

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

Document Control Desk
San Onofre Nuclear Generating Station
Units 2 and 3

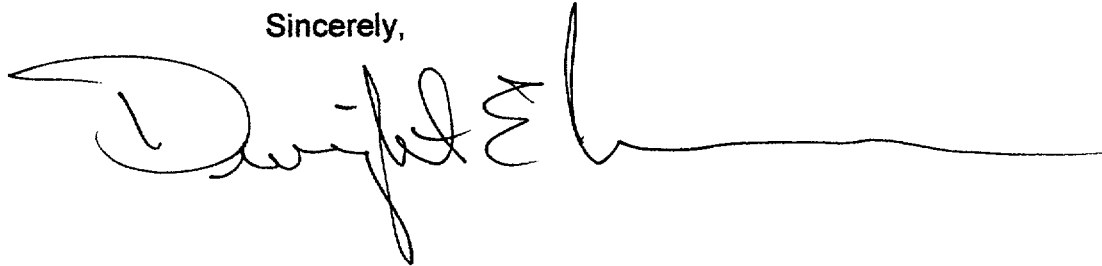
-2-

February 26, 2002
USNRC ISI Owners Report

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,

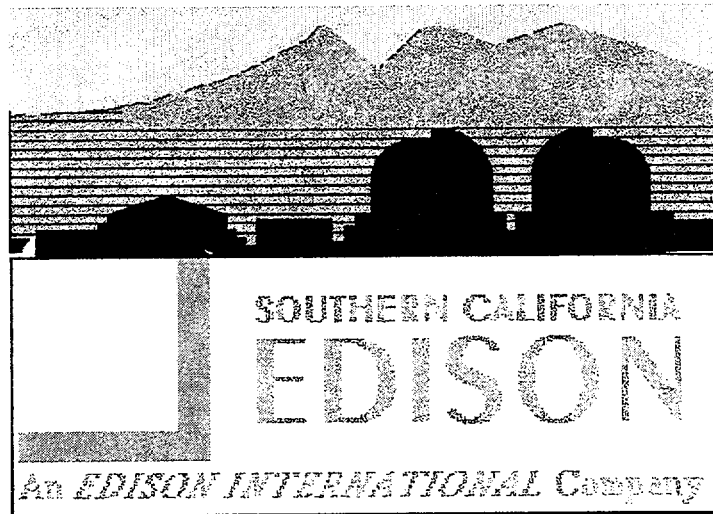
A handwritten signature in black ink, appearing to read "Richard Eleinko", with a long horizontal flourish extending to the right.

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



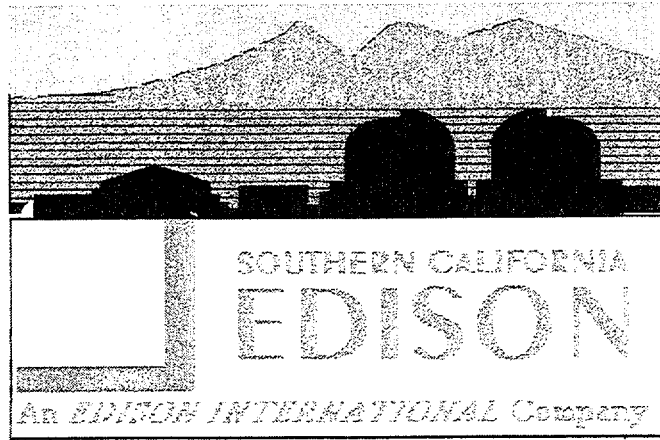
**SAN ONOFRE
NUCLEAR GENERATING
STATION UNIT-2**

***INSERVICE INSPECTION SUMMARY
REPORT***

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

U2C10

SITE TECHNICAL SERVICES



**SAN ONOFRE
NUCLEAR GENERATING
STATION UNIT-2**

***INSERVICE INSPECTION SUMMARY
REPORT***

CYCLE-10 REFUELING OUTAGE

MAY 11, 1999

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1 INTRODUCTION

This document refers to the implementation of the Inservice Inspection (ISI) conducted at the San Onofre Nuclear Generating Station (SONGS) Unit 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:

<u>PERIODS</u>	<u>DATES</u>	<u>OUTAGES</u>
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	2	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	PERIOD	PERIOD
			1	2	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

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	O26-44409	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	O27-79890	III-1	3/5/98	Fabricated spare Inconel RCS PDT type-2 nozzle
17	97100647000	O27-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
18	97100648000	O27-79882	III-1	3/30/98	Fabricated spare RCS thermowell
19	97100741000	O27-79866	III-1	1/29/99	Fabricated RCS temperature nozzle plugs
20	97100965000	O27-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
21	97100966000	O27-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
22	97100967000	O27-79858	III-1	4/13/98	Fabricated spare RCS instrument nozzle
23	97100968000	O27-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
24	97100969000	O27-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
25	97100970000	O27-79858	III-1	4/13/98	Fabricated spare RCS instrument nozzle
26	97100971000	O27-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
27	97100972000	O27-79858	III-1	4/13/98	Fabricated spare RCS instrument nozzle
28	97100973000	O27-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
29	97100974000	O27-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
30	97100975000	O27-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
31	97100976000	O27-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
32	97100977000	O27-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
33	97100978000	O27-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
34	97100979000	O27-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
35	97100980000	O27-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
36	97100981000	O27-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
37	97100982000	O27-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
38	97100983000	O27-79858	III-1	4/13/98	Fabricated spare RCS instrument nozzle
39	97100984000	O27-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
40	97100985000	O27-79858	III-1	3/5/98	Fabricated spare RCS instrument nozzle
41	97100986000	O27-79858	III-1	4/13/98	Fabricated spare RCS instrument nozzle
42	97100987000	O27-79858	III-1	4/13/98	Fabricated spare RCS instrument nozzle
43	97100988000	O27-79858	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

Abstract of Records of Repairs and Replacements

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	S21201ME805	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	97110812001	027-79890	III-1	3/27/98	Fabricated spare Inconel RCS PDT type-2 nozzle
118	97110813000	027-79890	III-1	1/26/99	Fabricated spare Inconel RCS PDT type-2 nozzle
119	97110814000	027-79890	III-1	1/26/99	Fabricated spare Inconel RCS PDT type-2 nozzle
120	97110815002	027-79890	III-1	10/27/98	Fabricated spare Inconel RCS PDT type-2 nozzle
121	97110816000	027-79890	III-1	1/26/99	Fabricated spare Inconel RCS PDT type-2 nozzle
122	97110817000	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

Abstract of Records of Repairs and Replacements

	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

Abstract of Records of Repairs and Replacements

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 S21201ME087	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

Abstract of Records of Repairs and Replacements

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	98051618000	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

<u>NAMES</u>	<u>METHOD</u>	<u>LEVEL</u>	<u>Cert</u>	<u>Eye Test</u>
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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

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.

Document Control Desk

- 2 -

February 9, 1999

San Onofre Nuclear Generating Station Unit 2

Special Report

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

Sincerely,

A handwritten signature in black ink, appearing to read "J. A. Sloan". The signature is written in a cursive style with a large, sweeping initial "J".

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:

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*per verbal
 communication
 with clay W.*

*Concurrence received via E-mail

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**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 be 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:

SPECIAL REPORT - INSERVICE INSPECTION OF STEAM GENERATOR TUBES

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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

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**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	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

SPECIAL REPORT - INSERVICE INSPECTION OF STEAM GENERATOR TUBES

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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	Characterization
1	Axially oriented ID (initiated on the inside-diameter of the tubing wall) indications at tube support locations	Bobbin	Plus Point
		Plus Point (Note 1)	Plus Point
2	Axially oriented OD (initiated on the outside-diameter of the tubing wall) indications at tube support locations	Bobbin	Plus Point
		Plus Point (Note 1)	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
		Plus Point near the top of the tubesheet	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)

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

Steam Generator E-088

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-089

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

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**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

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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

SPECIAL REPORT - INSERVICE INSPECTION OF STEAM GENERATOR TUBES
ATTACHMENT

**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

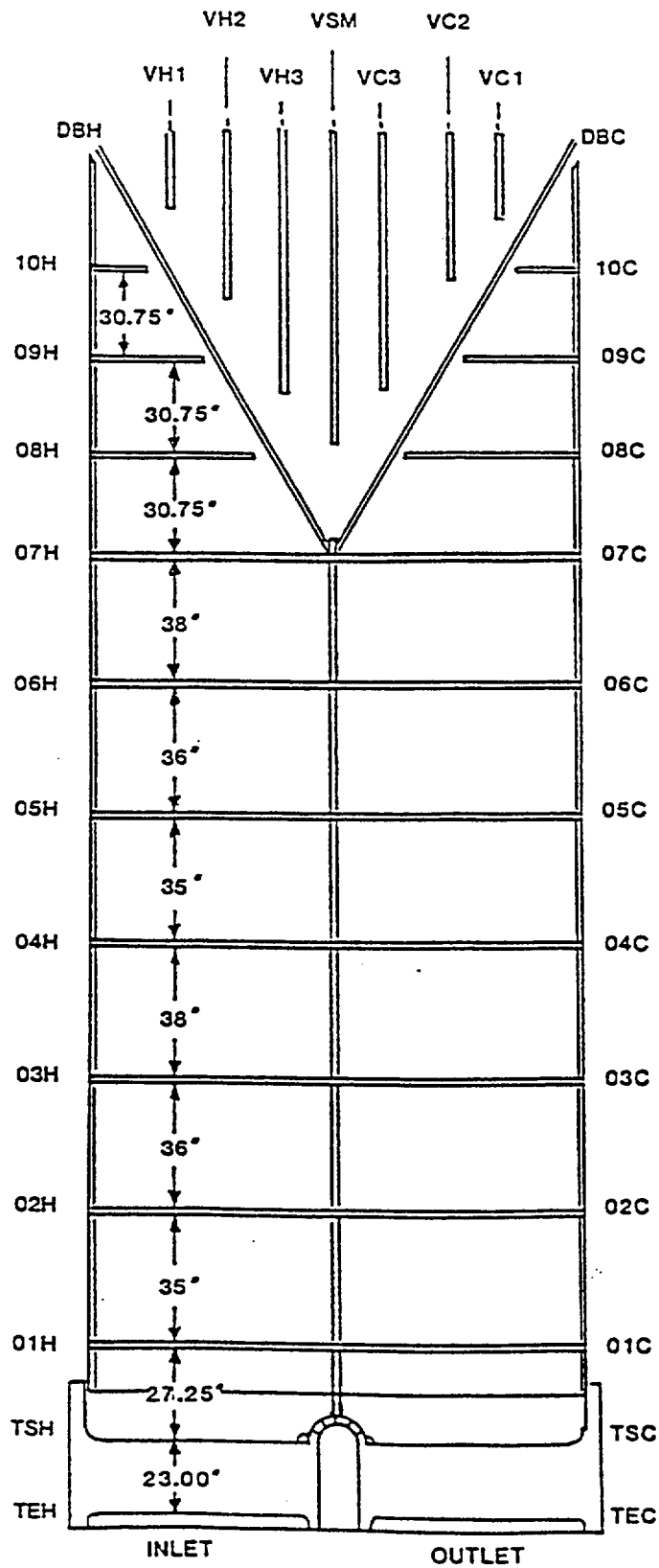
Appendix

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

<u>ROW(S)</u>	<u>TUBING/SUPPORT INTERFACES</u>					
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		

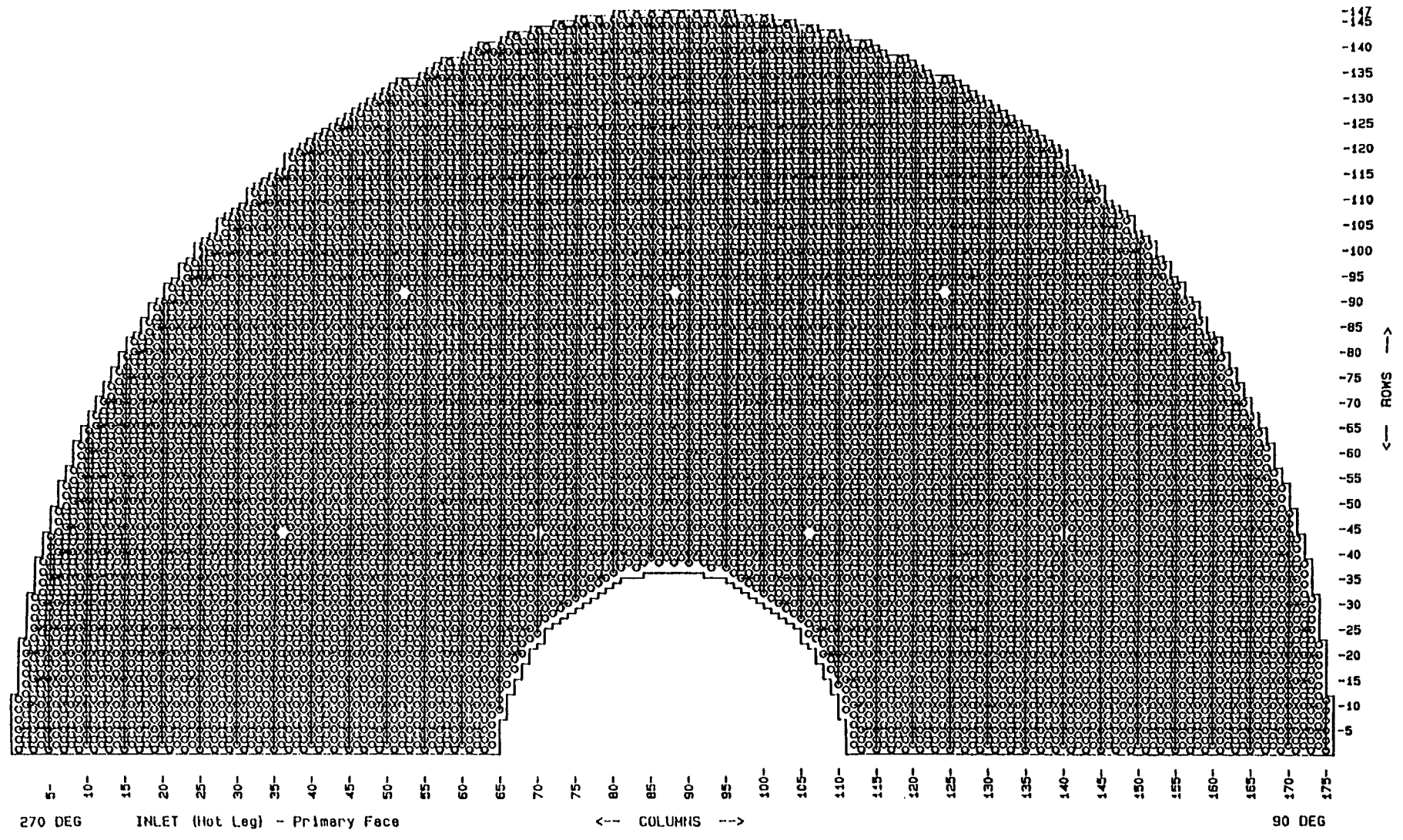
Appendix 1

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		0.55	SCI	1
			1.25		1.60	SCI	P1
			40.000		27.000	SCI	P1
SAI, MAI	XXX	XXX	1.28		0.59	SAI	1
			1.25		1.00	SAI	2
			26.000		50.000	SAI	2
SVI, MVI	XXX	XXX	1.84		0.48	SVI	1
			1.25		2.00	SVI	2
			30.000		40.000	SVI	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		0.70	MMI	1
			1.25		1.90	MMI	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

UTILITY: Southern California Edison.
 PLANT: San Onofre
 UNIT: 2
 SG: 88
 DATABASE: SONGS_U2_S688_0199

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	CSH	-0.06	TEHTEC		J2362	rsec	88C00079	C	600UL		
2	31	11	0.27		10	P2	DBH	-0.15	TEHTEC		M4882	rsec	88C00086	C	600UL		
3	43	19	0.69		23	P2	Q2H	-0.95	TEHTEC		W9658	rsec	88C00088	C	600UL		
4	78	22	0.65		21	P2	VC3	-0.91	TEHTEC		N2574	reso	88C00099	C	600UL		
5	81	23	0.32		9	P2	DBC	-0.66	TEHTEC		J9815	rpri	88C00103	C	600UL		
6	86	26			SAI	1	06H	-0.33	06H06H		F6623	reso	88H00151	H	500DP		
7			0.26	.33	SAI	2	06H	-0.33	06H06H		F6623	reso	88H00151	H	500DP		
8				100	SAI	2	06H	-0.33	06H06H		F6623	reso	88H00151	H	500DP		
9	92	26	0.56		19	P2	VH2	-0.60	TEHTEC		K3270	rsec	88C00102	C	600UL		
10	102	26	0.39		16	P2	06H	-0.86	TEHTEC		J1220	rpri	88C00102	C	600UL		
11	80	30	0.14	.29	SAI	1	06H	-0.13	06H06H		M7262	reso	88H00133	H	500DP		
12			0.14	.43	SAI	2	06H	-0.13	06H06H		M7262	reso	88H00133	H	500DP		
13			73.00	108	SAI	2	06H	-0.13	06H06H		M7262	reso	88H00133	H	500DP		
14	106	30	0.36		14	P2	06H	-0.86	TEHTEC		J1220	rpri	88C00102	C	600UL		
15	77	33	0.38		16	P2	VSM	-0.38	TEHTEC		T5565	rpri	88C00095	C	600UL		
16	92	36	0.60		22	P2	VH2	-0.74	TEHTEC		J1220	rpri	88C00102	C	600UL		
17	89	37	0.44		22	P2	VH2	-0.77	TEHTEC		P4578	rsec	88C00104	C	600UL		
18			0.33		18	P2	VH2	-0.90	TEHTEC		P4578	rsec	88C00104	C	600UL		
19	111	37	0.37		19	P2	DBH	-0.82	TSHTEC		P4578	rsec	88C00104	C	600UL		
20	82	38	0.83		32	P2	VC3	-0.80	TEHTEC		P4578	rsec	88C00104	C	600UL		
	84	38	0.33		18	P2	09C	-0.05	TEHTEC		N2574	reso	88C00104	C	600UL		
	17	39	159.00	81	SCI	P1	TSH	-0.01	TSHTSH		E4963	reso	88H00099	H	600PP		
23			0.35	.27	SCI	1	TSH	-0.01	TSHTSH		E4963	reso	88H00099	H	600PP		
24			0.42	.39	SCI	P1	TSH	-0.01	TSHTSH		E4963	reso	88H00099	H	600PP		
25	93	39	0.29		16	P2	VC3	-0.02	TEHTEC		P4578	rsec	88C00104	C	600UL		
26	113	39	0.31		19	P2	DBH	-0.84	TEHTEC		N2574	reso	88C00104	C	600UL		
27	121	39	0.43		22	P2	C3C	-0.99	TEHTEC		P4578	rsec	88C00104	C	600UL		
28	77	41	0.23		10	P2	VSM	-0.11	TEHTEC		T5565	rpri	88C00095	C	600UL		
29	113	41	0.48		17	P2	VH2	-0.53	TEHTEC		R3710	rpri	88C00131	C	600UL		
30	22	42	0.69	.24	MCI	P1	TSH	-0.04	TSHTSH		T9924	reso	88H00099	H	600PP		
31			23.00	27	MCI	P1	TSH	-0.04	TSHTSH		T9924	reso	88H00099	H	600PP		
32			0.69	.35	MCI	1	TSH	-0.04	TSHTSH		M7262	reso	88H00099	H	600PP		
33			1.03	.19	MCI	P1	TSH	-0.04	TSHTSH		M7262	reso	88H00099	H	600PP		
34			21.00	26	MCI	P1	TSH	-0.04	TSHTSH		M7262	reso	88H00099	H	600PP		
35			0.73	.43	MCI	1	TSH	-0.04	TSHTSH		T9924	reso	88H00099	H	600PP		
36	85	43	0.27		13	P2	VH2	-0.64	TEHTEC		W3386	reso	88C00109	C	600UL		
37	18	44	0.32		11	P2	DBH	-0.75	TEHTEC		E4963	reso	88C00091	C	600UL		
38	60	44	20.00	30	SCI	P1	TSH	-0.05	TSHTSH		N2574	reso	88H00096	H	600PP		
39			0.24	.17	SCI	1	TSH	-0.05	TSHTSH		N2574	reso	88H00096	H	600PP		
40			0.31	.17	SCI	P1	TSH	-0.05	TSHTSH		N2574	reso	88H00096	H	600PP		
41	1	45	1.41	.22	SCI	P1	TSH	-0.88	TSHTSH		E4963	reso	88H00105	H	600PP		
42			20.00	26	SCI	P1	TSH	-0.88	TSHTSH		E4963	reso	88H00105	H	600PP		
43			1.43	.36	SCI	1	TSH	-0.88	TSHTSH		E4963	reso	88H00105	H	600PP		
44	26	46	0.68	.21	SCI	P1	TSH	-0.03	TSHTSH		M7262	reso	88H00099	H	600PP		
45			25.00	19	SCI	P1	TSH	-0.03	TSHTSH		M7262	reso	88H00099	H	600PP		
			0.51	.35	SCI	1	TSH	-0.03	TSHTSH		M7262	reso	88H00099	H	600PP		
	9	47	24.00	15	SCI	P1	TSH	-0.48	TSHTSH		E4963	reso	88H00137	H	500DP		
48			0.26	.21	SCI	1	TSH	-0.48	TSHTSH		F3453	reso	88H00137	H	500DP		
49			0.35	.21	SCI	P1	TSH	-0.48	TSHTSH		E4963	reso	88H00137	H	500DP		

UTILITY: Southern California Edison,
 PLANT: San Onofre
 UNIT: 2
 SG: 88
 DATABASE: SONGS_U2_0088_0199

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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	-0.95	TEHTEC		K6733	rpri	88C00093	C	600	UL		
51	111	47	0.27		12	P2	VHD	-0.93	TEHTEC		R3710	rpri	88C00108	C	600	UL		
52	16	48	0.25	.23	SCI	P1	TSH	-0.04	TSHTSH		R1509	reso	88H00102	H	600	PP		
53			22.00	.18	SCI	P1	TSH	-0.04	TSHTSH		R1509	reso	88H00102	H	600	PP		
54			0.31	.20	SCI	1	TSH	-0.04	TSHTSH		R1509	reso	88H00102	H	600	PP		
55	23	49			24	SCI	P1	TSH	-0.00	TSHTSH		R1509	reso	88H00098	H	600	PP	
56						SCI	1	TSH	-0.00	TSHTSH		R1509	reso	88H00098	H	600	PP	
57			0.52	.26	SCI	P1	TSH	-0.00	TSHTSH		R1509	reso	88H00098	H	600	PP		
58	27	49	29.00	.27	SCI	P1	TSH	-0.01	TSHTSH		R1509	reso	88H00098	H	600	PP		
59			0.61	.29	SCI	1	TSH	-0.01	TSHTSH		R1509	reso	88H00098	H	600	PP		
60			0.65	.27	SCI	P1	TSH	-0.01	TSHTSH		R1509	reso	88H00098	H	600	PP		
61	29	49	34.00	.29	SCI	P1	TSH	-0.01	TSHTSH		M7262	reso	88H00099	H	600	PP		
62			1.38	.89	SCI	1	TSH	-0.01	TSHTSH		T9924	reso	88H00099	H	600	PP		
63			1.55	.81	SCI	P1	TSH	-0.01	TSHTSH		M7262	reso	88H00099	H	600	PP		
64	12	50	0.44	.18	SCI	P1	TSH	-0.08	TSHTSH		T9924	reso	88H00106	H	600	PP		
65					24	SCI	P1	TSH	-0.08	TSHTSH		T9924	reso	88H00106	H	600	PP	
66						SCI	1	TSH	-0.08	TSHTSH		N2574	reso	88H00106	H	600	PP	
67	32	50			84	SCI	P1	TSH	-0.04	TSHTSH		M7262	reso	88H00001	H	600	PP	
68						SCI	1	TSH	-0.04	TSHTSH		M7262	reso	88H00001	H	600	PP	
			0.18	.21	SCI	P1	TSH	-0.04	TSHTSH		M7262	reso	88H00001	H	600	PP		
	88	50	0.45		17	P2	VCD	-0.86	TEHTEC		J2362	rsec	88C00121	C	600	UL		
71	96	50	0.36		13	P2	VSM	-0.76	TEHTEC		L0601	rpri	88C00075	C	600	UL		
72			0.46		18	P2	VCD	-0.79	TEHTEC		L0601	rpri	88C00075	C	600	UL		
73	43	51	0.81		25	P2	VSM	-0.87	TEHTEC		B4370	rsec	88C00045	C	600	UL		
74	65	51	0.51	.24	SCI	P1	TSH	-0.00	TSHTSH		W2545	reso	88H00006	H	600	PP		
75					20	SCI	P1	TSH	-0.00	TSHTSH		W2545	reso	88H00006	H	600	PP	
76						SCI	1	TSH	-0.00	TSHTSH		W2545	reso	88H00006	H	600	PP	
77	89	51	0.35		13	P2	VH3	-0.92	TEHTEC		L0601	rpri	88C00075	C	600	UL		
78	64	52	0.39	.20	SCI	P1	TSH	-0.09	TSHTSH		G1311	reso	88H00005	H	600	PP		
79			11.00	.24	SCI	P1	TSH	-0.09	TSHTSH		G1311	reso	86H00005	H	600	PP		
80			1.08	.32	SCI	1	TSH	-0.09	TSHTSH		G1311	reso	88H00005	H	600	PP		
81	43	53			19	SCI	P1	TSH	-0.05	TSHTSH		M7262	reso	88H00001	H	600	PP	
82						SCI	1	TSH	-0.05	TSHTSH		M7262	reso	88H00001	H	600	PP	
83			0.50	.19	SCI	P1	TSH	-0.05	TSHTSH		M7262	reso	88H00001	H	600	PP		
84	34	54			21	MCI	P1	TSH	-0.09	TSHTSH		D3858	reso	88H00001	H	600	PP	
85			0.30	.14	MCI	1	TSH	-0.09	TSHTSH		D3858	reso	88H00001	H	600	PP		
86			0.31	.16	MCI	P1	TSH	-0.09	TSHTSH		D3858	reso	88H00001	H	600	PP		
87			0.60	.14	MCI	1	TSH	-0.09	TSHTSH		D3858	reso	88H00001	H	600	PP		
88			0.58	.19	MCI	P1	TSH	-0.09	TSHTSH		D3858	reso	88H00001	H	600	PP		
89			13.00	.24	MCI	P1	TSH	-0.07	TSHTSH		D3858	reso	88H00001	H	600	PP		
90	78	54	0.26	.30	MCI	1	TSH	-0.00	TSHTSH		D3858	reso	88H00006	H	600	PP		
91			0.54	.20	MCI	P1	TSH	-0.00	TSHTSH		D3858	reso	88H00006	H	600	PP		
92						MCI	1	TSH	-0.00	TSHTSH		D3858	reso	88H00006	H	600	PP	
93			0.16	.17	MCI	P1	TSH	-0.00	TSHTSH		D3858	reso	88H00006	H	600	PP		
					42	MCI	P1	TSH	-0.00	TSHTSH		D3858	reso	88H00006	H	600	PP	
			24.00	.24	MCI	P1	TSH	-0.00	TSHTSH		W2545	reso	88H00006	H	600	PP		
	82	54	0.75		25	P2	VH3	-0.74	TEHTEC		R3710	rpri	88C00078	C	600	UL		
97	53	55	128.00	.80	SCI	P1	TSH	-0.19	TSHTSH		G1311	reso	88H00002	H	600	PP		
98			0.28	.21	SCI	1	TSH	-0.19	TSHTSH		G1311	reso	88H00002	H	600	PP		

UTILITY: Southern California Edison,
 PLANT: San Onofre
 UNIT: 2
 SG: 88
 DATABASE: SONGS_U2_0088_0199

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			G1311	reso	88H00002	H	600PP		
100	119	55	0.30		11	P2	DBH	-0.54			F6623	reso	88C00076	C	600UL		
101	22	56	0.55	.18	SCI	P1	TSH	-0.06			T9924	reso	88H00107	H	600PP		
102					25	SCI	P1	TSH	-0.06		T9924	reso	88H00107	H	600PP		
103						SCI	1	TSH	-0.06		T9924	reso	88H00107	H	600PP		
104	62	56	26.00	26	SCI	P1	TSH	-0.00			W2545	reso	88H00006	H	600PP		
105			1.18	.42	SCI	1	TSH	-0.00			W2545	reso	88H00006	H	600PP		
106			0.69	.26	SCI	P1	TSH	-0.00			W2545	reso	88H00006	H	600PP		
107	21	57	15.00	22	SCI	P1	TSH	-0.05			N2574	reso	88H00106	H	600PP		
108			1.03	.31	SCI	1	TSH	-0.05			N2574	reso	88H00106	H	600PP		
109			1.03	.21	SCI	P1	TSH	-0.05			N2574	reso	88H00106	H	600PP		
110	43	57	19.00	23	SCI	P1	TSH	-0.10			M7262	reso	88H00001	H	600PP		
111			0.91	.30	SCI	1	TSH	-0.10			M7262	reso	88H00001	H	600PP		
112			0.66	.22	SCI	P1	TSH	-0.10			M7262	reso	88H00001	H	600PP		
113	75	57	1.12	.30	SCI	P1	TSH	-0.09			G1311	reso	88H00005	H	600PP		
114			15.00	29	SCI	P1	TSH	-0.09			G1311	reso	88H00005	H	600PP		
115			1.67	.41	SCI	1	TSH	-0.09			G1311	reso	88H00005	H	600PP		
116	18	58	0.34	.26	SCI	P1	TSH	-0.08			T9924	reso	88H00107	H	600PP		
117			5.00	17	SCI	P1	TSH	-0.08			T9924	reso	88H00107	H	600PP		
			1.46	.46	SCI	1	TSH	-0.08			T9924	reso	88H00107	H	600PP		
	44	58	0.40		14	P2	VSM	-0.80			B4370	rsec	88C00045	C	600UL		
	23	59	0.20	.34	SCI	1	TSH	-0.05			T9924	reso	88H00107	H	600PP		
121			0.48	.20	SCI	P1	TSH	-0.05			T9924	reso	88H00107	H	600PP		
122			36.00	30	SCI	P1	TSH	-0.05			T9924	reso	88H00107	H	600PP		
123	38	60	0.16	.16	SCI	P1	TSH	-0.06			G1311	reso	88H00002	H	600PP		
124					85	SCI	P1	TSH	-0.06		G1311	reso	88H00002	H	600PP		
125						SCI	1	TSH	-0.06		G1311	reso	88H00002	H	600PP		
126	136	60	0.42		15	P2	VH1	-0.77			B2153	rsec	88C00075	C	600UL		
127	19	61	19.00	20	SAI	2	TSH	-0.54			T9924	reso	88H00107	H	600PP		
128			1.09	.29	SAI	1	TSH	-0.54			T9924	reso	88H00107	H	600PP		
129			1.25	.21	SAI	2	TSH	-0.54			T9924	reso	88H00107	H	600PP		
130			0.76	.43	SAI	1	TSH	-0.07			T9924	reso	88H00107	H	600PP		
131			0.80	.29	SAI	2	TSH	-0.07			T9924	reso	88H00107	H	600PP		
132			12.00	23	SAI	2	TSH	-0.07			T9924	reso	88H00107	H	600PP		
133						SCI	1	TSH	-0.05		T9924	reso	88H00107	H	600PP		
134			0.11	.14	SCI	P1	TSH	-0.05			T9924	reso	88H00107	H	600PP		
135					59	SCI	P1	TSH	-0.05		T9924	reso	88H00107	H	600PP		
136	23	61	0.77			SCI	1	TSH	-0.05		T9924	reso	88H00107	H	600PP		
137			0.25	.23	SCI	P1	TSH	-0.05			T9924	reso	88H00107	H	600PP		
138			16.00	30	SCI	P1	TSH	-0.05			T9924	reso	88H00107	H	600PP		
139	37	61	0.41		14	P2	VSM	-0.94			J9815	rpri	88C00046	C	600UL		
140	80	62	16.00	20	SCI	P1	TSH	-0.06			G1311	reso	88H00005	H	600PP		
141			1.59	.36	SCI	1	TSH	-0.06			R1509	reso	88H00005	H	600PP		
142			0.48	.20	SCI	P1	TSH	-0.06			G1311	reso	88H00005	H	600PP		
143	122	62	0.50		18	P2	VH1	-0.89			J9815	rpri	88C00075	C	600UL		
	126	62	0.50		18	P2	10H	-0.07			J9815	rpri	88C00075	C	600UL		
	25	63	0.56		21	P2	07H	-0.89			B4370	rsec	88C00048	C	600UL		
146						SAI	1	07H	-0.95		E4963	reso	88H00177	H	500DP		
147			0.15	.32	SAI	2	07H	-0.95			E4963	reso	88H00177	H	500DP		

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ROW	COL	VOLTS	DEG	PCT	CHN	FLAW	LOCATION	EXTENT	UTIL1	UTIL2	NAME	TYPE	CAL	GROUP	LEG	PROBE	SIZE
148				72	SAI	2	07H	-0.95			E4963	reso	88H00177		H	500DP	
149	77	63	0.49	.21	SCI	P1	TSH	-0.00			W2545	reso	88H00006		H	600PP	
150			21.00	.17	SCI	P1	TSH	-0.00			W2545	reso	88H00006		H	600PP	
151			0.55	.16	SCI	1	TSH	-0.00			W2545	reso	88H00006		H	600PP	
152	129	63	0.32		11	P2	10H	-0.15			F3453	reso	88C00073		C	600UL	
153	124	64	0.68		23	P2	10H	-0.92			J1220	rpri	88C00121		C	600UL	
154	9	65	8.00	.21	SAI	2	TSH	-0.18			N2574	reso	88H00106		H	600PP	
155			1.53	.22	SAI	1	TSH	-0.18			N2574	reso	88H00106		H	600PP	
156			0.83	.14	SAI	2	TSH	-0.18			N2574	reso	88H00106		H	600PP	
157	15	65	1.32	.45	SAI	2	TSH	-0.12			T9924	reso	88H00107		H	600PP	
158			13.00	.22	SAI	2	TSH	-0.12			T9924	reso	88H00107		H	600PP	
159			1.98	.48	SAI	1	TSH	-0.12			T9924	reso	88H00107		H	600PP	
160	29	65			SAI	1	07H	-0.42			E4963	reso	88H00177		H	500DP	
161			0.28	.18	SAI	2	07H	-0.42			E4963	reso	88H00177		H	500DP	
162				.88	SAI	2	07H	-0.42			E4963	reso	88H00177		H	500DP	
163			0.18	.18	SAI	2	07H	-0.79			E4963	reso	88H00177		H	500DP	
164				.93	SAI	2	07H	-0.79			E4963	reso	88H00177		H	500DP	
165					SAI	1	07H	-0.79			E4963	reso	88H00177		H	500DP	
166	77	65	0.21	.16	SCI	P1	TSH	-0.05			M7262	reso	88H00006		H	600PP	
					70	SCI	P1	TSH	-0.05		M7262	reso	88H00006		H	600PP	
						SCI	1	TSH	-0.05		M7262	reso	88H00006		H	600PP	
170	123	65	0.32		14	P2	DBH	-0.00			W9658	rsec	88C00074		C	600UL	
170	50	66	0.35	.64	MAI	2	TSH	-0.66			M7262	reso	88H00003		H	600PP	
171			69.00	.108	MAI	2	TSH	-0.66			M7262	reso	88H00003		H	600PP	
172			0.65	.50	MAI	1	TSH	-0.66			M7262	reso	88H00003		H	600PP	
173	61	67	1.25	.22	SCI	P2	TSH	-0.00			W2545	reso	88H00006		H	600PP	
174			22.00	.27	SCI	P1	TSH	-0.00			W2545	reso	88H00006		H	600PP	
175			1.02	.30	SCI	1	TSH	-0.00			W2545	reso	88H00006		H	600PP	
176	141	67	0.52		19	P2	VCL	-0.05			J1220	rpri	88C00073		C	600UL	
177	22	68	0.94		27	P2	VSM	-0.88			E4963	reso	88C00086		C	600UL	
178	34	68	6.00	.17	SAI	2	TSH	-0.47			D3858	reso	88H00003		H	600PP	
179			0.33	.19	SAI	1	TSH	-0.47			D3858	reso	88H00003		H	600PP	
180			0.31	.27	SAI	2	TSH	-0.47			D3858	reso	88H00003		H	600PP	
181	45	71		.98	SAI	2	TSH	-1.07			M7262	reso	88H00003		H	600PP	
182					SAI	1	TSH	-1.07			M7262	reso	88H00003		H	600PP	
183			0.22	.29	SAI	2	TSH	-1.07			M7262	reso	88H00003		H	600PP	
184	67	71	0.21	.22	SCI	P1	TSH	-0.12			G1311	reso	88H00005		H	600PP	
185				.26	SCI	P1	TSH	-0.12			G1311	reso	88H00005		H	600PP	
186					SCI	1	TSH	-0.12			G1311	reso	88H00005		H	600PP	
187	123	71	0.33		14	P2	VH1	-0.77			W9658	rsec	88C00074		C	600UL	
188	39	72	19.00	.27	SAI	2	TSH	-0.75			M7262	reso	88H00003		H	600PP	
189			0.14	.30	SAI	1	TSH	-0.75			M7262	reso	88H00003		H	600PP	
190			0.79	.19	SAI	2	TSH	-0.75			M7262	reso	88H00003		H	600PP	
191	120	72	0.60		23	P2	09C	-1.02			W9658	rsec	88C00074		C	600UL	
192	37	73	0.65		22	P2	DBH	-1.51			G2927	rpri	88C00120		C	600UL	
	41	73	0.33		13	P2	VSM	-0.88			G2927	rpri	88C00120		C	600UL	
	45	73	0.47	.18	SAI	2	TSH	-0.60			D3858	reso	88H00057		H	600PP	
195			14.00	.15	SAI	2	TSH	-0.60			D3858	reso	88H00057		H	600PP	
196			0.62	.18	SAI	1	TSH	-0.60			D3858	reso	88H00057		H	600PP	

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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		X6733	rpri	88C00074	C	600UL		
206	46	74	0.84		27	P2	VSM	-0.79	TEHTEC		B5926	rsec	88C00119	C	600UL		
207		0.46		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	88C00066	C	600UL		
213	136	74	0.59		22	P2	10H	-0.97	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	-1.58	TSHTSH		W3386	reso	88H00056	H	600PP		
		16.00		18	SAI	2	TSH	-1.58	TSHTSH		G1311	reso	88H00056	H	600PP		
218		0.49	.20	SAI	1	TSH	-1.58	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	88C00066	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	-1.94	TEHTEC		J1220	rpri	88C00069	C	600UL		
239	131	77	0.53		22	P2	DBH	-1.00	TEHTEC		F6623	reso	88C00066	C	600UL		
240	145	77	1.46		38	P2	VCI	-1.92	TEHTEC		X6733	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	88C00066	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		

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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	-1.04	TSHTSH			D3858	reso	88H00056	H	600PP		
247		0.32	.51	MCI	P1	TSH	-1.04	TSHTSH			D3858	reso	88H00056	H	600PP		
248		36.00	124	MCI	P1	TSH	-1.04	TSHTSH			D3858	reso	88H00056	H	600PP		
249		0.74	.85	MCI	1	TSH	-1.04	TSHTSH			D3858	reso	88H00056	H	600PP		
250	119	79	0.44		17	P2	DBH	-1.99	TEHTEC		H3464	rpri	88C00066	C	600UL		
251	54	80	0.47		16	P2	DBC	-1.00	TEHTEC		G1311	reso	88C00118	C	600UL		
252	56	80	0.27		10	P2	VSM	-1.85	TEHTEC		F7460	rpri	88C00117	C	600UL		
253	64	80	0.35		13	P2	DBH	-1.79	TEHTEC		M7262	reso	88C00117	C	600UL		
254	80	80	0.36		14	P2	VSM	-1.65	TEHTEC		F7460	rpri	88C00117	C	600UL		
255			0.26		10	P2	VSM	-1.96	TEHTEC		F7460	rpri	88C00117	C	600UL		
256	120	80	0.37		15	P2	DBH	-1.00	TEHTEC		F6623	reso	88C00066	C	600UL		
257	144	80	0.33		13	P2	DBH	-1.75	TEHTEC		K6733	rpri	88C00074	C	600UL		
258	53	81	0.55		19	P2	DBH	-1.75	TEHTEC		M7262	reso	88C00117	C	600UL		
259	71	81		107	SAI	2	TSH	-1.29	TSHTSH		D3858	reso	88H00057	H	600PP		
260					SAI	1	TSH	-1.29	TSHTSH		D3858	reso	88H00057	H	600PP		
261			0.19	.21	SAI	2	TSH	-1.29	TSHTSH		D3858	reso	88H00057	H	600PP		
262	145	81	0.51		18	P2	VH1	-1.74	TEHTEC		J1220	rpri	88C00073	C	600UL		
263			0.82		27	P2	DBC	-1.79	TEHTEC		J1220	rpri	88C00073	C	600UL		
264	147	81	1.02		32	P2	DBC	-1.81	TEHTEC		K6733	rpri	88C00074	C	600UL		
	58	82	0.22	.27	SAI	1	TSH	-1.85	TSHTSH		G1311	reso	88H00057	H	600PP		
			0.35	.23	SAI	2	TSH	-1.85	TSHTSH		G1311	reso	88H00057	H	600PP		
267			117.00	117	SAI	2	TSH	-1.85	TSHTSH		G1311	reso	88H00057	H	600PP		
268	74	82	0.44		15	P2	VSM	-1.95	TEHTEC		M4882	rsec	88C00118	C	600UL		
269	144	82	0.34		14	P2	DBC	-1.79	TEHTEC		K6733	rpri	88C00074	C	600UL		
270	53	83	1.05		30	P2	DBC	-1.89	TEHTEC		G2927	rpri	88C00118	C	600UL		
271	55	83	0.36		14	P2	DBH	-1.76	TEHTEC		F7460	rpri	88C00117	C	600UL		
272	63	83	0.19	.20	SAI	2	TSH	-1.15	TSHTSH		W3386	reso	88H00056	H	600PP		
273				100	SAI	2	TSH	-1.15	TSHTSH		W3386	reso	88H00056	H	600PP		
274					SAI	1	TSH	-1.15	TSHTSH		W3386	reso	88H00056	H	600PP		
275	125	83	0.70		24	P2	DBH	-1.94	TEHTEC		F7460	rpri	88C00065	C	600UL		
276	131	83	0.19		8	P2	DBH	-1.91	TEHTEC		F6623	reso	88C00066	C	600UL		
277	133	83	0.55		20	P2	10H	-1.89	TEHTEC		F7460	rpri	88C00065	C	600UL		
278	62	84			SCI	1	TSH	-1.11	TSHTSH		G1311	reso	88H00056	H	600PP		
279			0.41	.21	SCI	P1	TSH	-1.11	TSHTSH		W3386	reso	88H00056	H	600PP		
280				22	SCI	P1	TSH	-1.11	TSHTSH		W3386	reso	88H00056	H	600PP		
281			0.29	1.0	SCI	P1	TSH	-1.11	TSHTSH		W3386	reso	88H00056	H	600PP		
282			0.84	1.0	SCI	1	TSH	-1.11	TSHTSH		W3386	reso	88H00056	H	600PP		
283			136.00	74	SCI	P1	TSH	-1.11	TSHTSH		G1311	reso	88H00056	H	600PP		
284	134	84	0.72		24	P2	10H	-1.92	TEHTEC		F7460	rpri	88C00065	C	600UL		
285	144	84	0.44		18	P2	DBC	-1.80	TEHTEC		R5555	rsec	88C00074	C	600UL		
286	71	85	0.58		20	P2	DBC	-1.82	TEHTEC		M7262	reso	88C00117	C	600UL		
287	143	85	0.90		29	P2	VC1	-1.90	TEHTEC		K6733	rpri	88C00074	C	600UL		
288			0.25		9	P2	VC1	-1.90	TEHTEC		K6733	rpri	88C00074	C	600UL		
289	147	85	0.30		13	P2	DBH	-1.75	TEHTEC		R5555	rsec	88C00074	C	600UL		
290			0.33		15	P2	VC1	-1.13	TEHTEC		F3453	reso	88C00074	C	600UL		
			0.56		22	P2	VC1	-1.94	TEHTEC		R5555	rsec	88C00074	C	600UL		
			0.42		18	P2	DBC	-1.78	TEHTEC		M7262	reso	88C00074	C	600UL		
293	52	86	0.31		10	P2	DBH	-1.97	TEHTEC		M4882	rsec	88C00118	C	600UL		
294			0.85		25	P2	DBH	-1.34	TEHTEC		M4882	rsec	88C00118	C	600UL		

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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	VCI	-1.97	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	-1.72	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	-1.83	07HTEC		W9658	rsec	88C00116	C	600UL			
398	135	93	0.42		16	P2	10H	-1.92	TEHTEC		K6733	rpri	88C00068	C	600UL			
399	147	93	0.84		28	P2	VCI	-1.05	TEHTEC		K6733	rpri	88C00074	C	600UL			
400			0.26		10	P2	DBC	-1.92	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	-1.77	TEHTEC		G2927	rpri	88C00116	C	600UL			
403	82	94	6.00	26	SCI	P1	TSH	-1.09	TSHTSH		F3453	reso	88H00052	H	600PP			
404			0.61	.29	SCI	1	TSH	-1.09	TSHTSH		F3453	reso	88H00052	H	600PP			
405			0.78	.16	SCI	P1	TSH	-1.09	TSHTSH		F3453	reso	88H00052	H	600PP			
406	130	94	0.39		15	P2	10H	-1.00	TEHTEC		J1220	rpri	88C00057	C	600UL			
407	132	94	0.69		24	P2	10H	-1.96	TEHTEC		K6733	rpri	88C00058	C	600UL			
408	119	95	0.39		15	P2	DBH	-1.81	TEHTEC		K6733	rpri	88C00068	C	600UL			
409	129	95	0.41		15	P2	DBH	-1.16	TEHTEC		W4786	rsec	88C00067	C	600UL			
410	48	96	0.78		24	P2	DBH	-1.93	TEHTEC		F7460	rpri	88C00115	C	600UL			
411	50	96	0.72		22	P2	DBH	-1.81	TEHTEC		W9658	rsec	88C00116	C	600UL			
			0.36		11	P2	DBC	-1.88	TEHTEC		W9658	rsec	88C00116	C	600UL			
	122	96	0.49		18	P2	DBH	-1.96	TEHTEC		J1220	rpri	88C00057	C	600UL			
414	49	97	1.33		35	P2	DBH	-1.04	TEHTEC		R1509	reso	88C00115	C	600UL			
415	63	97	0.10	.16	SCI	P1	TSH	-1.00	TSHTSH		T1089	reso	88H00059	H	600PP			
416					93	SCI	P1	TSH	-1.00	TSHTSH		T1089	reso	88H00059	H	600PP		
417						SCI	1	TSH	-1.00	TSHTSH		T1089	reso	88H00059	H	600PP		
418	135	97	0.29		12	P2	10H	-1.92	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	-1.90	TEHTEC		W4786	rsec	88C00057	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	-1.76	TEHTEC		R1509	reso	88C00115	C	600UL			
423	43	101	0.42		14	P2	DBC	-1.91	TEHTEC		G2927	rpri	88C00114	C	600UL			
424	111	101	0.23		10	P2	DBH	-1.87	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	-1.77	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	-1.11	TSHTSH		M7262	reso	88H00017	H	600PP		
429						SCI	1	TSH	-1.11	TSHTSH		M7262	reso	88H00017	H	600PP		
430			0.37	.54	SCI	P1	TSH	-1.11	TSHTSH		M7262	reso	88H00017	H	600PP			
431	116	102	0.48		19	P2	DBH	-1.76	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	-1.95	TEHTEC		R4201	rpri	88C00110	C	600UL			
434	55	103	7.00	21	SCI	P1	TSH	-1.09	TSHTSH		R1509	reso	88H00017	H	600PP			
435			0.80	.37	SCI	1	TSH	-1.09	TSHTSH		R1509	reso	88H00017	H	600PP			
436			0.36	.27	SCI	P1	TSH	-1.09	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	-1.11	TSHTSH		T1089	reso	88H00018	H	600PP			
441			0.65	.12	SCI	1	TSH	-1.11	TSHTSH		T1089	reso	88H00018	H	600PP			

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ROW	COL	VOLTS	DEG	PCT	CHN	FLAW	LOCATION	EXTENT	UTIL1	UTIL2	NAME	TYPE	CAL	GROUP	LEG	PROBE	SIZE			
442				0.80	.22	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	xpri	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
461						15	MCI	P1 TSH	-	.11		TSHTSH				G1311	reso	88H00018	H	600PP
462							MCI	1 TSH	-	.11		TSHTSH				R1509	reso	88H00018	H	600PP
463						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	xpri	88C00044	C	600UL
466	130	106		0.33		14	P2 VH1	-	.84			TEHTEC				J1220	xpri	88C00043	C	600UL
467	144	106		0.80		27	P2 DBC	-	.90			TEHTEC				K6733	xpri	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	-	.85			TSHTSH				M7262	reso	88H00017	H	600PP
472						21	SAI	2 TSH	-	.85		TSHTSH				M7262	reso	88H00017	H	600PP
473							SAI	1 TSH	-	.85		TSHTSH				M7262	reso	88H00017	H	600PP
474	124	108		27.00	92	SAI	2 TSC	-	.46			TSCISC				N2574	reso	88C00140	C	600PP
475				0.28	.22	SAI	1 TSC	-	.46			TSCISC				N2574	reso	88C00140	C	600PP
476				0.19	.17	SAI	2 TSC	-	.46			TSCISC				N2574	reso	88C00140	C	600PP
477	128	108		0.26		11	P2 VH1	-	.82			TEHTEC				J1220	xpri	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	xpri	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
487				10.00	119	SAI	2 TSH	-	.36			TSHTSH				E4963	reso	88H00083	H	600PP
488				0.99	.26	SAI	1 TSH	-	.36			TSHTSH				G1311	reso	88H00083	H	600PP
489	114	110		0.37		15	P2 DBH	-	.69			TEHTEC				F7460	xpri	88C00043	C	600UL
490	142	110		0.44		18	P2 DBH	-	.86			TEHTEC				F3453	reso	88C00044	C	600UL

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491	123	111	0.59		23	P2	DBH	-1.00			K6733	rpri	88C00044		C	600UL		
492	8	112	0.39	.26	SAI	2	TSH	-1.73			T1089	reso	88H00036		H	600PP		
493			19.00	12	SAI	2	TSH	-1.73			T1089	reso	88H00036		H	600PP		
494			0.89	.42	SAI	1	TSH	-1.73			T1089	reso	88H00036		H	600PP		
495	10	112	0.40	.20	SCI	P1	TSH	-1.02			T1089	reso	88H00037		H	600PP		
496					51	SCI	P1	TSH	-1.02		T1089	reso	88H00037		H	600PP		
497							SCI	1	TSH	-1.02		T1089	reso	88H00037		H	600PP	
498	12	112					SAI	3	TEH	-1.04		F3453	reso	88H00186		H	600HF	
499			1.10	.33	SAI	4	TEH	-1.04			F3453	reso	88H00186		H	600HF		
500					16	SAI	4	TEH	-1.04		F3453	reso	88H00186		H	600HF		
501			8.66	.90	SAI	1	TEH	-1.93			W3386	reso	88H00175		H	500ID		
502			5.33	.90	SAI	2	TEH	-1.93			W3386	reso	88H00175		H	500ID		
503			32.00	39	SAI	2	TEH	-1.93			W3386	reso	88H00175		H	500ID		
504			2.40	.94	SAI	2	TEH	-1.02			W3386	reso	88H00175		H	500ID		
505			21.00	26	SAI	2	TEH	-1.02			W3386	reso	88H00175		H	500ID		
506			4.92	.94	SAI	1	TEH	-1.02			W3386	reso	88H00175		H	500ID		
507	38	112	17.00	18	SAI	2	TSH	-1.61			E4953	reso	88H00082		H	600PP		
508			0.71	.36	SAI	1	TSH	-1.61			M7252	reso	88H00082		H	600PP		
509			0.61	.16	SAI	2	TSH	-1.61			E4953	reso	88H00082		H	600PP		
	46	112	1.32	.43	SAI	1	TSH	-1.16			M7252	reso	88H00082		H	600PP		
			0.59	.27	SAI	2	TSH	-1.16			E4953	reso	88H00082		H	600PP		
			15.00	14	SAI	2	TSH	-1.16			E4953	reso	88H00082		H	600PP		
513	70	112	0.29		12	P2	VSM	-1.83			W9213	rsec	89C00055		C	600UL		
514	98	112	0.28		13	P2	VCC	-1.81			B4865	rsec	38C00042		C	600UL		
515	122	112	0.34		14	P2	10H	-1.92			W3386	reso	88C00043		C	600UL		
516	126	112	0.44		17	P2	DBH	-1.67			F7460	rpri	88C00043		C	600UL		
517	9	113	0.22	.17	SAI	2	07H	-1.75			W2545	reso	88H00175		H	500ID		
518			60.00	64	SAI	2	07H	-1.75			W2545	reso	88H00175		H	500ID		
519			0.26	.27	SAI	1	07H	-1.80			W2545	reso	88H00175		H	500ID		
520	25	113	0.53				05H	-1.13			S3018	reso	88H00148		H	500DP		
521			0.31	.17	SAI	2	05H	-1.13			S3018	reso	88H00148		H	500DP		
522			21.00	117	SAI	2	05H	-1.13			S3018	reso	88H00148		H	500DP		
523	37	113	0.41	.49	SAI	2	TSH	-1.12			E4963	reso	88H00083		H	600PP		
524			7.00	15	SAI	2	TSH	-1.12			E4963	reso	88H00083		H	600PP		
525			0.95	.36	SAI	1	TSH	-1.12			E4963	reso	88H00083		H	600PP		
526			5.00	17	SAI	2	TSH	-1.00			G1311	reso	88H00083		H	600PP		
527			0.52	.20	SAI	2	TSH	-1.00			E4963	reso	88H00083		H	600PP		
528			0.45	.26	SAI	1	TSH	-1.00			G1311	reso	88H00083		H	600PP		
529	10	114	0.48	.20	SCI	P1	TSH	-1.11			T1089	reso	88H00037		H	600PP		
530			8.00	23	SCI	P1	TSH	-1.11			T1089	reso	88H00037		H	600PP		
531			0.69	.23	SCI	1	TSH	-1.11			T1089	reso	88H00037		H	600PP		
532	122	114	0.42		16	P2	10H	-1.99			F7460	rpri	88C00043		C	600UL		
533	1	115			15	SAI	2	TSH	-1.40		M7252	reso	88H00037		H	600PP		
534							SAI	1	TSH	-1.40		T1089	reso	88H00037		H	600PP	
535			0.46	.15	SAI	2	TSH	-1.40			T1089	reso	88H00037		H	600PP		
	21	115	0.66	.13	SAI	2	06H	-1.19			S3018	reso	88H00110		H	500DP		
			16.00	19	SAI	2	06H	-1.19			S3018	reso	88H00110		H	500DP		
538			0.63	.15	SAI	1	06H	-1.19			G1311	reso	88H00110		H	500DP		
539	133	115	0.53		20	P2	10H	-1.86			F7460	rpri	88C00043		C	600UL		

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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	-0.15			M7262	reso	88H00017	H	600PP		
541				.19	SCI	P1	TSH	-0.15			M7262	reso	88H00017	H	600PP		
542					SCI	1	TSH	-0.15			M7262	reso	88H00017	H	600PP		
543	112	116	0.21		P2	VH3		-0.82			F7460	xpri	88C00039	C	600UL		
544	45	119	0.18		SAI	1	01H	-0.90			S3018	reso	88H00149	H	500DP		
545			0.06	.23	SAI	2	01H	-0.90			S3018	reso	88H00149	H	500DP		
546			13.00	.26	SAI	2	01H	-0.90			S3018	reso	88H00149	H	500DP		
547			0.77	.30	SAI	1	01H	-0.05			S3018	reso	88H00149	H	500DP		
548			0.11	.30	SAI	2	01H	-0.05			S3018	reso	88H00149	H	500DP		
549			33.00	.107	SAI	2	01H	-0.05			S3018	reso	88H00149	H	500DP		
550	47	119	62.00	.96	SAI	2	02H	-7.24			S3018	reso	88H00149	H	500DP		
551			0.14		SAI	1	02H	-7.24			S3018	reso	88H00149	H	500DP		
552			0.13	.29	SAI	2	02H	-7.24			S3018	reso	88H00149	H	500DP		
553	83	119	0.76	.24	SCI	P1	TSH	-0.10			F6623	reso	88H00012	H	600PP		
554			28.00	.20	SCI	P1	TSH	-0.10			F6623	reso	88H00012	H	600PP		
555			0.40	.37	SCI	1	TSH	-0.10			F6623	reso	88H00012	H	600PP		
556	78	120	0.27		P2	VCH		-0.81			P4578	rsec	88C00052	C	600UL		
557			0.34		P2	VCH		-0.94			P4578	rsec	88C00052	C	600UL		
558	21	121	1.70	.45	SAI	1	04H	-0.05			S3018	reso	88H00149	H	500DP		
			1.01	.22	SAI	2	04H	-0.05			S3018	reso	88H00149	H	500DP		
			18.00	.18	SAI	2	04H	-0.05			S3018	reso	88H00149	H	500DP		
			0.83	.22	SAI	2	04H	-0.44			S3018	reso	88H00149	H	500DP		
562			18.00	.18	SAI	2	04H	-0.44			S3018	reso	88H00149	H	500DP		
563			2.01	.43	SAI	1	04H	-0.44			S3018	reso	88H00149	H	500DP		
564	47	121		.21	SCI	P1	TSH	-0.04			E4963	reso	88H00084	H	600PP		
565					SCI	1	TSH	-0.04			E4963	reso	88H00084	H	600PP		
566			0.19	.18	SCI	P1	TSH	-0.04			E4963	reso	88H00084	H	600PP		
567	51	121			SCI	1	TSH	-0.01			E4963	reso	88H00084	H	600PP		
568			0.39	.18	SCI	P1	TSH	-0.01			E4963	reso	88H00084	H	600PP		
569				.16	SCI	P1	TSH	-0.01			E4963	reso	88H00084	H	600PP		
570	64	122	0.95		P2	VH3		-0.89			H3464	xpri	88C00052	C	600UL		
571	100	122	0.28		P2	VH3		-0.75			F7460	xpri	88C00039	C	600UL		
572	10	124			SAI	1	06H	-2.08			G1311	reso	88H00135	H	500DP		
573			0.15	.34	SAI	2	06H	-2.08			G1311	reso	88H00135	H	500DP		
574				.87	SAI	2	06H	-2.08			G1311	reso	88H00135	H	500DP		
575	64	124	15.00	.22	SCI	P1	TSH	-0.11			T1089	reso	88H00016	H	600PP		
576			0.60	.31	SCI	1	TSH	-0.11			T1089	reso	88H00016	H	600PP		
577			0.67	.18	SCI	P1	TSH	-0.11			T1089	reso	88H00016	H	600PP		
578			0.22		P2	VH3		-0.74			P4578	rsec	88C00052	C	600UL		
579	74	124	15.00	.20	SCI	P1	TSH	-0.04			M7262	reso	88H00015	H	600PP		
580			2.14	.52	SCI	1	TSH	-0.04			M7262	reso	88H00015	H	600PP		
581			0.75	.49	SCI	P1	TSH	-0.04			M7262	reso	88H00015	H	600PP		
582	122	124	0.53		P2	DBH		-0.71			B4865	rsec	88C00042	C	600UL		
583	43	125	0.23		P2	VSM		-0.80			G6920	rsec	88C00019	C	600UL		
584	53	125	0.21		P2	VH3		-0.89			P4578	rsec	88C00052	C	600UL		
			0.27		P2	VCH		-0.82			P4578	rsec	88C00052	C	600UL		
	121	125	0.23		P2	10H		-0.57			J9815	xpri	88C00042	C	600UL		
587	68	126	2.13	.40	SCI	1	TSH	-0.11			D3858	reso	88H00017	H	600PP		
588			1.29	.33	SCI	P1	TSH	-0.11			D3858	reso	88H00017	H	600PP		

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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	-1.11	TSHTSH			M7262	reso	88H00017	H	600PP		
590	89	127	0.29		13	P2	VSM	-1.71	TEHTEC		D9424	rpri	88C00032	C	600UL		
591	131	127	0.23		10	P2	OSC	-1.31	TEHTEC		D9424	rpri	88C00032	C	600UL		
592		0.65			25	P2	OSC	-1.91	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	-1.31	TEHTEC		M7262	reso	88C00032	C	600UL		
597	130	128	0.37		17	P2	VH2	-1.50	TEHTEC		D9424	rpri	88C00032	C	600UL		
598	85	129	0.24		10	P2	VH2	-1.71	TEHTEC		B4865	rsec	88C00030	C	600UL		
599	90	130	0.39		17	P2	VH2	-1.73	TEHTEC		D9424	rpri	88C00032	C	600UL		
600	55	131	0.69	.18	SCI	P1	TSH	-1.01	TSHTSH		N2574	reso	88H00019	H	600PP		
601		39.00	25	SCI	P1	TSH	-1.01	TSHTSH			N2574	reso	88H00019	H	600PP		
602		0.43	.27	SCI	1	TSH	-1.01	TSHTSH			N2574	reso	88H00019	H	600PP		
603	93	131	0.12	.20	SAI	2	01H	-13.51	01H02H		E4963	reso	88H00178	H	500DP		
604		147.00	84	SAI	2	01H	-13.51	01H02H			E4963	reso	88H00178	H	500DP		
605		0.32	.22	SAI	1	01H	-13.53	01H02H			E4963	reso	88H00178	H	500DP		
606	117	131	0.33		15	P2	VH1	-1.97	TEHTEC		D9424	rpri	88C00032	C	600UL		
607	47	133	0.45		16	P2	VSM	-1.72	TEHTEC		J9615	rpri	88C00020	C	600UL		
608	73	133	0.46		18	P2	VH3	-1.98	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	-1.30	TEHTEC		J9615	rpri	88C00020	C	600UL		
611	76	134	0.37		15	P2	VH3	-1.95	TEHTEC		B4865	rsec	88C00020	C	600UL		
612	36	136	0.26		11	P2	VSM	-1.83	TEHTEC		B4865	rsec	88C00014	C	600UL		
613	78	136	0.51		21	P2	DBH	-1.00	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	-11.83	06H06H		E4963	reso	88H00178	H	500DP		
621				108	SAI	2	06H	-11.83	06H06H		E4963	reso	88H00178	H	500DP		
622					SAI	1	06H	-11.84	06H06H		E4963	reso	88H00178	H	500DP		
623	110	138	0.48		20	P2	VC3	-1.94	TEHTEC		H3464	rpri	88C00029	C	600UL		
624	75	139	0.34		14	P2	VH3	-1.83	TEHTEC		B4865	rsec	88C00018	C	600UL		
625		0.42			17	P2	VSM	-1.31	TEHTEC		B4865	rsec	88C00018	C	600UL		
626	113	139	0.27		13	P2	VH2	-1.71	TEHTEC		S8538	rsec	88C00029	C	600UL		
627	14	140	0.36	.20	SCI	P1	TSH	-1.05	TSHTSH		T1089	reso	88H00033	H	600PP		
628		13.00	18	SCI	P1	TSH	-1.05	TSHTSH			T1089	reso	88H00033	H	600PP		
629		0.50	.16	SCI	1	TSH	-1.05	TSHTSH			T1089	reso	88H00033	H	600PP		
630	100	140	0.41	.37	SAI	2	09H	-11.53	09H09H		F3453	reso	88H00178	H	500DP		
631				134	SAI	2	09H	-11.53	09H09H		F3453	reso	88H00178	H	500DP		
632					SAI	1	09H	-11.64	09H09H		F3453	reso	88H00178	H	500DP		
633	85	141	0.48		20	P2	09H	-11.29	TEHTEC		B5926	rsec	88C00029	C	600UL		
	89	141	0.39		17	P2	VH2	-1.85	TEHTEC		B5926	rsec	88C00029	C	600UL		
		0.38			17	P2	VC2	-1.90	TEHTEC		B5926	rsec	88C00029	C	600UL		
636	97	141	0.36		17	P2	VH2	-1.79	TEHTEC		B5926	rsec	88C00029	C	600UL		
637	14	142	0.32	.42	SAI	1	06H	-11.01	06H06H		R1509	reso	88H00188	H	500DP		

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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	-0.01	06H06H			R1509	reso	88H00188	H	500DP		
639		108.00	91	SAI	2	06H	-0.01	06H06H			R1509	reso	88H00188	H	500DP		
640	78	142	0.45		18	P2 VH3	-0.89	TEHTEC			D2003	xpri	88C00019	C	600UL		
641	79	143	0.18		11	P2 VH2	-0.18	TEHTEC			N2574	reso	88C00018	C	600UL		
642	87	143	0.50		21	P2 VH2	-0.74	TEHTEC			H3071	rsec	88C00027	C	600UL		
643	95	143	0.47		17	P2 VH2	-0.91	TEHTEC			B2027	xpri	88C00027	C	600UL		
644		0.46			16	P2 VH2	-0.78	TEHTEC			B2027	xpri	88C00027	C	600UL		
645	111	143	0.26		12	P2 VH3	-0.95	TEHTEC			H3071	rsec	88C00027	C	600UL		
646	54	144	0.35		15	P2 VH3	-0.89	TEHTEC			D2003	xpri	88C00019	C	600UL		
647	78	144	0.36		15	P2 VH3	-0.80	TEHTEC			F3453	reso	88C00019	C	600UL		
648	112	144	0.86		27	P2 DEH	-1.74	TEHTEC			F7460	xpri	88C00026	C	600UL		
649	47	145	0.34		14	P2 VSM	-0.45	TEHTEC			N2574	reso	88C00018	C	600UL		
650	99	145			SAI	1	07H	-0.26	07H07H		F3453	reso	88H00180	H	500DP		
651		0.34	.21	SAI	2	07H	-0.26	07H07H			F3453	reso	88H00180	H	500DP		
652				127	SAI	2	07H	-0.26	07H07H		F3453	reso	88H00180	H	500DP		
653	6	146	0.18	.33	SAI	1	07C	-0.49	07C07C		T9924	reso	88C00189	C	600PP		
654		0.23	.23	SAI	2	07C	-0.49	07C07C			T9924	reso	88C00189	C	600PP		
655		34.00	73	SAI	2	07C	-0.49	07C07C			T9924	reso	88C00199	C	600PP		
656	68	146	0.37		10	P2 VC3	-0.76	TEHTEC			J9815	xpri	88C00024	C	600UL		
	74	146	0.66		24	P2 VH3	-0.92	TEHTEC			V6131	xpri	88C00025	C	600UL		
		0.57			22	P2 VC3	-0.95	TEHTEC			V6131	xpri	88C00025	C	600UL		
		0.72			26	P2 VC3	-0.99	TEHTEC			V6131	xpri	88C00025	C	600UL		
660	98	146	0.26		12	P2 VH2	-0.81	TEHTEC			H3071	rsec	88C00027	C	600UL		
661	89	147	0.32		14	P2 VH2	-0.78	TEHTEC			H3071	rsec	88C00027	C	600UL		
662		0.32			14	P2 VH2	-0.87	TEHTEC			H3071	rsec	88C00027	C	600UL		
663	101	147	0.44		19	P2 VSM	-0.74	TEHTEC			H3071	rsec	88C00027	C	600UL		
664	78	148	0.60		23	P2 08C	-1.02	TEHTEC			V6131	xpri	88C00025	C	600UL		
665	86	148	0.34		15	P2 VH2	-0.85	TEHTEC			G6920	rsec	88C00027	C	600UL		
666	90	148	0.46		19	P2 VH2	-0.82	TEHTEC			N2574	reso	88C00027	C	600UL		
667	94	148	0.37		12	P2 VSM	-0.74	TEHTEC			B2027	xpri	88C00027	C	600UL		
668	86	150	0.38		12	P2 VH2	-0.87	TEHTEC			B2027	xpri	88C00027	C	600UL		
669	81	151	0.26		12	P2 VH3	-0.80	TEHTEC			N2574	reso	88C00027	C	600UL		
670	85	151	0.47		20	P2 VH2	-0.80	TEHTEC			N2574	reso	88C00027	C	600UL		
671	99	151	0.43		18	P2 VH2	-0.91	TEHTEC			G6920	rsec	88C00027	C	600UL		
672	83	153	0.35		16	P2 VH3	-0.94	TEHTEC			N2574	reso	88C00027	C	600UL		
673		0.31			14	P2 VC3	-1.00	TEHTEC			N2574	reso	88C00027	C	600UL		
674	93	153	0.49		17	P2 05C	-0.88	TEHTEC			E4963	reso	88C00026	C	600UL		
675		0.38			14	P2 01C	-0.90	TEHTEC			E4963	reso	88C00026	C	600UL		
676	78	154	0.36		16	P2 VC3	-0.88	TEHTEC			R3710	xpri	88C00025	C	600UL		
677	87	155	0.39		13	P2 VH2	-0.73	TEHTEC			B2027	xpri	88C00027	C	600UL		
678	74	156	0.42		18	P2 VH3	-1.02	TEHTEC			R3710	xpri	88C00023	C	600UL		
679		0.29			13	P2 VSM	-0.32	TEHTEC			R3710	xpri	88C00023	C	600UL		
680	81	159	0.29		13	P2 VH3	-0.96	TEHTEC			G6920	rsec	88C00027	C	600UL		
681	40	160	0.31		13	P2 VSM	-0.66	TEHTEC			H3464	xpri	88C00058	C	600UL		
682	64	162	0.29		12	P2 VH3	-0.76	TEHTEC			G6920	rsec	88C00023	C	600UL		
		0.27			11	P2 VH3	-0.90	TEHTEC			N2574	reso	88C00023	C	600UL		
	51	163	0.44		17	P2 VH3	-0.99	TEHTEC			B4865	rsec	88C00022	C	600UL		
685	22	164	0.21	1.1	SAI	2	06H	-03.34	05H07H		W3386	reso	88H00185	H	500DP		
686		106.00	106	SAI	2	06H	-03.34	05H07H			W3386	reso	88H00185	H	500DP		

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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	-1.95	TEHTEC		J1220	xpri	88C00022	C	600UL		
629	67	165	0.85		26	P2	VH3	1.77	TEHTEC		J1220	xpri	88C00022	C	600UL		
690	57	167	0.26		12	P2	02C	-1.00	TEHTEC		R3710	xpri	88C00023	C	600UL		
691			0.49		20	P2	02C	-1.85	TEHTEC		R3710	xpri	88C00023	C	600UL		
692	24	168	0.30	2.5	SAI	1	06H	-1.57	TO+16.94	06H07H	F3453	reso	88H00185	H	500DP		
693			0.14	2.5	SAI	2	06H	-1.57	TO+16.94	06H07H	F3453	reso	88H00185	H	500DP		
694			56.00	67	SAI	2	06H	-1.57	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

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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			W3386	reso	89C00218	C 1	600PP		
2			62.00	93	SVI	2	TSC	-0.01			W3386	reso	89C00218	C 1	600PP		
3			3.40	2.1	SVI	1	TSC	-0.01			W3386	reso	89C00218	C 1	600PP		
4	14	2	2.09	1.5	SVI	2	TSC	-0.12			R1509	reso	89C00219	C 1	600PP		
5			85.00	81	SVI	2	TSC	-0.12			R1509	reso	89C00219	C 1	600PP		
6			2.56	1.1	SVI	1	TSC	-0.12			R1509	reso	89C00219	C 1	600PP		
7	22	2	0.56		18	P2	VSM	-0.75			B2153	rsec	89C00115	C 0	600UL		
8	36	10	0.38		17	P2	VSM	-0.94			W9213	rsec	89C00080	C 0	600UL		
9	64	10	0.48		20	P2	03C	-1.07			G2927	rpri	89C00090	C 0	600UL		
10	15	11	0.21		10	P2	03H	-0.13			R4201	rpri	89C00113	C 0	600UL		
11	54	12	0.36		14	P2	VH3	-0.81			S9098	rpri	89C00091	C 0	600UL		
12	55	13	0.25		10	P2	VSM	-0.92			W3386	reso	89C00091	C 0	600UL		
13	59	13	0.25		10	P2	VH3	-0.83			S9098	rpri	89C00091	C 0	600UL		
14	13	17	67.00	84	SAI	2	06H	-0.11			G1311	reso	89H00122	H 9	500DP		
15			0.20	.19	SAI	1	06H	-0.11			F6623	reso	89H00122	H 2	500DP		
16			0.13	.30	SAI	2	06H	-0.11			F6623	reso	89H00122	H 2	500DP		
17	44	18	0.34		16	P2	VSM	-0.90		VER	F3453	reso	89C00082	C 0	600UL		
18	49	19			SAI	1	07H	-0.11			D3858	reso	89H00117	H12	500DP		
19			0.21	.20	SAI	2	07H	-0.11			D3858	reso	89H00117	H12	500DP		
20					117	SAI	2	07H	-0.11		D3858	reso	89H00117	H12	500DP		
	6	22	0.30		10	P2	02H	-0.75			R4201	rpri	89C00075	C 0	600UL		
	93	23	0.78		27	P2	02C	-0.88			H1274	rsec	89C00064	C 0	600UL		
23	90	24	0.33		15	P2	VSM	-0.73			N2574	reso	89C00064	C 0	600UL		
24	93	25	109.00	98	SAI	2	06H	-0.86			D3858	reso	89H00120	H 2	500DP		
25			0.35	.50	SAI	1	06H	-0.86			D3858	reso	89H00120	H 2	500DP		
26			0.28	.46	SAI	2	06H	-0.86			D3858	reso	89H00120	H 2	500DP		
27					93	SAI	2	06H	-0.74		D3858	reso	89H00120	H 2	500DP		
28					SAI	1	06H	-0.74			D3858	reso	89H00120	H 2	500DP		
29			0.25	.21	SAI	2	06H	-0.74			D3858	reso	89H00120	H 2	500DP		
30			30.00	87	MAI	2	06H	-0.87			D3858	reso	89H00120	H 2	500DP		
31			0.35	.58	MAI	1	06H	-0.87			D3858	reso	89H00120	H 2	500DP		
32			0.25	.73	MAI	2	06H	-0.87			D3858	reso	89H00120	H 2	500DP		
33	94	26	0.31		11	P2	VH2	-0.86			B5926	rsec	89C00065	C 0	600UL		
34	96	26	0.31		14	P2	VH2	-0.98			G2927	rpri	89C00064	C 0	600UL		
35	57	27	0.68	.12	SAI	1	06H	-0.71			W3386	reso	89H00117	H11	500DP		
36			0.97	.18	SAI	2	06H	-0.71			W3386	reso	89H00117	H11	500DP		
37			6.00	18	SAI	2	06H	-0.71			W3386	reso	89H00117	H11	500DP		
38	73	27	0.39		17	P2	VH3	-0.60			G2927	rpri	89C00092	C 0	600UL		
39	45	29	0.23		8	P2	05H	-0.78			G1311	reso	89C00093	C 0	600UL		
40	99	29	0.27		12	P2	VH2	-0.73			H1274	rsec	89C00064	C 0	600UL		
41	88	30	0.53		17	P2	09H	-0.71			V7107	rpri	89C00065	C 0	600UL		
42	47	33	0.52		26	P2	DBH	-0.75			G2927	rpri	89C00086	C 0	600UL		
43	81	33	0.29		11	P2	VSM	-0.70			B5926	rsec	89C00065	C 0	600UL		
44	97	35	0.36		12	P2	VH2	-0.67			S9098	rpri	89C00067	C 0	600UL		
45	101	35	0.42		14	P2	VH3	-0.60			S9098	rpri	89C00067	C 0	600UL		
	89	37	0.29		12	P2	VC3	-0.93			P4578	rsec	89C00066	C 0	600UL		
	70	38	0.37		13	P2	VC3	-0.93			E4963	reso	89C00115	C 0	600UL		
48	110	38	0.32		12	P2	03H	-0.81			D9424	rpri	89C00066	C 0	600UL		
49	43	39	0.66	.34	SCI	1	TSH	-0.10			W2545	reso	89H00085	H 2	600PP		

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50			0.52	.21	SCI	P1	TSH	-0.10			W2545	reso	89H00085	H	2	600PP	
51			12.00	18	SCI	P1	TSH	-0.10			W2545	reso	89H00085	H	2	600PP	
52	114	40	0.46		18	P2	DBH	-0.90			D9424	xpri	89C00066	C	0	600UL	
53	122	40	0.26		10	P2	02C	-0.19			G1311	reso	89C00066	C	0	600UL	
54	101	41	0.23	.33	SAI	2	02H	-0.85			D3858	reso	89H00120	H	2	500DP	
55					95	SAI	2	02H			D3858	reso	89H00120	H	2	500DP	
56						SAI	1	02H			D3858	reso	89H00120	H	2	500DP	
57	76	42	0.38		13	P2	DBC	-0.83			G2927	xpri	89C00088	C	0	600UL	
58	108	42	0.43		17	P2	DBH	-0.00			D9424	xpri	89C00066	C	0	600UL	
59			0.33		13	P2	DBH	-0.00			D9424	xpri	89C00066	C	0	600UL	
60	114	42			63	SAI	2	06H	-0.29		F3453	reso	89H00120	H	2	500DP	
61						SAI	1	06H	-0.29		F3453	reso	89H00120	H	2	500DP	
62			0.23	.46	SAI	3	06H	-0.29			F3453	reso	89H00120	H	2	500DP	
63			89.00	102	SAI	2	06H	-0.44			F3453	reso	89H00120	H	2	500DP	
64			0.50	1.1	SAI	1	06H	-0.44			F3453	reso	89H00120	H	2	500DP	
65			0.36	1.1	SAI	2	06H	-0.44			F3453	reso	89H00120	H	2	500DP	
66	79	43	0.30		10	P2	VH3	-0.49			G2927	xpri	89C00088	C	0	600UL	
67	81	43	0.67		21	P2	VSM	-0.97			B4340	rsec	89C00069	C	0	600UL	
68	111	43	0.66		20	P2	VH3	-0.91			B4340	rsec	89C00069	C	0	600UL	
	50	44	0.30		10	P2	VSM	-0.77			S9098	xpri	89C00089	C	0	600UL	
	121	45	0.48		17	P2	10H	-0.02			B2027	xpri	89C00069	C	0	600UL	
			0.69		22	P2	VC2	-0.54			B2027	xpri	89C00069	C	0	600UL	
72	97	47	0.33		15	P2	VH2	-0.89			V6131	xpri	89C00068	C	0	600UL	
73	101	47	0.51		21	P2	VC2	-0.11			V6131	xpri	89C00068	C	0	600UL	
74	103	47	0.57		19	P2	VH3	-0.77			B2027	xpri	89C00069	C	0	600UL	
75	44	48	0.40		16	P2	VSM	-0.88			R3710	xpri	89C00084	C	0	600UL	
76	87	49	0.36		16	P2	VH2	-0.71			V6131	xpri	89C00068	C	0	600UL	
77	101	49	0.50		17	P2	VC2	-0.04			B2027	xpri	89C00069	C	0	600UL	
78	117	49	0.31		14	P2	VC3	-0.75			V6131	xpri	89C00068	C	0	600UL	
79	22	50	0.95	.24	SCI	1	TSH	-0.09			G1311	reso	89H00094	H	2	600PP	
80			1.21	.18	SCI	P1	TSH	-0.09			G1311	reso	89H00094	H	2	600PP	
81			21.00	22	SCI	P1	TSH	-0.09			G1311	reso	89H00094	H	2	600PP	
82	40	50			98	SCI	P1	TSH	-0.10		G1311	reso	89H00001	H	2	600PP	
83						SCI	1	TSH	-0.10		G1311	reso	89H00001	H	2	600PP	
84			0.15	.23	SCI	P1	TSH	-0.10			G1311	reso	89H00001	H	2	600PP	
85	46	50	1.52	.48	SCI	1	TSH	-0.09			T1089	reso	89H00002	H	2	600PP	
86			0.79	.23	SCI	P1	TSH	-0.09			T1089	reso	89H00002	H	2	600PP	
87			12.00	16	SCI	P1	TSH	-0.09			T1089	reso	89H00002	H	2	600PP	
88	48	50	0.65	1.5	SCI	P1	TSH	-0.04			G1311	reso	89H00001	H	2	600PP	
89						SCI	1	TSH	-0.04		G1311	reso	89H00001	H	2	600PP	
90					72	SCI	P1	TSH	-0.04		G1311	reso	89H00001	H	2	600PP	
91	94	50	0.21		7	P2	05C	-0.21			S9098	xpri	89C00095	C	0	600UL	
92	43	51	0.17	128	6	P2	DBH	-0.28			T1089	reso	89C00037	C	0	600UL	
93	75	51	0.16		5	P2	DBH	-0.00			B4370	rsec	89C00041	C	0	600UL	
94	79	51	0.81	.29	SCI	1	TSH	-0.04			S3018	reso	89H00005	H	2	600PP	
			0.44	.18	SCI	P1	TSH	-0.04			S3018	reso	89H00005	H	2	600PP	
			14.00	17	SCI	P1	TSH	-0.04			S3018	reso	89H00005	H	2	600PP	
97	83	51	1.45	.39	SCI	1	TSH	-0.00			M7262	reso	89H00052	H	2	600PP	
98			0.59	.33	SCI	P1	TSH	-0.00			M7262	reso	89H00052	H	2	600PP	

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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	.15	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		S9058	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	5	500DP	
120			3.76	.55	SAI	1	08H	--0.28	08H08H		G1311	reso	89H00113	H11	5	500DP	
121			1.76	.86	SAI	2	08H	--0.28	08H08H		W3386	reso	89H00113	H11	5	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	--0.37	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	09C	--0.62	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	

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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	TSHTSH			E4963	reso	89H00006	H	2	600PP	
151			1.26	.18	SAI	2	TSH	TSHTSH			T1089	reso	89H00006	H	2	600PP	
152			8.00	11	SAI	2	TSH	TSHTSH			T1089	reso	89H00006	H	2	600PP	
153	48	66	0.54		18	P2	VSM	TEHTEC			S3018	resc	89C00039	C	0	600UL	
154	94	66	0.51		18	P2	VCS	TEHTEC			F3453	reso	89C00097	C	0	600UL	
155	104	66	0.24		7	P2	VH3	TEHTEC			F3453	reso	89C00096	C	0	600UL	
156	110	66	0.40		15	P2	VCS	TEHTEC			F3453	reso	89C00097	C	0	600UL	
157	120	66	1.31		36	P2	10H	TEHTEC			G1311	reso	89C00073	C	0	600UL	
158	113	67	0.31		11	P2	05H	TEHTEC			N2574	reso	89C00072	C	0	600UL	
159	141	67	0.49		18	P2	09C	TEHTEC			B5926	rsec	89C00072	C	0	600UL	
160	143	67	1.31		36	P2	DBH	TEHTEC			G1311	resc	89C00073	C	0	600UL	
161			1.28		35	P2	DBH	TEHTEC			G1311	reso	89C00073	C	0	600UL	
162	82	68	0.63		20	P2	VH3	TEHTEC			R3710	rpri	89C00099	C	0	600UL	
163			0.37		11	P2	VH3	TEHTEC			M7262	reso	89C00099	C	0	600UL	
164	132	68	0.37		12	P2	VH1	TEHTEC			S9098	rpri	89C00073	C	0	600UL	
165	136	68	0.43		14	P2	VH1	TEHTEC			S9098	rpri	89C00073	C	0	600UL	
166	137	69	0.42		15	P2	VH1	TEHTEC			V6131	rpri	89C00072	C	0	600UL	
	143	69	0.98		31	P2	10H	TEHTEC			B2153	rsec	89C00073	C	0	600UL	
	74	70			MCI	1	TSH	TSHTSH			D3858	reso	89H00006	H	2	600PP	
169			0.19	.30	MCI	P2	TSH	TSHTSH			D3858	reso	89H00006	H	2	600PP	
170					26	MCI	P1	TSH	TSHTSH		D3858	reso	89H00006	H	2	600PP	
171					MCI	1	TSH	TSHTSH			D3858	reso	89H00006	H	2	600PP	
172			0.46	.13	MCI	P1	TSH	TSHTSH			D3858	reso	89H00006	H	2	600PP	
173					17	MCI	P1	TSH	TSHTSH		D3858	resc	89H00006	H	2	600PP	
174	102	70	0.40	.24	SCI	P1	TSH	TSHTSH			R1509	reso	89H00053	H	2	600PP	
175					22	SCI	P1	TSH	TSHTSH		R1509	reso	89H00053	H	2	600PP	
176					SCI	1	TSH	TSHTSH			R1509	reso	89H00053	H	2	600PP	
177	138	70	0.40		14	P2	DBH	TEHTEC			L0211	rpri	89C00072	C	0	600UL	
178	31	71	0.33		10	P2	DBH	TEHTEC			K6733	rpri	89C00040	C	0	600UL	
179			0.33		10	P2	DBC	TEHTEC			K6733	rpri	89C00040	C	0	600UL	
180	47	71	0.26	.42	SAI	1	TSH	TSHTSH			T1089	reso	89H00003	H	2	600PP	
181			0.19	.29	SAI	2	TSH	TSHTSH			T1089	reso	89H00003	H	2	600PP	
182			107.00	73	SAI	2	TSH	TSHTSH			T1089	reso	89H00003	H	2	600PP	
183	133	71	0.30		10	P2	VH1	TEHTEC			N2574	reso	89C00072	C	0	600UL	
184			0.27		10	P2	VH1	TEHTEC			B5926	rsec	89C00072	C	0	600UL	
185	137	71	0.41		15	P2	DBH	TEHTEC			L0211	rpri	89C00072	C	0	600UL	
186	143	71	0.37		15	P2	DBH	TEHTEC			G1311	reso	89C00073	C	0	600UL	
187			0.35		15	P2	VH1	TEHTEC			B2153	rsec	89C00073	C	0	600UL	
188	52	72	0.83	.47	SCI	1	TSH	TSHTSH			E4963	reso	89H00004	H	2	600PP	
189			0.24	.65	SCI	P1	TSH	TSHTSH			E4963	reso	89H00004	H	2	600PP	
190			11.00	99	SCI	P1	TSH	TSHTSH			E4963	reso	89H00004	H	2	600PP	
191	112	72	0.51		19	P2	VH3	TEHTEC			B4370	rsec	89C00099	C	0	600UL	
192	128	72	0.16		5	P2	10H	TEHTEC			F3453	reso	89C00073	C	0	600UL	
			0.40		17	P2	10H	TEHTEC			G1311	reso	89C00073	C	0	600UL	
	121	73	0.49		17	P2	10C	TEHTEC			T9924	reso	89C00153	C	0	600UL	
195	129	73	0.39		13	P2	DBH	TEHTEC			J9815	rpri	89C00153	C	0	600UL	
196	131	73			SAI	1	07H	07H07H			D3858	reso	89H00130	H	2	500DP	

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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	VCL	-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	-0.02			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	VCL	-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
			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
	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	-1.51			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	H10	560PP
230			0.18	.22	SAI	2	VH2	-0.79			VH2VH2			D3858	reso	89H00174	H10	560PP
231					119	SAI	2	VH2	-0.79		VH2VH2			D3858	reso	89H00174	H10	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	-1.00			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	-1.83			TEHTEC			V7107	rpri	89C00111	C 0	600UL
245	121	81	0.34		16	P2	VH3	-0.76			TEHTEC			R5555	rsec	89C00054	C 0	600UL

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245	133	81	0.47		18	P2	VH1	- .91	TEHTEC		R4201	xpri	89C00054	C	0	600UL		
247	145	81	0.73		24	P2	VH1	- .89	TEHTEC		L0211	xpri	89C00100	C	0	600UL		
248	147	81	0.34		13	P2	DBC	- .91	TEHTEC		L0601	xpri	89C00059	C	0	600UL		
249	48	82	0.85		25	P2	DBH	- .82	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	- .97	TEHTEC		F6623	reso	89C00112	C	0	600UL		
252	56	82	0.72		25	P2	VH3	- .81	TEHTEC		V7107	xpri	89C00111	C	0	600UL		
253			0.32		14	P2	VH3	- .95	TEHTEC		V7107	xpri	89C00111	C	0	600UL		
254	126	82	0.32		15	P2	VH1	- 1.00	TEHTEC		R5555	rsec	89C00054	C	0	600UL		
255	146	82	1.72		37	P2	DBH	- .91	TEHTEC		L0601	xpri	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		15	P2	DBC	- .87	TEHTEC		V7107	xpri	89C00111	C	0	600UL		
259	59	83	0.66		24	P2	DBC	- 1.00	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	- 1.56	TEHTEC		V7107	xpri	89C00111	C	0	600UL		
262			0.32		14	P2	DBC	- 1.77	TEHTEC		V7107	xpri	89C00111	C	0	600UL		
263	121	83	0.48		20	P2	VCI	- .95	TEHTEC		R5555	rsec	89C00054	C	0	600UL		
264	147	83	0.34		12	P2	10K	- 1.19	TEHTEC		B4865	rsec	89C00059	C	0	600UL		
			0.90		27	P2	DBH	- 1.00	TEHTEC		M7262	reso	89C00059	C	0	600UL		
			0.55		19	P2	VH1	- .88	TEHTEC		L0601	xpri	89C00059	C	0	600UL		
	58	84	0.46		19	P2	DBC	- .95	TEHTEC		V7107	xpri	89C00111	C	0	600UL		
268			0.55		21	P2	DBC	- 1.59	TEHTEC		V7107	xpri	89C00111	C	0	600UL		
269	62	84	0.40		13	P2	DBH	- 1.00	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	xpri	89C00111	C	0	600UL		
272			0.19		9	P2	VCI	- .81	TEHTEC		V7107	xpri	89C00111	C	0	600UL		
273			0.40		17	P2	DBC	- 1.78	TEHTEC		N2574	reso	89C00111	C	0	600UL		
274	118	84	0.35		16	P2	VCI	- .52	TEHTEC		R5555	rsec	89C00054	C	0	600UL		
275	57	85	0.60		19	P2	DBH	- 1.73	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	xpri	89C00052	C	0	600UL		
286	89	85	0.36		13	P2	VH2	- .70	TEHTEC		K6733	xpri	89C00052	C	0	600UL		
287	145	85	0.79		28	P2	DBC	- 1.65	TEHTEC		J9815	xpri	89C00058	C	0	600UL		
288	147	85	0.43		16	P2	DBH	- 1.90	TEHTEC		L0601	xpri	89C00059	C	0	600UL		
289			1.08		30	P2	DBC	- 1.80	TEHTEC		L0601	xpri	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		

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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	-0.75	TEHTEC			W4786 rsec 89C00110 C	0 600UL					
304	63	87			150	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	-0.94	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					
			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					
			0.41		15	P2 VSM	-0.90	TEHTEC			W4786 rsec 89C00110 C	0 600UL					
317			0.40		15	P2 DBC	-0.02	TEHTEC			M7262 reso 89C00110 C	0 600UL					
318	58	88	0.27		12	P2 DBH	-0.00	TEHTEC			B4855 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	-0.23	TSHTSH			M7262 reso 89H00049 H	2 600PP					
326			0.37	.48	SAI	1 TSH	-0.23	TSHTSH			M7262 reso 89H00049 H	2 600PP					
327			0.41	.43	SAI	2 TSH	-0.23	TSHTSH			M7262 reso 89H00049 H	2 600PP					
328	84	88	0.46		15	P2 VH2	-0.77	TEHTEC			B4855 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	-0.71	TSHTSH			G1311 reso 89H00050 H	2 600PP					
332			0.44	.28	SAI	1 TSH	-0.71	TSHTSH			G1311 reso 89H00050 H	2 600PP					
333			0.46	.16	SAI	2 TSH	-0.71	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	-0.80	TEHTEC			W4786 rsec 89C00110 C	0 600UL					

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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	VCL	-1.94	TEHTEC		L0601	rpri	89C00059	C	0	600UL	
347			0.35		13	P2	Q9C	-1.70	TEHTEC		L0601	rpri	89C00059	C	0	600UL	
348	54	94	0.46		17	P2	DBH	-1.75	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	-1.88	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	-1.90	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	TSHTSH		F3453	reso	89H00048	H	2	600PP	
360						SAI	1	TSH	TSHTSH		F3453	reso	89H00048	H	2	600PP	
361			0.13	.60		SAI	2	TSH	TSHTSH		F3453	reso	89H00048	H	2	600PP	
362	130	94	0.18		8	P2	DBH	-1.80	TEHTEC		L0211	rpri	89C00056	C	0	600UL	
?	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	
	146	94	0.41		14	P2	DBH	-1.98	TEHTEC		B4865	rsec	89C00059	C	0	600UL	
365			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	-1.32	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	TSHTSH		W2545	reso	89H00052	H	2	600PP	
373			1.69	.28		SAI	2	TSH	TSHTSH		W2545	reso	89H00052	H	2	600PP	
374			14.00	.25		SAI	2	TSH	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	TSHTSH		W2545	reso	89H00052	H	2	600PP	
379						SCI	1	TSH	TSHTSH		M7262	reso	89H00052	H	2	600PP	
380			0.31	.51		SCI	P1	TSH	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	TSHTSH		F3453	reso	89H00048	H	2	600PP	
384			0.21	.23		SAI	2	TSH	TSHTSH		F3453	reso	89H00048	H	2	600PP	
385					88	SAI	2	TSH	TSHTSH		F3453	reso	89H00048	H	2	600PP	
386						SAI	1	TSH	TSHTSH		F3453	reso	89H00048	H	2	600PP	
387			0.13	.28		SAI	2	TSH	TSHTSH		F3453	reso	89H00048	H	2	600PP	
388					64	SAI	2	TSH	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	TSHTSH		F6623	reso	89H00051	H	2	600PP	
391			0.43	.28		SAI	1	TSH	TSHTSH		F6623	reso	89H00051	H	2	600PP	
392			0.50	.20		SAI	2	TSH	TSHTSH		F6623	reso	89H00051	H	2	600PP	

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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	VH3	-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	-1.47		F3453	reso	89H00051	H	2	600PP	
407						SAI	1	TSH	-1.47		F3453	reso	89H00051	H	2	600PP	
408		0.19	.30	SAI	2	TSH	-1.47	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	-1.89	TSHTSH			F3453	reso	89H00051	H	2	600PP	
411		0.13	.26	MAI	2	TSH	-1.89	TSHTSH			F3453	reso	89H00051	H	2	600PP	
412	114	100	0.30		15	P2	VC2	-1.67	TEHTEC		W4786	rsec	89C00053	C	0	600UL	
	49	101			117	SAI	2	08H	-1.50		D3858	reso	89H00130	H	2	500DP	
						SAI	1	08H	-1.50		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	-1.07		F3453	reso	89H00051	H	2	600PP	
417						SCI	1	TSH	-1.07		F3453	reso	89H00051	H	2	600PP	
418		0.25	.24	SCI	P1	TSH	-1.07	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		T1089	reso	89H00028	H	2	600PP	
425						SCI	1	TSH	-0.14		T1089	reso	89H00028	H	2	600PP	
426	139	103	0.51		22	P2	VH2	-1.90	TEHTEC		D2003	rpri	89C00036	C	0	600UL	
427	143	103	0.56		24	P2	DBH	-1.00	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	-1.00	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	-1.20	TSHTSH		T1089	reso	89H00028	H	2	600PP	
433		0.44	.20	SAI	2	TSH	-1.20	TSHTSH			T1089	reso	89H00028	H	2	600PP	
434		82.00	87	SAI	2	TSH	-1.20	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	-1.98	TEHTEC		L0211	rpri	89C00034	C	0	600UL	
437	65	107	31.00	89	SAI	2	TSH	-1.41	TSHTSH		G1311	reso	89H00027	H	2	600PP	
		0.10	.12	SAI	1	TSH	-1.41	TSHTSH			D3858	reso	89H00027	H	2	600PP	
		0.11	.15	SAI	2	TSH	-1.41	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		5	P2	VC1	-1.92	TEHTEC		L0211	rpri	89C00034	C	0	600UL	

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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	TSHTSH		T9924	reso	89H00070	H	2	600PP	
445						SAI	1	TSH	TSHTSH		G1311	reso	89H00070	H	2	600PP	
446	46	108				SCI	1	TSH	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	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	TSHTSH		T9924	reso	89H00070	H	2	600PP	
454						SCI	1	TSH	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	-0.47	TEHTEC		J9815	rpri	89C00033	C	0	600UL	
460	129	109	0.39		13	P2	10H	-0.00	TEHTEC		J9815	rpri	89C00033	C	0	600UL	
461	131	109	0.28		12	P2	10H	-0.86	TEHTEC		L0211	rpri	89C00034	C	0	600UL	
462	141	109	0.50		17	P2	VH3	-0.00	TEHTEC		J9815	rpri	89C00033	C	0	600UL	
463	143	109	0.63		25	P2	DBC	-0.64	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	VH3	-0.19	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	-0.01	TSHTSH		T1089	reso	89H00037	H	2	600PP	
474			15.00	20	SAI	2	TSH	-0.01	TSHTSH		T1089	reso	89H00037	H	2	600PP	
475			1.15	.50	SAI	1	TSH	-0.01	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	TSHTSH		G1311	reso	89H00068	H	2	600PP	
485					98	MCI	P1	TSH	TSHTSH		T9924	reso	89H00068	H	2	600PP	
486						MCI	1	TSH	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	TSHTSH		G1311	reso	89H00068	H	2	600PP	
489	60	116	0.51		17	P2	DBC	-0.24	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	

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491		0.17	.26	SAI	2	02H	-0.50	02H03H			W3386	reso	89H00162	H 3	500DP		
492		162.00	92	SAI	2	02H	-0.50	02H03H			W3386	reso	89H00162	H 3	500DP		
493	31	117	0.32		17	P2	07C	TEHTEC			M7262	reso	89C00103	C 0	600UL		
494	20	118			SAI	1	04H	04H04H			N2574	reso	89H00132	H11	500DP		
495		0.25	.15	SAI	2	04H	-0.52	04H04H			N2574	reso	89H00132	H11	500DP		
496				96	SAI	2	04H	04H04H			N2574	reso	89H00132	H11	500DP		
497	11	119	0.34		11	P2	07H	TEHTEC			V6131	rpri	89C00005	C 0	600UL		
498	119	119	0.34		11	P2	10H	TEHTEC	LOCOK		F6623	reso	89C00033	C 0	600UL		
499	133	119	0.33		11	P2	VH1	TEHTEC			J9815	rpri	89C00033	C 0	600UL		
500	70	120	0.30		11	P2	VC3	TEHTEC			M7262	reso	89C00047	C 0	600UL		
501	47	121	0.29		13	P2	VSM	TEHTEC			G2886	rsec	89C00103	C 0	600UL		
502	79	121	0.59		22	P2	VH3	TEHTEC			D2003	rpri	89C00046	C 0	600UL		
503	119	121	0.56		22	P2	10H	TEHTEC	LOCOK		F6623	reso	89C00031	C 0	600UL		
504	78	122	0.25		10	P2	08H	TEHTEC			S8538	rsec	89C00046	C 0	600UL		
505	102	122	0.34		10	P2	VC2	TEHTEC			N2574	reso	89C00028	C 0	600UL		
506	43	125	0.37		14	P2	VSM	TEHTEC			F6623	reso	89C00013	C 0	600UL		
507	77	125	0.65		21	P2	VC3	TEHTEC			L0211	rpri	89C00047	C 0	600UL		
508			0.50		17	P2	VC3	TEHTEC			F3453	reso	89C00047	C 0			
509			0.54		18	P2	VC2	TEHTEC			L0211	rpri	89C00047	C 0	600UL		
510	30	126			SAI	1	TSH	TSHTSH			F3453	reso	89H00033	H 2	600PP		
			0.29	.49	SAI	2	TSH	TSHTSH			F3453	reso	89H00033	H 2	600PP		
					108	SAI	2	TSH	TSHTSH		F3453	reso	89H00033	H 2	600PP		
513	34	126	0.53	.27	MCI	1	TSH	TSHTSH			F3453	reso	89H00033	H 2	600PP		
514			0.59	.30	MCI	P1	TSH	TSHTSH			F3453	reso	89H00033	H 2	600PP		
515			12.00		13	MCI	P1	TSH	TSHTSH		F3453	reso	89H00033	H 2	600PP		
516			0.44	.21	MCI	P1	TSH	TSHTSH			F3453	reso	89H00033	H 2	600PP		
517			2.00		16	MCI	P1	TSH	TSHTSH		F3453	reso	89H00033	H 2	600PP		
518			1.00	.27	MCI	1	TSH	TSHTSH			F3453	reso	89H00033	H 2	600PP		
519	48	126	2.77	.55	SAI	1	TEH	TEHTSH			S3018	reso	89H00171	H11	500DP		
520			1.23	.33	SAI	2	TEH	TEHTSH			S3018	reso	89H00171	H11	500DP		
521			18.00		27	SAI	2	TEH	TEHTSH		S3018	reso	89H00171	H11	500DP		
522	72	126	0.45		17	P2	VSM	TEHTEC			F6623	reso	89C00013	C 0	600UL		
523	41	127	0.18	3.0	SAI	1	01H	-26.86	TO+31.71		01H02H		W3386	reso	89H00163	H15	500DP
524			0.22	3.0	SAI	2	01H	-26.86	TO+31.71		01H02H		W3386	reso	89H00163	H15	500DP
525			116.00		113	SAI	2	01H	-26.86	TO+31.71	01H02H		W3386	reso	89H00163	H15	500DP
526	66	128	0.29		12	P2	VSM	TEHTEC			L0211	rpri	89C00014	C 0	600UL		
527	68	128	0.34		15	P2	VH3	TEHTEC			W4786	rsec	89C00013	C 0	600UL		
528	118	128	0.30		11	P2	05H	TEHTEC			F7460	rpri	89C00026	C 0	600UL		
529	61	129	0.51		19	P2	VH3	TEHTEC			N2574	reso	89C00014	C 0	600UL		
530	78	130	0.46		18	P2	VSM	TEHTEC			D9424	rpri	89C00014	C 0	600UL		
531	108	130	0.43		17	P2	VH2	TEHTEC			B2027	rpri	89C00025	C 0	600UL		
532	123	131	0.26	.35	SVI	2	TSC	TSCTSC			N2574	reso	89C00159	C 9	600PP		
533			104.00		108	SVI	2	TSC	TSCTSC		N2574	reso	89C00159	C 9	600PP		
534			0.29	.35	SVI	1	TSC	TSCTSC			N2574	reso	89C00159	C 9	600PP		
535	125	131	0.55	.39	SVI	2	TSC	TSCTSC			N2574	reso	89C00159	C 9	600PP		
			110.00		103	SVI	2	TSC	TSCTSC		N2574	reso	89C00159	C 9	600PP		
			0.94	.39	SVI	1	TSC	TSCTSC			N2574	reso	89C00159	C 9	600PP		
538	74	132	0.39		16	P2	VC3	TEHTEC			D9424	rpri	89C00014	C 0	600UL		
539	78	132	0.26		11	P2	VH3	TEHTEC			B5926	rsec	89C00014	C 0	600UL		

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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	VCE	0.70	TEHTEC		B5926	rsec	89C00023	C	0	600UL	
541	108	132	0.38		15	P2	VH2	0.80	TEHTEC		B2027	rpri	89C00023	C	0	600UL	
542	124	132	0.27		11	P2	VH1	0.90	TEHTEC		B2027	rpri	89C00023	C	0	600UL	
543			0.38	.40	SVI	2	TSC	0.15	TSCTSC		M7262	reso	89C00143	C	1	600PP	
544			94.00	122	SVI	2	TSC	0.15	TSCTSC		M7262	reso	89C00143	C	1	600PP	
545			0.41	.46	SVI	1	TSC	0.15	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	1	TSH	0.00	TSHTSH		F6623	reso	89H00034	H	2	600PP	
548			3.00	20	SCI	1	TSH	0.00	TSHTSH		F6623	reso	89H00034	H	2	600PP	
549	58	134	0.50		19	P2	VSM	0.83	TEHTEC		D9424	rpri	89C00014	C	0	600UL	
550	50	136	0.29		12	P2	V8H	0.21	TEHTEC		W9213	rsec	89C00016	C	0	600UL	
551	54	136	0.29		12	P2	VH3	0.66	TEHTEC		W9213	rsec	89C00016	C	0	600UL	
552			0.32		12	P2	VSM	0.99	TEHTEC		F6623	reso	89C00016	C	0	600UL	
553	78	136	0.33		13	P2	VCE	0.65	TEHTEC		W9213	rsec	89C00016	C	0	600UL	
554	114	136	0.40		16	P2	VCE	0.81	TEHTEC		B4340	rsec	89C00024	C	0	600UL	
555	77	137	0.56		19	P2	VSM	0.96	TEHTEC		P1465	rpri	89C00016	C	0	600UL	
556	113	137	0.37		15	P2	VH2	0.66	TEHTEC		B5926	rsec	89C00023	C	0	600UL	
557	77	139	0.38		14	P2	VH3	0.04	TEHTEC		M7262	reso	89C00016	C	0		
558			0.64		21	P2	VCE	0.68	TEHTEC		P1465	rpri	89C00016	C	0	600UL	
559	58	140	0.31		14	P2	VH3	0.66	TEHTEC		V6131	rpri	89C00016	C	0	600UL	
560	62	140	0.65		24	P2	VSM	0.66	TEHTEC		V6131	rpri	89C00016	C	0	600UL	
561	88	140	0.46		18	P2	VH2	0.85	TEHTEC		N2574	reso	89C00023	C	0	600UL	
562			0.37		15	P2	VH2	0.15	TEHTEC		N2574	reso	89C00023	C	0	600UL	
563	57	141	4.17	.55	SAI	1	TEH	0.92	TEHTSH		W2545	reso	89H00177	H11	2	600PP	
564			3.24	.47	SAI	1	TEH	0.92	TEHTSH		W2545	reso	89H00177	H11	2	600PP	
565			19.00	26	SAI	2	TEH	0.92	TEHTSH		W2545	reso	89H00177	H11	2	600PP	
566	76	142	0.43		18	P2	V8C	0.56	TEHTEC		F6623	reso	89C00016	C	0	600UL	
567	92	142	0.22		10	P2	VH2	0.53	TEHTEC		L0601	rpri	89C00021	C	0	600UL	
568	71	143	0.28		13	P2	VH3	0.68	TEHTEC		V6131	rpri	89C00016	C	0	600UL	
569	66	144	0.42		15	P2	VH3	0.70	TEHTEC		B2027	rpri	89C00016	C	0	600UL	
570			0.51		18	P2	VSM	0.83	TEHTEC		B2027	rpri	89C00016	C	0	600UL	
571	70	144	0.37		13	P2	VCE	0.58	TEHTEC		B2027	rpri	89C00016	C	0	600UL	
572	112	144	0.42		17	P2	DBC	0.81	TEHTEC		L0601	rpri	89C00021	C	0	600UL	
573	49	145	0.72		23	P2	V8H	0.25	TEHTEC		W9213	rsec	89C00016	C	0	600UL	
574	56	146	0.44		19	P2	VH3	0.77	TEHTEC		B5926	rsec	89C00017	C	0	600UL	
575	74	146	0.36		12	P2	VH3	0.89	TEHTEC		S9098	rpri	89C00018	C	0	600UL	
576	88	146	0.32		14	P2	VCE	0.79	TEHTEC		L0601	rpri	89C00021	C	0	600UL	
577	94	146	0.23		10	P2	VH3	0.90	TEHTEC		J2362	rsec	89C00022	C	0	600UL	
578	71	147	0.36		14	P2	VH3	0.90	TEHTEC		V7107	rpri	89C00017	C	0	600UL	
579			0.36		14	P2	VCE	0.92	TEHTEC		G1311	reso	89C00017	C	0	600UL	
580	79	147	0.41		16	P2	VH3	0.81	TEHTEC		V7107	rpri	89C00017	C	0	600UL	
581	20	148			SCI	1	TSH	0.09	TSHTSH		T1089	reso	89H00029	H	2	600PP	
582			0.60	.21	SCI	1	TSH	0.09	TSHTSH		T1089	reso	89H00029	H	2	600PP	
583				.21	SCI	1	TSH	0.09	TSHTSH		T1089	reso	89H00029	H	2	600PP	
584	76	148	1.11		34	P2	VH3	0.73	TEHTEC		V7107	rpri	89C00017	C	0	600UL	
			0.47		18	P2	VSM	0.85	TEHTEC		V7107	rpri	89C00017	C	0	600UL	
			0.50		19	P2	VSM	0.85	TEHTEC		V7107	rpri	89C00017	C	0	600UL	
587	82	148	0.66		23	P2	VH3	0.79	TEHTEC		J2362	rsec	89C00022	C	0	600UL	
588	84	148	0.32		14	P2	VH2	0.81	TEHTEC		L0601	rpri	89C00021	C	0	600UL	

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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			L0601	rpri	89C00021	C	0	600UL	
590			0.23		10	P2	VC3	-0.62			L0601	rpri	89C00021	C	0	600UL	
591	31	149	0.37		12	P2	VSM	-0.80			V6131	rpri	89C00005	C	0	600UL	
592	35	149	0.45		14	P2	VSM	-0.83			M7262	reso	89C00005	C	0	600UL	
593	73	149	0.31		14	P2	VC3	-0.73			B5926	rsec	89C00017	C	0	600UL	
594	79	149	0.30		13	P2	VSM	-0.75			F3453	reso	89C00017	C	0	600UL	
595	6	152	0.15	.23	SAI	2	04H	-17.72			F3453	reso	89H00165	H11		500DP	
596			131.00	.103	SAI	2	04H	-17.72			F3453	reso	89H00165	H11		500DP	
597			0.22	.39	SAI	1	04H	-17.72			F3453	reso	89H00165	H11		500DP	
598			147.00	.102	SAI	2	04H	-20.38	TO+31.39		F3453	reso	89H00165	H11		500DP	
599			0.41	.57	SAI	1	04H	-20.38	TO+31.39		F3453	reso	89H00165	H11		500DP	
600			0.15	1.4	SAI	2	04H	-20.38	TO+31.39		F3453	reso	89H00165	H11		500DP	
601	56	152	0.31		12	P2	DBH	-1.07			G1311	reso	89C00017	C	0	600UL	
602	66	152	0.30		10	P2	VH3	-0.71			S9098	rpri	89C00018	C	0	600UL	
603	80	152	0.56		21	P2	VSM	-0.71			V7107	rpri	89C00017	C	0	600UL	
604			0.48		19	P2	VSM	-0.92			V7107	rpri	89C00017	C	0	600UL	
605			0.65		24	P2	VC3	-0.82			V7107	rpri	89C00017	C	0	600UL	
606			0.72		26	P2	VC3	-0.82			V7107	rpri	89C00017	C	0	600UL	
607	35	153	0.33		14	P2	VSM	-0.69			V6131	rpri	89C00007	C	0	600UL	
608	55	153	0.32		14	P2	VC3	-0.96			B5926	rsec	89C00017	C	0	600UL	
	92	154	0.73		26	P2	03H	-0.16			G1311	reso	89C00021	C	0	600UL	
			0.24	.67	SAI	2	03H	-0.95			F6623	reso	89H00166	H	3	500DP	
611			145.00	.109	SAI	2	03H	-0.95			F6623	reso	89H00166	H	3	500DP	
612			0.34	.58	SAI	1	03H	-0.95			F6623	reso	89H00166	H	3	500DP	
613			0.40	.65	SAI	2	03H	-2.79			F6623	reso	89H00166	H	3	500DP	
614			132.00	.088	SAI	2	03H	-2.79			F6623	reso	89H00166	H	3	500DP	
615			0.87	.69	SAI	1	03H	-2.79			F6623	reso	89H00166	H	3	500DP	
616	94	154	0.26		11	P2	VH2	-0.16			L0601	rpri	89C00021	C	0	600UL	
617	71	155	0.30		11	P2	VH3	-0.85			V7107	rpri	89C00017	C	0	600UL	
618	66	156	0.51		17	P2	VH3	-0.71			W9213	rsec	89C00020	C	0	600UL	
619	72	156	0.28		12	P2	VC3	-0.83			K3270	rsec	89C00019	C	0	600UL	
620	74	156	0.39		14	P2	VH3	-0.85			W9213	rsec	89C00020	C	0	600UL	
621			0.59		19	P2	VSM	-0.75			W9213	rsec	89C00020	C	0	600UL	
622			0.49		16	P2	VC3	-0.66			W9213	rsec	89C00020	C	0	600UL	
623	49	157	1.39		32	P2	VSM	-0.61			W9213	rsec	89C00020	C	0	600UL	
624	71	157	0.26		11	P2	VH3	-0.79			K3270	rsec	89C00019	C	0	600UL	
625	56	158	0.38		16	P2	VH3	-0.66			K3270	rsec	89C00019	C	0	600UL	
626	73	159	0.27		10	P2	VC3	-0.81			W9213	rsec	89C00020	C	0	600UL	
627	79	159	0.39		16	P2	VH3	-0.83			K3270	rsec	89C00019	C	0	600UL	
628	74	160	0.86		24	P2	VH3	-0.81			W9213	rsec	89C00020	C	0	600UL	
629			0.56		18	P2	VC3	-0.83			W9213	rsec	89C00020	C	0	600UL	
630	21	163	0.34	.95	SAI	2	04H	-10.37			T9924	reso	89H00164	H	3	500DP	
631			112.00	.107	SAI	2	04H	-10.37			T9924	reso	89H00164	H	3	500DP	
632			0.37	.67	SAI	1	04H	-10.37			F6623	reso	89H00164	H	3	500DP	
633			131.00	.101	SAI	2	04H	-15.63			T9924	reso	89H00164	H	3	500DP	
			0.27	1.0	SAI	1	04H	-15.63			T9924	reso	89H00164	H	3	500DP	
			0.20	.74	SAI	2	04H	-15.63			T9924	reso	89H00164	H	3	500DP	
636					SAI	1	04H	-24.24			T9924	reso	89H00164	H	3	500DP	
637					102	SAI	2	04H	+24.24		G1311	reso	89H00164	H11		500DP	

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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	1	04H	-28.20	04H07H			T9924	reso	89H00164	H	3	500DP	
640		0.14	.63	SAI	2	04H	-18.20	04H07H			T9924	reso	89H00164	H	3	500DP	
641		147.00	.69	SAI	2	04H	-18.20	04H07H			T9924	reso	89H00164	H	3	500DP	
642				SAI	1	05H	-1.78	04H07H			T9924	reso	89H00164	H	3	500DP	
643		0.20	.65	SAI	2	05H	-1.78	04H07H			T9924	reso	89H00164	H	3	500DP	
644			.124	SAI	2	05H	-1.78	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	-19.65	05H07H		F6623	reso	89H00164	H	3	500DP	
649			.94	SAI	2	05H	-19.65	05H07H			F6623	reso	89H00164	H	3	500DP	
650				SAI	1	05H	-19.65	05H07H			F6623	reso	89H00164	H	3	500DP	
651			.85	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		0.29	.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	-1.79	TEHTEC		W9213	rsec	89C00020	C	0	600UL	
664	42	168	0.60		19	P2	VSM	-1.06	TEHTEC		T0507	rsec	89C00010	C	0	600UL	
665	42	170	0.59		18	P2	VSM	-1.29	TEHTEC		T0507	rsec	89C00010	C	0	600UL	
666	19	173	0.27		12	P2	VSM	-1.89	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**



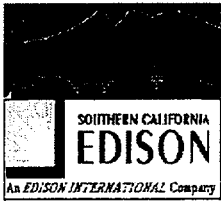
UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

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



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



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



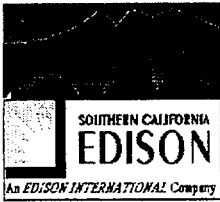
UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

ISI ID NO.	Area Description	Cat	Item	Method	Scan Angle	Exam Date	Report No	Results
02-002-012	DOMES 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



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 @ 0 DEGREES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-008	ACCEPT
02-004-027-09	PRIMARY MANWAY STUD @ 0 DEGREES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-008	ACCEPT
02-004-027-10	PRIMARY MANWAY STUD @ 0 DEGREES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-008	ACCEPT
02-004-027-11	PRIMARY MANWAY STUD @ 0 DEGREES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-008	ACCEPT
02-004-027-12	PRIMARY MANWAY STUD @ 0 DEGREES	BG2	B7.30	VT-1	N/A	01/09/99	299-10IVT-008	ACCEPT
02-004-027-13	PRIMARY MANWAY STUD @ 0 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



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



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	299-10IMT-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



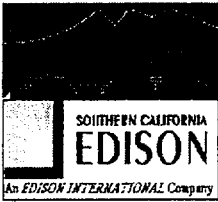
UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

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



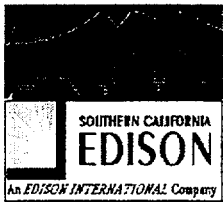
UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

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



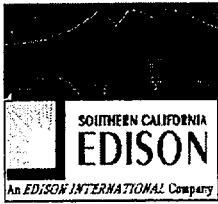
UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

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



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	299-10IPT-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



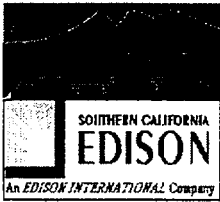
UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

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



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



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



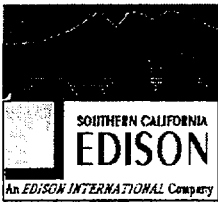
UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

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



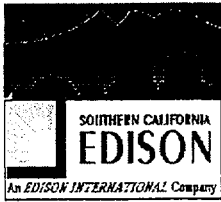
UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

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



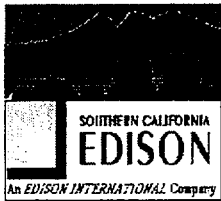
UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

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



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



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-TO-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



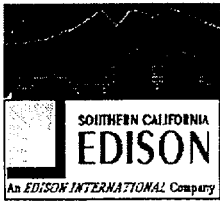
UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

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



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



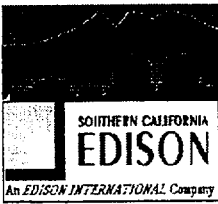
UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

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



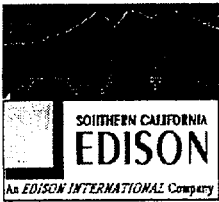
UNIT 2 CYCLE 10 CLASS 1 AND 2 ISI COMPLETED EXAMINATIONS

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



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 integrity 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
OK 2/21/99

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]
Signature

2/18/99
Date

APPROVED BY:

[Signature]
Supervisor or Designee

2/19/99
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. 4/22/99

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

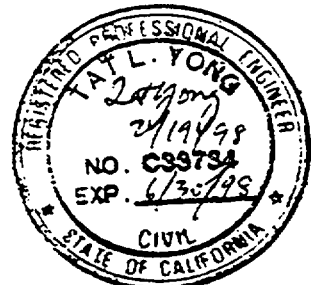
SOUTHERN CALIFORNIA EDISON COMPANY
San Clemente, California

VPL No.: 5023	Quality Class: II
<input checked="" type="checkbox"/> 1. APPROVED - Proceed. <input type="checkbox"/> 2. APPROVED EXCEPT AS NOTED - Make changes and resubmit. Mfg. may proceed. <input type="checkbox"/> 3. NOT APPROVED - Correct and resubmit for review. Not to be used for field use. <input type="checkbox"/> 4. REFERENCE DOCUMENT - "Information Only"	INITIALS SIGNED DATE TLY 3-19-98 GS 3-19-98 IPRE 3-19-98 DM DATE OTHER DATE
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 SCE 37-339 REV 0 5/93 (REFERENCE: SO123.XHW-37 & 20)	

QUALITY CLASS II
SEISMIC CATEGORY I

TEST REPORT

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



Prepared by: Tay Yong Date: 2/19/98
 Reviewed by: George Lee Date: 3-6-98
 Approved by: [Signature] Date: 3-9-98

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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 S023-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). $52/55 \times 5400 = 5105$ 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 S023-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 (S023-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 S023-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

Prepared by: Torrey Yee *Torrey Yee*
Containment Responsible Engineer

ANII Review: *[Signature]* 8/19/98

Approval:

Civil Group Supervisor *[Signature]* 8/20/98

STS Supervisor *[Signature]* 8/18/98

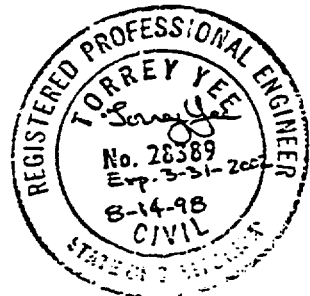


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1.0 Introduction

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	

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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: Sorey Yoo
Examiner's Name/Signature

7-30-98
Date

REVIEWED BY: Sorey Yoo
Responsible Engineer's Name/Signature

7-30-98
Date

APPROVED BY: [Signature]
STS Supervisor or designee

8/19/98
Date

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CONCRETE SURFACE VISUAL EXAMINATION REPORT FORM

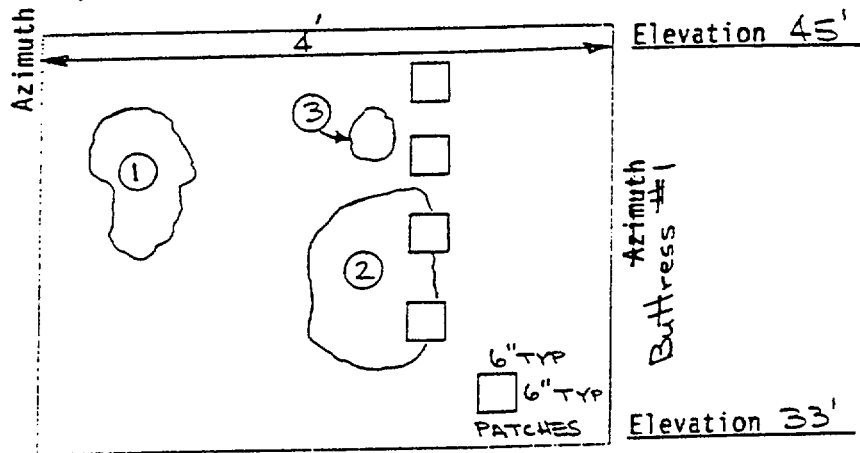
Sheet A-3

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

Binoscopes

Notes: _____

RECORDED BY: Torrey Yee
Examiner's Signature

6-1-98
Date

REVIEWED BY: Torrey Yee
Responsible Engineer's

7-30-98
Date

APPROVED BY: [Signature]
Site Technical Services Supervisor or designee

8/19/98
Date

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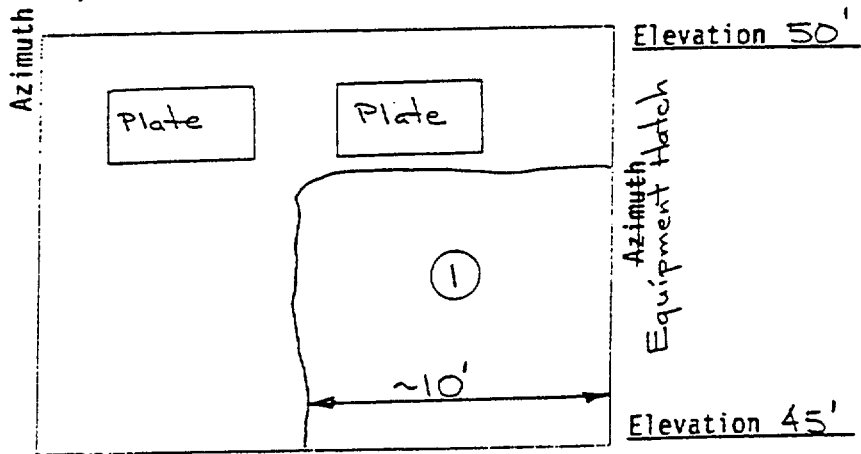
Sheet A-4

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
Examiner's Signature

6-1-98
Date

REVIEWED BY: Torrey Yee
Responsible Engineer's

7-30-98
Date

APPROVED BY: [Signature]
Site Technical Services Supervisor or designee

8/19/98
Date

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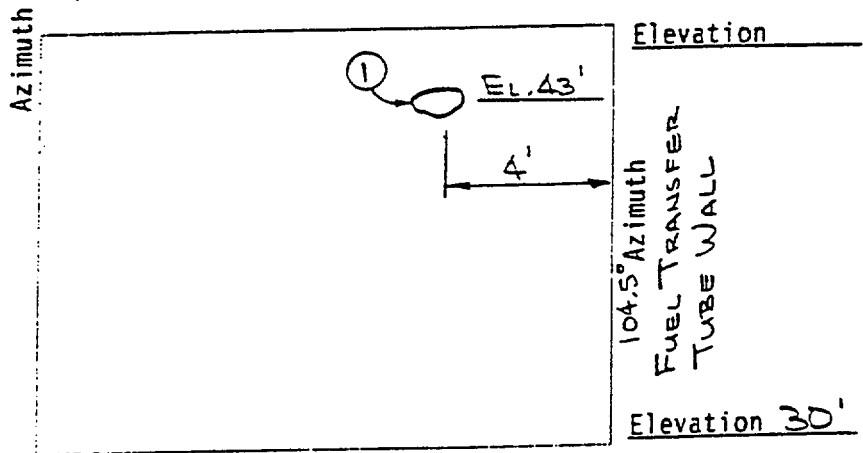
Sheet A-5

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

6-15-98
Date

REVIEWED BY: Torrey Yee
Responsible Engineer's

7-30-98
Date

APPROVED BY: [Signature]
Site Technical Services Supervisor or designee

8/19/98
Date

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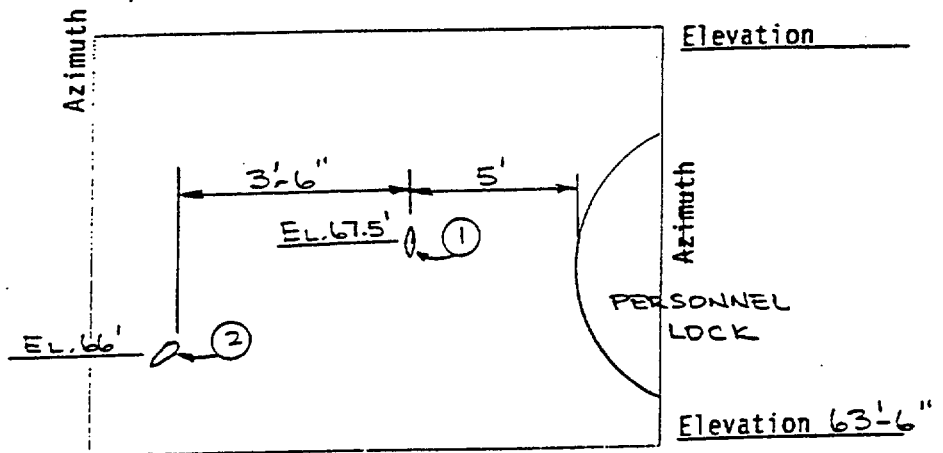
Sheet A-6

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: 1 1/8" x 1/2" x 5/8" deep
- ② Bughole: 1 1/2" x 1/4" x 1/4" deep

C. Tools/Aids

Binoculars

Notes: No rebar exposed. Original construction defect

RECORDED BY: Torrey Yee
Examiner's Signature

6-15-98
Date

REVIEWED BY: Torrey Yee
Responsible Engineer's

7-30-98
Date

APPROVED BY: [Signature]
Site Technical Services Supervisor or designee

8/19/98
Date

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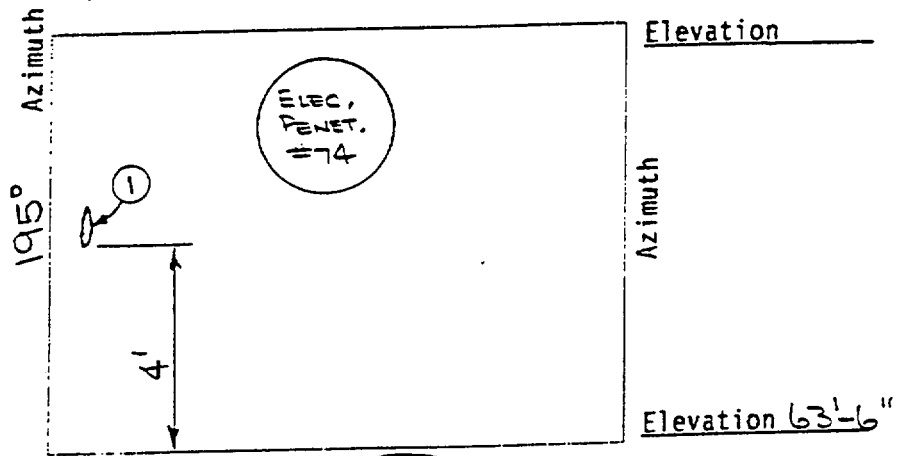
Sheet A-7

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 Bubbles: 1 1/2" x 5/8" x 1/2" deep

C. Tools/Aids
Binoculars

Notes: No rebar exposed. Original construction defect.

RECORDED BY: Torrey Yee
Examiner's Signature

6-15-98
Date

REVIEWED BY: Torrey Yee
Responsible Engineer's

7-30-98
Date

APPROVED BY: [Signature]
Site Technical Services Supervisor or designee

8/19/98
Date

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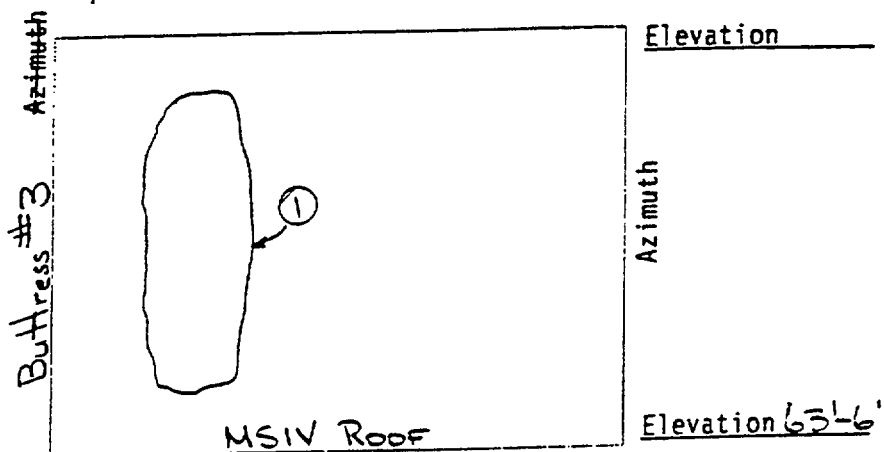
Sheet A-8

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

6-15-98
Date

REVIEWED BY: Torrey Yee
Responsible Engineer's

7-30-98
Date

APPROVED BY: [Signature]
Site Technical Services Supervisor or designee

8/19/98
Date

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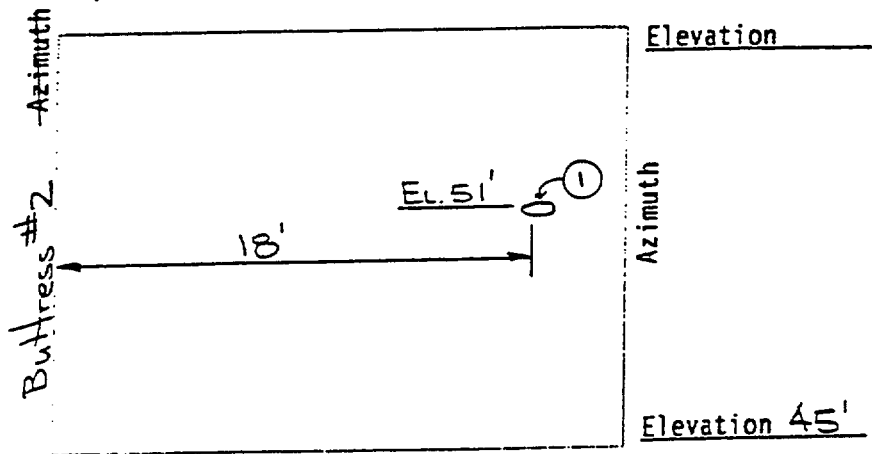
Sheet A-9

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 1 1/8" x 5/8" x 1/4" deep

C. Tools/Aids

Notes: No rebar exposed. Original construction defect

RECORDED BY: Torrey Yee
Examiner's Signature

6-15-98
Date

REVIEWED BY: Torrey Yee
Responsible Engineer's

7-30-98
Date

APPROVED BY: [Signature]
Site Technical Services Supervisor or designee

8/19/98
Date

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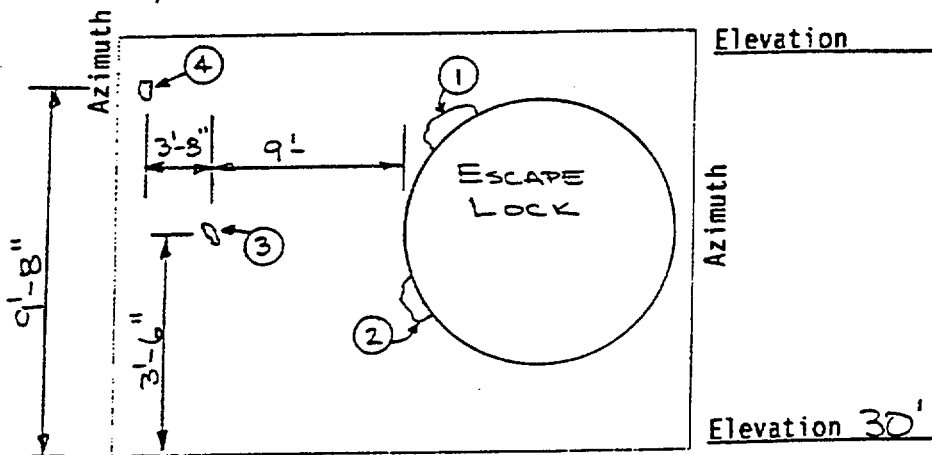
Sheet A-10

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 2 1/2" x 3/4" deep
- ② Spall: 3" x 3 1/2" x 1/2" deep
- ③ Buehole: 1 1/2" x 1/2" 3/8" deep
- ④ Buehole: 1 1/4" x 3/4" 1/2" deep

C. Tools/Aids

Binoculars

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

RECORDED BY: Torrey Yee
Examiner's Signature

6-1-98
Date

REVIEWED BY: Torrey Yee
Responsible Engineer's

7-30-98
Date

APPROVED BY: [Signature]
Site Technical Services Supervisor or designee

8/19/98
Date

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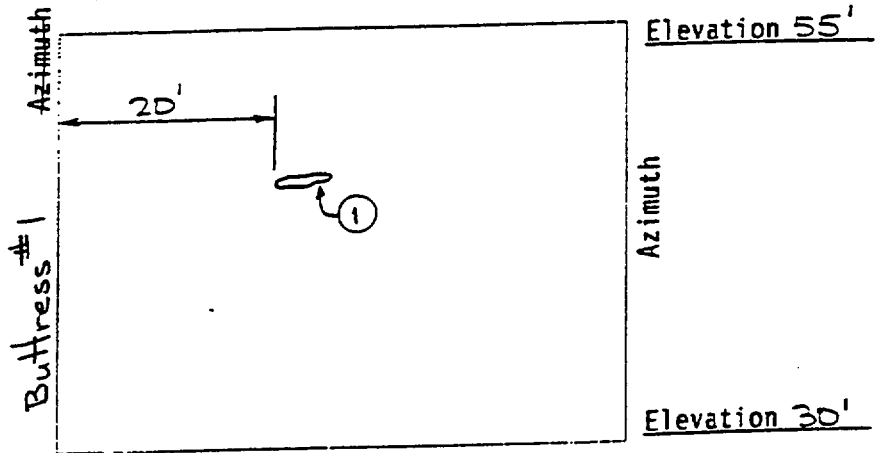
Sheet A-11

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

6-1-98
Date

REVIEWED BY: Torrey Yee
Responsible Engineer's

7-30-98
Date

APPROVED BY: [Signature]
Site Technical/Services Supervisor or designee

8/19/98
Date

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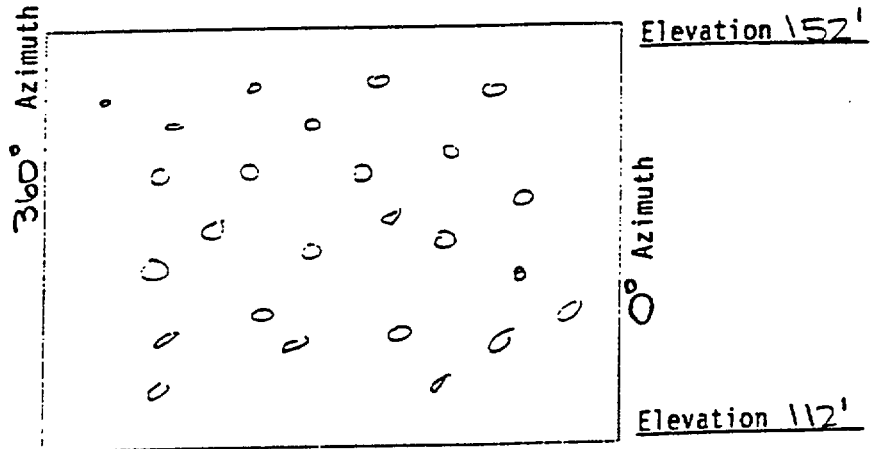
Sheet A-12

EXAMINER'S NAME TORREY YEE AREA DI-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 2 1/2"
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

7-30-98
 Date

REVIEWED BY: Torrey Yee
 Responsible Engineer's

7-30-98
 Date

APPROVED BY: [Signature]
 Site Technical Services Supervisor or designee

8/19/98
 Date

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Sheet A-13

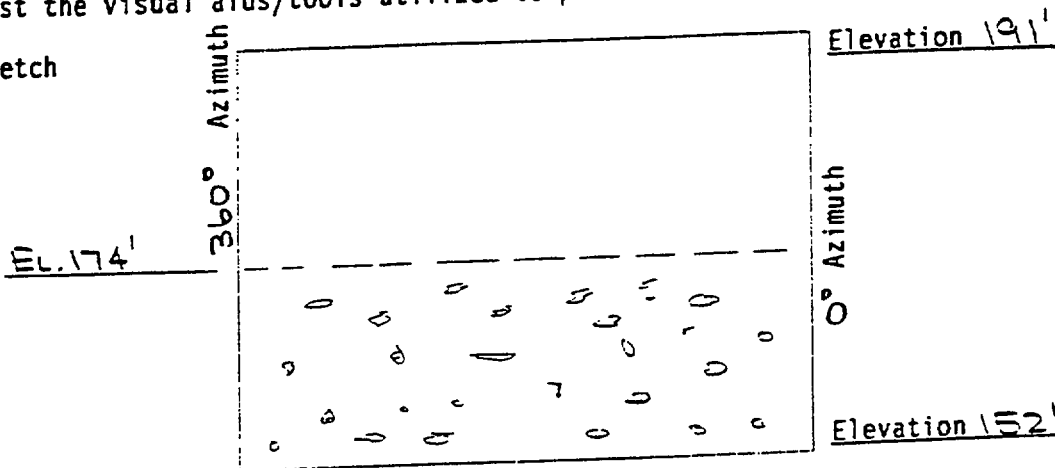
EXAMINER'S NAME TORREY YEE

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 2 1/2"
and maximum depth is 1".

C. Tools/Aids

Binoculars
Spotting scope

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

RECORDED BY: Torrey Yee
 Examiner's Signature

7-30-98
 Date

REVIEWED BY: Torrey Yee
 Responsible Engineer's

7-30-98
 Date

APPROVED BY: [Signature]
 Site Technical Services Supervisor or designee

8/19/98
 Date