Thomas P. Joyce
Site Vice President - Salem

PSEG Nuclear LLC
P.O. Box 236, Hancocks Bridge, NJ 08038-1236
tel: 856.339.2086 fax: 856.339.2956

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PSEG Nuclear LLC

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TECHNICAL SPECIFICATION 6.9.1.5 ANNUAL REPORTS
SALEM GENERATING STATION UNIT NO 2.
DOCKET NO. 50-311

PSEG Nuclear LLC hereby submits the enclosed Steam Generator Inspection Report for Salem Unit 2.

Enclosure 1 provides information pursuant to the requirements of Technical Specification 6.9.1.5.b of Appendix A to Facility Operating License No. DPR-75. The information pertains to the Salem Unit 2 steam generator tube inspections completed in 2005.

Should you have any questions or comments regarding this submittal, please contact Justin Wearne at 856-339-5081.

Sincerely,

Thomas P. Joyce
Site Vice President - Salem

Enclosures (1)

A047

C: USNRC Administrator – Region I
U. S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Mr. S. Bailey, Project Manager - Salem Unit 1 and Unit 2
U. S. Nuclear Regulatory Commission
Mail Stop 08B1
Washington, DC 20555-0001

USNRC Senior Resident Inspector – Salem Unit 1 and Unit 2 (X24)

Mr. K. Tosch, Manager IV
Bureau of Nuclear Engineering
PO Box 415
Trenton, New Jersey 08625

ENCLOSURE 1

LR-N06-0248

Salem Unit 2
2R14
Steam Generator Inspection Summary Report

2005 Steam Generator Tube ISI Summary Report

In the spring of 2005 PSEG Nuclear conducted eddy current examinations on the Salem Unit 2 Steam Generators (SG) during the 14th Refueling Outage (2R14). There were no steam generator examinations performed during 2005 for Salem Unit 1.

Overview

Salem Unit Two has four Westinghouse Model 51 series steam generators. Each steam generator contains 3388 NiCrFe alloy (Inconel ASME-SB-163) U-tubes with an outside diameter of 0.875 inches and a nominal wall thickness of 0.050 inches. The tube support structures consist of seven equally spaced 0.750-inch thick carbon steel support plates which are drilled with 0.891 inch holes and two sets of anti-vibration bars (AVB) that are located in the U-bend region of the tubes. The AVB bars are made from 0.387 square cross-section straight length bar material (Nickel-Chromium iron Alloy 600, chrome plated subsequent to bending) that is bent to a vee form with an approximate 5.00-inch radius at the apex. The tubesheet is approximately 21 inches thick ASME-SA508 Class 2 steel forging with Inconel cladding on the primary side. All tubes were explosively expanded into the tubesheet using the Westinghouse WEXTEX process. The WEXTEX expansion included the entire depth of the tubesheet for both the hot and cold leg sides.

Examinations Performed

The eddy current examination scope performed during outage 2R15 is summarized below, and met or exceeded Salem Unit 2 Technical Specification 3/4.4.6, "Steam Generators" Surveillance Requirements and NEI 97-06 SG Program requirements.

The final scope performed (including expansions) is outlined below:

- With the exception of those row 2 through 5 u-bends inspected under rotating coil inspection program, a full-length bobbin coil inspection was performed on 100% of the in-service tubes in each steam generator.
- 100% Rotating Coil (+ Point) exam of the rows 2 through 10 U-bends and 20% of the rows 13 through 17 U-bends (07C-07H or 07H – 07C) in each steam generator.
- 100% Rotating Coil (+ Point) exam of the Hot Leg (HL) WEXTEX Top of Tubesheet (TTS) transition regions in each steam generator at an extent of +3 inches above/-8 inches below
- 100% Rotating Coil (+ Point) exam of the > = 1-volt dented HL Tube Support Plate (TSP) intersections at 01H, 02H and 03H and 20% of the > = 1-volt dented HL Tube Support Plate (TSP) intersections at 04H in 22, 23 and 24 steam generator. In 21 SG performed 100% Rotating Coil (+ Point) exam of the > = 1-volt dented HL Tube Support Plate (TSP) intersections at 01H, 02H, 03H, 04H and 20% of the > = 1-volt dented HL Tube Support Plate (TSP) intersections at 05H.
- 25% Rotating Coil (+ Point) exam of the > 5-volt dented HL TSP intersections at 04H, 05H, 06H and 07H in each steam generator.
- 25% Rotating Coil (+ Point) exam of the > = 2 volt HL free span dings (TSH +0.5 inches to 07H +2.0 inches) in each steam generator.
- Rotating Coil (+ Point) examination of previous TSP ligament Indications identified from the 2R12 bobbin coil data and any new TSP ligament indications identified during 2R14.

- 100% Rotating Coil (+ Point) of > = 2 volt U-bends dings (07H to 07C) in each steam generator.
- 100% Rotating Coil (+Point) of > = 1.0 volt dented Anti-Vibration Bar (AVB's) locations in each steam generator.
- 100% Rotating Coil (+ Point) of the freespan indications that were dispositioned in 2R13 as historical bobbin coil signals NOT related to in-service degradation when compared to the first In-service Inspection (ISI) bobbin coil data.
- 20% Rotating Coil (+ Point) of AVB wear indications in each steam generator.
- Cold leg thinning indications detected during 2R14, with no previous history, were inspected with rotating coil (+ Point).

Examination Results and Technical Specification Classification

Consistent with the requirements specified in NEI 97-06 Rev 1, Steam Generator Program Guidelines, the Unit 2 steam generators met the structural integrity, accident induced leakage and operational leakage performance criteria based on outage 2R14 inspection results. The following table summarizes the number of tubes plugged in each steam generator by degradation mechanism. Framatome designed Alloy 690 rolled plugs were used for removal of these tubes from service. The table also provides the total number and percentage of tubes repaired to date and cumulative steam generator tube plugging levels:

Modes of Degradation	SG21	SG22	SG23	SG24	TOTAL
Axial PWSCC @ TTS	10	5	1	21	37
OD Volumetric @ TTS associated with Loose Part Wear	1	1	0	1	3
Axial ODSCC @ TTS	1	2	0	2	5
Circ ODSCC @ TTS	2	0	0	0	2
Axial ODSCC @ TSP	4	0	0	0	4
Circ ODSCC @ TSP	1	0	0	0	1
Axial PWSCC @ TSP	1[1]	1	0	2	4
Circ PWSCC @ TSP	1[1]	0	0	0	1
Preventative Plug for Loose Parts	0	4	0	0	4
Circ PWSCC U-bend	0	0	3	0	3
Data Quality (e.g. PVN or Dented %TW location)	2	0	0	1	3
Anti-Vibration Bar Wear	2	0	1	0	3
Cold Leg Thinning Indications	2	1	1	5	9
TOTAL TUBES PLUGGED IN OUTAGE 2R14	26	14	6	32	78
TOTAL TUBES PLUGGED CUMULATIVE	250	249	239	362	1100
CUMULATIVE TUBE PLUGGING %	7.38	7.35	7.05	10.68	8.12

The Technical Specification categorization of each steam generator is listed in the table below and takes into consideration both the bobbin coil and Rotating Coil inspection results.

Technical Specification Classification

	21 SG	22 SG	23 SG	24 SG
Tubes inspected – Cumulative	3164	3153	3155	3058
Tubes degraded – Cumulative	26	18	9	37
Tubes defective – Cumulative	23	10	5	30
% Tubes degraded – Cumulative	0.82	0.57	0.29	1.21
% Tubes defective – Cumulative	0.73	0.32	0.16	0.98
TS Category	C-2	C-2	C-2	C-2

[1] Tube R6C2 had ID SAI and ID SCI at 01H

Note: In all inspections, previously degraded tubes must exhibit significant (greater than 10%) further wall penetrations to be included in the percentage calculations in accordance with Technical Specification 4.4.6.2. Tubes containing detectable crack like indications with RC are considered defective unless a site-qualified sizing technique has been approved.

WEXTEX Tubesheet Inspections

The WEXTEX is the region of the tube expanded in the tubesheet, and the WEXTEX transition region is where the tube transitions from the expanded tube diameter to the nominal tube diameter and is typically located near the top of the tubesheet (TTS). The bottom of the WEXTEX transition is the first point of contact between the tube and the tubesheet. In this region, both PWSCC and ODSCC have been observed with PWSCC being the prominent damage mechanism at Salem Unit 2.

During 2R14, 100% rotating coil (+ Point) inspections of the HL TTS WEXTEX region were performed in each steam generator at an extent of +3 inches above TTS to – 8 inches below the TTS. Thirty-seven tubes were plugged for axial PWSCC, five tubes for axial ODSCC and two tubes for circumferential ODSCC. The table below lists all tubesheet indications detected during 2R14, and subsequently removed from service by tube plugging.

SG	Tube ID	Indication	Location	Damage Mechanism
21	R4C69	SAI	TSH - 1.04"	PWSCC
21	R5C63	SAI	TSH - 6.58"	PWSCC
21	R5C66	SAI	TSH - 1.40"	PWSCC
21	R6C52	SAI	TSH - 0.66"	PWSCC
21	R11C23	SAI	TSH - 0.31"	PWSCC
21	R13C29	MCI	TSH - 0.05"	ODSCC
21	R14C16	SAI	TSH -1.80" and -1.43"	PWSCC
21	R14C29	SCI	TSH -0.10"	ODSCC
21	R16C37	SAI	TSH -0.26"	PWSCC
21	R17C33	SAI	TSH + 0.28"	ODSCC
21	R18C41	SAI	TSH -0.44"	PWSCC
21	R18C46	SAI	TSH -1.00"	PWSCC
21	R33C34	SAI	TSH - 0.16"	PWSCC
22	R3C7	SAI	TSH - 1.78"	PWSCC
22	R4C57	SAI	TSH - 0.59"	PWSCC
22	R17C55	SAI	TSH + 0.34"	ODSCC
22	R17C58	SAI	TSH + 0.27"	ODSCC
22	R22C56	SAI	TSH -1.81" and -1.93"	PWSCC
22	R25C49	SAI	TSH - 1.70"	PWSCC
22	R39C47	SAI	TSH - 0.23"	PWSCC
23	R5C5	SAI	TSH - 2.64"	PWSCC
24	R3C17	SAI	TSH - 0.74"	PWSCC
24	R5C11	SAI	TSH - 9.32"	PWSCC
24	R6C42	SAI	TSH - 0.17"	PWSCC
24	R7C17	SAI	TSH - 0.26"	PWSCC
24	R7C27	SAI	TSH - 0.38"	PWSCC
24	R7C43	SAI	TSH - 0.97"	PWSCC
24	R14C38	SAI	TSH + 0.40"	ODSCC
24	R14C55	SAI	TSH - 1.84"	PWSCC
24	R15C20	SAI	TSH - 0.39"	PWSCC
24	R15C24	SAI	TSH - 0.99"	PWSCC
24	R15C84	SAI	TSH - 1.81"	PWSCC
24	R16C32	SAI	TSH + 0.34"	ODSCC
24	R17C45	SAI	TSH - 0.15"	PWSCC
24	R20C19	SAI	TSH - 0.27"	PWSCC
24	R20C20	SAI	TSH - 0.35"	PWSCC
24	R20C22	SAI	TSH - 0.32"	PWSCC
24	R20C40	MAI	TSH - 0.83"	PWSCC
24	R26C50	SAI	TSH - 0.73"	PWSCC
24	R27C15	SAI	TSH - 0.17"	PWSCC
24	R32C58	SAI	TSH - 1.70"	PWSCC
24	R35C23	SAI	TSH - 0.29"	PWSCC
24	R37C31	SAI	TSH - 0.18"	PWSCC
24	R39C22	MAI	TSH - 0.28"	PWSCC

Dented Hot Leg (HL) Tube Support Plate (TSP) Intersection Inspections

The inspections consisted of two major scopes:

- 100% at 01H, 02H and 03H and 20% of the > = 1-volt dented HL Tube Support Plate (TSP) intersections at 04H in 22, 23 and 24 steam generator. In 21 SG performed 100% Rotating Coil (+ Point) exam of the > = 1-volt dented HL Tube Support Plate (TSP) intersections at 01H, 02H, 03H, 04H and 20% of the > = 1-volt dented HL Tube Support Plate (TSP) intersections at 05H. Approximately 6100 inspections were performed for this scope.
- 25% Rotating Coil (+ Point) exam of the > 5-volt dented HL TSP intersections at 04H, 05H, 06H and 07H in each steam generator. Approximately 1250 inspections were performed for this scope,

A total of 4 axial PWSCC indications, 1 circumferential PWSCC indication, 4 axial ODSCC indications and 1 circumferential ODSCC indications were detected during these inspections as shown in the table below. All indications were within the TSP. One tube in SG 21 (R6C2) had an axial and circumferential PWSCC indication separated axially at the 01H TSP.

The tubes repaired for Stress Corrosion Cracking at dented HL TSP locations are shown in the table below:

SG	Tube ID	Indication	TSP Location	Dent Voltage	Damage Mechanism
21	R3C65	SAI	04H	1.26	ODSCC
21	R6C2	SAI/SCI	01H	5.56	PWSCC
21	R8C40	SAI	01H	1.29	ODSCC
21	R25C20	SAI	01H	4.74	ODSCC
21	R25C72	SAI	03H	N/A – bobbin DSI	ODSCC
21	R37C57	SCI	03H	6.97	ODSCC
22	R3C70	SAI	01H	1.65	PWSCC
24	R8C2	SAI	01H	1.31	PWSCC
24	R10C39	SAI	01H	1.94	PWSCC

Anti-vibration Bar (AVB) Wear

AVB wear indications are plugged if bobbin indicates a depth > = 40% TW. Tubes with degradation less than 40% TW may be left in service or removed from service depending on the observed growth rate of the degradation. A 20% sample of the bobbin coil AVB wear indications in each steam generator (124 total wear locations for all 4 SG's) were inspected with rotating coil that verified the reported indications displayed a volumetric response and were not crack like. The sample included new indications of AVB wear, previous AVB wear indications that exhibited > = 20% TW growth in one cycle and random AVB wear indications.

Appendix 1 provides a listing of the AVB percent through-wall indications reported during 2R14.

A total of three tubes were repaired for this damage mechanism. The table below lists the tubes plugged for AVB wear during 2R14:

SG	Tube ID	Indication	TSP Location
21	R23C68	43% TW	AV2
21	R36C52	40% TW	AV2
23	R40C54	40% TW	AV1

Dents and Dings within the U-bend Regions

Based on Comanche Peak and Beaver Valley Operating Experience, 100% of the > = 1 volt dented AVB locations and > = 2 volt ding locations within the u-bend region were inspected with a +Point probe. A total of approximately 485 exams were performed with no degradation detected.

Cold Leg Thinning (CLT)

Cold leg thinning (CLT) is caused by surface wastage (corrosion) and occurs principally within the confines of the lower cold leg tube support plates on the periphery of the tube bundle. CLT indications are plugged if bobbin indicates a depth of > = 40% TW. Tubes with degradation less than 40% TW may be left in service or removed from service depending on the observed growth rate of the degradation. New CLT indications were inspected with rotating coil and the results of those inspections verified the indications displayed a volumetric response.

A total of nine tubes were plugged for this damage mechanism as shown in the table below:

SG	Tube ID	Indication	TSP Location	DSI Voltage
21	R44C57	DSI by Bobbin; SVI* by Rotating Coil	03C	.32*
21	R45C53	DSI by Bobbin; SVI* by Rotating Coil	01C	.45*
22	R43C60	54 % TW	02C	N/A
23	R7C1	DSI by Bobbin; SVI* by Rotating Coil	01C	.42*
24	R30C83	42 % TW	01C	N/A
24	R31C80	DSI by Bobbin; SVI* by Rotating Coil	01C	.31*
24	R33C78	41 % TW	02C	N/A
24	R43C34	45 % TW / 47 % TW	02C / 03C	N/A
24	R43C59	42 %	01C	N/A

*Low voltage (0.31 – 0.45 volts) bobbin coil DSI's that via rotating coil produces a volumetric response typical of cold leg thinning. The percent through wall depth could not be accurately determined with the bobbin coil phase technique due to the influence of tube support plate residual on the signal. These locations were labeled as an SVI instead of VOL (in accordance with the site guidelines; a VOL is an indication that is not crack-like yet has some discernible volume to it and for which a site validated or qualified depth sizing technique exists) to ensure the locations were preventatively plugged.

Appendix 2 provides a listing of the CLT percent through-wall indications reported by bobbin during 2R14 (Low voltage bobbin coil DSIs confirmed as CLT with rotating coil probe are provided in the table above).

Rotating Coil Inspection of U-bends

Based on previous operating history (Salem specific and industry related) regarding U-bend degradation, the following U-bend inspections were performed:

- 100% of the Row 2 thru Row 10 tubes in each steam generator were inspected with a single coil + Point probe in the u-bend region.
- 20% of Row 13 through Row 17 tubes each steam generator were inspected with a single coil +Point probe in the u-bend region.

3 tubes were repaired (plugged and stabilized) in 23 SG attributed to circumferentially oriented PWSCC in the flank area of the tube, that were determined to be similar to those reported during 2R13.

A listing of the tubes repaired (plugged and stabilized) is shown in the table below:

SG	Tube ID	Indication	U-bend Location
23	R5C86	SCI	7H + 4.44"
23	R6C83	SCI	7H + 4.60"
23	R6C85	SCI	7H + 4.69"

Loose Parts

A total of eight tubes were repaired for suspected loose part indications or wear associated with loose parts as outlined in the table below.

SG	Tube ID	Indication	TSP Location	Stabilization Requirement	Depth via EPRI ETSS 96910.1
21	R11C85	PLI / PLP	TSH	Yes	22% TW
22	R21C60	PLP	TSC	Yes	No Wear
22	R22C59	PLP	TSC	Yes	No Wear
22	R22C60	PLP	TSC	Yes	No Wear
22	R23C59	PLP	TSC	Yes	No Wear
22	R30C24	PLI / PLP	TSH	Yes	7% TW
24	R31C78	PLI	TSH	No	19%

Data Quality

Data quality is an important parameter influencing the overall performance of a steam generator tube examination system as it has an effect on probability of detection and sizing uncertainties. The following list reflects the tubes repaired for Data Quality Concerns:

SG	Tube ID	Indication
21	R17C33	Permeability Variation
21	R19C30	Dented AVB with associated Wear (16% TW using EPRI ETSS 96910.1)
24	R40C66	Permeability Variation

Freespan Indications

When reported during the outage inspection, freespan bobbin coil indications (MBM type indications) are compared to the 1983 first ISI data to determine if change has occurred. As documented in the bobbin coil Examination Technique Specification Sheet (ETSS), change is defined as either:

- A phase shift of 10 degrees towards the flaw plane or having signal amplitudes inconsistent with that present in 1983 with consideration given to normalization changes or
- If the location has been RC inspected (+Point) two times previously and dispositioned as MBM or NDF **AND** the current outage bobbin signal has not changed by > 5 degrees towards the flaw plane or greater than 0.3 volt since the first outage (2R9 and later) it was RC inspected.

In response to the Comanche Peak Operating Experience and 2R13 results, the 2R14 scope included:

- A pre-programmed inspection (+Point) of all freespan indications that were identified during 2R13 (change criterion **not** considered) and
- +Point inspection of any new freespan indications during 2R14 (change criterion **not** considered).

A total of 712 exams were performed during 2R14 and no degradation was found.

Tube Support Plate Integrity Inspections

Consistent with Westinghouse study SG-96-05-003 "Investigation of Applicability of Eddy Current to the Detection of Potentially Degraded Tube Support Structures" (VTD 327729), bobbin coil probes were used for the initial screening of the support structures for signals that might be indicative of degradation. Signals identified with bobbin probes (called "PSI") require confirmation ("NDD" or "SLC") using a rotating coil +Point probe. Positive confirmation results in a report entry of SLC for Suspect Ligament Crack. Negative confirmation results in a report entry of NDD or No Detectable Degradation. Based on visual inspections performed following chemical cleaning in 2R10 and the review of historical eddy current data, these indications are not the result of in-service degradation rather anomalies related to steam generator manufacturing (for example mis-drilled flow holes and tube holes). No indication of true service induced TSP degradation has been detected or visually verified in the Salem 2 SGs. The repair criteria of ligament cracking is > = 145 degrees. During outage 2R14 the scope of inspections included:

- +Point inspection of new PSI indications for confirmation and
- +Point inspection of previously identified SLC indications to monitor for change.

In addition to the scopes outlined above, all TSP's locations inspected with rotating coil (+Pont) during 2R14 for other reasons (approximately 7350 locations) were assessed for evidence of degraded support structures.

Five newly reported SLC indications were identified during 2R14. As seen with the previously detected degraded support structures, based on historical lookups, these indications are not necessarily "new", rather the result of bobbin coil probability of detection. No growth or changes in signal characteristics were observed in previously reported SLC indications. The table below provides a current summary of potentially degraded support structures.

SG	Tube ID	IND	LOCATION	SIZING INFORMATION
21	R14C6	SLC	06H	SINGLE
21	R20C53	SLC	05H	SINGLE
21	R31C79	SLC	06H	SINGLE
21	R36C40	SLC	06H	SINGLE
21	R37C40	SLC	06H	SINGLE
		SLC	05H	SINGLE
21	R42C34	SLC	06H	SINGLE
21	R42C36	SLC	06H	SINGLE
21	R43C40	SLC	06H	SINGLE
21	R45C41	SLC	06H	SINGLE
22	R37C54	SLC	03H	SINGLE
22	R41C54	SLC	03H	SINGLE
23	R3C56	SLC	06C	55 DEG
23	R6C27	SLC	04H	47 DEG
23	R9C40	SLC	06C	46 DEG
23	R9C55	SLC	02H	56 DEG
		SLC	03H	116 DEG
23	R14C37	SLC	04H	32 DEG
23	R14C38	SLC	04H	56 DEG
23	R14C57	SLC	05C	58 DEG
23	R17C27	SLC	04H	70 DEG
23	R22C34	SLC	03H	SINGLE
23	R22C75	SLC	01H	43 DEG
		SLC	07H	104 DEG
23	R25C87	SLC	07C	SINGLE
23	R29C81	SLC	07C	64 DEG
		SLC	01C	50 DEG
23	R39C56	SLC	07H	SINGLE
23	R41C68	SLC	07H	SINGLE
23	R42C59	SLC	04H	SINGLE
23	R44C56	SLC	07H	SINGLE
23	R45C54	SLC	07H	SINGLE
23	R45C55	SLC	07H	SINGLE
23	R46C54	SLC	07H	SINGLE
24	R20C29	SLC	07C	SINGLE
24	R26C9	SLC	05C	SINGLE
24	R23C28	SLC	02H	39 DEG
24	R34C46	SLC	02C	SINGLE
24	R41C39	SLC	02C	SINGLE
24	R45C41	SLC	07H	SINGLE
24	R45C57	SLC	01H	32 DEG
24	R46C41	SLC	07H	SINGLE
		SLC	01H	SINGLE
24	R46C54	SLC	07H	DOUBLE

Free Span Ding Inspections

Rotating Coil inspections were performed on a 25% sample of the HL > = 2-volt free span dings to identify potential PWSCC or ODSCC. The 25% sample included free span dings reported from the TSH +0.5 inches to 07H +2.0 inches. Approximately 118 exams were performed and no degradation was reported.

Appendix 1

Anti-Vibration Bar Wear Percent Through-Wall Indications

SG	ROW	COL	PCT	ANTI VIBRATION BAR NO	LOCATION
21	16	24	10	AV1	-0.04
21	16	66	16	AV1	-0.37
21	16	66	16	AV4	-0.95
21	17	25	15	AV3	+0.06
21	17	35	8	AV1	+0.16
21	17	37	13	AV4	-0.55
21	17	39	15	AV3	-0.09
21	17	39	17	AV1	-.02
21	17	39	13	AV2	+0.03
21	17	52	11	AV2	-0.85
21	17	52	9	AV2	+1.09
21	17	52	10	AV3	-1.01
21	17	52	12	AV3	+1.11
21	17	52	14	AV4	-0.68
21	17	52	12	AV1	+2.25
21	17	52	12	AV1	-2.23
21	17	56	18	AV2	+0.11
21	17	56	10	AV3	+0.09
21	17	63	16	AV2	+0.04
21	17	63	12	AV3	-0.16
21	17	63	13	AV3	+0.31
21	18	34	13	AV2	+0.02
21	18	67	14	AV1	-1.09
21	18	67	13	AV4	+0.67
21	19	30	23	AV2	+0.29
21	19	30	19	AV1	+0.18
21	19	30	13	AV2	-0.27
21	19	30	32	AV3	-0.08
21	19	58	14	AV4	+0.55
21	19	58	26	AV2	+0.61
21	19	66	14	AV1	-0.53
21	19	66	27	AV2	+0.14
21	19	66	28	AV3	+0.20
21	19	66	4	AV4	-0.96
21	21	29	12	AV3	+0.33
21	21	29	20	AV4	-0.35
21	21	60	14	AV2	-0.93
21	21	60	17	AV3	-0.52
21	22	60	16	AV2	-0.45
21	23	64	22	AV2	+0.15
21	23	64	24	AV3	+0.13
21	23	67	25	AV1	-0.99
21	23	67	30	AV2	-0.43
21	23	67	27	AV3	-0.11

SG	ROW	COL	PCT	ANTI VIBRATION BAR NO	LOCATION
21	23	68	31	AV3	+0.06
21	23	68	20	AV4	-0.02
21	23	68	14	AV2	+0.33
21	23	68	43	AV2	-0.45
21	23	70	14	AV4	+1.35
21	24	41	10	AV1	-1.64
21	24	52	11	AV1	-1.91
21	24	52	22	AV2	+1.21
21	24	52	9	AV3	+1.26
21	24	52	16	AV4	+0.60
21	24	67	19	AV2	-0.14
21	24	68	29	AV3	+0.22
21	24	68	28	AV2	+0.69
21	24	70	8	AV1	+0.47
21	25	24	11	AV3	+0.02
21	26	46	11	AV2	+0.35
21	26	56	34	AV4	-0.78
21	26	56	28	AV1	+0.29
21	26	56	24	AV2	+0.10
21	26	56	33	AV3	+0.08
21	26	58	23	AV3	-0.65
21	26	58	15	AV2	-0.56
21	26	59	15	AV2	+0.22
21	26	59	18	AV3	+0.71
21	26	59	14	AV4	-0.50
21	26	63	16	AV4	-0.56
21	26	64	12	AV2	+0.16
21	26	64	22	AV1	-0.11
21	26	64	12	AV3	+0.27
21	26	67	23	AV1	-0.82
21	26	67	12	AV2	-0.33
21	27	44	16	AV1	-0.48
21	27	44	36	AV2	-0.04
21	27	44	37	AV3	+0.25
21	27	44	31	AV4	+0.81
21	27	45	17	AV4	+0.35
21	27	46	34	AV2	+0.13
21	27	46	36	AV3	+0.15
21	27	46	30	AV4	-0.46
21	27	46	19	AV2	-0.33
21	27	50	13	AV2	-1.42
21	27	50	24	AV3	-1.44
21	27	50	10	AV4	-0.33
21	27	56	31	AV2	+0.06
21	27	56	26	AV4	-0.67

SG	ROW	COL	PCT	ANTI VIBRATION BAR NO	LOCATION
21	27	56	11	AV4	+0.48
21	27	56	24	AV1	+0.17
21	27	56	35	AV3	+0.06
21	27	59	22	AV4	-0.43
21	27	64	31	AV2	+0.28
21	27	64	38	AV3	+0.26
21	27	64	25	AV1	-0.02
21	29	46	21	AV1	-0.46
21	29	46	32	AV2	+0.02
21	29	46	39	AV3	+0.04
21	29	46	15	AV4	-0.19
21	29	57	23	AV3	-0.10
21	29	57	20	AV4	-0.10
21	29	57	22	AV2	+0.08
21	29	65	14	AV3	+0.58
21	29	65	30	AV4	-0.37
21	31	64	28	AV2	-0.13
21	31	67	17	AV2	+0.37
21	32	39	12	AV4	+0.06
21	32	48	28	AV3	+0.22
21	32	48	26	AV2	-0.12
21	32	49	7	AV4	-0.69
21	32	49	8	AV3	+1.25
21	32	51	9	AV2	+0.72
21	32	51	24	AV3	-1.17
21	32	51	23	AV3	+1.42
21	32	51	15	AV4	+1.27
21	32	54	11	AV3	-0.25
21	33	41	7	AV3	-0.18
21	33	41	15	AV4	+0.66
21	33	41	9	AV2	-0.04
21	33	55	13	AV3	+0.02
21	33	60	22	AV1	+0.13
21	33	60	24	AV3	+0.25
21	34	36	10	AV1	-0.29
21	34	36	12	AV1	+0.33
21	34	36	30	AV2	-0.31
21	34	36	16	AV3	-0.27
21	34	37	27	AV2	+0.24
21	34	37	23	AV3	+0.19
21	34	37	13	AV1	+0.99
21	34	37	12	AV4	+0.06
21	34	44	12	AV1	+0.37
21	34	44	29	AV2	-0.04
21	34	44	37	AV3	+0.09

SG	ROW	COL	PCT	ANTI VIBRATION BAR NO	LOCATION
21	34	44	12	AV4	+0.56
21	34	45	11	AV1	+0.12
21	34	45	18	AV2	-0.10
21	34	45	31	AV3	-0.44
21	34	45	22	AV4	-0.30
21	34	49	9	AV3	+1.15
21	34	49	9	AV2	+1.08
21	34	51	20	AV3	+1.31
21	34	51	22	AV2	+1.33
21	34	51	25	AV1	-0.25
21	34	52	11	AV2	+0.78
21	34	65	26	AV4	-0.31
21	34	65	29	AV3	-0.47
21	35	53	14	AV4	+0.11
21	35	63	16	AV2	+0.14
21	35	63	12	AV1	+0.04
21	35	68	11	AV1	-0.76
21	35	68	11	AV2	-0.36
21	35	68	6	AV3	+0.01
21	36	41	24	AV3	+0.09
21	36	43	17	AV3	-0.32
21	36	43	12	AV4	+0.21
21	36	50	9	AV2	+0.86
21	36	52	40	AV2	-0.53
21	36	53	5	AV1	-0.78
21	36	53	7	AV2	+0.47
21	36	56	24	AV2	+0.02
21	36	58	25	AV2	-0.57
21	36	58	22	AV1	+0.30
21	36	58	28	AV3	-0.51
21	36	58	13	AV2	+0.43
21	36	58	30	AV2	-0.47
21	39	37	11	AV1	-0.15
21	39	37	18	AV1	+0.24
21	39	37	28	AV2	+0.04
21	39	54	12	AV1	-0.25
21	39	61	22	AV1	-0.61
21	39	61	30	AV2	-0.56
21	40	58	12	AV2	-0.33
21	41	50	9	AV1	+0.04
21	41	53	8	AV1	+0.38
21	41	53	13	AV2	-0.34
21	41	58	8	AV4	+0.06
21	41	58	9	AV1	+0.16
21	42	31	10	AV3	-0.02

SG	ROW	COL	PCT	ANTI VIBRATION BAR NO	LOCATION
21	42	34	9	AV4	-0.21
22	16	68	14	AV3	+0.25
22	16	68	18	AV2	-0.32
22	16	68	14	AV4	+0.72
22	18	65	11	AV4	+1.06
22	18	65	20	AV4	-0.59
22	18	65	31	AV3	+0.02
22	18	65	24	AV2	+0.84
22	18	65	20	AV2	-0.61
22	18	65	25	AV1	-1.03
22	18	65	14	AV1	+1.69
22	22	62	8	AV2	-0.14
22	22	62	21	AV3	-0.25
22	23	71	20	AV3	+0.22
22	23	71	15	AV1	-1.71
22	23	71	13	AV4	+0.18
22	23	71	9	AV2	+0.02
22	23	74	11	AV2	-0.21
22	23	74	12	AV4	-0.45
22	25	9	8	AV2	+0.32
22	25	9	15	AV3	+0.07
22	25	30	17	AV1	+1.56
22	25	30	23	AV2	+0.07
22	25	30	31	AV3	+0.32
22	25	55	7	AV1	+0.80
22	25	63	15	AV3	-0.45
22	25	69	19	AV2	+0.32
22	25	69	16	AV2	-0.38
22	25	69	30	AV3	+0.16
22	25	71	21	AV3	+0.29
22	26	23	17	AV3	-0.02
22	26	62	8	AV4	+0.38
22	26	62	18	AV3	-0.15
22	26	62	27	AV1	+0.62
22	26	62	20	AV2	+0.04
22	27	28	12	AV3	+0.29
22	27	28	14	AV2	-0.23
22	31	27	21	AV2	-0.02
22	31	28	13	AV1	+0.56
22	31	28	22	AV2	+0.29
22	32	52	10	AV2	-0.21
22	32	52	10	AV3	-0.15
22	33	67	11	AV2	-0.21
22	33	67	13	AV2	+0.34
22	34	32	31	AV1	+0.02

SG	ROW	COL	PCT	ANTI VIBRATION BAR NO	LOCATION
22	34	32	33	AV2	+0.38
22	34	32	28	AV3	+0.05
22	34	39	12	AV3	-0.09
22	34	41	11	AV3	+0.09
22	34	46	13	AV3	-0.01
22	34	47	13	AV3	-0.13
22	34	49	36	AV4	-0.50
22	34	50	10	AV1	+0.91
22	34	50	15	AV2	-0.07
22	34	50	29	AV3	+0.27
22	34	50	19	AV4	+0.91
22	34	58	13	AV2	+0.02
22	34	70	13	AV4	-0.02
22	35	26	12	AV1	+0.02
22	35	26	10	AV2	+0.07
22	35	53	16	AV3	-0.25
22	35	53	17	AV2	+0.06
22	36	34	27	AV3	+0.14
22	36	51	16	AV2	+0.04
22	40	36	27	AV4	-0.11
22	40	37	16	AV1	+0.81
22	40	37	22	AV2	+0.07
22	40	44	20	AV1	+0.50
22	40	44	32	AV2	+0.05
22	41	32	12	AV3	-0.04
23	15	77	12	AV2	+0.25
23	15	77	11	AV4	-1.54
23	16	57	25	AV1	+0.35
23	16	57	14	AV2	-0.17
23	16	57	22	AV3	-0.46
23	16	57	18	AV4	-1.02
23	20	31	12	AV1	+1.15
23	20	56	11	AV4	-1.62
23	20	58	7	AV1	+0.06
23	20	64	9	AV4	+0.08
23	20	67	12	AV1	-0.97
23	20	67	10	AV2	-0.10
23	21	22	9	AV2	+0.03
23	21	32	12	AV1	-0.02
23	21	44	16	AV2	+0.02
23	21	44	14	AV1	+0.66
23	23	40	17	AV3	+0.25
23	23	44	11	AV2	+0.17
23	23	49	8	AV1	-0.66
23	23	53	8	AV1	+0.64

SG	ROW	COL	PCT	ANTI VIBRATION BAR NO	LOCATION
23	23	53	11	AV2	-0.16
23	23	53	9	AV2	+0.29
23	23	53	22	AV3	-0.10
23	23	53	6	AV4	-0.29
23	23	58	9	AV2	+0.28
23	23	58	13	AV4	+0.31
23	23	58	26	AV2	-0.13
23	23	58	14	AV1	-0.17
23	23	58	36	AV3	+0.11
23	24	46	12	AV3	+0.46
23	24	48	13	AV1	-0.41
23	24	48	15	AV2	-0.54
23	24	53	5	AV3	+0.04
23	24	55	13	AV1	+1.08
23	24	55	5	AV1	-1.15
23	24	55	8	AV4	-3.03
23	24	56	20	AV2	-1.26
23	24	56	23	AV1	-0.76
23	24	56	5	AV4	+1.61
23	24	56	17	AV4	-1.63
23	24	56	28	AV3	+0.72
23	24	56	25	AV3	-0.89
23	24	56	17	AV2	+1.26
23	24	60	10	AV2	+0.26
23	25	44	11	AV2	+0.12
23	25	57	9	AV2	-0.25
23	25	57	9	AV1	+0.21
23	26	44	28	AV2	+0.08
23	26	44	27	AV3	+0.08
23	26	44	16	AV4	-0.12
23	26	44	11	AV1	-0.56
23	26	44	14	AV1	+0.64
23	26	45	29	AV1	-0.06
23	26	45	27	AV2	-0.02
23	26	45	15	AV4	+0.68
23	26	55	11	AV3	+0.04
23	26	55	24	AV2	+0.52
23	26	55	19	AV1	-1.06
23	26	63	10	AV2	-0.15
23	26	63	8	AV1	-1.13
23	27	49	13	AV2	-0.50
23	27	49	13	AV3	+0.02
23	27	49	11	AV1	+0.73
23	27	51	23	AV1	-1.00
23	27	51	31	AV4	-0.33

SG	ROW	COL	PCT	ANTI VIBRATION BAR NO	LOCATION
23	27	51	33	AV3	+0.04
23	27	51	27	AV4	-0.40
23	27	51	31	AV3	+0.02
23	27	51	22	AV1	-0.83
23	27	51	36	AV2	+0.06
23	27	59	28	AV1	+0.35
23	27	59	18	AV2	+0.32
23	27	59	12	AV3	+0.30
23	27	59	12	AV4	+0.41
23	27	63	38	AV2	+0.21
23	27	63	26	AV3	+0.43
23	27	63	29	AV1	+1.41
23	27	63	24	AV4	-0.64
23	27	64	12	AV1	-0.82
23	27	64	8	AV2	+0.08
23	27	65	16	AV2	+0.06
23	27	65	16	AV3	-0.16
23	27	65	13	AV3	+0.37
23	27	65	16	AV4	+1.11
23	28	45	19	AV2	-0.14
23	30	25	13	AV4	-0.12
23	30	27	10	AV3	-0.12
23	30	27	12	AV4	+0.02
23	30	35	34	AV2	-0.19
23	30	35	27	AV4	+1.04
23	30	35	23	AV3	-0.38
23	30	57	14	AV2	-0.24
23	30	57	13	AV1	+0.04
23	30	64	10	AV4	-0.21
23	31	63	13	AV2	-0.08
23	32	41	29	AV3	-0.23
23	32	41	19	AV2	+0.12
23	32	45	39	AV2	-0.02
23	32	45	38	AV3	+0.04
23	32	45	17	AV4	-0.52
23	32	45	34	AV4	+0.58
23	32	45	35	AV1	-0.13
23	32	59	18	AV4	+0.27
23	32	59	28	AV3	+0.25
23	32	61	26	AV3	-0.14
23	32	61	17	AV1	+0.39
23	33	26	20	AV3	-0.31
23	33	26	12	AV1	+0.02
23	33	26	21	AV2	-0.06
23	33	50	9	AV1	+0.16

SG	ROW	COL	PCT	ANTI VIBRATION BAR NO	LOCATION
23	33	51	6	AV3	-0.08
23	33	51	6	AV2	+0.02
23	33	52	10	AV1	+0.02
23	34	38	12	AV4	-0.06
23	34	38	14	AV3	-0.08
23	34	41	13	AV3	-0.15
23	34	52	13	AV4	+0.04
23	34	54	9	AV4	+1.94
23	35	53	19	AV4	+0.02
23	35	53	16	AV3	-0.08
23	35	54	12	AV4	+1.62
23	36	44	25	AV4	-0.02
23	36	44	13	AV3	-0.02
23	36	45	15	AV4	+0.52
23	36	45	18	AV3	+0.08
23	36	45	16	AV4	-0.42
23	36	58	19	AV4	+0.06
23	36	63	11	AV1	+0.76
23	36	63	15	AV1	-0.64
23	36	63	19	AV2	+0.02
23	36	66	7	AV4	-0.70
23	36	71	9	AV2	+0.06
23	37	42	19	AV4	-0.37
23	37	42	18	AV3	+0.25
23	37	45	16	AV3	+0.12
23	37	45	26	AV4	-0.31
23	37	52	30	AV4	+0.02
23	38	41	13	AV2	+0.06
23	38	44	11	AV2	+0.04
23	38	46	11	AV3	+0.35
23	38	46	15	AV4	-0.15
23	38	47	25	AV3	+0.04
23	38	47	20	AV4	-0.16
23	38	48	31	AV3	-0.44
23	39	50	16	AV1	-0.02
23	39	50	23	AV2	+0.23
23	39	51	22	AV1	+0.68
23	39	51	13	AV3	+0.01
23	39	52	24	AV2	+0.02
23	39	52	26	AV1	+0.14
23	39	58	24	AV1	+0.09
23	39	58	31	AV2	+0.30
23	39	60	16	AV3	+0.04
23	39	60	18	AV4	-0.48
23	39	60	14	AV4	+0.10

SG	ROW	COL	PCT	ANTI VIBRATION BAR NO	LOCATION
23	40	42	30	AV2	+0.29
23	40	42	11	AV1	+0.06
23	40	43	12	AV2	-0.17
23	40	43	19	AV3	+0.02
23	40	50	29	AV2	+0.21
23	40	50	16	AV3	+0.08
23	40	50	6	AV4	-0.04
23	40	51	31	AV2	+0.10
23	40	51	15	AV3	+0.10
23	40	51	24	AV1	-0.19
23	40	54	22	AV3	+0.04
23	40	54	40	AV1	+0.52
23	40	54	38	AV4	-1.20
23	40	54	39	AV2	+0.25
23	40	56	8	AV1	+0.30
23	40	56	10	AV1	-0.32
23	40	62	12	AV1	+0.16
23	40	66	17	AV2	+0.08
23	41	29	10	AV3	-0.31
23	41	52	24	AV3	-0.15
23	41	52	17	AV2	+0.02
23	41	55	37	AV1	-0.53
23	41	55	16	AV2	-0.21
23	41	55	32	AV2	+0.23
23	41	55	19	AV1	+0.65
23	41	60	16	AV2	+0.06
23	41	61	13	AV1	+0.02
23	41	63	10	AV3	+0.04
23	41	65	13	AV2	+0.02
23	42	52	14	AV1	+0.16
23	42	60	14	AV3	-0.04
23	42	65	20	AV2	+0.08
23	42	66	9	AV3	-0.04
23	42	66	7	AV2	+0.17
23	42	67	26	AV2	+0.16
23	42	67	37	AV3	-0.12
23	42	67	33	AV1	+0.04
23	43	34	14	AV4	+0.14
23	43	63	18	AV2	+0.04
23	44	40	12	AV4	-0.04
23	45	58	9	AV3	+0.06
23	45	58	10	AV1	-0.11
23	45	58	20	AV4	-0.02
24	15	33	15	AV3	-0.02
24	15	33	15	AV1	+0.29

SG	ROW	COL	PCT	ANTI VIBRATION BAR NO	LOCATION
24	17	32	20	AV3	-0.36
24	17	32	16	AV4	-0.52
24	17	32	14	AV2	+0.54
24	17	65	18	AV4	-1.51
24	17	65	8	AV3	-0.25
24	17	65	21	AV2	-0.14
24	17	65	10	AV3	+0.39
24	17	78	11	AV2	+0.23
24	18	23	25	AV4	-0.29
24	18	55	17	AV4	+0.64
24	18	55	20	AV3	+0.18
24	18	55	19	AV2	+0.18
24	18	55	15	AV1	+0.14
24	20	6	10	AV2	-0.02
24	21	28	15	AV4	+0.65
24	21	28	16	AV1	-0.57
24	21	28	24	AV2	+0.13
24	21	28	31	AV3	-0.22
24	21	30	22	AV2	+0.34
24	21	30	14	AV1	-0.14
24	21	30	19	AV2	-0.30
24	21	30	13	AV3	-0.87
24	21	30	19	AV3	+0.69
24	21	72	21	AV4	-0.86
24	22	72	33	AV2	+0.05
24	23	28	11	AV4	+0.43
24	23	28	34	AV3	+0.16
24	23	33	19	AV1	-0.02
24	23	33	31	AV2	-0.30
24	23	33	19	AV2	+0.23
24	23	33	27	AV3	+0.14
24	23	33	17	AV4	-0.23
24	23	33	10	AV4	+0.25
24	23	53	23	AV4	-0.05
24	23	56	12	AV3	+0.43
24	23	56	19	AV4	+0.32
24	23	57	33	AV4	-0.20
24	23	57	30	AV3	-0.68
24	23	57	9	AV2	+0.32
24	23	57	11	AV2	-0.43
24	23	57	9	AV1	+0.18
24	23	59	22	AV2	+0.34
24	23	59	11	AV3	-0.34
24	23	59	14	AV3	+0.23
24	23	59	18	AV1	+1.11

SG	ROW	COL	PCT	ANTI VIBRATION BAR NO	LOCATION
24	23	62	12	AV4	+0.88
24	23	62	24	AV3	-0.18
24	23	62	8	AV2	-0.86
24	23	62	8	AV1	+0.79
24	23	72	14	AV2	+0.16
24	23	72	30	AV4	-0.73
24	24	34	27	AV2	-0.06
24	24	34	25	AV3	+0.04
24	24	34	20	AV4	-0.84
24	24	35	19	AV1	+0.34
24	24	35	13	AV2	+0.19
24	24	35	17	AV3	+0.24
24	25	72	10	AV2	+0.02
24	26	34	22	AV1	+0.39
24	26	34	29	AV2	-0.17
24	26	34	17	AV4	+0.51
24	26	34	21	AV3	+0.06
24	26	58	15	AV4	+1.38
24	26	58	26	AV3	+0.52
24	26	58	24	AV2	+0.57
24	26	58	14	AV1	-0.38
24	26	62	15	AV4	+0.88
24	26	67	14	AV2	+0.11
24	26	67	9	AV1	+0.09
24	27	62	11	AV2	-0.73
24	27	62	10	AV1	+0.78
24	27	68	29	AV4	-0.09
24	27	68	33	AV3	-0.14
24	28	59	20	AV2	+0.25
24	28	59	14	AV1	+0.86
24	31	31	35	AV3	-0.02
24	31	48	10	AV3	+0.13
24	32	64	13	AV2	-0.05
24	33	29	15	AV1	+0.18
24	33	29	19	AV2	+0.07
24	33	36	13	AV1	-0.72
24	33	41	21	AV1	-0.23
24	33	48	12	AV1	-0.24
24	33	48	10	AV1	+0.51
24	33	48	15	AV2	+0.09
24	33	50	9	AV3	+0.13
24	33	50	12	AV4	+0.09
24	33	51	31	AV2	-0.57
24	33	51	9	AV1	-0.70
24	33	51	10	AV3	-0.58

SG	ROW	COL	PCT	ANTI VIBRATION BAR NO	LOCATION
24	33	57	27	AV4	-0.14
24	33	57	10	AV2	-0.32
24	33	57	19	AV3	+0.43
24	33	57	11	AV1	+0.09
24	33	58	18	AV3	-0.34
24	33	58	4	AV4	-0.90
24	33	65	10	AV3	-0.38
24	33	66	6	AV3	-0.16
24	33	66	25	AV2	-0.02
24	33	67	20	AV1	+0.09
24	34	63	13	AV4	+0.35
24	34	63	28	AV3	+0.01
24	34	63	27	AV2	-0.07
24	34	65	29	AV3	-0.52
24	34	65	21	AV4	+0.28
24	36	63	14	AV3	-0.07
24	38	39	16	AV3	-0.21
24	38	39	21	AV4	-0.21
24	38	52	31	AV4	+0.39
24	38	52	19	AV3	-0.34
24	38	67	35	AV3	-0.32
24	38	67	25	AV2	+0.01
24	38	68	33	AV3	-0.09
24	38	68	34	AV2	+0.14
24	38	68	34	AV4	-0.04
24	39	42	16	AV3	+0.21
24	39	42	13	AV4	+0.41
24	39	49	30	AV4	-0.49
24	39	49	12	AV3	+0.13
24	39	65	30	AV1	-0.27
24	39	65	16	AV2	+0.01
24	40	37	28	AV2	-0.05
24	40	37	32	AV1	+0.07
24	40	55	11	AV1	-0.02
24	40	56	24	AV1	+0.22
24	40	56	17	AV2	-0.11
24	40	57	7	AV4	+0.02
24	41	35	19	AV2	-0.09
24	41	35	19	AV1	-0.06
24	41	53	29	AV4	+0.05
24	41	53	24	AV3	+0.25
24	41	53	31	AV3	-0.27
24	41	53	33	AV2	-0.02
24	41	53	17	AV1	-0.19
24	41	57	5	AV1	+0.05

SG	ROW	COL	PCT	ANTI VIBRATION BAR NO	LOCATION
24	41	59	16	AV4	+0.21
24	42	53	11	AV2	+0.09
24	42	53	12	AV1	+0.02
24	42	55	39	AV1	-0.09
24	42	55	22	AV2	+0.14
24	44	35	9	AV3	-0.06
24	44	35	11	AV2	+0.04
24	44	35	30	AV1	+0.02
24	44	55	7	AV4	+0.21
24	45	54	17	AV1	+0.06

Appendix 2

Cold Leg Thinning
Percent Through-Wall Indications

SG	ROW	COL	PCT	LOCATION
21	32	77	25	01C +0.38
21	34	79	33	01C -0.04
21	35	76	24	02C +0.00
21	44	59	1	03C -0.20
21	45	58	30	04C -0.20
21	46	48	1	01C +0.32
22	3	1	34	01C +0.20
22	6	2	29	01C +0.00
22	22	87	4	01C +0.18
22	32	78	39	02C +0.04
22	32	79	24	02C +0.00
22	32	79	1	03C -0.11
22	33	17	8	01C +0.36
22	33	76	1	01C -0.21
22	34	17	31	01C +0.36
22	34	18	7	03C -0.22
22	36	18	24	02C -0.16
22	36	18	22	01C -0.09
22	37	19	19	01C -0.02
22	37	68	4	02C -0.08
22	40	67	1	02C +0.25
22	40	69	4	01C -0.10
22	41	62	13	02C +0.21
22	41	67	1	02C -0.08
22	42	41	36	02C +0.02
22	42	61	26	02C -0.02
22	42	62	8	02C +0.04
22	42	65	31	01C +0.41
22	42	67	5	01C +0.20
22	43	37	19	02C -0.07
22	43	53	1	02C +0.31
22	43	58	13	02C +0.12
22	43	60	54	02C +0.00
22	43	61	20	02C +0.00
22	43	64	20	02C +0.14
22	43	64	9	01C +0.39
22	43	65	27	02C +0.12
22	44	37	3	02C -0.11
22	44	38	17	01C +0.09
22	44	39	22	01C +0.16
22	44	39	14	02C -0.02
22	44	46	19	02C +0.20
22	44	47	12	02C +0.22
22	44	55	28	02C +0.37

SG	ROW	COL	PCT	LOCATION
22	44	56	10	02C +0.14
22	44	58	10	02C -0.04
22	44	59	1	02C +0.00
22	44	60	3	02C +0.12
22	44	61	1	04C +0.20
22	44	62	1	03C -0.14
22	45	41	21	02C +0.16
22	45	45	7	02C +0.09
22	45	47	15	02C +0.16
22	45	48	1	01C +0.00
22	45	50	10	02C +0.26
22	45	52	1	02C +0.22
22	45	55	1	02C +0.20
22	45	56	1	02C +0.23
22	45	58	1	01C +0.22
22	46	47	20	02C +0.09
22	46	51	1	02C +0.18
22	46	52	23	02C +0.27
22	46	54	9	01C +0.16
23	3	1	30	01C -0.02
23	6	3	5	01C +0.19
23	8	3	27	01C +0.04
23	9	2	1	01C +0.23
23	11	2	24	01C +0.00
23	11	3	34	01C -0.06
23	12	4	38	01C -0.08
23	23	8	12	01C -0.18
23	25	9	39	01C +0.28
23	27	10	1	01C +0.21
23	31	14	28	01C +0.00
23	34	17	38	01C +0.00
23	34	18	33	01C +0.02
23	37	19	33	02C -0.12
23	40	33	8	02C -0.29
23	44	36	17	01C -0.19
24	2	94	1	01C +0.15
24	8	2	12	01C +0.06
24	10	3	11	01C -0.32
24	11	3	22	01C -0.09
24	25	87	18	01C +0.11
24	27	83	1	01C -0.13
24	28	83	6	01C -0.02
24	28	85	1	01C +0.29
24	29	82	35	01C +0.00
24	30	82	1	01C -0.11

SG	ROW	COL	PCT	LOCATION
24	30	83	42	01C -0.09
24	31	78	1	02C +0.31
24	31	79	26	02C +0.29
24	31	82	36	01C +0.07
24	33	78	41	02C +0.16
24	36	75	1	02C +0.31
24	36	76	10	01C -0.04
24	36	76	1	02C +0.13
24	37	75	10	01C +0.00
24	38	23	32	02C +0.02
24	38	73	28	01C +0.00
24	39	23	1	02C -0.18
24	39	71	13	01C -0.18
24	41	59	32	01C +0.00
24	42	59	30	02C +0.07
24	43	34	45	02C +0.05
24	43	34	47	03C +0.05
24	43	58	1	02C +0.29
24	43	59	42	01C -0.04
24	43	59	1	02C +0.27
24	43	62	12	02C +0.22
24	43	62	1	01C +0.20
24	43	64	1	02C +0.22
24	44	36	17	03C +0.05
24	44	58	1	02C -0.20
24	44	58	31	01C +0.09
24	44	59	11	02C +0.22
24	44	59	24	01C -0.07
24	44	60	5	01C +0.11
24	44	62	29	02C +0.16
24	45	37	12	02C +0.06
24	45	48	24	02C +0.09
24	45	51	1	02C +0.07
24	45	57	1	01C -0.13
24	45	59	1	02C -0.20