12/15/98	298-10IUT-004	ACCEPT
02-070-500	4" SCH 120 PIPE-TO-4" PIPE BEND	CF1	C5.21	UT	44°	12/15/98	298-10IUT-004	ACCEPT
02-070-510	4" SCH 120 PIPE BEND-TO-4" PIPE BEND	CF1	C5.21	UT	44°	12/15/98	298-10IUT-004	ACCEPT
02-070-520	4" SCH 120 PIPE BEND-TO-4" TEE	CF1	C5.21	UT	44°	12/15/98	298-10IUT-004	ACCEPT
02-070-530	4" TEE-TO-4" SCH 120 PIPE	CF1	C5.21	UT	44°	12/15/98	298-10IUT-004	ACCEPT
02-070-560	4" SCH 120 PIPE-TO-TEE	CF1	C5.21	UT	44°	12/15/98	298-10IUT-004	ACCEPT
02-070-570	4" TEE-TO-4" SCH 120 PIPE BEND	CF1	C5.21	UT	44°	12/15/98	298-10IUT-004	ACCEPT
02-070-420	4" SCH 120 PIPE-TO-ELBOW	CF1	C5.21	UT	45°	12/15/98	298-10IUT-004	ACCEPT
02-070-430	4" ELBOW-TO-4" SCH 120 PIPE	CF1	C5.21	UT	45°	12/15/98	298-10IUT-004	ACCEPT
02-070-450	4" SCH 120 PIPE-TO-4" TEE	CF1	C5.21	UT	45°	12/15/98	298-10IUT-004	ACCEPT
02-070-460	4" X 4" X 2" REDUCING TEE-TO-4" SCH 120 P	CF1	C5.21	UT	45°	12/15/98	298-10IUT-004	ACCEPT
02-070-470	4" SCH 120 PIPE-TO-4" TEE	CF1	C5.21	UT	45°	12/15/98	298-10IUT-004	ACCEPT
02-070-480	4" SCH 120 TEE-TO-PIPE	CF1	C5.21	UT	45°	12/15/98	298-10IUT-004	ACCEPT
02-070-500	4" SCH 120 PIPE-TO-4" PIPE BEND	CF1	C5.21	UT	45°	12/15/98	298-10IUT-004	ACCEPT
02-070-510	4" SCH 120 PIPE BEND-TO-4" PIPE BEND	CF1	C5.21	UT	45°	12/15/98	298-10IUT-004	ACCEPT
02-070-520	4" SCH 120 PIPE BEND-TO-4" TEE	CF1	C5.21	UT	45°	12/15/98	298-10IUT-004	ACCEPT
02-070-530	4" TEE-TO-4" SCH 120 PIPE	CF1	C5.21	UT	45°	12/15/98	298-10IUT-004	ACCEPT
02-070-560	4" SCH 120 PIPE-TO-TEE	CF1	C5.21	UT	45°	12/15/98	298-10IUT-004	ACCEPT
02-070-570	4" TEE-TO-4" SCH 120 PIPE BEND	CF1	C5.21	UT	45°	12/15/98	298-10IUT-004	ACCEPT
02-070-420	4" SCH 120 PIPE-TO-ELBOW	CF1	C5.21	PT	N/A	12/15/98	298-10IUT-009	ACCEPT
02-070-430	4" ELBOW-TO-4" SCH 120 PIPE	CF1	C5.21	PT	N/A	12/15/98	298-10IUT-009	ACCEPT
02-070-450	4" SCH 120 PIPE-TO-4" TEE	CF1	C5.21	PT	N/A	12/15/98	298-10IUT-009	ACCEPT
02-070-460	4" X 4" X 2" REDUCING TEE-TO-4" SCH 120 PIPE	CF1	C5.21	PT	N/A	12/15/98	298-10IUT-009	ACCEPT
02-070-470	4" SCH 120 PIPE-TO-4" TEE	CF1	C5.21	PT	N/A	12/15/98	298-10IUT-009	ACCEPT

UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

ISI ID NO.	Area Description	Cat	Item	Method	Scan Angle	Exam Date	Report No	Results
02-070-480	4" SCH 120 TEE-TO-PIPE	CF1	C5.21	PT	N/A	12/15/98	298-10IUT-009	ACCEPT
02-070-500	4" SCH 120 PIPE-TO-4" PIPE BEND	CF1	C5.21	PT	N/A	12/15/98	298-10IUT-009	ACCEPT
02-070-510	4" SCH 120 PIPE BEND-TO-4" PIPE BEND	CF1	C5.21	PT	N/A	12/15/98	298-10IUT-009	ACCEPT
02-070-520	4" SCH 120 PIPE BEND-TO-4" TEE	CF1	C5.21	PT	N/A	12/15/98	298-10IUT-009	ACCEPT
02-070-530	4" TEE-TO-4" SCH 120 PIPE	CF1	C5.21	PT	N/A	12/15/98	298-10IUT-009	ACCEPT
02-070-560	4" SCH 120 PIPE-TO-TEE	CF1	C5.21	PT	N/A	12/15/98	298-10IUT-009	ACCEPT
02-070-570	4" TEE-TO-4" SCH 120 PIPE BEND	CF1	C5.21	PT	N/A	12/15/98	298-10IUT-009	ACCEPT
ZONE: 71								
02-071-030	4" SCH 80S PIPE-TO-ELBOW	CF1	C5.21	UT	44°	12/17/98	298-10IUT-006	ACCEPT
02-071-040	4" ELBOW-TO-ELBOW	CF1	C5.21	UT	44°	12/17/98	298-10IUT-006	ACCEPT
02-071-050	4" ELBOW-TO-4" SCH 80S PIPE	CF1	C5.21	UT	44°	12/17/98	298-10IUT-006	ACCEPT
02-071-060	4" SCH 80S PIPE-TO-ELBOW	CF1	C5.21	UT	44°	12/17/98	298-10IUT-006	ACCEPT
02-071-070	4" ELBOW-TO-4" SCH 80S PIPE	CF1	C5.21	UT	44°	12/17/98	298-10IUT-006	ACCEPT
02-071-080	4" SCH 80S PIPE-TO-ELBOW	CF1	C5.21	UT	44°	12/17/98	298-10IUT-006	ACCEPT
02-071-090	4" ELBOW-TO-4" SCH 80S PIPE	CF1	C5.21	UT	44°	12/17/98	298-10IUT-006	ACCEPT
02-071-110	4" SCH 80S PIPE-TO-ELBOW	CF1	C5.21	UT	44°	12/17/98	298-10IUT-006	ACCEPT
02-071-030	4" SCH 80S PIPE-TO-ELBOW	CF1	C5.21	UT	45°	12/17/98	298-10IUT-006	ACCEPT
02-071-040	4" ELBOW-TO-ELBOW	CF1	C5.21	UT	45°	12/17/98	298-10IUT-006	ACCEPT
02-071-050	4" ELBOW-TO-4" SCH 80S PIPE	CF1	C5.21	UT	45°	12/17/98	298-10IUT-006	ACCEPT
02-071-060	4" SCH 80S PIPE-TO-ELBOW	CF1	C5.21	UT	45°	12/17/98	298-10IUT-006	ACCEPT
02-071-070	4" ELBOW-TO-4" SCH 80S PIPE	CF1	C5.21	UT	45°	12/17/98	298-10IUT-006	ACCEPT
02-071-080	4" SCH 80S PIPE-TO-ELBOW	CF1	C5.21	UT	45°	12/17/98	298-10IUT-006	ACCEPT
02-071-090	4" ELBOW-TO-4" SCH 80S PIPE	CF1	C5.21	UT	45°	12/17/98	298-10IUT-006	ACCEPT
02-071-110	4" SCH 80S PIPE-TO-ELBOW	CF1	C5.21	UT	45°	12/17/98	298-10IUT-006	ACCEPT
02-071-030	4" SCH 80S PIPE-TO-ELBOW	CF1	C5.21	PT	N/A	12/16/98	298-10IPT-011	ACCEPT

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

ISI ID NO.	Area Description	Cat	Item	Method	Scan Angle	Exam Date	Report No	Results
02-071-040	4" ELBOW-TO-ELBOW	CF1	C5.21	PT	N/A	12/16/98	298-10IPT-011	ACCEPT
02-071-050	4" ELBOW-TO-4" SCH 80S PIPE	CF1	C5.21	PT	N/A	12/16/98	298-10IPT-011	ACCEPT
02-071-060	4" SCH 80S PIPE-TO-ELBOW	CF1	C5.21	PT	N/A	12/16/98	298-10IPT-011	ACCEPT
02-071-070	4" ELBOW-TO-4" SCH 80S PIPE	CF1	C5.21	PT	N/A	12/16/98	298-10IPT-011	ACCEPT
02-071-080	4" SCH 80S PIPE-TO-ELBOW	CF1	C5.21	PT	N/A	12/16/98	298-10IPT-011	ACCEPT
02-071-090	4" ELBOW-TO-4" SCH 80S PIPE	CF1	C5.21	PT	N/A	12/16/98	298-10IPT-011	ACCEPT
02-071-110	4" SCH 80S PIPE-TO-ELBOW	CF1	C5.21	PT	N/A	12/16/98	298-10IPT-010	ACCEPT
02-071-1100	2" ELBOW-TO-2" SCH 80S PIPE	CF1	C5.21	UT	44°	12/11/98	298-10IUT-002	ACCEPT
02-071-1110	2" SCH 80S PIPE-TO-2" VALVE	CF1	C5.21	UT	44°	12/11/98	298-10IUT-002	ACCEPT
02-071-1130	2" VALVE-TO-2" SCH 80S PIPE	CF1	C5.21	UT	44°	12/11/98	298-10IUT-002	ACCEPT
02-071-1140	2" SCH 80S PIPE-TO-2" FLANGE	CF1	C5.21	UT	44°	12/11/98	298-10IUT-002	ACCEPT
02-071-1150	2" FLANGE-TO-2" TEE	CF1	C5.21	UT	44°	12/11/98	298-10IUT-002	ACCEPT
02-071-1160	2" TEE-TO-2" X 1 1/2" REDUCER	CF1	C5.21	UT	44°	12/11/98	298-10IUT-002	ACCEPT
02-071-1180	2" TEE-TO-2" FLANGE	CF1	C5.21	UT	44°	12/11/98	298-10IUT-002	ACCEPT
02-071-1190	2" FLANGE-TO-2" SCH 80S PIPE	CF1	C5.21	UT	44°	12/11/98	298-10IUT-002	ACCEPT
02-071-1100	2" ELBOW-TO-2" SCH 80S PIPE	CF1	C5.21	UT	45°	12/11/98	298-10IUT-002	ACCEPT
02-071-1100	2" ELBOW-TO-2" SCH 80S PIPE	CF1	C5.21	PT	N/A	12/10/98	298-10IPT-004	ACCEPT
02-071-1110	2" SCH 80S PIPE-TO-2" VALVE	CF1	C5.21	UT	45°	12/11/98	298-10IUT-002	ACCEPT
02-071-1110	2" SCH 80S PIPE-TO-2" VALVE	CF1	C5.21	PT	N/A	12/10/98	298-10IPT-004	ACCEPT
02-071-1130	2" VALVE-TO-2" SCH 80S PIPE	CF1	C5.21	UT	45°	12/11/98	298-10IUT-002	ACCEPT
02-071-1130	2" VALVE-TO-2" SCH 80S PIPE	CF1	C5.21	PT	N/A	12/10/98	298-10IPT-004	ACCEPT
02-071-1140	2" SCH 80S PIPE-TO-2" FLANGE	CF1	C5.21	UT	45°	12/11/98	298-10IUT-002	ACCEPT
02-071-1140	2" SCH 80S PIPE-TO-2" FLANGE	CF1	C5.21	PT	N/A	12/10/98	298-10IPT-004	ACCEPT
02-071-1150	2" FLANGE-TO-2" TEE	CF1	C5.21	UT	45°	12/11/98	298-10IUT-002	ACCEPT

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

ISI ID NO.	Area Description	Cat	Item	Method	Scan Angle	Exam Date	Report No	Results
02-071-1150	2" FLANGE-TO-2" TEE	CF1	C5.21	PT	N/A	12/10/98	298-10IPT-004	ACCEPT
02-071-1160	2" TEE-TO-2" X 1 1/2" REDUCER	CF1	C5.21	UT	45°	12/11/98	298-10IUT-002	ACCEPT
02-071-1160	2" TEE-TO-2" X 1 1/2" REDUCER	CF1	C5.21	PT	N/A	12/10/98	298-10IPT-004	ACCEPT
02-071-1180	2" TEE-TO-2" FLANGE	CF1	C5.21	UT	45°	12/11/98	298-10IUT-002	ACCEPT
02-071-1180	2" TEE-TO-2" FLANGE	CF1	C5.21	PT	N/A	12/10/98	298-10IPT-002	ACCEPT
02-071-1190	2" FLANGE-TO-2" SCH 80S PIPE	CF1	C5.21	UT	45°	12/11/98	298-10IUT-002	ACCEPT
02-071-1190	2" FLANGE-TO-2" SCH 80S PIPE	CF1	C5.21	PT	N/A	12/10/98	298-10IPT-002	ACCEPT
02-071-120	4" ELBOW-TO-4" SCH 80S PIPE	CF1	C5.21	UT	44°	12/17/98	298-10IUT-006	ACCEPT
02-071-120	4" ELBOW-TO-4" SCH 80S PIPE	CF1	C5.21	UT	45°	12/17/98	298-10IUT-006	ACCEPT
02-071-120	4" ELBOW-TO-4" SCH 80S PIPE	CF1	C5.21	PT	N/A	12/16/98	298-10IPT-010	ACCEPT
02-071-1200	2" SCH 80S PIPE-TO-2" ELBOW	CF1	C5.21	UT	44°	12/11/98	298-10IUT-002	ACCEPT
02-071-1200	2" SCH 80S PIPE-TO-2" ELBOW	CF1	C5.21	UT	45°	12/11/98	298-10IUT-002	ACCEPT
02-071-1200	2" SCH 80S PIPE-TO-2" ELBOW	CF1	C5.21	PT	N/A	12/10/98	298-10IPT-002	ACCEPT
02-071-130	4" SCH 80S PIPE-TO-REDUCER	CF1	C5.21	UT	44°	12/17/98	298-10IUT-006	ACCEPT
02-071-130	4" SCH 80S PIPE-TO-REDUCER	CF1	C5.21	UT	45°	12/17/98	298-10IUT-006	ACCEPT
02-071-130	4" SCH 80S PIPE-T0-REDUCER	CF1	C5.21	PT	N/A	12/16/98	298-10IPT-010	ACCEPT
02-071-1310	2" TEE-TO-2" SCH 80S PIPE	CF1	C5.21	UT	44°	12/11/98	298-10IUT-002	ACCEPT
02-071-1320	2" SCH 80S PIPE-TO-2" ELBOW	CF1	C5.21	UT	44°	12/11/98	298-10IUT-002	ACCEPT
02-071-1330	2" ELBOW-TO-2" SCH 80S PIPE	CF1	C5.21	UT	44°	12/11/98	298-10IUT-002	ACCEPT
02-071-1340	2" SCH 80S PIPE-TO-2" VALVE	CF1	C5.21	UT	44°	12/11/98	298-10IUT-002	ACCEPT
02-071-1360	2" VALVE-TO-2" SCH 80S PIPE	CF1	C5.21	UT	44°	12/11/98	298-10IUT-002	ACCEPT
02-071-1370	2" SCH 80S PIPE-TO-2FO9314A FLANGE	CF1	C5.21	UT	44°	12/11/98	298-10IUT-002	ACCEPT
02-071-1310	2" TEE-TO-2" SCH 80S PIPE	CF1	C5.21	PT	N/A	12/10/98	298-10IPT-002	ACCEPT
02-071-1320	2" SCH 80S PIPE-TO-2" ELBOW	CF1	C5.21	PT	N/A	12/10/98	298-10IPT-002	ACCEPT

UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

ISI ID NO.	Area Description	Cat	Item	Method	Scan Angle	Exam Date	Report No	Results
02-071-1330	2" ELBOW-TO-2" SCH 80S PIPE	CF1	C5.21	PT	N/A	12/10/98	298-10IPT-002	ACCEPT
02-071-1340	2" SCH 80S PIPE-TO-2" VALVE	CF1	C5.21	PT	N/A	12/10/98	298-10IPT-002	ACCEPT
02-071-1360	2" VALVE-TO-2" SCH 80S PIPE	CF1	C5.21	PT	N/A	12/10/98	298-10IPT-002	ACCEPT
02-071-1370	2" SCH 80S PIPE-TO-2FO9314A FLANGE	CF1	C5.21	PT	N/A	12/10/98	298-10IPT-002	ACCEPT
02-071-1380	2FO9314A FLANGE-TO-2" ELBOW	CF1	C5.21	UT	44°	12/11/98	298-10IUT-002	ACCEPT
02-071-1380	2FO9314A FLANGE-TO-2" ELBOW	CF1	C5.21	PT	N/A	12/10/98	298-10IPT-004	ACCEPT
02-071-270	2" SCH 80S PIPE-TO-ELBOW	CF1	C5.21	UT	44°	12/11/98	298-10IUT-002	ACCEPT
02-071-280	2" ELBOW-TO-2" SCH 80S PIPE	CF1	C5.21	UT	44°	12/11/98	298-10IUT-002	ACCEPT
02-071-300	2" FLANGE-TO-TEE	CF1	C5.21	UT	44°	12/11/98	298-10IUT-002	ACCEPT
02-071-310	2" SCH 80S TEE-TO-REDUCER	CF1	C5.21	UT	44°	12/11/98	298-10IUT-002	ACCEPT
02-071-320	2" SCH 80S REDUCER-TO-TEE	CF1	C5.21	UT	44°	12/11/98	298-10IUT-002	ACCEPT
02-071-330	2" SCH 80S TEE-TO-FLANGE	CF1	C5.21	UT	44°	12/11/98	298-10IUT-002	ACCEPT
02-071-340	2" FLANGE-TO-ELBOW	CF1	C5.21	UT	44°	12/11/98	298-10IUT-002	ACCEPT
02-071-350	2" ELBOW-TO-2" SCH 80S PIPE	CF1	C5.21	UT	44°	12/11/98	298-10IUT-002	ACCEPT
02-071-360	2" SCH 80S PIPE-TO-ELBOW	CF1	C5.21	UT	44°	12/11/98	298-10IUT-002	ACCEPT
02-071-370	2" ELBOW-TO-2" SCH 80S PIPE	CF1	C5.21	UT	44°	12/11/98	298-10IUT-002	ACCEPT
02-071-380	2" SCH 80S PIPE-TO-REDUCER	CF1	C5.21	UT	44°	12/11/98	298-10IUT-002	ACCEPT
02-071-1310	2" TEE-TO-2" SCH 80S PIPE	CF1	C5.21	UT	45°	12/11/98	298-10IUT-002	ACCEPT
02-071-1320	2" SCH 80S PIPE-TO-2" ELBOW	CF1	C5.21	UT	45°	12/11/98	298-10IUT-002	ACCEPT
02-071-1330	2" ELBOW-TO-2" SCH 80S PIPE	CF1	C5.21	UT	45°	12/11/98	298-10IUT-002	ACCEPT
02-071-1340	2" SCH 80S PIPE-TO-2" VALVE	CF1	C5.21	UT	45°	12/11/98	298-10IUT-002	ACCEPT
02-071-1360	2" VALVE-TO-2" SCH 80S PIPE	CF1	C5.21	UT	45°	12/11/98	298-10IUT-002	ACCEPT
02-071-1370	2" SCH 80S PIPE-TO-2FO9314A FLANGE	CF1	C5.21	UT	45°	12/11/98	298-10IUT-002	ACCEPT
02-071-1380	2FO9314A FLANGE-TO-2" ELBOW	CF1	C5.21	UT	45°	12/11/98	298-10IUT-002	ACCEPT

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

ISI ID NO.	Area Description	Cat	Item	Method	Scan Angle	Exam Date	Report No	Results
02-071-270	2" SCH 80S PIPE-TO-ELBOW	CF1	C5.21	UT	45°	12/11/98	298-10IUT-002	ACCEPT
02-071-280	2" ELBOW-TO-2" SCH 80S PIPE	CF1	C5.21	UT	45°	12/11/98	298-10IUT-002	ACCEPT
02-071-300	2" FLANGE-TO-TEE	CF1	C5.21	UT	45°	12/11/98	298-10IUT-002	ACCEPT
02-071-310	2" SCH 80S TEE-TO-REDUCER	CF1	C5.21	UT	45°	12/11/98	298-10IUT-002	ACCEPT
02-071-320	2" SCH 80S REDUCER-TO-TEE	CF1	C5.21	UT	45°	12/11/98	298-10IUT-002	ACCEPT
02-071-330	2" SCH 80S TEE-TO-FLANGE	CF1	C5.21	UT	45°	12/11/98	298-10IUT-002	ACCEPT
02-071-340	2" FLANGE-TO-ELBOW	CF1	C5.21	UT	45°	12/11/98	298-10IUT-002	ACCEPT
02-071-350	2" ELBOW-TO-2" SCH 80S PIPE	CF1	C5.21	UT	45°	12/11/98	298-10IUT-002	ACCEPT
02-071-360	2" SCH 80S PIPE-TO-ELBOW	CF1	C5.21	UT	45°	12/11/98	298-10IUT-002	ACCEPT
02-071-370	2" ELBOW-TO-2" SCH 80S PIPE	CF1	C5.21	UT	45°	12/11/98	298-10IUT-002	ACCEPT
02-071-380	2" SCH 80S PIPE-TO-REDUCER	CF1	C5.21	UT	45°	12/11/98	298-10IUT-002	ACCEPT
02-071-270	2" SCH 80S PIPE-TO-ELBOW	CF1	C5.21	PT	N/A	12/10/98	298-10IUT-003	ACCEPT
02-071-280	2" ELBOW-TO-2" SCH 80S PIPE	CF1	C5.21	PT	N/A	12/10/98	298-10IUT-003	ACCEPT
02-071-300	2" FLANGE-TO-TEE	CF1	C5.21	PT	N/A	12/10/98	298-10IUT-003	ACCEPT
02-071-310	2" SCH 80S TEE-TO-REDUCER	CF1	C5.21	PT	N/A	12/10/98	298-10IUT-003	ACCEPT
02-071-320	2" SCH 80S REDUCER-TO-TEE	CF1	C5.21	PT	N/A	12/10/98	298-10IUT-003	ACCEPT
02-071-330	2" SCH 80S TEE-TO-FLANGE	CF1	C5.21	PT	N/A	12/10/98	298-10IUT-003	ACCEPT
02-071-340	2" FLANGE-TO-ELBOW	CF1	C5.21	PT	N/A	12/10/98	298-10IUT-003	ACCEPT
02-071-350	2" ELBOW-TO-2" SCH 80S PIPE	CF1	C5.21	PT	N/A	12/10/98	298-10IUT-003	ACCEPT
02-071-360	2" SCH 80S PIPE-TO-ELBOW	CF1	C5.21	PT	N/A	12/10/98	298-10IUT-003	ACCEPT
02-071-370	2" ELBOW-TO-2" SCH 80S PIPE	CF1	C5.21	PT	N/A	12/10/98	298-10IUT-003	ACCEPT
02-071-380	2" SCH 80S PIPE-TO-REDUCER	CF1	C5.21	PT	N/A	12/10/98	298-10IUT-003	ACCEPT
ZONE: 76								
02-076-141	12" SCH 40 FLANGE-TO-REDUCER	CF1	C5.11	UT	44°	12/14/98	298-10IUT-003	ACCEPT
02-076-142	REDUCER BODY WELD	CF1	C5.12	UT	44°	12/14/98	298-10IUT-003	ACCEPT

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

ISI ID NO.	Area Description	Cat	Item	Method	Scan Angle	Exam Date	Report No	Results
02-076-151	14" SCH 40 ELBOW-TO-FLANGE	CF1	C5.11	UT	44°	12/14/98	298-10IUT-003	ACCEPT
02-076-152-CB	14" SCH 40 ELBOW BODY WELD - OUTSIDE RADI	CF1	C5.12	UT	44°	12/14/98	298-10IUT-003	ACCEPT
02-076-152-HX	14" SCH 40 ELBOW BODY WELD - OUTSIDE RADI	CF1	C5.12	UT	44°	12/14/98	298-10IUT-003	ACCEPT
02-076-152A-CB	14" SCH 40 ELBOW BODY WELD - INSIDE RADIU	CF1	C5.12	UT	44°	12/14/98	298-10IUT-003	ACCEPT
02-076-152A-HX	14" SCH 40 ELBOW BODY WELD - INSIDE RADIU	CF1	C5.12	UT	44°	12/14/98	298-10IUT-003	ACCEPT
02-076-153	14" SCH 40 ELBOW-TO-PIPE	CF1	C5.11	UT	44°	12/14/98	298-10IUT-003	ACCEPT
02-076-156	14" SCH 40 PIPE-TO-ELBOW	CF1	C5.11	UT	44°	12/14/98	298-10IUT-003	ACCEPT
02-076-156A-CB	14" SCH 40 PIPE LONGITUDINAL WELD	CF1	C5.12	UT	44°	12/14/98	298-10IUT-003	ACCEPT
02-076-156A-HX	14" SCH 40 PIPE LONGITUDINAL WELD	CF1	C5.12	UT	44°	12/14/98	298-10IUT-003	ACCEPT
02-076-157-CB	14" SCH 40 ELBOW BODY SEAM - OUTSIDE RADI	CF1	C5.12	UT	44°	12/14/98	298-10IUT-003	ACCEPT
02-076-157-HX	14" SCH 40 ELBOW BODY SEAM - OUTSIDE RADI	CF1	C5.12	UT	44°	12/14/98	298-10IUT-003	ACCEPT
02-076-157A-CB	14" SCH 40 ELBOW BODY WELD - INSIDE RADIU	CF1	C5.12	UT	44°	12/14/98	298-10IUT-003	ACCEPT
02-076-157A-HX	14" SCH 40 ELBOW BODY WELD - INSIDE RADIU	CF1	C5.12	UT	44°	12/14/98	298-10IUT-003	ACCEPT
02-076-158	14" SCH 40 ELBOW-TO-FLANGE	CF1	C5.11	UT	44°	12/14/98	298-10IUT-003	ACCEPT
02-076-141	12" SCH 40 FLANGE-TO-REDUCER	CF1	C5.11	UT	59°	12/14/98	298-10IUT-003	ACCEPT
02-076-142	REDUCER BODY WELD	CF1	C5.12	UT	59°	12/14/98	298-10IUT-003	ACCEPT
02-076-151	14" SCH 40 ELBOW-TO-FLANGE	CF1	C5.11	UT	59°	12/14/98	298-10IUT-003	ACCEPT
02-076-152-CB	14" SCH 40 ELBOW BODY WELD - OUTSIDE RADI	CF1	C5.12	UT	59°	12/14/98	298-10IUT-003	ACCEPT
02-076-152-HX	14" SCH 40 ELBOW BODY WELD - OUTSIDE RADI	CF1	C5.12	UT	59°	12/14/98	298-10IUT-003	ACCEPT
02-076-152A-CB	14" SCH 40 ELBOW BODY WELD - INSIDE RADIU	CF1	C5.12	UT	59°	12/14/98	298-10IUT-003	ACCEPT
02-076-152A-HX	14" SCH 40 ELBOW BODY WELD - INSIDE RADIU	CF1	C5.12	UT	59°	12/14/98	298-10IUT-003	ACCEPT
02-076-153	14" SCH 40 ELBOW-TO-PIPE	CF1	C5.11	UT	59°	12/14/98	298-10IUT-003	ACCEPT
02-076-156	14" SCH 40 PIPE-TO-ELBOW	CF1	C5.11	UT	59°	12/14/98	298-10IUT-003	ACCEPT
02-076-156A-CB	14" SCH 40 PIPE LONGITUDINAL WELD	CF1	C5.12	UT	59°	12/14/98	298-10IUT-003	ACCEPT

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

ISI ID NO.	Area Description	Cat	Item	Method	Scan Angle	Exam Date	Report No	Results
02-076-156A-HX	14" SCH 40 PIPE LONGITUDINAL WELD	CF1	C5.12	UT	59°	12/14/98	298-10IUT-003	ACCEPT
02-076-157-CB	14" SCH 40 ELBOW BODY SEAM - OUTSIDE RADI	CF1	C5.12	UT	59°	12/14/98	298-10IUT-003	ACCEPT
02-076-157-HX	14" SCH 40 ELBOW BODY SEAM - OUTSIDE RADI	CF1	C5.12	UT	59°	12/14/98	298-10IUT-003	ACCEPT
02-076-157A-CB	14" SCH 40 ELBOW BODY WELD - INSIDE RADIU	CF1	C5.12	UT	59°	12/14/98	298-10IUT-003	ACCEPT
02-076-157A-HX	14" SCH 40 ELBOW BODY WELD - INSIDE RADIU	CF1	C5.12	UT	59°	12/14/98	298-10IUT-003	ACCEPT
02-076-158	14" SCH 40 ELBOW-TO-FLANGE	CF1	C5.11	UT	59°	12/14/98	298-10IUT-003	ACCEPT
02-076-184	FLANGE TO 12" SCH 40 ELBOW	CF1	C5.11	UT	44°	12/10/98	298-10IUT-001	ACCEPT
02-076-185-CB	12" SCH 40 ELBOW BODY WELD - OUTSIDE RADI	CF1	C5.12	UT	44°	12/10/98	298-10IUT-001	ACCEPT
02-076-185-HX	12" SCH 40 ELBOW BODY WELD - OUTSIDE RADI	CF1	C5.12	UT	44°	12/10/98	298-10IUT-001	ACCEPT
02-076-185A-CB	12" SCH 40 ELBOW BODY WELD - INSIDE RADIU	CF1	C5.12	UT	44°	12/10/98	298-10IUT-001	ACCEPT
02-076-185A-HX	12" SCH 40 ELBOW BODY WELD - INSIDE RADIU	CF1	C5.12	UT	44°	12/10/98	298-10IUT-001	ACCEPT
02-076-186	12" SCH 40 ELBOW-TO-PIPE	CF1	C5.11	UT	44°	12/10/98	298-10IUT-001	ACCEPT
02-076-186A-CB	12" SCH 40 PIPE LONGITUDINAL WELD	CF1	C5.12	UT	44°	12/10/98	298-10IUT-001	ACCEPT
02-076-186A-HX	12" SCH 40 PIPE LONGITUDINAL WELD	CF1	C5.12	UT	44°	12/10/98	298-10IUT-001	ACCEPT
02-076-187	12" SCH 40 PIPE-TO-12" X 10" REDUCER	CF1	C5.11	UT	44°	12/10/98	298-10IUT-001	ACCEPT
02-076-188-CB	12" X 10" REDUCER BODY SEAM	CF1	C5.12	UT	44°	12/10/98	298-10IUT-001	ACCEPT
02-076-184	FLANGE TO 12" SCH 40 ELBOW	CF1	C5.11	UT	60°	12/10/98	298-10IUT-001	ACCEPT
02-076-185-CB	12" SCH 40 ELBOW BODY WELD - OUTSIDE RADI	CF1	C5.12	UT	60°	12/10/98	298-10IUT-001	ACCEPT
02-076-185-HX	12" SCH 40 ELBOW BODY WELD - OUTSIDE RADI	CF1	C5.12	UT	60°	12/10/98	298-10IUT-001	ACCEPT
02-076-185A-CB	12" SCH 40 ELBOW BODY WELD - INSIDE RADIU	CF1	C5.12	UT	60°	12/10/98	298-10IUT-001	ACCEPT
02-076-185A-HX	12" SCH 40 ELBOW BODY WELD - INSIDE RADIU	CF1	C5.12	UT	60°	12/10/98	298-10IUT-001	ACCEPT
02-076-186	12" SCH 40 ELBOW-TO-PIPE	CF1	C5.11	UT	60°	12/10/98	298-10IUT-001	ACCEPT
02-076-186A-CB	12" SCH 40 PIPE LONGITUDINAL WELD	CF1	C5.12	UT	60°	12/10/98	298-10IUT-001	ACCEPT
02-076-186A-HX	12" SCH 40 PIPE LONGITUDINAL WELD	CF1	C5.12	UT	60°	12/10/98	298-10IUT-001	ACCEPT

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

ISI ID NO.	Area Description	Cat	Item	Method	Scan Angle	Exam Date	Report No	Results
02-076-187	12" SCH 40 PIPE-TO-12" X 10" REDUCER	CF1	C5.11	UT	60°	12/10/98	298-10IUT-001	ACCEPT
02-076-188-CB	12" X 10" REDUCER BODY SEAM	CF1	C5.12	UT	60°	12/10/98	298-10IUT-001	ACCEPT
02-076-141	12" SCH 40 FLANGE-TO-REDUCER	CF1	C5.11	PT	N/A	12/14/98	298-10IPT-007	ACCEPT
02-076-142	REDUCER BODY WELD	CF1	C5.12	PT	N/A	12/14/98	298-10IPT-007	ACCEPT
02-076-151	14" SCH 40 ELBOW-TO-FLANGE	CF1	C5.11	PT	N/A	12/14/98	298-10IPT-006	ACCEPT
02-076-152-CB	14" SCH 40 ELBOW BODY WELD - OUTSIDE RADIU	CF1	C5.12	PT	N/A	12/14/98	298-10IPT-006	ACCEPT
02-076-152-HX	14" SCH 40 ELBOW BODY WELD - OUTSIDE RADIU	CF1	C5.12	PT	N/A	12/14/98	298-10IPT-006	ACCEPT
02-076-152A-CB	14" SCH 40 ELBOW BODY WELD - INSIDE RADIU	CF1	C5.12	PT	N/A	12/14/98	298-10IPT-006	ACCEPT
02-076-152A-HX	14" SCH 40 ELBOW BODY WELD - INSIDE RADIU	CF1	C5.12	PT	N/A	12/14/98	298-10IPT-006	ACCEPT
02-076-153	14" SCH 40 ELBOW-TO-PIPE	CF1	C5.11	PT	N/A	12/14/98	298-10IPT-006	ACCEPT
02-076-156	14" SCH 40 PIPE-TO-ELBOW	CF1	C5.11	PT	N/A	12/14/98	298-10IPT-006	ACCEPT
02-076-156A-CB	14" SCH 40 PIPE LONGITUDINAL WELD	CF1	C5.12	PT	N/A	12/14/98	298-10IPT-006	ACCEPT
02-076-156A-HX	14" SCH 40 PIPE LONGITUDINAL WELD	CF1	C5.12	PT	N/A	12/14/98	298-10IPT-006	ACCEPT
02-076-157-CB	14" SCH 40 ELBOW BODY SEAM - OUTSIDE RADI	CF1	C5.12	PT	N/A	12/14/98	298-10IPT-006	ACCEPT
02-076-157-HX	14" SCH 40 ELBOW BODY SEAM - OUTSIDE RADIU	CF1	C5.12	PT	N/A	12/14/98	298-10IPT-006	ACCEPT
02-076-157A-CB	14" SCH 40 ELBOW BODY WELD - INSIDE RADIU	CF1	C5.12	PT	N/A	12/14/98	298-10IPT-006	ACCEPT
02-076-157A-HX	14" SCH 40 ELBOW BODY WELD - INSIDE RADIU	CF1	C5.12	PT	N/A	12/14/98	298-10IPT-006	ACCEPT
02-076-158	14" SCH 40 ELBOW-TO-FLANGE	CF1	C5.11	PT	N/A	12/14/98	298-10IPT-006	ACCEPT
02-076-184	FLANGE TO 12" SCH 40 ELBOW	CF1	C5.11	PT	N/A	12/09/98	298-10IPT-001	ACCEPT
02-076-185-CB	12" SCH 40 ELBOW BODY WELD - OUTSIDE RADI	CF1	C5.12	PT	N/A	12/09/98	298-10IPT-001	ACCEPT
02-076-185-HX	12" SCH 40 ELBOW BODY WELD - OUTSIDE RADI	CF1	C5.12	PT	N/A	12/09/98	298-10IPT-001	ACCEPT
02-076-185A-CB	12" SCH 40 ELBOW BODY WELD - INSIDE RADIU	CF1	C5.12	PT	N/A	12/09/98	298-10IPT-001	ACCEPT
02-076-185A-HX	12" SCH 40 ELBOW BODY WELD - INSIDE RADIU	CF1	C5.12	PT	N/A	12/09/98	298-10IPT-001	ACCEPT
02-076-186	12" SCH 40 ELBOW-TO-PIPE	CF1	C5.11	PT	N/A	12/09/98	298-10IPT-001	ACCEPT

UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

ISI ID NO.	Area Description	Cat	Item	Method	Scan Angle	Exam Date	Report No	Results
02-076-186A-CB	12" SCH 40 PIPE LONGITUDINAL WELD	CF1	C5.12	PT	N/A	12/09/98	298-10IPT-001	ACCEPT
02-076-186A-HX	12" SCH 40 PIPE LONGITUDINAL WELD	CF1	C5.12	PT	N/A	12/09/98	298-10IPT-001	ACCEPT
02-076-187	12" SCH 40 PIPE-TO-12" X 10" REDUCER	CF1	C5.11	PT	N/A	12/09/98	298-10IPT-001	ACCEPT
02-076-188-CB	12" X 10" REDUCER BODY SEAM	CF1	C5.12	PT	N/A	12/09/98	298-10IPT-001	ACCEPT
ZONE: 82								
02-082-004	14" SCH 160 PIPE-TO-END CAP	CF1	C5.11	PT	N/A	01/19/99	299-10IUT-027	ACCEPT
02-082-004	14" SCH 160 PIPE-TO-END CAP	CF1	C5.11	UT	N/A	01/19/99	299-10IUT-028	ACCEPT

UNIT-2 CYCLE-10, SYSTEM PRESSURE TESTS

TEST/SYSTEM	PLANT LOCATION	PRESSURE REQD/ACT UAL PSI	TEMPERATURE REQD/ACTUAL °F	EXAM DATE
SYSTEM LEAKAGE TEST				
REACTOR COOLANT SYSTEM (1201)	RCS INSIDE CONTAINMENT	2250 +25 / 2258	> 280 / 331	2/20/99
SYSTEM INSERVICE TESTS				
CHEMICAL AND VOLUME CONTROL (1208)	INSIDE CONTAINMENT	NOP / 2250	NOT / ≥ 545	2/22/99
LOW PRESSURE SAFETY INJECTION (1204)	PO15 OUTSIDE CONTAINMENT	NOP / 173	NOT	1/28/99
LOW PRESSURE SAFETY INJECTION (1204)	PO16 OUTSIDE CONTAINMENT	NOP / 164.5	NOT	1/12/99
CONTAINMENT SPRAY (1206)	PO12 OUTSIDE CONTAINMENT	NOP / 144	NOT	1/28/99
MAIN STEAM (1301)	INSIDE CONTAINMENT STEAM GENERATOR ME088 / ME089	NOP / 852	NOT	2/22/99
MAIN FEEDWATER (1305)	INSIDE CONTAINMENT	NOP/ 852	NOT	2/22/99
AUX FEEDWATER (1305)	INSIDE CONTAINMENT	NOP / 852	NOT	2/22/99

NOTES : 1) RCS : REACTOR COOLANT SYSTEM

2) NOP : NORMAL OPERATING PRESSURE

3) NOT : NORMAL OPERATING TEMPERATURE

TYPES B AND C LEAKAGE RATES

Unit 2

Pen #	Valve/Seal	Admin Limit SCCM	Date	Measured Leakage AF	Date	Measured Leakage AL	Min Path Leakage AF	Min Path Leakage AL	Max Path Leakage AL
1	HV0510	500	1/4/99 (U2C10)	4	2/3/99 (U2C10)	11			
	HV0511	500	12/6/96 (U2C9)	23	12/6/96 (U2C9)	23	4	11	23
2	TV9267	2000	12/3/96 (U2C9)	707	3/25/97 (U2C9)	326			
	HV9205	2100	1/7/99 (U2C10)	17	2/5/99 (U2C10)	523	17	326	523
4 NOTE	HV0508	1000	1/4/99 (U2C10)	0	2/16/99 (U2C10)	3			
	HV0517	1000	1/4/99 (U2C10)	0	2/4/98 (M2C9)	13			
	HV0509	1000	1/4/99 (U2C10)	3	1/31/98 (M2C9)	2	0	2	16
6	HV9334	500	12/9/96 (U2C9)	30	12/9/96 (U2C9)	30			
	S2(3)1204MU099	500	12/9/96 (U2C9)	22	12/9/96 (U2C9)	22	22	22	30
7	HV9217	100	12/9/96 (U2C9)	6	1/30/97 (U2C9)	5			
	HV9218	100	12/9/96 (U2C9)	21	1/30/97 (U2C9)	6	6	5	6
8	S2(3)1208MU122	1000	1/14/99 (U2C10)	4	1/14/99 (U2C10)	4			
	HV9200	500	12/31/96 (U2C9)	74	1/30/97 (U2C9)	27	4	4	27
10B	S2(3)1500MU038	100	12/16/96 (U2C9)	2	12/16/96 (U2C9)	2			
	S2(3)1500MU039	100	12/16/96 (U2C9)	4	12/16/96 (U2C9)	4	2	2	4
11	S2(3)1415MU236	3000	2/13/99 (U2C10)	3293	2/18/99 (U2C10)	3818			
	HV7911	500	11/18/96 (U2C9)	28	11/18/96 (U2C9)	28	28	28	3818
12	HV0512	500	12/6/96 (U2C9)	14	2/12/97 (U2C9)	1			
	HV0513	2000	12/6/96 (U2C9)	6	2/12/97 (U2C9)	2	6	1	2

NOTE: For Pen 4, the sum of the leakage for HV0508 and HV0517 is the inside leakage while the leakage for HV0509 is the outside leakage.

TYPES B AND C LEAKAGE RATES (CONTINUED)

Unit 2

Pen #	Valve/Seal	Admin Limit SCCM	Date	Measured Leakage AF	Date	Measured Leakage AL	Min Path Leakage AF	Min Path Leakage AL	Max Path Leakage AL
13	HV5803	1000	1/3/99 (U2C10)	0	1/12/99 (U2C10)	525			
	HV5804	2000	1/3/99 (U2C10)	10	1/3/99 (U2C10)	10	0	10	525
14	SA2301MU061(U2)	2000	1/17/99 (U2C10)	29	1/17/99 (U2C10)	29			
	SA2301MU095 (U3)	2000	N/A	N/A	N/A	N/A			
	HV5686	1000	1/17/99 (U2C10)	608	1/17/99 (U2C10)	608	29	29	608
15	S2(3)1220MX015 FLANGE DOUBLE GASKET	1000	2/13/99 (U2C10)	1	2/13/99 (U2C10)	1	1	1	1
	S2(3)1220MX015A DOUBLE BELLOWS	1000	2/5/99 (U2C10)	141	2/5/99 (U2C10)	141	72	72	141
16C	HV7805	500	12/17/96 (U2C9)	1	12/17/96 (U2C9)	1			
	HV7810	500	12/17/96 (U2C9)	1	12/17/96 (U2C9)	1	1	1	1
18	HV9823 HV9821 TEST A HV9948 HV9949	10000	10/19/98 (Mode 1)	440	2/12/99 (U2C10)	2691			
	HV9949 TEST B		2/9/99 (U2C10)	0	2/9/99 (U2C10)	0	220	1346	2691
19	HV9824 HV9825 TEST A HV9950 HV9951	10000	10/19/98 (Mode 1)	58	2/12/99 (U2C10)	0			
	HV9950 TEST B		2/9/99 (U2C10)	129	2/9/99 (U2C10)	129	29	0	0

TYPES B AND C LEAKAGE RATES (CONTINUED)

Unit 2

Pen #	Valve/Seal	Admin Limit SCCM	Date	Measured Leakage AF	Date	Measured Leakage AL	Min Path Leakage AF	Min Path Leakage AL	Max Path Leakage AL
20	S2(3)1901MU573	1000	1/15/99 (U2C10)	74	1/15/99 (U2C10)	74			
	S2(3)1901MU321	500	12/26/96 (U2C9)	18	12/26/96 (U2C9)	18	18	18	74
21	S2(3)2423MU017	2000	1/13/99 (U2C10)	15789	2/16/99 (U2C10)	145			
	S2(3)2423MU055	1500	11/18/96 (U2C9)	5628	2/12/97 (U2C9)	866	5628	145	866
22	S2(3)2417MU016	1500	1/5/99 (U2C10)	422	1/5/99 (U2C10)	422			
	HV5388	1500	12/2/96 (U2C9)	46	12/4/96 (U2C9)	52	46	52	422
23A	S2(3)2418MU002	2000	1/15/99 (U2C10)	604	1/15/99 (U2C10)	604			
	HV5437	1000	12/20/96 (U2C9)	1	12/20/96 (U2C9)	1	1	1	604
23B	S2(3)1220MX023B FLANGES	100	12/16/96 (U2C9)	3	12/16/96 (U2C9)	3	2	2	3
23C	S2(3)1220MX023C FLANGES	100	12/17/96 (U2C9)	2	12/17/96 (U2C9)	2	1	1	2
25	S2(3)1219MU100	1000	12/12/96 (U2C9)	0	12/12/96 (U2C9)	0			
	S2(3)1219MU101	1000	12/12/96 (U2C9)	0	12/12/96 (U2C9)	0	0	0	0
26	HV7512	500	12/26/96 (U2C9)	3	12/26/96 (U2C9)	3			
	HV7513	500	12/26/97 (U2C9)	0	1/28/97 (U2C9)	50	0	3	50
27C	HV7806	500	12/17/96 (U2C9)	1	12/17/96 (U2C9)	1			
	HV7811	500	12/17/96 (U2C9)	2	12/17/96 (U2C9)	2	1	1	2
30A	HV7802	500	12/17/96 (U2C9)	7	12/17/96 (U2C9)	7			
	HV7803	500	12/17/96 (U2C9)	36	12/17/96 (U2C9)	36	7	7	36
30B	HV7801	500	12/17/96 (U2C9)	18	12/17/96 (U2C9)	18			
	HV7800 & HV7816	500	12/17/96 (U2C9)	19	12/17/96 (U2C9)	19	18	18	19

TYPES B AND C LEAKAGE RATES (CONTINUED)

Unit 2

Pen #	Valve/Seal	Admin Limit SCCM	Date	Measured Leakage AF	Date	Measured Leakage AL	Min Path Leakage AF	Min Path Leakage AL	Max Path Leakage AL
30C NOTE	HV0516	1000	12/31/96 (U2C9)	69	12/31/96 (U2C9)	69			
	HV0514	1000	12/31/96 (U2C9)	48	12/31/96 (U2C9)	48			
	HV0515	1000	12/31/96 (U2C9)	148	12/31/96 (U2C9)	148	117	117	148
31	HV9946	500	1/12/99 (U2C10)	5	1/12/99 (U2C10)	5			
	HCV9945	500	12/12/96 (U2C9)	29	2/12/97 (U2C9)	29	5	5	29
34	S2(3)1220MX034 ILRT CONNECTION FLANGES	1000	2/12/99 (U2C10)	0	2/12/99 (U2C10)	0	0	0	0
42	HV6223	3000	12/5/96 (U2C9)	0	12/5/96 (U2C9)	0			
	HV6211	3000	1/5/99 (U2C10)	213	2/5/99 (U2C10)	0	0	0	0
43	HV6236	3000	12/5/96 (U2C9)	365	12/5/96 (U2C9)	365			
	HV6216	3000	1/5/99 (U2C10)	4602	2/5/99 (U2C10)	106	365	106	365
45	HV9900 & HV9920	3000	1/13/99 (U2C10)	138	2/2/99 (U2C10)	273	69	137	273
46	HV9971 & HV9921	3000	1/13/99 (U2C10)	1125	1/28/99 (U2C10)	182	563	91	182
47	HV7258	2000	12/4/96 (U2C9)	68	1/24/97 (U2C9)	288			
	HV7259	1000	1/6/99 (U2C10)	53	1/6/99 (U2C10)	53	53	53	288
67	S2(3)1204MU157	1000	1/7/99 (U2C10)	63	1/7/99 (U2C10)	63			
	HV9434	500	1/7/99 (U2C10)	28	1/7/99 (U2C10)	28	28	28	63
68	S2(3)1201MU129	1000	1/14/99 (U2C10)	73	1/14/99 (U2C10)	73			
	S2(3)1208MU130	500	1/14/99 (U2C10)	0	1/25/99 (U2C10)	0	0	0	73
70	S2(3)2423MU1563	1500	1/14/99 (U2C10)	115	1/14/99 (U2C10)	115			
	S2(3)2423MU1564	1500	1/14/99 (U2C10)	52	1/14/99 (U2C10)	52	52	52	115
71	S2(3)1204MU158	2000	2/4/99 (U2C10)	71	2/4/99 (U2C10)	71			
	HV9420	2000	2/4/99 (U2C10)	0	2/4/99 (U2C10)	0	0	0	71
74	HV9917	500	1/18/99 (U2C10)	60	2/10/99 (U2C10)	17			
	HCV9918	500	12/12/96 (U2C9)	19	12/12/96 (U2C9)	19	19	19	19

NOTE: For Pen 30C, the sum of the leakage for HV0514 and HV0516 is the inside leakage while the leakage for HV0515 is the outside leakage.

TYPES B AND C LEAKAGE RATES (CONTINUED)

Unit 2

Pen #	Valve/Seal	Admin Limit SCCM	Date	Measured Leakage AF	Date	Measured Leakage AL	Min Path Leakage AF	Min Path Leakage AL	Max Path Leakage AL
77	S2(3)2418MU108	2000	2/9/99 (U2C10)	1518	2/9/99 (U2C10)	1518			
	HV5434	500	2/9/99 (U2C10)	168	2/9/99 (U2C10)	168	168	168	1518
L309	ELEC PEN PANEL	1000	12/13/96 (U2C9)	0	12/23/96 (U2C9)	0	0	0	0
L310	ELEC PEN PANEL	500	12/13/96 (U2C9)	103	12/23/96 (U2C9)	0	103	0	0
L311	ELEC PEN PANEL	500	12/13/96 (U2C9)	22	12/13/96 (U2C9)	22	22	22	22
L312	ELEC PEN PANEL	1000	12/13/96 (U2C9)	191	12/13/96 (U2C9)	191	191	191	191
C501	EQUIPMENT HATCH DOUBLE GASKET	100	2/17/99 (U2C10)	3	2/17/99 (U2C10)	3	2	2	3
C406	PERSONNEL LOCK DOORS AND SEALS	10000	6/23/98 (Mode 1)	2009	6/23/98 (Mode 1)	2009	1005	1005	2009
C203	EMERGENCY ESCAPE LOCK DOORS/SEALS	10000	7/8/98 (Mode 1)	759	7/8/98 (Mode 1)	759	380	380	759
TOTAL RECORDED LEAKAGE (SCCM)							9305	4484	16622

Acceptance Criteria < 130,287 sccm (0.6 La)

PERFORMED BY: [signature] Signature 2/18/99 Date

APPROVED BY: [signature] Supervisor or Designee 2/19/99 Date

Note 1: AF Min Path Leakage Rate is outage related. Failure to meet limit of less than or equal to 0.6 La may be reportable.

Note 2: AL Max Path Leakage Rate is outage related. Must be less than 0.6 La prior to Mode 4 entry.

Note 3: AL Min Path Leakage Rate is applicable when containment intergrity is required. Must be less than 0.6 La. Failure to meet this limit may result in plant shutdown.

COMMENTS This is to document that the total containment LLRT leakage is less than 0.6 La for Mode 4 entry coming out of U2C10 outage.

U2C9 = Cycle 9 outage; M2C9 = Cycle 9 midcycle outage; U2C10 = Cycle 10 outage.

AR 990201060 documented the As-Left (AL) LLRT result exceeding the admin limit for S21415MU236 for Pen 11.

Mode 4 on 2/20/99 ~~@ 0250~~ @ 0514

[signature] 2/22/99

WATER COLLECTION TEST RESULTS

Unit 2

PEN #	SPECIAL TYPE C LEAK RATE TEST FOR THOSE VALVES WATER-COVERED FOR 30 DAYS POST-ACCIDENT 10 CFR 50, APP J III	ADMIN LIMIT SCCM	DATE	LIQUID LEAKAGE AF	DATE	LIQUID LEAKAGE AL
52	S2(3)1206MU004	300	1/14/99 (U2C10)	0	1/26/99 (U2C10)	0
	HV9367	500	12/20/96 (U2C9)	47	12/20/96 (U2C9)	47
53	S2(3)1206MU006	300	12/26/96 (U2C9)	9	12/26/96 (U2C9)	9
	HV9368	500	12/7/96 (U2C9)	35	12/7/96 (U2C9)	35
56	HV6366	300	12/29/98 (U2C10)	0	2/12/99 (U2C10)	0
57	HV6372	300	12/22/98 (U2C10)	0	1/14/99 (U2C10)	0
58	HV6368	1000	12/22/98 (U2C10)	590	2/16/99 (U2C10)	379
59	HV6370	300	12/29/98 (U2C10)	68	2/12/99 (U2C10)	2
60	HV6369	300	12/22/98 (U2C10)	38	2/16/99 (U2C10)	68
61	HV6371	600	12/29/98 (U2C10)	2	2/3/99 (U2C10)	0
62	HV6367	1000	12/29/98 (U2C10)	4	2/9/99 (U2C10)	4
63	HV6373	300	12/22/98 (U2C10)	0	1/14/99 (U2C10)	0

PERFORMED BY: [signature] 2/18/99
Signature Date

APPROVED BY: PES [signature] 2/19/99
Supervisor or Designee Date

COMMENTS This is to document water collection test results coming out of the U2C10 outage for Mode 4 entry.

U2C9 = Cycle 9 outage; U2C10 = Cycle 10 outage. 2/22/99

Mode 4 on ~~2/22/99~~ @ 0514
2/20/99

AT10AD
SO23-204-5-1

SOUTHERN CALIFORNIA EDISON COMPANY
San Clemente, California

VPL No.: 5023 -5-1

☒ 1. APPROVED – May proceed.
☐ 2. APPROVED EXCEPT AS NOTED – Make changes and resubmit. Mfg. may proceed.
☐ 3. NOT APPROVED – Correct and resubmit for review. Not to be used for field use.
☐ 4. REFERENCE DOCUMENT – "Information Only"

Quality Class: II

SOUTHERN CALIFORNIA EDISON COMPANY

Drawings are reviewed and approved for arrangements and conformance to specification only. Approval does not relieve the submitter from the responsibility of adequacy and suitability of design, materials, and/or equipment represented.

Quality Classification Ref. Doc. No. _____

* DM or OTHER as required by DRADM

INITIALED

SDE/TE TL DATE 3-9-98
GS DATE
IPRE DATE
DM* DATE
OTHER* DATE

SCE 37-339 REV 0 5/93 (REFERENCE: SO123-XXIV-37 & 26)

QUALITY CLASS II

SEISMIC CATEGORY I

TEST REPORT

REGISTERED PROFESSIONAL ENGINEER
TAI L. YONG
2/19/98
NO. C39734
EXP. 6/30/98
CIVIL
STATE OF CALIFORNIA

15TH YEAR CONTAINMENT STRUCTURE POST TENSIONING SYSTEM SURVEILLANCE SAN ONOFRE NUCLEAR GENERATING STATION UNIT 2

Prepared by: Tai L. Yong Date: 2/19/98

Reviewed by: Sonny Yee Date: 3-6-98

Approved by: [illegible] Date: 3-9-98

TABLE OF CONTENTS

Section		Page
1.0	Introduction	2
2.0	Results / Conclusion	3
3.0	Methodology / Summary of Data	5
4.0	References	7

Tables

1	Summary of Tendon End Anchorage Inspection	8
2	Grease Removal and Replacement	9
3	Lab Analysis of Sheathing Filler	10

Appendices

A.	Surveillance Data Sheets	A1
B.	Material Testing Reports	B1
C.	Non-Conformance Reports	C1

1.0 INTRODUCTION

This report describes the results of the fifteenth year tendon surveillance at San Onofre Nuclear Generating Station (SONGS) Unit 2 containment structure. The work was conducted between October 1997 and November 1997. The surveillance was performed by the ISI Group of Site Technical Services with assistance from Nuclear Construction. The surveillance was performed based on the requirements found in procedure SO23-XVII-3.8, Revision 5.

The surveillance purpose is to determine if the post-tensioning system is functioning within the specified design requirements per Technical Specification 3.6.1 and Licensee Controlled Specification (LCS) 3.6.100, to identify unacceptable conditions which may exist, and to recommend corrective action where unacceptable conditions are found.

This report provides the Civil Engineering evaluation of the Unit 2 containment structure fifteenth year tendon surveillance. The overall condition of the containment structure post tensioning system is evaluated from the obtained data and compared to previous surveillance data. Major Items of work included:

A. Visual inspection of the concrete surrounding the bearing plates of all horizontal surveillance tendons listed in Table 1 for the applicable surveillance year.

B. Inspection of the tendon anchor assemblies for deleterious conditions such as corrosion, cracks, missing wires, and inadequate grease coverage.

C. Visual inspection of anchor head shims, where installed, for adequate grease coverage.

D. Visual inspection after cleaning to determine corrosion levels and indications of excessive stress.

E. Visual inspection of bearing plate for cracking, excessive deformation, and movement into the anchorage.

F. Visual inspection of all tendon end caps to detect any grease leakage, cap deformation, missing petcocks or degradation.

G. Visual and laboratory examination of sheathing filler.

2.0 RESULTS / CONCLUSIONS

A. RESULTS

1. The visual inspection records in Appendix A for the concrete surrounding the anchorages of the horizontal tendons did not reveal cracks of significant size. There is no abnormal degradation of the containment structure concrete which would adversely affect the Post-Tensioning system.

2. The visual inspection results of the tendon anchorages from Appendix A are summarized in Table 1:

   1. All tendon components were adequately covered (100%) with grease and no free water was observed.

   2. NCR 971001038 addresses tendon #13 on the east side of buttress 1, where three slipped tendon strands were found. Two strands were slipped uniformly while the third strand had differential slippage with one wire full length and the remaining 6 wires with slippage varying from approximately 7 to 9 inches. In addition, approximately 6 wedges were unevenly set with a differential of about 1/4". One of the wedge pieces for a strand that slipped uniformly was also loose.

   An operability assessment was performed and determined that the 52 remaining strands are sufficient for the tendon to perform its design function. The design of the cylindrical hoop tendon is for a prestress of 780 k/ft (Ref: Vendor calc. S023-204-3-8) which provides an allowable concrete stress of 5400 psi (hoop). 52/55 x 5400 = 5105 psi would be a conservative estimate of the remaining prestress after the loss of the three strands out of the 55 strands total for the tendon. Since the maximum hoop stress in the wall is 2921 psi (Fig. 7-1 of calc. C-257-1.04) and is still less than 5105 psi, the containment structural integrity is adequate for its design loads.

3. There were no missing tendon strands found and all anchorage steel components were observed to be free of cracks and deformations.

4. Minor corrosion on a few of the anchor heads inspected were consistent with previous inspections.

5. No corrosion was observed on the shims, bearing plates, tendon strands or wedges inspected.

6. None of the inspections disclosed conditions that would have an adverse effect on the performance of the Post-Tensioning system.

3. Samples of the casing filler (grease) for each inspected tendon were taken to Truesdail Laboratories, in Tustin, CA, on November 6, 1997 for testing. All twelve grease samples tested were within the acceptance criteria. The laboratory results of the grease are summarized in Table 3. No unacceptable levels of nitrate, chloride, sulfide, or water were found. The Total Base Number for all the samples, as determined by the method shown in Attachment 10 of procedure SO23-XVII-3.8, exceeded 35 as required.

4. All tendon end-caps were properly installed with new O-rings and end anchorages regreased. All void ratios were determined to be less than 5% of the net duct volume (Technical Specification limit). The "Containment Structural Integrity Surveillance" procedure (SO23-XVII-3.8, Rev. 5) formula, as documented in Section 7.4.2, was used to calculate the void ratios. The void ratios reported in the data sheets are summarized in Table 2.

B. CONCLUSIONS

The Unit 2 containment structure post-tensioning system is within the requirements specified per Technical Specification 3.6.1 and Licensee Controlled Specification (LCS) 3.6.100. There is no evidence of abnormal degradation and no reportable conditions were

found except for NCR 971001038 as noted in Section A above.

3.0 METHODOLOGY / SUMMARY OF DATA

This surveillance was performed in accordance with Station Procedure S023-XVII-3.8, Revision 5, "Containment Structural Integrity Surveillance" (Reference 4.2). The work was performed by Site Technical Services and witnessed by SCE Quality Control.

The surveillance data for each tendon is included in Appendix A. Material test results for the grease chemical analysis tests are included in Appendix B.

3.1 CONCRETE INSPECTION

The concrete surface around the tendon anchorage is visually inspected for any signs of containment degradation and reported in the data sheets in Appendix A. Inspection of the concrete adjacent to vertical tendon end anchorages is not possible and has been exempted in the surveillance procedure. The tendon gallery steel panels completely cover the concrete surface around the anchorages.

Several cracks (0.010" or less in width) were discovered in the concrete around the bearing plates for horizontal tendons 50 and 114. These cracks were found to be acceptable and were of the type emanating from the corners of the bearing plates. This type of crack is caused by shrinkage of the concrete around the bearing plates. The steel does not shrink and causes the concrete to form small diagonal cracks at the corners. This is a typical condition and considered normal. Also, see Appendix III of C-501-01.01, "Maintenance Rule - Containment Unit 2 Inspection Report" for additional acceptance criteria for cracks in concrete.

In addition, numerous bugholes with diameters varying from 1/16" to 1/8" were found in the concrete surfaces adjacent to several baseplates. Some minor concrete surface spalling was also observed in the same vicinity. These conditions are typical and considered normal for such concrete and do not impact the structural integrity of the containment structure.

3.2 ANCHORAGE COMPONENT INSPECTION

The anchorage components are visually inspected for signs of corrosion, cracking or fatigue which would indicate abnormal degradation. None of the anchorage components exhibited any sign of cracking, embrittlement, deformation, or other physical damage. All inspected strands, shims, bearing plates and wedges were found to be free of visible corrosion or oxidation. Several anchor heads were found to have some visible oxidation without any pitting. This type of minor oxidation observed is consistent with previous inspections and the observed corrosion does not indicate anchor head degradation. The grease adjacent to these anchorages showed no signs of water intrusion or discoloration.

3.3 VISUAL AND LABORATORY INSPECTION OF SHEATHING FILLER

The sheathing filler material (grease) is visually inspected for signs of water and chemically analyzed to verify that there are no corrosive conditions present in the tendon. The visual inspection of filler grease disclosed that all anchorage components had adequate grease coverage with the exception of the top half of anchor head 12 for tendon 12-140. AR 971001469 was written and the condition was dispositioned as acceptable. There was no sign of contamination of the filler grease. No free water was found near the tendon end anchorage or in the sheathing filler. Also, there was no corrosion on the anchorage components.

Laboratory analysis of the sheathing filler samples contained in Appendix B, disclosed that the grease was free of unacceptable nitrate, chloride, sulfide, or water contamination.

3.4 RESEALING OF TENDONS

All tendons were adequately greased with the specified sheathing filler (grease). New O-ring gaskets were placed on all tendon end caps removed for inspection and refilled with grease. Tendon end caps were visually inspected for leakage. None of the scheduled surveillance tendons were found to have any leaks.

3.7 NON-CONFORMANCE REPORTS

There was one NCR written against the tendon surveillance on Unit 2. It is included in Appendix C and the NCR has been properly dispositioned and no reportable conditions exist. The NCR documented three slipped strands for tendon #13 and its disposition and conclusions are discussed in greater detail in Section 2.A.2.2 of this report. The cause for the slipped tendon strands has not been determined but a root cause assessment will be performed for the NCR.

4.0 REFERENCES

1) Calculation C-257-11, Supplement A, Rev. 0; "Containment In-Service Tendon Surveillance Program"

2) Station Procedure SO23-XVII-3.8, Rev. 5; "Containment Structural Integrity Surveillance"

3) Technical Specification 3.6.1; "Containment Systems Containment Structural Integrity" and LCS 3.6.100, "Prestressed Concrete Containment Tendon Surveillance Program".

4) Regulatory Guide 1.35, Proposed Revision 3; "Inservice Inspection of Ungrouted Tendons in Pre-stressed Concrete Containments"

5) Unit 2 First Year Tendon Surveillance Report; dated March 1982

6) Unit 2 Fifth Year Tendon Surveillance Report; dated March 31, 1987

7) ASTM A416 -1974 "Uncoated Seven-wire Stress Relieved Strand for Pre-stressed Concrete

Containment Concrete First Inspection Report
ASME Section XI, Subsection IWL

Unit 2

San Onofre Nuclear Generating Station

August 3, 1998

Quality Class II

Seismic Category I

REGISTERED PROFESSIONAL ENGINEER
TORREY YEE
No. 28389
Exp. 3-31-2007
8-14-98
CIVIL
STATE OF CALIFORNIA

Prepared by: Torrey Yee
Containment Responsible Engineer

ANII Review: 8/19/98

Approval:

Civil Group Supervisor 8/20/98

STS Supervisor 8/18/98

TABLE OF CONTENTS

	Page
1.0 Introduction	3
2.0 Inspection Implementation	4
2.1 Procedure	4
2.2 Personnel Qualification	4
2.3 Method	4
3.0 Inspection Results and Evaluations	6
3.1 General Condition	6
3.2 Suspect Conditions	6
3.3 Summary of Data Sheets	7
3.4 Inaccessible Areas	8
4.0 Summary and Conclusion	9
5.0 References	9
Appendix A Inspection Data Sheets	10

1.0 Introduction

The Containment concrete was inspected as mandated by the NRC's final rule that amended 10CFR 50.55a, Codes and Standards, on August 8, 1996. The final rule required the examination of Class MC and Class CC components of ASME Section XI Code and was effective September 9, 1996.

The Containment concrete is considered a Class CC component for the inservice inspection requirements. The Class MC components and metallic liners of Class CC components of the containment will be examined in the ISI program per procedure SO23-XVII-3.4 (Reference 5.6). Inspection of the tendons was performed independently of this inspection and was done per procedure SO23-XVII-3.8, "Containment Structural Integrity Surveillance."

This report describes and documents the results of the visual examination of the Unit 2 containment concrete shell at San Onofre Nuclear Generating Station. The examination was performed between June and July 1998.

The objective of the examination is to ensure the containment structure will meet its design basis to maintain structural integrity during design conditions.

2.0 Inspection Implementation

2.1 Procedure

The examination of the Containment concrete was performed in accordance with procedure SO23-XVII-3.8.1, "Visual Examination of Containment Concrete Surfaces," Revision 0 (Reference 5.1).

2.2 Personnel Qualification

The qualification requirements are specified in procedure SO23-XVII-3.8.1. The examination was performed by Torrey Yee of the Nuclear Engineering Design Organization, who is the Containment System Design Engineer or Responsible Engineer. Mr. Yee is a registered Civil Engineer in the State of California and is certified as an ASME Level II inspector for VT-1C and VT-3C per procedure SO123-XII-2.17.

2.3 Method

The containment concrete shell is Examination Category L-A, Item L1.10, L1.11 and L1.12 per ASME Section XI, Subsection IWL (Reference 5.2).

Direct visual examinations were performed when possible without the need for scaffolding and mechanical lifts. Otherwise, accessible surface areas were visually examined remotely using binoculars or a spotting scope having the resolution and clarity to attain the acuity requirements for the VT-1C and VT-3C inspections.

The tools used for the visual examination included a 9X (power) Nikon binoculars, a 77mm Bausch & Lomb spotting scope with a 20-60X zoom eyepiece, a 10X crack comparator that is able to read from 0.001 to 0.120 inch, 6 inch scale, 25 ft. tape measure, a light meter and portable light sources that are able to provide a minimum 50 foot candle illumination. Maximum examination distance was checked with a card that contained 0.044 inch and 0.105 inch high lower case letters in accordance with ASME Section XI, Subsections IWA and IWL.

Concrete conditions were VT-3C visually examined for evidence of damage or degradation using the guidance of ACI 201.1R-92 (Reference 5.4). The findings of the examination are noted on inspection data sheets that have been included in Appendix A of this report. The following conditions were to be noted as suspect conditions and require a VT-1C visual examination:

1. Crack widths between 0.013 in. to 0.040 in. shall be noted as existing. Crack widths greater than 0.040 in. shall be recorded with the measured length, location and frequency.

2. Leaching, exudation, stalactites, and laitance.

3. Medium and severe scaling.

4. Spalls greater than 1 in. In any dimension. Popouts and bugholes greater than 1 in. in diameter.

5. Concrete deterioration by abrasion damage, blistering, cavitation damage, corrosion, impact and delamination.

6. Rust stains from reinforcement corrosion and efflorescence.

7. Exposed reinforcement.

The acceptance criteria as provided in Procedure SO23-XVII-3.8.1 (Reference 5.1) follows:

> The condition of the concrete surface is acceptable if the Responsible Engineer determines that there is no evidence of damage or degradation sufficient to warrant further evaluation or repair. The following conditions are acceptable and do not need an evaluation:
>
> 1. Crack widths .013 in. or less.
>
> 2. Light scaling
>
> 3. Spalls, popouts and bugholes 1 in. in diameter or less.

3.0 Inspection Results and Evaluations

3.1 General Condition

The general condition of the containment concrete shell is good and most areas met the acceptance criteria of procedure SO23-XVII-3.8.1. Conditions that were within the acceptance criteria included concrete cracks, light scaling, small bugholes and spalls. Concrete cracks were found throughout the containment surfaces and their crack widths were less than .013 in. Light scaling, small bugholes and spalled concrete were also observed in various locations and appeared to have existed since the time of original construction. The minor and superficial defects do not adversely affect the structural integrity of the Containment. The visual examination was performed between June and July 1998.

3.2 Suspect Conditions

As required by the inspection procedure, suspect conditions were recorded and a VT-1C visual examination was performed. The majority of the reported suspect conditions involved bugholes greater than 1 inch in diameter. Some very localized spalling were found at the containment penetrations. The spalls were usually at the edges of the penetrations and appeared to have occurred during original construction. Bugholes greater than 1 in. in diameter were evident in scattered locations on the walls and with greater frequency on the dome between Elevation 112 feet to about Elevation 174 feet. The bugholes occurred during the placement of concrete in constructing the containment. The bugholes do not show any signs of distress, exposed reinforcement, or concrete degradation. They were less than 1.5 in. deep and do not affect the concrete wall strength because the outer concrete surface of the containment will be under tension during design basis events. The concrete cover on the containment is a minimum of 2 to 2-1/4 inches so there were no exposed reinforcement bars found on the spalls and voids.

The containment is considered a massive concrete structure because of the nominally 4 feet thick walls and heavy steel reinforcing. The voids do not affect containment concrete strength because in reinforced concrete design, the concrete cover is not considered when calculating the concrete element's tensile strength. The reinforcing steel and post-tensioned tendons withstand the tensile stresses and govern the capacity to allow for a ductile design. Also, there is sufficient safety margin in the concrete to account for minor defects in the concrete surface. When the concrete cross-section is in compression, the maximum design concrete stress is calculated to be 3626 psi which is less than the concrete allowable of 5400 psi

(Reference 5.5). If the concrete thickness was uniformly reduced by 1.5 inches, the concrete stress would increase about 3 percent and still be below the allowable stress (3735 psi < 5400 psi). Therefore, the spalls and voids will not affect the structural integrity of the concrete containment.

The suspect conditions were also documented on AR 980800999 as required by the inspection procedure. Since the structural integrity of the containment is not adversely affected, the containment is operable and will function as designed. No corrective actions were required.

Since the tendon gallery is not an essential appurtenance for containment integrity, the concrete walls and floor are not subject to the IWL examination. The tendon gallery primarily provides access to the vertical tendons and the following description of its condition is for information. Water leakage in the tendon gallery is occurring at the concrete construction joint at the top of the tendon gallery wall and the bottom of the basemat. The water leakage condition has been noted in the past and was reported in the maintenance rule inspection of the containment in 1997. The leakage is mostly evident during the rainy season. Some leaching has occurred, but there is no other indications of concrete degradation, such as cracking and spalling. There is corrosion of the ledger angle at the top of the tendon gallery wall and surface corrosion on the ceiling plates. While the tendon gallery condition is currently acceptable, the area will be monitored in the maintenance rule program for changes in condition.

3.3 Summary of Data Sheets

The data sheets of the examination are provided in Appendix A of this report. The "Containment Concrete Visual Examination Summary Sheets" show that all areas of the containment concrete shell were inspected with the exception of the noted inaccessible areas. The "Concrete Surface Visual Examination Report Forms" were utilized to record the suspect conditions that are discussed in Section 3.2 above. The majority of the examination report forms were prepared to record the presence of bugholes that have existed since the containment was built.

3.4 Inaccessible Areas

The inaccessible areas include the following areas:

1. Plant vent stack ducts cover Buttress 2 surface.
2. Walls from Elev. 15' to 30' are below grade and embedded in the soil, except the tendon access shafts and the Penetration Area.
3. Basemat is embedded in the soil
4. Tendon Gallery ceiling (bottom of basemat) is covered by steel plates that were used as the concrete forms.
5. Expansion joints between adjacent structures are covered with material for fire barriers.
6. Portions adjacent to MSIV and penetration area that abut the containment shell.

No conditions were found in accessible areas that indicate the potential for degradation of the inaccessible areas. While cracks, bugholes and spalls could also exist in the inaccessible areas, the extent of the defects does not affect structural integrity as stated in Section 3.2. Also, the concrete cover of the containment is primarily relied on to provide corrosion protection of the reinforcement bars. No evidence of corrosion of reinforcement bars was found in accessible areas during the visual examination.

The containment basemat is deep enough that the buried exterior surfaces may be exposed to groundwater. Groundwater samples at the site show very low concentrations of elements, such as chlorides and sulfur, that could cause concrete and reinforcement degradation.

Therefore, the condition of the inaccessible areas is deemed to be acceptable because there is no signs of significant concrete degradation in accessible areas and the inaccessible areas are not exposed to a harsh environment.

4.0 Summary and Conclusion

The containment concrete shell was examined as required by procedure SO23-XVII-3.8.1 which was written to comply with the NRC Final Rule. The visual examination did not find any significant defects in the containment concrete. The containment concrete surface exhibited small cracks, spalls and bugholes throughout the structure. Some areas with suspect conditions (larger bugholes and spalls) were also observed and reported in AR 980800999. The suspect conditions were determined to have existed since original construction and do not adversely affect the structural integrity of the containment. Inaccessible areas were deemed to be acceptable due to the insignificance of defects found in accessible areas and the inaccessible areas are not exposed to a harsh environment. Therefore, the containment structure's concrete shell is acceptable and will be able to withstand its design loads.

5.0 References

5.1 Procedure SO23-XVII-3.8.1, Revision 0, "Visual Examination of Containment Concrete Surfaces."

5.2 ASME Section XI, 1992 Edition and Addenda, Subsections IWA and IWL.

5.3 10 CFR 50.55a, Codes and Standards, amended by NRC Final Rule, dated August 8, 1996.

5.4 ACI 201.1R-92, "Guide for Making a Condition Survey of Concrete in Service."

5.5 Calculation No. C-257-01.04, Containment Shell Analysis - FINEL Computer Analysis.

5.6 Procedure SO23-XVII-3.4, Revision 0, "Inservice Inspection of Class MC Components and Metallic Liners of Class CC Components."

APPENDIX A

INSPECTION DATA SHEETS

CONTAINMENT CONCRETE VISUAL EXAMINATION SUMMARY SHEET

Unit: 2 Inspection Date: 6/1/98 to 7/29/98 Sheet: A-1

ASME Examination Category: L-A, Concrete Surface; Item No. L1.10, L1.11 and L1.12

ISI ID & AREA NO.	EXAMINATION AREA DESCRIPTION	ELEVATION	DEGRADATION YES/NO (2)	REMARKS (3)	EXAMINATION REPORT FORM (4)
A-1	Basemat	-13.5' to 15'	N/A	Inaccessible	
B1-1	Buttress No. 1	15' to 30'	N/A	Inaccessible	
B1-2	Buttress No. 1	30' to 70'	No	Direct/Remote	
B1-3	Buttress No. 1	70' to 112'	No	Remote	
B12-1	Buttress No. 1 to No. 2	15' to 30'	No	Partially Inaccessible	
B12-2	Buttress No. 1 to No. 2	30' to 70'	Yes	Direct/Remote	A-3 to A-6, A-9
B12-3	Buttress No. 1 to No. 2	70' to 112'	No	Remote	
B2-1	Buttress No. 2	15' to 30'	No	Direct/Remote	
B2-2	Buttress No. 2	30' to 70'	No	Direct/Remote	
B2-3	Buttress No. 2	70' to 112'	No	Inaccessible above El. 95'	
B23-1	Buttress No. 2 to No. 3	15' to 30'	No	Partially Inaccessible	
B23-2	Buttress No. 2 to No. 3	30' to 70'	Yes	Direct/Remote	A-7 to A-8
B23-3	Buttress No. 2 to No. 3	70' to 112'	No	Remote	
B3-1	Buttress No. 3	15' to 30'	N/A	Inaccessible	
B3-2	Buttress No. 3	30' to 70'	No	Direct/Remote	

APPENDIX A

S023-XVII-3.8.1
ISI Report
Page 11

CONTAINMENT CONCRETE VISUAL EXAMINATION SUMMARY SHEET (Continued)

Unit: 2 Inspection Date: 6/1/98 to 7/30/98 Sheet: A-2

ASME Examination Category: L-A, Concrete Surface; Item No. L1.10, L1.11 and L1.12

ISI ID & AREA NO.	EXAMINATION AREA DESCRIPTION	ELEVATION	DEGRADATION YES/NO (2)	REMARKS (3)	EXAMINATION REPORT FORM (4)
B3-3	Buttress No. 3	70' to 112'	No	Remote	
B31-1	Buttress No. 3 to No. 1	15' to 30'	N/A	Inaccessible	
B31-2	Buttress No. 3 to No. 1	30' to 70'	Yes	Direct/Remote	A-10 to A-11
B31-3	Buttress No. 3 to No. 1	70' to 112'	No	Remote	
D1-1	Dome	112' to 152'	Yes	Remote	A-12
D2-1	Dome	152' to 191'	Yes	Direct/Remote	A-13

Notes:
1. Fabrication ID numbers are not applicable to the concrete structure and are not noted.
2. Indicate in "Degradation" column whether suspect conditions were observed.
3. Indicate in "Remarks" column whether examination areas are inaccessible. Other observations may also be noted.
4. Indicate in "Examination Report Form" column the sheet numbers of applicable forms that were recorded.

RECORDED BY: Sonny Yao — Examiner's Name/Signature — Date: 7-30-98

REVIEWED BY: Sonny Yao — Responsible Engineer's Name/Signature — Date: 7-30-98

APPROVED BY: [signature] — STS Supervisor or designee — Date: 8/19/98

APPENDIX A

S023-XVII-3.8.1
ISI Report
Page 12

APPENDIX A

CONCRETE SURFACE VISUAL EXAMINATION REPORT FORM

Sheet A-3

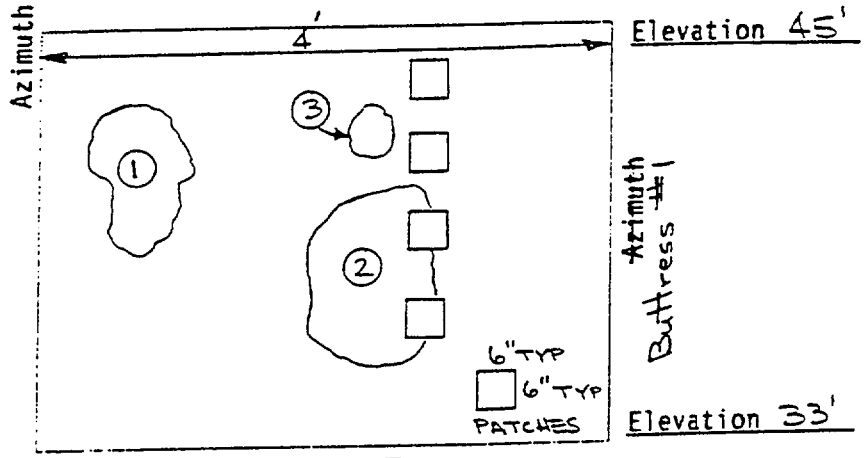
EXAMINER'S NAME Torrey Yee AREA B12-2

Instructions:

1. Indicate on the sketch below the location, orientation and extent of any observed indication(s). Use additional sheets and sketches where necessary. Number each indication and Identify in Section B.

2. List the visual aids/tools utilized to perform the examination.

A. Sketch



Visual Examination Type: VT-1C (VT-3C) (Circle)

B. Indications
1. Light scaling
2. Light scaling
3. < 1/2" ϕ bugholes

C. Tools/Aids
Binoculars

Notes:

RECORDED BY: Torrey Yee — Examiner's Signature — Date 6-1-98

REVIEWED BY: Torrey Yee — Responsible Engineer's — Date 7-30-98

APPROVED BY: [signature] — Site Technical Services Supervisor or designee — Date 8/19/98

APPENDIX A

CONCRETE SURFACE VISUAL EXAMINATION REPORT FORM

Sheet A-4

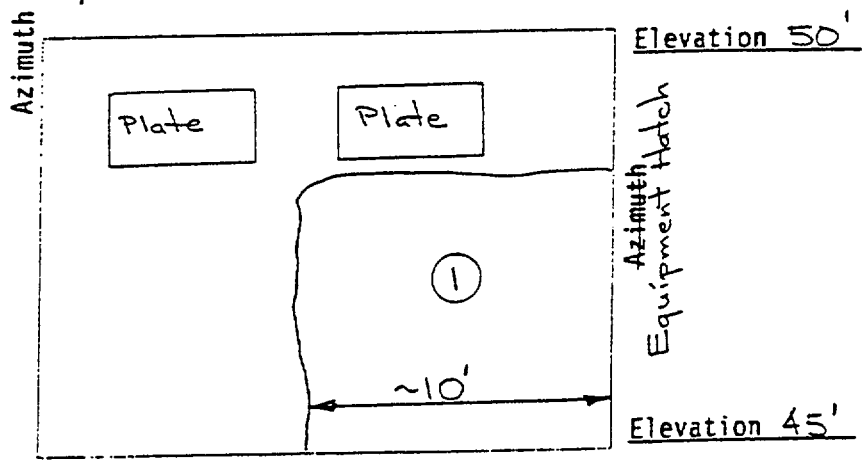
EXAMINER'S NAME Torrey Yee AREA B12-2

Instructions:

1. Indicate on the sketch below the location, orientation and extent of any observed indication(s). Use additional sheets and sketches where necessary. Number each indication and Identify in Section B.

2. List the visual aids/tools utilized to perform the examination.

A. Sketch



Visual Examination Type: VT-1C (VT-3C) (Circle)

B. Indications
1 Light scaling

C. Tools/Aids
Binoculars

Notes:

RECORDED BY: Torrey Yee 6-1-98
Examiner's Signature Date

REVIEWED BY: Torrey Yee 7-30-98
Responsible Engineer's Date

APPROVED BY: [signature] 8/19/98
Site Technical Services Supervisor or designee Date

APPENDIX A

CONCRETE SURFACE VISUAL EXAMINATION REPORT FORM

Sheet A-5

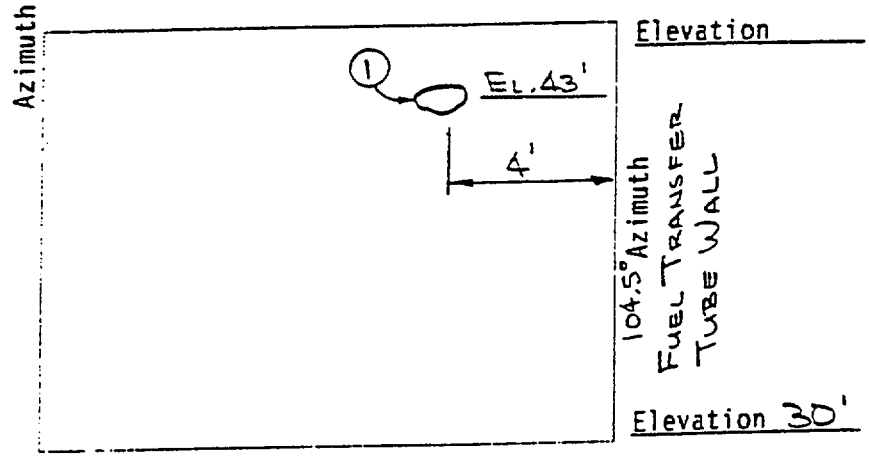
EXAMINER'S NAME Torrey Yee AREA B12-2

Instructions:

1. Indicate on the sketch below the location, orientation and extent of any observed indication(s). Use additional sheets and sketches where necessary. Number each indication and Identify in Section B.

2. List the visual aids/tools utilized to perform the examination.

A. Sketch



Visual Examination Type: VT-1C VT-3C (Circle)

B. Indications
1 Spall: 2" x 1" x 3/8" deep

C. Tools/Aids
Binoculars

Notes: No rebar exposed.

RECORDED BY: Torrey Yee — Examiner's Signature — Date 6-15-98

REVIEWED BY: Torrey Yee — Responsible Engineer's — Date 7-30-98

APPROVED BY: [signature] — Site Technical Services Supervisor or designee — Date 8/19/98

APPENDIX A

CONCRETE SURFACE VISUAL EXAMINATION REPORT FORM

Sheet A-6

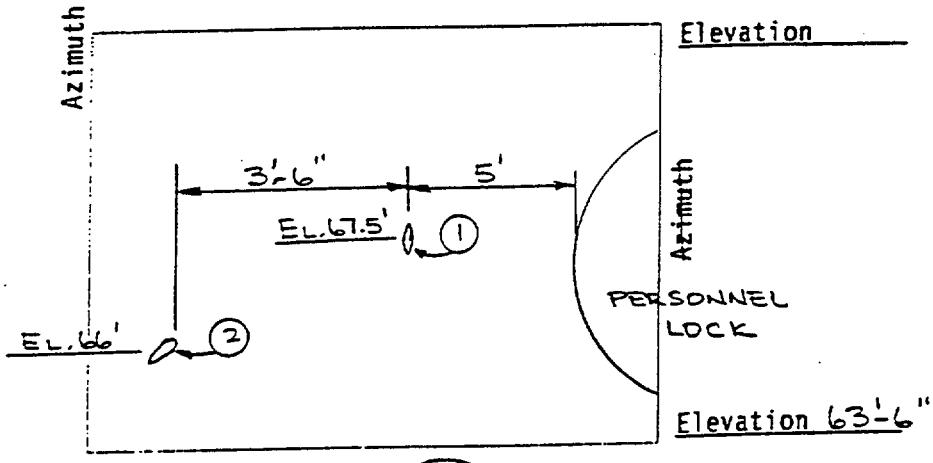
EXAMINER'S NAME TORREY YEE AREA B12-2

Instructions:

1. Indicate on the sketch below the location, orientation and extent of any observed indication(s). Use additional sheets and sketches where necessary. Number each indication and Identify in Section B.

2. List the visual aids/tools utilized to perform the examination.

A. Sketch



Visual Examination Type: VT-1C VT-3C (Circle)

B. Indications
1 Bughole: 1⅛" x ½" x ⅝" deep
2 Bughole: 1⅛" x ¼" x ¼" deep

C. Tools/Aids
Binoculars

Notes: No rebar exposed. Original construction defect

RECORDED BY: Torrey Yee — Examiner's Signature — Date 6-15-98

REVIEWED BY: Torrey Yee — Responsible Engineer's — Date 7-30-98

APPROVED BY: [signature] — Site Technical Services Supervisor or designee — Date 8/19/98

APPENDIX A

CONCRETE SURFACE VISUAL EXAMINATION REPORT FORM

Sheet A-7

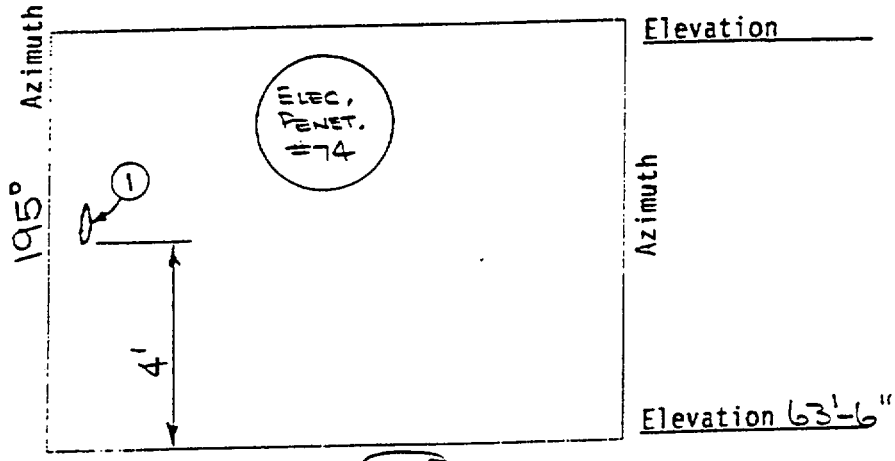
EXAMINER'S NAME Torrey Yee AREA 323-2

Instructions:

1. Indicate on the sketch below the location, orientation and extent of any observed indication(s). Use additional sheets and sketches where necessary. Number each indication and Identify in Section B.

2. List the visual aids/tools utilized to perform the examination.

A. Sketch



Visual Examination Type: VT-1C VT-3C (Circle)

B. Indications
① Buchole: 1½" x ⅝" x ½" deep

C. Tools/Aids
Binoculars

Notes: No rebar exposed. Original construction defect.

RECORDED BY: Torrey Yee — Examiner's Signature — Date 6-15-98

REVIEWED BY: Torrey Yee — Responsible Engineer's — Date 7-30-98

APPROVED BY: [signature] — Site Technical Services Supervisor or designee — Date 8/19/98

APPENDIX A

CONCRETE SURFACE VISUAL EXAMINATION REPORT FORM

Sheet A-8

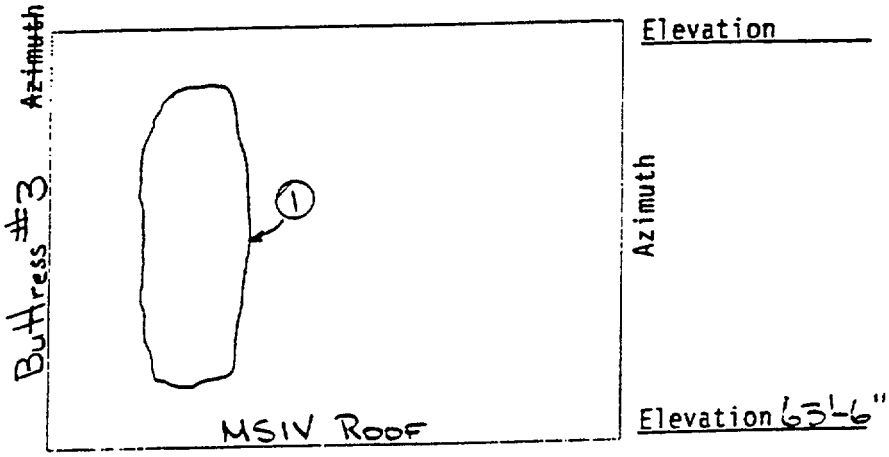
EXAMINER'S NAME Torrey Yee AREA B23-2

Instructions:

1. Indicate on the sketch below the location, orientation and extent of any observed indication(s). Use additional sheets and sketches where necessary. Number each indication and Identify in Section B.

2. List the visual aids/tools utilized to perform the examination.

A. Sketch



Visual Examination Type: VT-1C (VT-3C) (Circle)

B. Indications
1 Light scaling

C. Tools/Aids
Binoculars

Notes:

RECORDED BY: Torrey Yee — Examiner's Signature — Date 6-15-98

REVIEWED BY: Torrey Yee — Responsible Engineer's — Date 7-30-98

APPROVED BY: [signature] — Site Technical Services Supervisor or designee — Date 8/19/98

APPENDIX A

CONCRETE SURFACE VISUAL EXAMINATION REPORT FORM

Sheet A-9

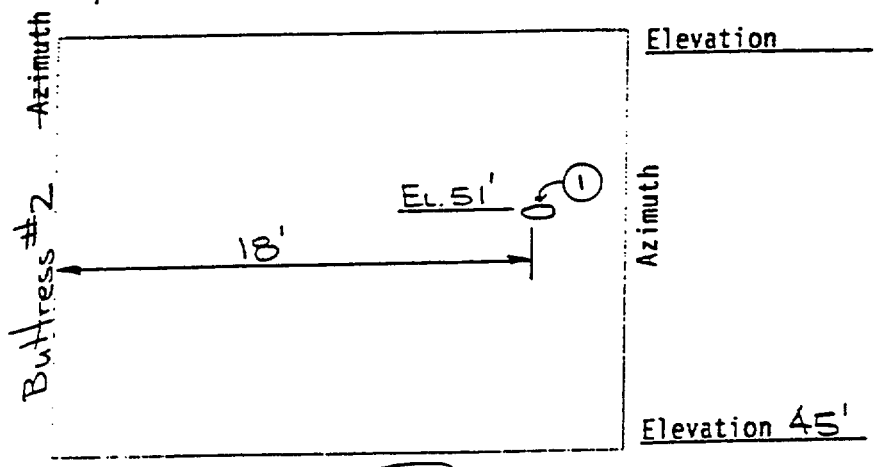
EXAMINER'S NAME Torrey Yee AREA B12-2

Instructions:

1. Indicate on the sketch below the location, orientation and extent of any observed indication(s). Use additional sheets and sketches where necessary. Number each indication and Identify in Section B.

2. List the visual aids/tools utilized to perform the examination.

A. Sketch



Visual Examination Type: VT-1C VT-3C (Circle)

B. Indications
① 1⅛" x ⅝" x ¼" deep

C. Tools/Aids

Notes: No rebar exposed. Original construction defect

RECORDED BY: Torrey Yee — Examiner's Signature — Date 6-15-98

REVIEWED BY: Torrey Yee — Responsible Engineer's — Date 7-30-98

APPROVED BY: [signature] — Site Technical Services Supervisor or designee — Date 8/19/98

APPENDIX A

CONCRETE SURFACE VISUAL EXAMINATION REPORT FORM

Sheet A-10

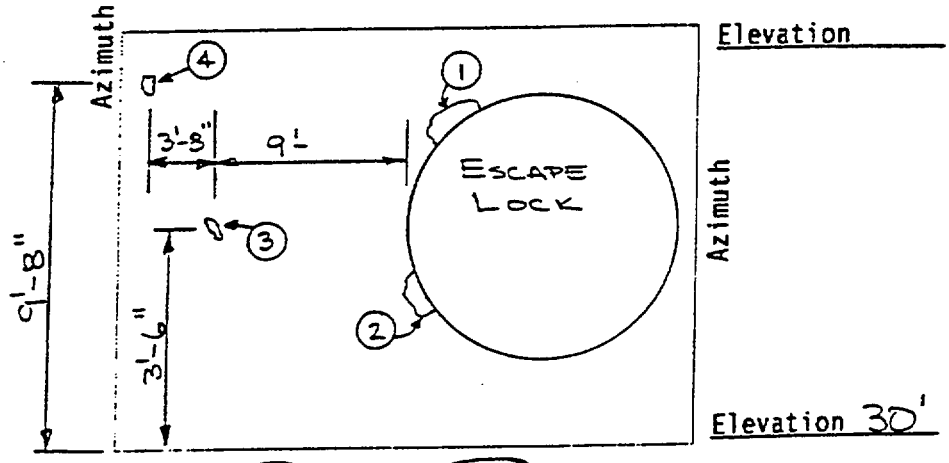
EXAMINER'S NAME Torrey Yee AREA B31-2

Instructions:

1. Indicate on the sketch below the location, orientation and extent of any observed indication(s). Use additional sheets and sketches where necessary. Number each indication and Identify in Section B.

2. List the visual aids/tools utilized to perform the examination.

A. Sketch



Visual Examination Type: VT-1C VT-3C (Circle)

B. Indications

① Spall: 7" x 2½" x ¾" deep
② Spall: 3" x 3½" x ¼" deep
③ Buchole: 1½" x ½" ⅜" deep
④ Buchole: 1¼" x ¾" ½" deep

C. Tools/Aids

Binoculars

Notes: No rebars exposed and appears to be original construction defects.

RECORDED BY: Torrey Yee — Examiner's Signature — Date 6-1-98

REVIEWED BY: Torrey Yee — Responsible Engineer's — Date 7-30-98

APPROVED BY: [signature] — Site Technical Services Supervisor or designee — Date 8/19/98

APPENDIX A

CONCRETE SURFACE VISUAL EXAMINATION REPORT FORM

Sheet A-11

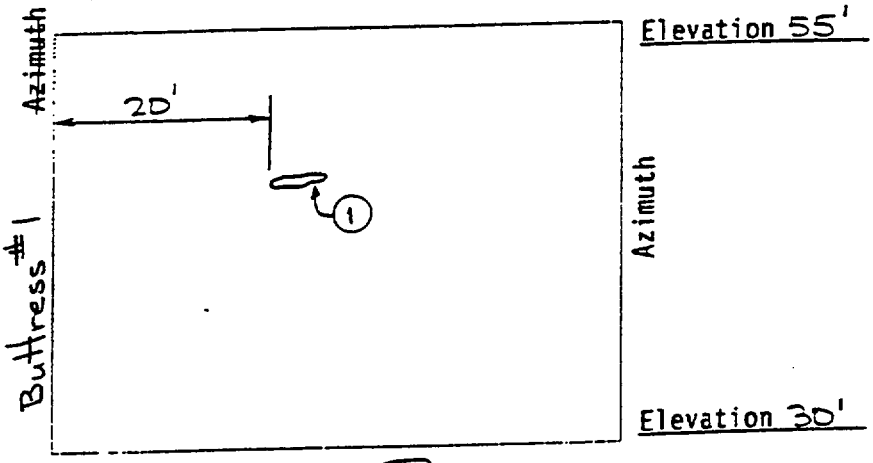
EXAMINER'S NAME Torrey Yee AREA B31-2

Instructions:

1. Indicate on the sketch below the location, orientation and extent of any observed indication(s). Use additional sheets and sketches where necessary. Number each indication and Identify in Section B.

2. List the visual aids/tools utilized to perform the examination.

A. Sketch



Visual Examination Type: VT-1C VT-3C (Circle)

B. Indications
① Bughole: 3" x 3/4" 1/2" deep

C. Tools/Aids
Binoculars

Notes: No rebar exposed. Original construction

RECORDED BY: Torrey Yee — Examiner's Signature — Date 6-1-98

REVIEWED BY: Torrey Yee — Responsible Engineer's — Date 7-30-98

APPROVED BY: [signature] — Site Technical Services Supervisor or designee — Date 8/19/98

APPENDIX A

CONCRETE SURFACE VISUAL EXAMINATION REPORT FORM

Sheet A-12

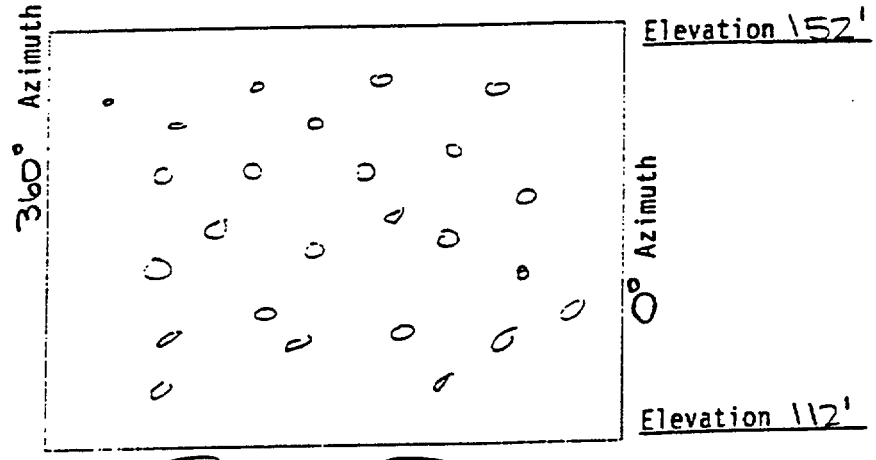
EXAMINER'S NAME Torrey Yee AREA D1-1

Instructions:

1. Indicate on the sketch below the location, orientation and extent of any observed indication(s). Use additional sheets and sketches where necessary. Number each indication and Identify in Section B.

2. List the visual aids/tools utilized to perform the examination.

A. Sketch



Visual Examination Type: VT-1C VT-3C (Circle)

B. Indications
Bugholes: Numerous bugholes were seen. They were uniformly scattered throughout the area. Maximum length is about 2½" and maximum depth is 1".

C. Tools/Aids
Binoculars
Spotting scope

Notes: Original construction defect, No reinforcement corrosion evident. Remote visual.

RECORDED BY: Torrey Yee — Examiner's Signature — Date 7-30-98

REVIEWED BY: Torrey Yee — Responsible Engineer's — Date 7-30-98

APPROVED BY: [signature] — Site Technical Services Supervisor or designee — Date 8/19/98

APPENDIX A

CONCRETE SURFACE VISUAL EXAMINATION REPORT FORM

Sheet A-13

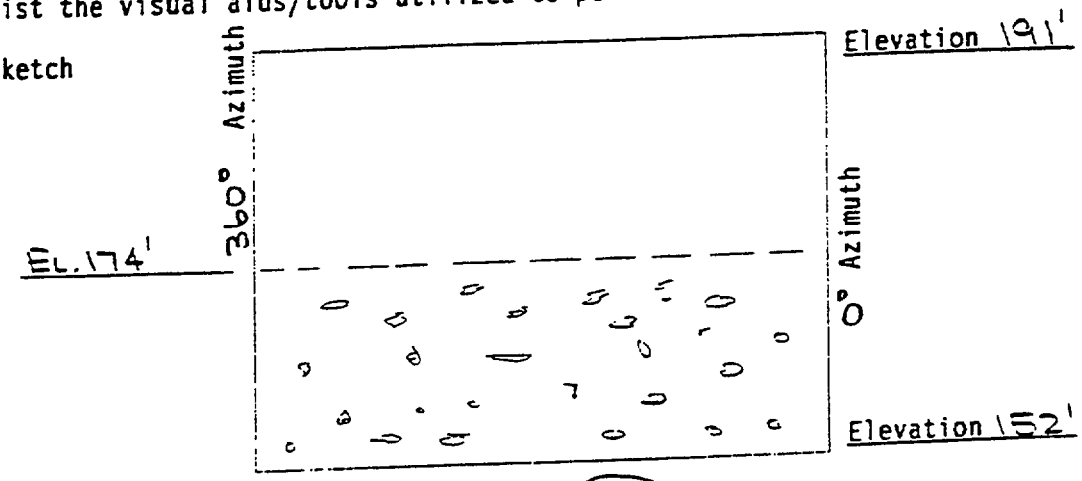
EXAMINER'S NAME Torrey Yee AREA D2-1

Instructions:

1. Indicate on the sketch below the location, orientation and extent of any observed indication(s). Use additional sheets and sketches where necessary. Number each indication and Identify in Section B.

2. List the visual aids/tools utilized to perform the examination.

A. Sketch



Visual Examination Type: (VT-1C) (VT-3C) (Circle)

B. Indications
Bugholes: Uniformly scattered throughout the area below El. 174'. Maximum length is about 2½" and maximum depth is 1".

C. Tools/Aids
Binoculars
Spotting scope

Notes: Area above 174' was direct examination. Below El. 174' was remote examination. No reinforcement corrosion evident. Original construction defect.

RECORDED BY: Torrey Yee — Examiner's Signature — Date 7-30-98

REVIEWED BY: Torrey Yee — Responsible Engineer's — Date 7-30-98

APPROVED BY: [signature] — Site Technical Services Supervisor or designee — Date 8/19/98