

**MECHANICAL SHOCK ARRESTOR**  
**FINAL REPORT**

**TURKEY POINT**  
**UNIT 4**  
**2002**  
**CYCLE 20 REFUELING OUTAGE**

During the Unit 4 Cycle Refueling Outage, 48 snubbers received a technical specification visual inspection and an ASME XI VT-3. Of the 48 snubbers, 37 snubbers also received a handstroke. Eleven of the snubbers received a functional test with no handstroke and one snubber was a complete change out and replaced with a previously rebuilt snubber. The following pages are a complete summary of the work performed during the outage.

Commercial Service Date: December 14, 1972

Prepared by:

Inservice Inspection Group  
Florida Power & Light  
Turkey Point Nuclear  
9760 S.W. 344 St.  
Florida City, FL  
33035

 Ricky L. Spillman 05/7/02  
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 Chuck Tudor 05/7/02  
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 Ed Lyons ~~05/7/02~~ 5/10/02  
\_\_\_\_\_  
Approved by: Date

**TURKEY POINT NUCLEAR PLANT  
OUTAGE SUMMARY REPORT  
UNIT 4 C20 OUTAGE REPORT WO # 31022373**

| TAG # | SERIAL # | REPLACE-<br>MENT S/N | VISUAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | FUNCTIONAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | L DIMEN | S<br>T<br>A<br>T | HAND-<br>STROKE<br>? | S<br>T<br>A<br>T | INSPECTION SUMMARY |
|-------|----------|----------------------|---------------------------|------------------|-------------------------------|------------------|---------|------------------|----------------------|------------------|--------------------|
|-------|----------|----------------------|---------------------------|------------------|-------------------------------|------------------|---------|------------------|----------------------|------------------|--------------------|

**FUNCTIONAL TEST SUMMARY**

4-1000 184 182 3/27/2002 PASS 03/25/02 PASS 20 3/4" PASS NO

Visual inspection-SAT,"L" Dimension-SAT, No handstroke performed. Functional Test-SAT and snubber regreased. Torqued extension bolts to 36 ft/lbs. Spherical bearings and load pin lubricated with neolube SC# 24984-3. S/N 182 was a tested spare.

**FUNCTIONAL TEST PERFORMED** Yes  
**STATUS** PASS (N/A IF NOT PERFORMED)  
**TENSION COMPRESSION CRITERIA**  
TEST 1 37.6 24.2 750.0  
TEST 2 44.2 33.3 750.0  
TEST 3 .005 .008 .02g's  
TEST 4 46.2 59.5 750.0

**TEST SAMPLE?** YES **SAMPLE CLASS SAFETY**  
**DATE REINSTALLED:** 03/27/02

4-1001 18010 N/A 3/27/2002 PASS N/A 13 3/16" PASS YES PASS

Visual Inspection-SAT,"L" Dimension acceptable, Handstroke-SAT. Spherical bearings and load pin lubricated with neolube SC# 24984-3

**FUNCTIONAL TEST PERFORMED** No  
**STATUS** N/A (N/A IF NOT PERFORMED)  
**TENSION COMPRESSION CRITERIA**  
TEST 1  
TEST 2  
TEST 3  
TEST 4

**TEST SAMPLE?** NO **SAMPLE CLASS** N/A  
**DATE REINSTALLED:**

| TAG #  | SERIAL # | PLACE-<br>MENT S/N | VISUAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | FUNCTIONAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | L DIMEN | S<br>T<br>A<br>T | HAND-<br>STROKE<br>? | S<br>T<br>A<br>T | INSPECTION SUMMARY  | FUNCTIONAL TEST SUMMARY   |
|--------|----------|--------------------|---------------------------|------------------|-------------------------------|------------------|---------|------------------|----------------------|------------------|---|---|
| 4-1002 | 18016    | N/A                | 3/27/2002                 | PASS             | 03/27/02                      | PASS             | 13"     | PASS             | NO                   |                  | Visual inspection-SAT,"L" Dimension-SAT,No handstroke performed. Functional Test-SAT. Spherical bearings and load pin lubricated with neolube SC# 24984-3 | <div>FUNCTIONAL TEST PERFORMED</div> <div>Yes</div> <div>STATUS PASS (N/A IF NOT PERFORMED)</div> <div>TENSION COMPRESSION CRITERIA</div> <div>TEST 1 5.6 6.1 75.0</div> <div>TEST 2 6.8 6.9 75.0</div> <div>TEST 3 .011 .010 .02g's</div> <div>TEST 4 6.8 7.7 75.0</div> <div>TEST SAMPLE? YES SAMPLE CLASS SAFETY</div> <div>DATE REINSTALLED: 03/27/02</div> |
| 4-1003 | 18008    | N/A                | 3/27/2002                 | PASS             | N/A                           |                  | 13"     | PASS             | YES                  | PASS             | Visual Inspection-SAT,"L" Dimension acceptable,Handstroke-SAT. Spherical bearings and load pin lubricated with neolube SC# 24982-3                        | <div>FUNCTIONAL TEST PERFORMED</div> <div>No</div> <div>STATUS N/A (N/A IF NOT PERFORMED)</div> <div>TENSION COMPRESSION CRITERIA</div> <div>TEST 1</div> <div>TEST 2</div> <div>TEST 3</div> <div>TEST 4</div> <div>TEST SAMPLE? NO SAMPLE CLASS N/A</div> <div>DATE REINSTALLED:</div>  |

| TAG #  | SERIAL # | REPLACE-<br>MENT S/N | VISUAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | FUNCTIONAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | L DIMEN | S<br>T<br>A<br>T | HAND-<br>STROKE<br>? | S<br>T<br>A<br>T  | INSPECTION SUMMARY           | FUNCTIONAL TEST SUMMARY    |
|--------|----------|----------------------|---------------------------|------------------|-------------------------------|------------------|---------|------------------|----------------------|---|------------------------------|----------------------------|
| 4-1004 | 3168     | N/A                  | 3/25/2002                 | PASS             | N/A                           | 27 1/8"          | PASS    | YES              | PASS                 | Visual Inspection-SAT,"L" Dimension acceptable,Handstroke-SAT. Spherical bearings lubricated with neolube SC# 24982-3. Torqued load studs to 125 ft/lbs | FUNCTIONAL TEST PERFORMED    | No                         |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   | STATUS                       | N/A (N/A IF NOT PERFORMED) |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   | TENSION COMPRESSION CRITERIA |                            |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   | TEST 1                       |                            |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   | TEST 2                       |                            |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   | TEST 3                       |                            |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   | TEST 4                       |                            |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   | TEST SAMPLE?                 | NO SAMPLE CLASS N/A        |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   | DATE REINSTALLED:            |                            |
| 4-1005 | 1206     | N/A                  | 3/25/2002                 | PASS             | N/A                           | 27 3/8"          | PASS    | YES              | PASS                 | Visual Inspection-SAT,"L" Dimension acceptable,Handstroke-SAT. Spherical bearings and load pin lubricated with neolube SC# 24982-3.                     | FUNCTIONAL TEST PERFORMED    | No                         |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   | STATUS                       | N/A (N/A IF NOT PERFORMED) |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   | TENSION COMPRESSION CRITERIA |                            |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   | TEST 1                       |                            |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   | TEST 2                       |                            |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   | TEST 3                       |                            |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   | TEST 4                       |                            |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   | TEST SAMPLE?                 | NO SAMPLE CLASS N/A        |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   | DATE REINSTALLED:            |                            |

| TAG #  | SERIAL # | REPLACE-<br>MENT S/N | VISUAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | FUNCTIONAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | L DIMEN | S<br>T<br>A<br>T | HAND-<br>STROKE<br>? | S<br>T<br>A<br>T  | INSPECTION SUMMARY        | FUNCTIONAL TEST SUMMARY           |
|--------|----------|----------------------|---------------------------|------------------|-------------------------------|------------------|---------|------------------|----------------------|---|---------------------------|-----------------------------------|
| 4-1006 | 8087     | N/A                  | 3/25/2002                 | PASS             | N/A                           | 26 3/8"          | PASS    | YES              | PASS                 | Visual Inspection-SAT,"L" Dimension acceptable,Handstroke-SAT. Spherical bearings and load pin lubricated with neolube SC# 24982-3.                                   | FUNCTIONAL TEST PERFORMED | No                                |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   |                           | STATUS N/A (N/A IF NOT PERFORMED) |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   |                           | TENSION COMPRESSION CRITERIA      |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   |                           | TEST 1                            |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   |                           | TEST 2                            |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   |                           | TEST 3                            |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   |                           | TEST 4                            |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   |                           | TEST SAMPLE? NO SAMPLE CLASS N/A  |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   |                           | DATE REINSTALLED:                 |
| 4-1007 | 6521     | N/A                  | 3/25/2002                 | PASS             | N/A                           | 26 9/16"         | PASS    | YES              | PASS                 | Visual Inspection-SAT,"L" Dimension acceptable,Handstroke-SAT. Spherical bearings and load pin lubricated with neolube SC# 24982-3. Torqued load studs to 125 ft/lbs. | FUNCTIONAL TEST PERFORMED |                                   |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   |                           | STATUS N/A (N/A IF NOT PERFORMED) |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   |                           | TENSION COMPRESSION CRITERIA      |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   |                           | TEST 1                            |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   |                           | TEST 2                            |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   |                           | TEST 3                            |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   |                           | TEST 4                            |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   |                           | TEST SAMPLE? SAMPLE CLASS N/A     |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   |                           | DATE REINSTALLED:                 |

| TAG #  | SERIAL # | REPLACE-<br>MENT S/N | VISUAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | FUNCTIONAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | L DIMEN | S<br>T<br>A<br>T | HAND-<br>STROKE<br>? | S<br>T<br>A<br>T | INSPECTION SUMMARY  | FUNCTIONAL TEST SUMMARY  |
|--------|----------|----------------------|---------------------------|------------------|-------------------------------|------------------|---------|------------------|----------------------|------------------|---|--|
| 4-1008 | 6485     | N/A                  | 3/25/2002                 | PASS             |                               | N/A              | 27 3/8" | PASS             | YES                  | PASS             | Visual Inspection-SAT,"L" Dimension acceptable,Handstroke-SAT. Spherical bearings and load pin lubricated with neolube SC# 24982-3. Torqued load studs to 125 ft/lbs. | <b>FUNCTIONAL TEST PERFORMED</b><br><br><b>STATUS</b> N/A (N/A IF NOT PERFORMED)<br><br><b>TENSION COMPRESSION CRITERIA</b><br><br>TEST 1<br>TEST 2<br>TEST 3<br>TEST 4<br><br><b>TEST SAMPLE?</b> <b>SAMPLE CLASS</b> N/A<br><b>DATE REINSTALLED:</b> |
| 4-1009 | 1203     | N/A                  | 3/25/2002                 | PASS             |                               | N/A              | 27 5/8" | PASS             | YES                  | PASS             | Visual Inspection-SAT,"L" Dimension acceptable,Handstroke-SAT. Spherical bearings and load pin lubricated with neolube SC# 24982-3. Torqued load studs to 125 ft/lbs. | <b>FUNCTIONAL TEST PERFORMED</b><br><br><b>STATUS</b> N/A (N/A IF NOT PERFORMED)<br><br><b>TENSION COMPRESSION CRITERIA</b><br><br>TEST 1<br>TEST 2<br>TEST 3<br>TEST 4<br><br><b>TEST SAMPLE?</b> <b>SAMPLE CLASS</b> N/A<br><b>DATE REINSTALLED:</b> |

| TAG #  | SERIAL # | REPLACE-<br>MENT S/N | VISUAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | FUNCTIONAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | L DIMEN  | S<br>T<br>A<br>T | HAND-<br>STROKE<br>? | S<br>T<br>A<br>T | INSPECTION SUMMARY  | FUNCTIONAL TEST SUMMARY  |
|--------|----------|----------------------|---------------------------|------------------|-------------------------------|------------------|----------|------------------|----------------------|------------------|---|--|
| 4-1010 | 1204     | N/A                  | 3/25/2002                 | PASS             | N/A                           |                  | 27 1/4"  | PASS             | YES                  | PASS             | Visual Inspection-SAT,"L" Dimension acceptable,Handstroke-SAT. Spherical bearings and load pin lubricated with neolube SC# 24982-3. Torqued load studs to 125 ft/lbs. | <b>FUNCTIONAL TEST PERFORMED</b><br><br><b>STATUS</b> N/A (N/A IF NOT PERFORMED)<br><br><b>TENSION COMPRESSION CRITERIA</b><br><br>TEST 1<br>TEST 2<br>TEST 3<br>TEST 4<br><br><b>TEST SAMPLE?</b> <b>SAMPLE CLASS</b> N/A<br><b>DATE REINSTALLED:</b> |
| 4-1011 | 10573    | N/A                  | 3/25/2002                 | PASS             | N/A                           |                  | 27 1/16" | PASS             | YES                  | PASS             | Visual Inspection-SAT,"L" Dimension acceptable,Handstroke-SAT. Spherical bearings and load pin lubricated with neolube SC# 24982-3. Torqued load studs to 125 ft/lbs. | <b>FUNCTIONAL TEST PERFORMED</b><br><br><b>STATUS</b> N/A (N/A IF NOT PERFORMED)<br><br><b>TENSION COMPRESSION CRITERIA</b><br><br>TEST 1<br>TEST 2<br>TEST 3<br>TEST 4<br><br><b>TEST SAMPLE?</b> <b>SAMPLE CLASS</b> N/A<br><b>DATE REINSTALLED:</b> |

| TAG #                     | SERIAL # | REPLACE-<br>MENT S/N   | VISUAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | FUNCTIONAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | L DIMEN | S<br>T<br>A<br>T | HAND-<br>STROKE<br>? | S<br>T<br>A<br>T | INSPECTION SUMMARY  | FUNCTIONAL TEST SUMMARY  |                           |  |  |  |        |        |                        |                        |  |  |         |             |             |          |        |        |      |      |       |        |        |      |      |       |        |        |      |      |        |        |        |      |      |       |              |              |                  |                     |  |                   |                   |  |          |  |  |
|---------------------------|----------|------------------------|---------------------------|------------------|-------------------------------|------------------|---------|------------------|----------------------|------------------|---|--|---------------------------|--|--|--|--------|--------|------------------------|------------------------|--|--|---------|-------------|-------------|----------|--------|--------|------|------|-------|--------|--------|------|------|-------|--------|--------|------|------|--------|--------|--------|------|------|-------|--------------|--------------|------------------|---------------------|--|-------------------|-------------------|--|----------|--|--|
| 4-1012                    | 16154    | 184                    | 3/27/2002                 | PASS             | 03/27/02                      | PASS             | 20 1/4" | PASS             | NO                   |                  | Visual inspection-SAT,"L" Dimension-SAT,No handstroke performed.<br>Functional Test-SAT. Snubber S/N 184 was regreased and final visual-Sat. Transition tube to snubber torqued to 37 ft/lbs.Spherical bearings and load pin lubricated with neolube SC# 24984-3. S/N was removed from location 4-1000 this outage. | <table><tr><th colspan="4">FUNCTIONAL TEST PERFORMED</th><th>Yes</th></tr><tr><th>STATUS</th><th>PASS</th><th colspan="3">(N/A IF NOT PERFORMED)</th></tr><tr><th></th><th>TENSION</th><th>COMPRESSION</th><th colspan="2">CRITERIA</th></tr><tr><td>TEST 1</td><td>35.9</td><td>18.9</td><td colspan="2">750.0</td></tr><tr><td>TEST 2</td><td>41.2</td><td>34.1</td><td colspan="2">750.0</td></tr><tr><td>TEST 3</td><td>.014</td><td>.013</td><td colspan="2">.02g's</td></tr><tr><td>TEST 4</td><td>42.9</td><td>39.2</td><td colspan="2">750.0</td></tr><tr><td colspan="2">TEST SAMPLE?</td><td colspan="3">SAMPLE CLASS SAFETY</td></tr><tr><td colspan="2">DATE REINSTALLED:</td><td colspan="3">03/27/02</td></tr></table> | FUNCTIONAL TEST PERFORMED |  |  |  | Yes    | STATUS | PASS                   | (N/A IF NOT PERFORMED) |  |  |         | TENSION     | COMPRESSION | CRITERIA |        | TEST 1 | 35.9 | 18.9 | 750.0 |        | TEST 2 | 41.2 | 34.1 | 750.0 |        | TEST 3 | .014 | .013 | .02g's |        | TEST 4 | 42.9 | 39.2 | 750.0 |              | TEST SAMPLE? |                  | SAMPLE CLASS SAFETY |  |                   | DATE REINSTALLED: |  | 03/27/02 |  |  |
| FUNCTIONAL TEST PERFORMED |          |                        |                           | Yes              |                               |                  |         |                  |                      |                  |   |  |                           |  |  |  |        |        |                        |                        |  |  |         |             |             |          |        |        |      |      |       |        |        |      |      |       |        |        |      |      |        |        |        |      |      |       |              |              |                  |                     |  |                   |                   |  |          |  |  |
| STATUS                    | PASS     | (N/A IF NOT PERFORMED) |                           |                  |                               |                  |         |                  |                      |                  |   |  |                           |  |  |  |        |        |                        |                        |  |  |         |             |             |          |        |        |      |      |       |        |        |      |      |       |        |        |      |      |        |        |        |      |      |       |              |              |                  |                     |  |                   |                   |  |          |  |  |
|                           | TENSION  | COMPRESSION            | CRITERIA                  |                  |                               |                  |         |                  |                      |                  |   |  |                           |  |  |  |        |        |                        |                        |  |  |         |             |             |          |        |        |      |      |       |        |        |      |      |       |        |        |      |      |        |        |        |      |      |       |              |              |                  |                     |  |                   |                   |  |          |  |  |
| TEST 1                    | 35.9     | 18.9                   | 750.0                     |                  |                               |                  |         |                  |                      |                  |   |  |                           |  |  |  |        |        |                        |                        |  |  |         |             |             |          |        |        |      |      |       |        |        |      |      |       |        |        |      |      |        |        |        |      |      |       |              |              |                  |                     |  |                   |                   |  |          |  |  |
| TEST 2                    | 41.2     | 34.1                   | 750.0                     |                  |                               |                  |         |                  |                      |                  |   |  |                           |  |  |  |        |        |                        |                        |  |  |         |             |             |          |        |        |      |      |       |        |        |      |      |       |        |        |      |      |        |        |        |      |      |       |              |              |                  |                     |  |                   |                   |  |          |  |  |
| TEST 3                    | .014     | .013                   | .02g's                    |                  |                               |                  |         |                  |                      |                  |   |  |                           |  |  |  |        |        |                        |                        |  |  |         |             |             |          |        |        |      |      |       |        |        |      |      |       |        |        |      |      |        |        |        |      |      |       |              |              |                  |                     |  |                   |                   |  |          |  |  |
| TEST 4                    | 42.9     | 39.2                   | 750.0                     |                  |                               |                  |         |                  |                      |                  |   |  |                           |  |  |  |        |        |                        |                        |  |  |         |             |             |          |        |        |      |      |       |        |        |      |      |       |        |        |      |      |        |        |        |      |      |       |              |              |                  |                     |  |                   |                   |  |          |  |  |
| TEST SAMPLE?              |          | SAMPLE CLASS SAFETY    |                           |                  |                               |                  |         |                  |                      |                  |   |  |                           |  |  |  |        |        |                        |                        |  |  |         |             |             |          |        |        |      |      |       |        |        |      |      |       |        |        |      |      |        |        |        |      |      |       |              |              |                  |                     |  |                   |                   |  |          |  |  |
| DATE REINSTALLED:         |          | 03/27/02               |                           |                  |                               |                  |         |                  |                      |                  |   |  |                           |  |  |  |        |        |                        |                        |  |  |         |             |             |          |        |        |      |      |       |        |        |      |      |       |        |        |      |      |        |        |        |      |      |       |              |              |                  |                     |  |                   |                   |  |          |  |  |
| 4-1013                    | 17418    | N/A                    | 3/29/2002                 | PASS             | N/A                           |                  | 17 1/2" | PASS             | YES                  | PASS             | Visual Inspection-SAT,"L" Dimension acceptable,Handstroke-SAT. Spherical bearings and load pin lubricated with neolube SC# 24982-3.   | <table><tr><th colspan="4">FUNCTIONAL TEST PERFORMED</th></tr><tr><th>STATUS</th><th>N/A</th><th colspan="3">(N/A IF NOT PERFORMED)</th></tr><tr><th></th><th>TENSION</th><th>COMPRESSION</th><th colspan="2">CRITERIA</th></tr><tr><td>TEST 1</td><td></td><td></td><td colspan="2"></td></tr><tr><td>TEST 2</td><td></td><td></td><td colspan="2"></td></tr><tr><td>TEST 3</td><td></td><td></td><td colspan="2"></td></tr><tr><td>TEST 4</td><td></td><td></td><td colspan="2"></td></tr><tr><td colspan="2">TEST SAMPLE?</td><td colspan="3">SAMPLE CLASS N/A</td></tr><tr><td colspan="2">DATE REINSTALLED:</td><td colspan="3"></td></tr></table>  | FUNCTIONAL TEST PERFORMED |  |  |  | STATUS | N/A    | (N/A IF NOT PERFORMED) |                        |  |  | TENSION | COMPRESSION | CRITERIA    |          | TEST 1 |        |      |      |       | TEST 2 |        |      |      |       | TEST 3 |        |      |      |        | TEST 4 |        |      |      |       | TEST SAMPLE? |              | SAMPLE CLASS N/A |                     |  | DATE REINSTALLED: |                   |  |          |  |  |
| FUNCTIONAL TEST PERFORMED |          |                        |                           |                  |                               |                  |         |                  |                      |                  |   |  |                           |  |  |  |        |        |                        |                        |  |  |         |             |             |          |        |        |      |      |       |        |        |      |      |       |        |        |      |      |        |        |        |      |      |       |              |              |                  |                     |  |                   |                   |  |          |  |  |
| STATUS                    | N/A      | (N/A IF NOT PERFORMED) |                           |                  |                               |                  |         |                  |                      |                  |   |  |                           |  |  |  |        |        |                        |                        |  |  |         |             |             |          |        |        |      |      |       |        |        |      |      |       |        |        |      |      |        |        |        |      |      |       |              |              |                  |                     |  |                   |                   |  |          |  |  |
|                           | TENSION  | COMPRESSION            | CRITERIA                  |                  |                               |                  |         |                  |                      |                  |   |  |                           |  |  |  |        |        |                        |                        |  |  |         |             |             |          |        |        |      |      |       |        |        |      |      |       |        |        |      |      |        |        |        |      |      |       |              |              |                  |                     |  |                   |                   |  |          |  |  |
| TEST 1                    |          |                        |                           |                  |                               |                  |         |                  |                      |                  |   |  |                           |  |  |  |        |        |                        |                        |  |  |         |             |             |          |        |        |      |      |       |        |        |      |      |       |        |        |      |      |        |        |        |      |      |       |              |              |                  |                     |  |                   |                   |  |          |  |  |
| TEST 2                    |          |                        |                           |                  |                               |                  |         |                  |                      |                  |   |  |                           |  |  |  |        |        |                        |                        |  |  |         |             |             |          |        |        |      |      |       |        |        |      |      |       |        |        |      |      |        |        |        |      |      |       |              |              |                  |                     |  |                   |                   |  |          |  |  |
| TEST 3                    |          |                        |                           |                  |                               |                  |         |                  |                      |                  |   |  |                           |  |  |  |        |        |                        |                        |  |  |         |             |             |          |        |        |      |      |       |        |        |      |      |       |        |        |      |      |        |        |        |      |      |       |              |              |                  |                     |  |                   |                   |  |          |  |  |
| TEST 4                    |          |                        |                           |                  |                               |                  |         |                  |                      |                  |   |  |                           |  |  |  |        |        |                        |                        |  |  |         |             |             |          |        |        |      |      |       |        |        |      |      |       |        |        |      |      |        |        |        |      |      |       |              |              |                  |                     |  |                   |                   |  |          |  |  |
| TEST SAMPLE?              |          | SAMPLE CLASS N/A       |                           |                  |                               |                  |         |                  |                      |                  |   |  |                           |  |  |  |        |        |                        |                        |  |  |         |             |             |          |        |        |      |      |       |        |        |      |      |       |        |        |      |      |        |        |        |      |      |       |              |              |                  |                     |  |                   |                   |  |          |  |  |
| DATE REINSTALLED:         |          |                        |                           |                  |                               |                  |         |                  |                      |                  |   |  |                           |  |  |  |        |        |                        |                        |  |  |         |             |             |          |        |        |      |      |       |        |        |      |      |       |        |        |      |      |        |        |        |      |      |       |              |              |                  |                     |  |                   |                   |  |          |  |  |



| TAG #  | SERIAL # | REPLACE-<br>MENT S/N | VISUAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | FUNCTIONAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | L DIMEN | S<br>T<br>A<br>T | HAND-<br>STROKE<br>? | S<br>T<br>A<br>T  | INSPECTION SUMMARY   | FUNCTIONAL TEST SUMMARY |
|--------|----------|----------------------|---------------------------|------------------|-------------------------------|------------------|---------|------------------|----------------------|---|--|-------------------------|
| 4-1014 | 17177    | N/A                  | 3/22/2002                 | PASS             | N/A                           | 21 3/16"         | PASS    | YES              | PASS                 | Visual Inspection-SAT,"L" Dimension acceptable,Handstroke-SAT. Spherical bearings and load pin lubricated with neolube SC# 24984-3. | FUNCTIONAL TEST PERFORMED<br>STATUS N/A (N/A IF NOT PERFORMED)<br>TENSION COMPRESSION CRITERIA<br>TEST 1<br>TEST 2<br>TEST 3<br>TEST 4<br>TEST SAMPLE? SAMPLE CLASS N/A<br>DATE REINSTALLED: |                         |
| 4-1015 | 17872    | N/A                  | 3/22/2002                 | PASS             | N/A                           | 20 1/8"          | PASS    | YES              | PASS                 | Visual Inspection-SAT,"L" Dimension acceptable,Handstroke-SAT. Spherical bearings and load pin lubricated with neolube SC# 24984-3. | FUNCTIONAL TEST PERFORMED<br>STATUS N/A (N/A IF NOT PERFORMED)<br>TENSION COMPRESSION CRITERIA<br>TEST 1<br>TEST 2<br>TEST 3<br>TEST 4<br>TEST SAMPLE? SAMPLE CLASS N/A<br>DATE REINSTALLED: |                         |

## FUNCTIONAL TEST SUMMARY

STATUS N/A (N/A IF NOT PERFORMED)

### TENSION COMPRESSION CRITERIA

## TEST 1

## TEST 2

## TEST 3

## TEST 4

|                     |                         |
|---------------------|-------------------------|
| <b>TEST SAMPLE?</b> | <b>SAMPLE CLASS</b> N/A |
|---------------------|-------------------------|

**DATE REINSTALLED:****FUNCTIONAL TEST PERFORMED**

**STATUS** N/A (N/A IF NOT PERFORMED)

### TENSION COMPRESSION CRITERIA

## TEST 1

## TEST 2

## TEST 3

## TEST 4

**TEST SAMPLE?** **SAMPLE CLASS N/A**

**DATE REINSTALLED:**

| TAG # | SERIAL # | REPLACE-<br>MENT S/N | VISUAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | FUNCTIONAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | L DIMEN | S<br>T<br>A<br>T | HAND-<br>STROKE<br>? | S<br>T<br>A<br>T | INSPECTION SUMMARY |
|-------|----------|----------------------|---------------------------|------------------|-------------------------------|------------------|---------|------------------|----------------------|------------------|--------------------|
|-------|----------|----------------------|---------------------------|------------------|-------------------------------|------------------|---------|------------------|----------------------|------------------|--------------------|

FUNCTIONAL TEST SUMMARY

|        |       |     |           |      |  |     |          |      |     |      |   |
|--------|-------|-----|-----------|------|--|-----|----------|------|-----|------|---|
| 4-1018 | 17420 | N/A | 3/22/2002 | PASS |  | N/A | 18 1/16" | PASS | YES | PASS | Visual Inspection-SAT,"L" Dimension acceptable,Handstroke-SAT. Spherical bearings and load pin lubricated with neolube SC# 24984-3. |
|--------|-------|-----|-----------|------|--|-----|----------|------|-----|------|---|

FUNCTIONAL TEST PERFORMED

STATUS N/A (N/A IF NOT PERFORMED)

TENSION COMPRESSION CRITERIA

TEST 1

TEST 2

TEST 3

TEST 4

TEST SAMPLE?

SAMPLE CLASS N/A

DATE REINSTALLED:

|        |       |     |           |      |  |     |         |      |     |      |   |
|--------|-------|-----|-----------|------|--|-----|---------|------|-----|------|---|
| 4-1019 | 17426 | N/A | 3/22/2002 | PASS |  | N/A | 16 3/8" | PASS | YES | PASS | Visual Inspection-SAT,"L" Dimension acceptable,Handstroke-SAT. Spherical bearings and load pin lubricated with neolube SC# 24984-3. |
|--------|-------|-----|-----------|------|--|-----|---------|------|-----|------|---|

FUNCTIONAL TEST PERFORMED

STATUS N/A (N/A IF NOT PERFORMED)

TENSION COMPRESSION CRITERIA

TEST 1

TEST 2

TEST 3

TEST 4

TEST SAMPLE?

SAMPLE CLASS N/A

DATE REINSTALLED:

| TAG #  | SERIAL # | REPLACE-<br>MENT S/N | VISUAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | FUNCTIONAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | L DIMEN | S<br>T<br>A<br>T | HAND-<br>STROKE<br>? | S<br>T<br>A<br>T   | INSPECTION SUMMARY  | FUNCTIONAL TEST SUMMARY  |
|--------|----------|----------------------|---------------------------|------------------|-------------------------------|------------------|---------|------------------|----------------------|--|---|--|
| 4-1020 | 27101    | N/A                  | 3/22/2002                 | PASS             | N/A                           | 16 15/16"        | PASS    | YES              | PASS                 | Visual Inspection-SAT,"L" Dimension acceptable,Handstroke-SAT. Spherical bearings and load pin lubricated with neolube SC# 24984-3. Condition Report wrote due to snubber alignment. Pipe clamp was re-aligned, torqued to 168 ft/lbs and visually re-inspected-SAT. | FUNCTIONAL TEST PERFORMED<br>STATUS N/A (N/A IF NOT PERFORMED)<br>TENSION COMPRESSION CRITERIA<br>TEST 1<br>TEST 2<br>TEST 3<br>TEST 4<br>TEST SAMPLE? SAMPLE CLASS N/A<br>DATE REINSTALLED:  |  |
| 4-1021 | 128      | 19723                | 3/21/2002                 | PASS             | 03/21/02                      | PASS             | 17"     | PASS             | YES                  | PASS   | Visual Inspection-SAT,"L" Dimension acceptable,Handstroke-SAT.Transition tube to snubber torqued to 120 in/lbs. Spherical bearings and load pin lubricated with neolube SC# 24984-3. Ball fell out of the outer race of spherical bearing. Condition Report wrote, replaced with new snubber. | FUNCTIONAL TEST PERFORMED Yes<br>STATUS PASS (N/A IF NOT PERFORMED)<br>TENSION COMPRESSION CRITERIA<br>TEST 1 12.0 18.8 120.0<br>TEST 2 21.8 23.4 120.0<br>TEST 3 .005 .005 .02g's<br>TEST 4 25.0 24.5 120.0<br>TEST SAMPLE? NO SAMPLE CLASS N/A<br>DATE REINSTALLED: 03/21/02 |

| TAG #  | SERIAL # | REPLACE-<br>MENT S/N | VISUAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | FUNCTIONAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | L DIMEN | S<br>T<br>A<br>T | HAND-<br>STROKE<br>? | S<br>T<br>A<br>T  | INSPECTION SUMMARY           | FUNCTIONAL TEST SUMMARY     |
|--------|----------|----------------------|---------------------------|------------------|-------------------------------|------------------|---------|------------------|----------------------|---|------------------------------|-----------------------------|
| 4-1022 | 21381    | N/A                  | 3/24/2002                 | PASS             | N/A                           | 16 7/16"         | PASS    | YES              | PASS                 | Visual Inspection-SAT,"L" Dimension acceptable,Handstroke-SAT. Spherical bearings and load pin lubricated with neolube SC# 24982-3. | FUNCTIONAL TEST PERFORMED    | No                          |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   | STATUS                       | N/A (N/A IF NOT PERFORMED)  |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   | TENSION COMPRESSION CRITERIA |                             |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   | TEST 1                       |                             |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   | TEST 2                       |                             |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   | TEST 3                       |                             |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   | TEST 4                       |                             |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   | TEST SAMPLE?                 | NO SAMPLE CLASS N/A         |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   | DATE REINSTALLED:            |                             |
| 4-1033 | 7001     | N/A                  | 3/29/2002                 | PASS             | 03/26/02                      | PASS             | 27 5/8" | PASS             | NO                   | Visual inspection-SAT,"L" Dimension-SAT,No handstroke performed. Functional Test-SAT.   | FUNCTIONAL TEST PERFORMED    | Yes                         |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   | STATUS                       | PASS (N/A IF NOT PERFORMED) |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   | TENSION COMPRESSION CRITERIA |                             |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   | TEST 1                       | 100.9 138.7 2500.0          |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   | TEST 2                       | 157.5 180.1 2500.0          |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   | TEST 3                       | .006 .012 .02g's            |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   | TEST 4                       | 191.4 306.3 2500.0          |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   | TEST SAMPLE?                 | YES SAMPLE CLASS SAFETY     |
|        |          |                      |                           |                  |                               |                  |         |                  |                      |   | DATE REINSTALLED: 03/29/02   |                             |

| TAG #  | SERIAL # | REPLACE-<br>MENT S/N | VISUAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | FUNCTIONAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | L DIMEN | S<br>T<br>A<br>T | HAND-<br>STROKE<br>? | S<br>T<br>A<br>T | INSPECTION SUMMARY  | FUNCTIONAL TEST SUMMARY   |
|--------|----------|----------------------|---------------------------|------------------|-------------------------------|------------------|---------|------------------|----------------------|------------------|---|---|
| 4-1036 | 11461    | 16154                | 3/29/2002                 | PASS             | 03/28/02                      | PASS             | 18 3/4" | PASS             | YES                  | PASS             | Visual Inspection-SAT,"L" Dimension acceptable,Handstroke-SAT and Functional-SAT.Replaced with a tested spare S/N 16154 visual inspection-SAT.Transition tube to snubber torqued to 37 ft/lbs. Spherical bearings and load pin lubricated with neolube SC# 24982-3. Snubber S/N 16154 was removed from location 4-1012 this outage. | <div> <div>FUNCTIONAL TEST PERFORMED</div> <div>Yes</div> <div> <div>STATUS</div> <div>PASS</div> <div>(N/A IF NOT PERFORMED)</div> </div> <div> <div>TENSION</div> <div>COMPRESSION</div> <div>CRITERIA</div> </div> <div> <div>TEST 1</div> <div>42.7</div> <div>32.9</div> <div>750.0</div> </div> <div> <div>TEST 2</div> <div>53.9</div> <div>43.6</div> <div>750.0</div> </div> <div> <div>TEST 3</div> <div>.012</div> <div>.015</div> <div>.02g's</div> </div> <div> <div>TEST 4</div> <div>51.9</div> <div>41.6</div> <div>750.0</div> </div> </div> <div> <div>TEST SAMPLE?</div> <div>NO</div> <div>SAMPLE CLASS</div> <div>N/A</div> </div> <div> <div>DATE REINSTALLED:</div> <div>03/29/02</div> </div> |
| 4-1052 | 17189    | N/A                  | 3/25/2002                 | PASS             | N/A                           | N/A              | 21 7/8" | PASS             | YES                  | PASS             | Visual Inspection-SAT,"L" Dimension acceptable,Handstroke-SAT. Spherical bearings and load pin lubricated with neolube SC# 24982-3.   | <div> <div>FUNCTIONAL TEST PERFORMED</div> <div>No</div> <div> <div>STATUS</div> <div>N/A</div> <div>(N/A IF NOT PERFORMED)</div> </div> <div> <div>TENSION</div> <div>COMPRESSION</div> <div>CRITERIA</div> </div> <div> <div>TEST 1</div> <div></div> <div></div> <div></div> </div> <div> <div>TEST 2</div> <div></div> <div></div> <div></div> </div> <div> <div>TEST 3</div> <div></div> <div></div> <div></div> </div> <div> <div>TEST 4</div> <div></div> <div></div> <div></div> </div> </div> <div> <div>TEST SAMPLE?</div> <div>NO</div> <div>SAMPLE CLASS</div> <div>N/A</div> </div> <div> <div>DATE REINSTALLED:</div> <div></div> </div>  |

| TAG #  | SERIAL # | REPLACE-<br>MENT S/N | VISUAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | FUNCTIONAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | L DIMEN | S<br>T<br>A<br>T | HAND-<br>STROKE<br>? | S<br>T<br>A<br>T  | INSPECTION SUMMARY  | FUNCTIONAL TEST SUMMARY |
|--------|----------|----------------------|---------------------------|------------------|-------------------------------|------------------|---------|------------------|----------------------|---|---|-------------------------|
| 4-1054 | 17899    | N/A                  | 3/25/2002                 | PASS             | N/A                           | 21 1/16"         | PASS    | YES              | PASS                 | Visual Inspection-SAT,"L" Dimension acceptable,Handstroke-SAT. Spherical bearings and load pin lubricated with neolube SC# 24982-3. | FUNCTIONAL TEST PERFORMED<br>STATUS N/A<br>(N/A IF NOT PERFORMED)<br>TENSION COMPRESSION CRITERIA<br>TEST 1<br>TEST 2<br>TEST 3<br>TEST 4<br>TEST SAMPLE? NO<br>SAMPLE CLASS N/A<br>DATE REINSTALLED: | No                      |
| 4-1055 | 17900    | N/A                  | 3/25/2002                 | PASS             | N/A                           | 21 1/16"         | PASS    | YES              | PASS                 | Visual Inspection-SAT,"L" Dimension acceptable,Handstroke-SAT. Spherical bearings and load pin lubricated with neolube SC# 24982-3. | FUNCTIONAL TEST PERFORMED<br>STATUS N/A<br>(N/A IF NOT PERFORMED)<br>TENSION COMPRESSION CRITERIA<br>TEST 1<br>TEST 2<br>TEST 3<br>TEST 4<br>TEST SAMPLE? NO<br>SAMPLE CLASS N/A<br>DATE REINSTALLED: | No                      |

## INSPECTION SUMMARY

## FUNCTIONAL TEST SUMMARY

N/A 21 3/16" PASS YES PASS

**FUNCTIONAL TEST PERFORMED**

No

**STATUS** N/A

**(N/A IF NOT PERFORMED)**

### TENSION COMPRESSION CRITERIA

## TEST 1

## TEST 2

### TEST 3

## TEST 4

### TEST SAMPLE?

NO

**SAMPLE CLASS N/A**

DATE REINSTALLED:

Visual Inspection-SAT, "L" Dimension acceptable, Handstroke-SAT and Functional-SAT. Final Visual Inspection-SAT. Spherical bearings and load pin lubricated with neolube SC# 24982-3.

**FUNCTIONAL TEST PERFORMED**

Yes

**STATUS PASS**

(N/A IF NOT PERFORMED)

### TENSION COMPRESSION CRITERIA

|               |      |      |       |
|---------------|------|------|-------|
| <b>TEST 1</b> | 16.1 | 19.8 | 300.0 |
|---------------|------|------|-------|

|               |      |      |       |
|---------------|------|------|-------|
| <b>TEST 2</b> | 20.8 | 25.4 | 300.0 |
|---------------|------|------|-------|

**TEST 3** .006 .004 .02g's

|               |      |      |       |
|---------------|------|------|-------|
| <b>TEST 4</b> | 29.6 | 25.6 | 300.0 |
|---------------|------|------|-------|

### TEST SAMPLE?

NO

**SAMPLE CLASS N/A**

DATE REINSTALLED:

03/25/02



| TAG #  | SERIAL # | PLACE-<br>MENT S/N | VISUAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | FUNCTIONAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | L DIMEN  | S<br>T<br>A<br>T | HAND-<br>STROKE<br>? | S<br>T<br>A<br>T | INSPECTION SUMMARY   | FUNCTIONAL TEST SUMMARY  |
|--------|----------|--------------------|---------------------------|------------------|-------------------------------|------------------|----------|------------------|----------------------|------------------|--|--|
| 4-1062 | 27076    | N/A                | 3/27/2002                 | PASS             | 03/27/02                      | PASS             | 17 1/16" | PASS             | NO                   |                  | Visual Inspection-SAT,"L" Dimension acceptable, and Functional-SAT. Final Visual Inspection-SAT. Spherical bearings and load pin lubricated with neolube SC# 24982-3.                                    | <b>FUNCTIONAL TEST PERFORMED</b> Yes<br><b>STATUS</b> PASS (N/A IF NOT PERFORMED)<br><b>TENSION COMPRESSION CRITERIA</b><br><b>TEST 1</b> 32.6 25.1 300.0<br><b>TEST 2</b> 52.2 37.2 300.0<br><b>TEST 3</b> .002 .002 .02g's<br><b>TEST 4</b> 43.0 33.5 300.0<br><b>TEST SAMPLE?</b> YES <b>SAMPLE CLASS SAFETY</b><br><b>DATE REINSTALLED:</b> 03/27/02 |
| 4-1072 | 16235    | N/A                | 3/28/2002                 | PASS             | 03/28/02                      | PASS             | 21 3/16" | PASS             | YES                  | PASS             | Visual Inspection-SAT,"L" Dimension acceptable, Handstroke-SAT and Functional-SAT. Transition tube to snubber torqued to 37 ft/lbs. Spherical bearings and load pin lubricated with neolube SC# 24982-3. | <b>FUNCTIONAL TEST PERFORMED</b> Yes<br><b>STATUS</b> PASS (N/A IF NOT PERFORMED)<br><b>TENSION COMPRESSION CRITERIA</b><br><b>TEST 1</b> 22.9 28.6 750.0<br><b>TEST 2</b> 75.2 39.3 750.0<br><b>TEST 3</b> .004 .007 .02g's<br><b>TEST 4</b> 57.1 40.2 750.0<br><b>TEST SAMPLE?</b> NO <b>SAMPLE CLASS</b> N/A<br><b>DATE REINSTALLED:</b> 03/28/02     |

| TAG #  | SERIAL # | REPLACE-<br>MENT S/N | VISUAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | FUNCTIONAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | L DIMEN  | S<br>T<br>A<br>T | HAND-<br>STROKE<br>? | S<br>T<br>A<br>T | INSPECTION SUMMARY  | FUNCTIONAL TEST SUMMARY  |
|--------|----------|----------------------|---------------------------|------------------|-------------------------------|------------------|----------|------------------|----------------------|------------------|---|--|
| 4-1075 | 19297    | N/A                  | 3/27/2002                 | PASS             | 03/26/02                      | PASS             | 15 7/8"  | PASS             | NO                   |                  | Visual Inspection-SAT,"L" Dimension acceptable, and Functional-SAT. Final Visual Inspection-SAT. Load studs torqued to 106 ft/lbs. Spherical bearings and load pin lubricated with neolube SC# 24984-3. | <div>FUNCTIONAL TEST PERFORMED<br/>STATUS PASS (N/A IF NOT PERFORMED)<br/>TENSION COMPRESSION CRITERIA<br/>TEST 1 8.8 19.1 300.0<br/>TEST 2 19.9 24.8 300.0<br/>TEST 3 .007 .003 .02g's<br/>TEST 4 19.7 26.1 300.0<br/>TEST SAMPLE? YES SAMPLE CLASS SAFETY<br/>DATE REINSTALLED: 03/27/02</div> |
| 4-1085 | 33622    | N/A                  | 3/27/2002                 | PASS             | 03/26/02                      | PASS             | 10 3/16" | PASS             | NO                   |                  | Visual Inspection-SAT,"L" Dimension acceptable, and Functional-SAT. Final Visual Inspection-SAT. Spherical bearings and load pin lubricated with neolube SC# 24984-3.                                   | <div>FUNCTIONAL TEST PERFORMED<br/>STATUS PASS (N/A IF NOT PERFORMED)<br/>TENSION COMPRESSION CRITERIA<br/>TEST 1 3.1 4.0 17.5<br/>TEST 2 4.0 4.4 17.5<br/>TEST 3 .010 .011 .02g's<br/>TEST 4 4.0 4.4 17.5<br/>TEST SAMPLE? YES SAMPLE CLASS SAFETY<br/>DATE REINSTALLED: 03/27/02</div>         |

| TAG #  | SERIAL # | REPLACE-<br>MENT S/N | VISUAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | FUNCTIONAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | L DIMEN | S<br>T<br>A<br>T | HAND-<br>STROKE<br>? | S<br>T<br>A<br>T | INSPECTION SUMMARY   | FUNCTIONAL TEST SUMMARY   |
|--------|----------|----------------------|---------------------------|------------------|-------------------------------|------------------|---------|------------------|----------------------|------------------|--|---|
| 4-1086 | 12993    | N/A                  | 3/29/2002                 | PASS             | 03/29/02                      | PASS             | 27 3/8" | PASS             | YES                  | PASS             | Visual Inspection-SAT,"L" Dimension acceptable, Handstroke-Sat but very difficult to move. A functional test was performed,Functional-SAT. Final Visual Inspection-SAT. Transition tube to snubber torqued to 150 ft/lbs. Spherical bearings and load pin lubricated with neolube SC# 24984-3. | <div> <b>FUNCTIONAL TEST PERFORMED</b> <div>Yes</div> </div> <div> <b>STATUS</b> PASS (N/A IF NOT PERFORMED) <div> <b>TENSION</b> <b>COMPRESSION</b> <b>CRITERIA</b> </div> <div> <b>TEST 1</b> 195.8 216.0 2500.0 </div> <div> <b>TEST 2</b> 343.6 337.7 2500.0 </div> <div> <b>TEST 3</b> .004 .002 .02g's </div> <div> <b>TEST 4</b> 275.0 196.3 2500.0 </div> </div> <div> <b>TEST SAMPLE?</b> NO <b>SAMPLE CLASS</b> N/A <div> <b>DATE REINSTALLED:</b> 03/29/02 </div> </div> |
| 4-1087 | 12994    | N/A                  | 3/28/2002                 | PASS             | N/A                           |                  | 27 3/8" | PASS             | YES                  | PASS             | Visual Inspection-SAT,"L" Dimension acceptable,Handstroke-SAT. Spherical bearings and load pin lubricated with neolube SC# 24984-3.  | <div> <b>FUNCTIONAL TEST PERFORMED</b> <div>No</div> </div> <div> <b>STATUS</b> N/A (N/A IF NOT PERFORMED) <div> <b>TENSION</b> <b>COMPRESSION</b> <b>CRITERIA</b> </div> <div> <b>TEST 1</b> </div> <div> <b>TEST 2</b> </div> <div> <b>TEST 3</b> </div> <div> <b>TEST 4</b> </div> </div> <div> <b>TEST SAMPLE?</b> NO <b>SAMPLE CLASS</b> N/A <div> <b>DATE REINSTALLED:</b> </div> </div>  |

| TAG #  | SERIAL # | REPLACE-<br>MENT S/N | VISUAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | FUNCTIONAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | L DIMEN | S<br>T<br>A<br>T | HAND-<br>STROKE<br>? | S<br>T<br>A<br>T | INSPECTION SUMMARY  | FUNCTIONAL TEST SUMMARY  |
|--------|----------|----------------------|---------------------------|------------------|-------------------------------|------------------|---------|------------------|----------------------|------------------|---|--|
| 4-1088 | 12995    | N/A                  | 3/26/2002                 | PASS             | 03/25/02                      | PASS             | 26 5/8" | PASS             | NO                   |                  | Visual Inspection-SAT,"L" Dimension acceptable,and Functional-SAT. Spherical bearings and load pin lubricated with neolube SC# 24982-3. | <b>FUNCTIONAL TEST PERFORMED</b> Yes<br><b>STATUS</b> PASS (N/A IF NOT PERFORMED)<br><b>TENSION COMPRESSION CRITERIA</b><br><b>TEST 1</b> 157.3 350.5 2500.0<br><b>TEST 2</b> 301.7 350.5 2500.0<br><b>TEST 3</b> .003 .003 .02g's<br><b>TEST 4</b> 300.2 377.4 2500.0<br><b>TEST SAMPLE?</b> YES <b>SAMPLE CLASS QUALITY</b><br><b>DATE REINSTALLED:</b> 03/26/02 |
| 4-1089 | 12996    | N/A                  | 3/26/2002                 | PASS             | 03/25/02                      | PASS             | 26 5/8" | PASS             | NO                   |                  | Visual Inspection-SAT,"L" Dimension acceptable,and Functional-SAT. Spherical bearings and load pin lubricated with neolube SC# 24984-3. | <b>FUNCTIONAL TEST PERFORMED</b> Yes<br><b>STATUS</b> PASS (N/A IF NOT PERFORMED)<br><b>TENSION COMPRESSION CRITERIA</b><br><b>TEST 1</b> 149.3 167.1 2500.0<br><b>TEST 2</b> 212.5 182.1 2500.0<br><b>TEST 3</b> .006 .008 .02g's<br><b>TEST 4</b> 225.7 171.1 2500.0<br><b>TEST SAMPLE?</b> YES <b>SAMPLE CLASS QUALITY</b><br><b>DATE REINSTALLED:</b> 03/26/02 |

| TAG # | SERIAL # | REPLACE-<br>MENT S/N | VISUAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | FUNCTIONAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | L DIMEN | S<br>T<br>A<br>T | HAND-<br>STROKE<br>? | S<br>T<br>A<br>T | INSPECTION SUMMARY |
|-------|----------|----------------------|---------------------------|------------------|-------------------------------|------------------|---------|------------------|----------------------|------------------|--------------------|
|-------|----------|----------------------|---------------------------|------------------|-------------------------------|------------------|---------|------------------|----------------------|------------------|--------------------|

# FUNCTIONAL TEST SUMMARY

|        |       |     |           |      |          |      |         |      |     |      |   |
|--------|-------|-----|-----------|------|----------|------|---------|------|-----|------|---|
| 4-1090 | 12997 | N/A | 3/26/2002 | PASS | 03/25/02 | PASS | 26 7/8" | PASS | YES | PASS | Visual Inspection-SAT,"L" Dimension acceptable,and Functional-SAT. Spherical bearings and load pin lubricated with neolube SC# 24984-3. |
|--------|-------|-----|-----------|------|----------|------|---------|------|-----|------|---|

| FUNCTIONAL TEST PERFORMED    |       |                        |        | Yes |
|------------------------------|-------|------------------------|--------|-----|
| STATUS                       | PASS  | (N/A IF NOT PERFORMED) |        |     |
| TENSION COMPRESSION CRITERIA |       |                        |        |     |
| TEST 1                       | 129.6 | 153.3                  | 2500.0 |     |
| TEST 2                       | 225.1 | 248.3                  | 2500.0 |     |
| TEST 3                       | .003  | .003                   | .02g's |     |
| TEST 4                       | 205.7 | 326.8                  | 2500.0 |     |

| TEST SAMPLE?      | YES | SAMPLE CLASS QUALITY |
|-------------------|-----|----------------------|
| DATE REINSTALLED: |     | 03/26/02             |

|        |       |     |           |      |     |  |         |      |     |      |   |
|--------|-------|-----|-----------|------|-----|--|---------|------|-----|------|---|
| 4-1091 | 12998 | N/A | 3/28/2002 | PASS | N/A |  | 27 1/8" | PASS | YES | PASS | Visual Inspection-SAT,"L" Dimension acceptable,and Handstroke-SAT. Spherical bearings and load pin lubricated with neolube SC# 24984-3. |
|--------|-------|-----|-----------|------|-----|--|---------|------|-----|------|---|

| FUNCTIONAL TEST PERFORMED    |     |                        |  | No |
|------------------------------|-----|------------------------|--|----|
| STATUS                       | N/A | (N/A IF NOT PERFORMED) |  |    |
| TENSION COMPRESSION CRITERIA |     |                        |  |    |
| TEST 1                       |     |                        |  |    |
| TEST 2                       |     |                        |  |    |
| TEST 3                       |     |                        |  |    |
| TEST 4                       |     |                        |  |    |

| TEST SAMPLE?      | NO | SAMPLE CLASS N/A |
|-------------------|----|------------------|
| DATE REINSTALLED: |    |                  |

| TAG #  | SERIAL # | REPLACE-<br>MENT S/N | VISUAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | FUNCTIONAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | L DIMEN   | S<br>T<br>A<br>T | HAND-<br>STROKE<br>? | S<br>T<br>A<br>T | INSPECTION SUMMARY  | FUNCTIONAL TEST SUMMARY  |
|--------|----------|----------------------|---------------------------|------------------|-------------------------------|------------------|-----------|------------------|----------------------|------------------|---|--|
| 4-1092 | 12999    | N/A                  | 3/28/2002                 | PASS             |                               | N/A              | 26 1/2"   | PASS             | YES                  | PASS             | Visual Inspection-SAT,"L" Dimension acceptable,and Handstroke-SAT. Spherical bearings and load pin lubricated with neolube SC# 24984-3. | FUNCTIONAL TEST PERFORMED No<br>STATUS N/A (N/A IF NOT PERFORMED)<br>TENSION COMPRESSION CRITERIA<br>TEST 1<br>TEST 2<br>TEST 3<br>TEST 4<br>TEST SAMPLE? NO SAMPLE CLASS N/A<br>DATE REINSTALLED: |
| 4-1093 | 17868    | N/A                  | 3/23/2002                 | PASS             |                               | N/A              | 19 13/16" | PASS             | YES                  | PASS             | Visual Inspection-SAT,"L" Dimension acceptable,and Handstroke-SAT. Spherical bearings and load pin lubricated with neolube SC# 24982-3. | FUNCTIONAL TEST PERFORMED No<br>STATUS N/A (N/A IF NOT PERFORMED)<br>TENSION COMPRESSION CRITERIA<br>TEST 1<br>TEST 2<br>TEST 3<br>TEST 4<br>TEST SAMPLE? NO SAMPLE CLASS N/A<br>DATE REINSTALLED: |

| TAG #  | SERIAL # | REPLACE-<br>MENT S/N | VISUAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | FUNCTIONAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | L DIMEN | S<br>T<br>A<br>T | HAND-<br>STROKE<br>? | S<br>T<br>A<br>T | INSPECTION SUMMARY  | FUNCTIONAL TEST SUMMARY   |
|--------|----------|----------------------|---------------------------|------------------|-------------------------------|------------------|---------|------------------|----------------------|------------------|---|---|
| 4-1094 | 17869    | 18157                | 3/23/2002                 | PASS             | 03/24/02                      | PASS             | 19 1/2" | PASS             | NO                   |                  | Visual Inspection-SAT,"L" Dimension acceptable,and Functional-SAT. Transition tube to snubber torqued to 37 ft/lbs. Spherical bearings and load pin lubricated with neolube SC# 24982-3. S/N 17869 dicarded because to many parts worn. | <b>FUNCTIONAL TEST PERFORMED</b> Yes<br><b>STATUS</b> PASS (N/A IF NOT PERFORMED)<br><b>TENSION COMPRESSION CRITERIA</b><br><b>TEST 1</b> 75.6 83.1 750.0<br><b>TEST 2</b> 83.0 97.0 750.0<br><b>TEST 3</b> .011 .016 .02g's<br><b>TEST 4</b> 71.9 90.1 750.0<br><b>TEST SAMPLE?</b> YES <b>SAMPLE CLASS</b> QUALITY<br><b>DATE REINSTALLED:</b> 03/24/02 |
| 4-1095 | 17870    | N/A                  | 3/26/2002                 | PASS             | 03/26/02                      | PASS             | 19 3/8" | PASS             | YES                  | PASS             | Visual Inspection-SAT,"L" Dimension acceptable, Handstroke-SATand Functional-SAT. Transition tube to snubber torqued to 36 ft/lbs. Spherical bearings and load pin lubricated with neolube SC# 24984-3.                                 | <b>FUNCTIONAL TEST PERFORMED</b> Yes<br><b>STATUS</b> PASS (N/A IF NOT PERFORMED)<br><b>TENSION COMPRESSION CRITERIA</b><br><b>TEST 1</b> 33.4 45.3 750.0<br><b>TEST 2</b> 52.0 59.3 750.0<br><b>TEST 3</b> .005 .006 .02g's<br><b>TEST 4</b> 43.5 55.2 750.0<br><b>TEST SAMPLE?</b> NO <b>SAMPLE CLASS</b> N/A<br><b>DATE REINSTALLED:</b> 03/26/02      |

| TAG #                     | SERIAL # | REPLACE-<br>MENT S/N   | VISUAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | FUNCTIONAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | L DIMEN   | S<br>T<br>A<br>T | HAND-<br>STROKE<br>? | S<br>T<br>A<br>T | INSPECTION SUMMARY   | FUNCTIONAL TEST SUMMARY  |                           |  |     |        |      |                        |  |         |             |          |        |      |      |       |        |      |      |       |        |      |      |        |        |      |      |       |              |    |                  |  |                   |  |          |  |
|---------------------------|----------|------------------------|---------------------------|------------------|-------------------------------|------------------|-----------|------------------|----------------------|------------------|--|--|---------------------------|--|-----|--------|------|------------------------|--|---------|-------------|----------|--------|------|------|-------|--------|------|------|-------|--------|------|------|--------|--------|------|------|-------|--------------|----|------------------|--|-------------------|--|----------|--|
| 4-1096                    | 17871    | N/A                    | 3/26/2002                 | PASS             | 03/24/02                      | PASS             | 19 3/8"   | PASS             | YES                  | PASS             | Visual Inspection-SAT,"L" Dimension acceptable, Handstroke-SATand Functional-SAT.Transition tube to snubber torqued to 36 ft/lbs. Spherical bearings and load pin lubricated with neolube SC# 24984-3.   | <table><tr><td colspan="2">FUNCTIONAL TEST PERFORMED</td><td>Yes</td></tr><tr><td>STATUS</td><td>PASS</td><td>(N/A IF NOT PERFORMED)</td></tr><tr><td></td><td>TENSION</td><td>COMPRESSION</td><td>CRITERIA</td></tr><tr><td>TEST 1</td><td>35.5</td><td>33.2</td><td>750.0</td></tr><tr><td>TEST 2</td><td>61.8</td><td>33.5</td><td>750.0</td></tr><tr><td>TEST 3</td><td>.008</td><td>.003</td><td>.02g's</td></tr><tr><td>TEST 4</td><td>54.4</td><td>39.1</td><td>750.0</td></tr><tr><td>TEST SAMPLE?</td><td>NO</td><td colspan="2">SAMPLE CLASS N/A</td></tr><tr><td colspan="2">DATE REINSTALLED:</td><td colspan="2">03/26/02</td></tr></table> | FUNCTIONAL TEST PERFORMED |  | Yes | STATUS | PASS | (N/A IF NOT PERFORMED) |  | TENSION | COMPRESSION | CRITERIA | TEST 1 | 35.5 | 33.2 | 750.0 | TEST 2 | 61.8 | 33.5 | 750.0 | TEST 3 | .008 | .003 | .02g's | TEST 4 | 54.4 | 39.1 | 750.0 | TEST SAMPLE? | NO | SAMPLE CLASS N/A |  | DATE REINSTALLED: |  | 03/26/02 |  |
| FUNCTIONAL TEST PERFORMED |          | Yes                    |                           |                  |                               |                  |           |                  |                      |                  |  |  |                           |  |     |        |      |                        |  |         |             |          |        |      |      |       |        |      |      |       |        |      |      |        |        |      |      |       |              |    |                  |  |                   |  |          |  |
| STATUS                    | PASS     | (N/A IF NOT PERFORMED) |                           |                  |                               |                  |           |                  |                      |                  |  |  |                           |  |     |        |      |                        |  |         |             |          |        |      |      |       |        |      |      |       |        |      |      |        |        |      |      |       |              |    |                  |  |                   |  |          |  |
|                           | TENSION  | COMPRESSION            | CRITERIA                  |                  |                               |                  |           |                  |                      |                  |  |  |                           |  |     |        |      |                        |  |         |             |          |        |      |      |       |        |      |      |       |        |      |      |        |        |      |      |       |              |    |                  |  |                   |  |          |  |
| TEST 1                    | 35.5     | 33.2                   | 750.0                     |                  |                               |                  |           |                  |                      |                  |  |  |                           |  |     |        |      |                        |  |         |             |          |        |      |      |       |        |      |      |       |        |      |      |        |        |      |      |       |              |    |                  |  |                   |  |          |  |
| TEST 2                    | 61.8     | 33.5                   | 750.0                     |                  |                               |                  |           |                  |                      |                  |  |  |                           |  |     |        |      |                        |  |         |             |          |        |      |      |       |        |      |      |       |        |      |      |        |        |      |      |       |              |    |                  |  |                   |  |          |  |
| TEST 3                    | .008     | .003                   | .02g's                    |                  |                               |                  |           |                  |                      |                  |  |  |                           |  |     |        |      |                        |  |         |             |          |        |      |      |       |        |      |      |       |        |      |      |        |        |      |      |       |              |    |                  |  |                   |  |          |  |
| TEST 4                    | 54.4     | 39.1                   | 750.0                     |                  |                               |                  |           |                  |                      |                  |  |  |                           |  |     |        |      |                        |  |         |             |          |        |      |      |       |        |      |      |       |        |      |      |        |        |      |      |       |              |    |                  |  |                   |  |          |  |
| TEST SAMPLE?              | NO       | SAMPLE CLASS N/A       |                           |                  |                               |                  |           |                  |                      |                  |  |  |                           |  |     |        |      |                        |  |         |             |          |        |      |      |       |        |      |      |       |        |      |      |        |        |      |      |       |              |    |                  |  |                   |  |          |  |
| DATE REINSTALLED:         |          | 03/26/02               |                           |                  |                               |                  |           |                  |                      |                  |  |  |                           |  |     |        |      |                        |  |         |             |          |        |      |      |       |        |      |      |       |        |      |      |        |        |      |      |       |              |    |                  |  |                   |  |          |  |
| 4-1097                    | 17852    | N/A                    | 3/26/2002                 | PASS             | 03/26/02                      | PASS             | 19 13/16" | PASS             | YES                  | PASS             | Visual Inspection-SAT,"L" Dimension acceptable, Handstroke-SATand Functional-SAT. Transition tube to snubber torqued to 36 ft/lbs. Spherical bearings and load pin lubricated with neolube SC# 24984-3. Snubber was re-greased after replcement of new parts. Grease SC# 0149771-1 | <table><tr><td colspan="2">FUNCTIONAL TEST PERFORMED</td><td>Yes</td></tr><tr><td>STATUS</td><td>PASS</td><td>(N/A IF NOT PERFORMED)</td></tr><tr><td></td><td>TENSION</td><td>COMPRESSION</td><td>CRITERIA</td></tr><tr><td>TEST 1</td><td>24.9</td><td>43.4</td><td>750.0</td></tr><tr><td>TEST 2</td><td>49.2</td><td>53.3</td><td>750.0</td></tr><tr><td>TEST 3</td><td>.004</td><td>.007</td><td>.02g's</td></tr><tr><td>TEST 4</td><td>49.9</td><td>56.0</td><td>750.0</td></tr><tr><td>TEST SAMPLE?</td><td>NO</td><td colspan="2">SAMPLE CLASS N/A</td></tr><tr><td colspan="2">DATE REINSTALLED:</td><td colspan="2">03/26/02</td></tr></table> | FUNCTIONAL TEST PERFORMED |  | Yes | STATUS | PASS | (N/A IF NOT PERFORMED) |  | TENSION | COMPRESSION | CRITERIA | TEST 1 | 24.9 | 43.4 | 750.0 | TEST 2 | 49.2 | 53.3 | 750.0 | TEST 3 | .004 | .007 | .02g's | TEST 4 | 49.9 | 56.0 | 750.0 | TEST SAMPLE? | NO | SAMPLE CLASS N/A |  | DATE REINSTALLED: |  | 03/26/02 |  |
| FUNCTIONAL TEST PERFORMED |          | Yes                    |                           |                  |                               |                  |           |                  |                      |                  |  |  |                           |  |     |        |      |                        |  |         |             |          |        |      |      |       |        |      |      |       |        |      |      |        |        |      |      |       |              |    |                  |  |                   |  |          |  |
| STATUS                    | PASS     | (N/A IF NOT PERFORMED) |                           |                  |                               |                  |           |                  |                      |                  |  |  |                           |  |     |        |      |                        |  |         |             |          |        |      |      |       |        |      |      |       |        |      |      |        |        |      |      |       |              |    |                  |  |                   |  |          |  |
|                           | TENSION  | COMPRESSION            | CRITERIA                  |                  |                               |                  |           |                  |                      |                  |  |  |                           |  |     |        |      |                        |  |         |             |          |        |      |      |       |        |      |      |       |        |      |      |        |        |      |      |       |              |    |                  |  |                   |  |          |  |
| TEST 1                    | 24.9     | 43.4                   | 750.0                     |                  |                               |                  |           |                  |                      |                  |  |  |                           |  |     |        |      |                        |  |         |             |          |        |      |      |       |        |      |      |       |        |      |      |        |        |      |      |       |              |    |                  |  |                   |  |          |  |
| TEST 2                    | 49.2     | 53.3                   | 750.0                     |                  |                               |                  |           |                  |                      |                  |  |  |                           |  |     |        |      |                        |  |         |             |          |        |      |      |       |        |      |      |       |        |      |      |        |        |      |      |       |              |    |                  |  |                   |  |          |  |
| TEST 3                    | .004     | .007                   | .02g's                    |                  |                               |                  |           |                  |                      |                  |  |  |                           |  |     |        |      |                        |  |         |             |          |        |      |      |       |        |      |      |       |        |      |      |        |        |      |      |       |              |    |                  |  |                   |  |          |  |
| TEST 4                    | 49.9     | 56.0                   | 750.0                     |                  |                               |                  |           |                  |                      |                  |  |  |                           |  |     |        |      |                        |  |         |             |          |        |      |      |       |        |      |      |       |        |      |      |        |        |      |      |       |              |    |                  |  |                   |  |          |  |
| TEST SAMPLE?              | NO       | SAMPLE CLASS N/A       |                           |                  |                               |                  |           |                  |                      |                  |  |  |                           |  |     |        |      |                        |  |         |             |          |        |      |      |       |        |      |      |       |        |      |      |        |        |      |      |       |              |    |                  |  |                   |  |          |  |
| DATE REINSTALLED:         |          | 03/26/02               |                           |                  |                               |                  |           |                  |                      |                  |  |  |                           |  |     |        |      |                        |  |         |             |          |        |      |      |       |        |      |      |       |        |      |      |        |        |      |      |       |              |    |                  |  |                   |  |          |  |



| TAG #  | SERIAL # | REPLACE-<br>MENT S/N | VISUAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | FUNCTIONAL<br>INSPECT<br>DATE | S<br>T<br>A<br>T | L DIMEN   | S<br>T<br>A<br>T | HAND-<br>STROKE<br>? | S<br>T<br>A<br>T | INSPECTION SUMMARY   | FUNCTIONAL TEST SUMMARY  |
|--------|----------|----------------------|---------------------------|------------------|-------------------------------|------------------|-----------|------------------|----------------------|------------------|--|--|
| 4-1098 | 17873    | 16252                | 3/26/2002                 | PASS             | 03/25/02                      | PASS             | 19 13/16" | PASS             | YES                  | PASS             | Visual Inspection-SAT,"L" Dimension acceptable, Handstroke-UNSAT and Functional-UNSAT. Condition Report was written to document this condition. It was determine that to many parts had to be replaced S/N 17873 was discarded replaced with an acceptable functional tested snubber. Final visual inspection-SAT. Transition tube to snubber torqued to 36 ft/lbs. Spherical bearings and load pin lubricated with neolube SC# 24984-3. | <div>FUNCTIONAL TEST PERFORMED</div> <div>Yes</div> <div>STATUSPASS(N/A IF NOT PERFORMED)</div> <div>TENSIONCOMPRESSIONCRITERIA</div> <div>TEST 144.439.9750.0</div> <div>TEST 247.041.9750.0</div> <div>TEST 3.009.008.02g's</div> <div>TEST 443.745.3750.0</div> <div>TEST SAMPLE?NONO</div> <div>SAMPLE CLASSN/A</div> <div>DATE REINSTALLED:03/26/02</div> |
| 4-1099 | 17423    | N/A                  | 3/24/2002                 | PASS             | N/A                           | N/A              | 16 5/8"   | PASS             | YES                  | PASS             | Visual Inspection-SAT,"L" Dimension acceptable, Handstroke-SAT. Spherical bearings and load pin lubricated with neolube SC# 24982-3.   | <div>FUNCTIONAL TEST PERFORMED</div> <div>No</div> <div>STATUSN/A(N/A IF NOT PERFORMED)</div> <div>TENSIONCOMPRESSIONCRITERIA</div> <div>TEST 1</div> <div>TEST 2</div> <div>TEST 3</div> <div>TEST 4</div> <div>TEST SAMPLE?NONO</div> <div>SAMPLE CLASSN/A</div> <div>DATE REINSTALLED:</div>  |

**TURKEY POINT  
UNIT 4**

**2002 REFUELING OUTAGE**

**SUMMARY OF SYSTEM PRESSURE TESTING**

# TURKEY POINT

## UNIT 4 CYCLE 20

### SYSTEM PRESSURE TESTING

#### FINAL REPORT

Owner: Florida Power and Light Company  
700 Universe Blvd.  
Juno Beach, Florida, 33408

Plant: Florida Power and Light Company  
Turkey Point Nuclear Power Plant Unit 4  
P.O. Box 4332  
Princeton, Florida, 33032

Commercial Service Date: September 7, 1973

Prepared by: James Noble Date: 4/16/02

Reviewed by: [Signature] Date: 4/16/02

Approved by: E. Jones Date: 4/17/02

## **Abstract**

This report details the pressure testing of selected class 1, 2, and 3 piping and components of Florida Power and Light Company Turkey Point Unit 4. This report is for cycle 20 that includes the dates between October 23, 2000 to April 7, 2002. The refueling outage for cycle 20 occurred between March 23, 2002 and April 7, 2002. This pressure testing is being reported following the first outage of the third period for 3<sup>rd</sup> ten year interval for Turkey Point Unit 4.

Piping and components were selected and tested in accordance with Section XI of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code "Rules for Inservice Inspection of Nuclear Power Components", 1989 Edition with no addenda with specific relief as granted under 10 CFR 50.55a.

## **Procedures**

The following Florida Power and Light (FPL) procedures and documents have been implemented to provide instructional guidance for the performance of the required ASME XI pressure testing and subsequent inspections.

4-OSP-041.25 RCS Overpressure Leak Testing

4-OSP-45.1 ASME Section XI Quality Group A Bolting Examination\*

4-OSP-45.2 ASME Section XI Quality Group B Bolting Examination\*

0-ADM-523 ASME Section XI Pressure Tests for Quality Group A, B, and C Systems/Components.

4-OSP-041.2 Reactor Coolant System Visual Leak Inspection and Leak Evaluation.

NDE-4.2 Visual Examination VT-2 Conducted During System Pressure Tests.

\*Relief Request No 18, Use of Code Case N-533 Authorized for Turkey Point Units 3 and 4 (TAC NOS. M98149 AND M98150).

**System Summary:**

The following safety related Class 1, 2, and 3 systems, or sections thereof were pressure tested in accordance with the requirements of the 1989 ASME Section XI Code.

| <b>System Name</b>      | <b>System Number</b> |
|-------------------------|----------------------|
| Instrument Air System   | 13                   |
| Condensate Storage      | 18                   |
| Intake Cooling Water    | 19                   |
| Component Cooling Water | 30                   |
| Spent Fuel pool Cooling | 33                   |
| Reactor Coolant         | 41                   |
| Feedwater               | 74                   |

**Acronyms:**

|       |  |
|-------|--|
| ADM:  | Administrative                           |
| ASME: | American Society of Mechanical Engineers |
| CSS:  | Containment Spray System                 |
| CCW:  | Component Cooling Water                  |
| CVCS: | Chemical Volume Control System           |
| ECC:  | Emergency Containment Cooler             |
| FW:   | Feedwater                                |
| HX:   | Heat Exchanger                           |
| ICW:  | Intake Cooling Water                     |
| NDE:  | Non Destructive Examination              |
| PWO:  | Plant Work Order                         |
| PZR:  | Pressurizer                              |
| RCP:  | Reactor Coolant Pump                     |
| RHR:  | Residual Heat Removal                    |
| RO:   | Restricting Orifice                      |
| RV:   | Relief Valve                             |
| RX:   | Reactor                                  |
| SFPC: | Spent Fuel Pool Cooling                  |
| SG:   | Steam Generator                          |
| WO:   | Work Order                               |

### Test Package Development

The specific pressure test boundaries were selected after review of the applicable plant operating diagram/code boundary drawings. The piping systems were broken into sub-systems. The sub-systems were selected based on Technical Specifications operability requirements, acceptable isolation points and availability of test connections and vent valves. The sub-systems were then assigned test package numbers, which could be tested in entirety, or based on availability could be broken down further into numerous tests within the specific sub-system.

The pressure test package numbers contain six (6) segments of information,

Sample:                    04-CCW-30110-I-01  
                              ^ ^     ^ ^   ^ ^  
                              1 2     3 4   5 6

1.                    Unit Number (00) common to both units 3 and 4. (03) Unit specific. (04) Unit specific.
2.                    System abbreviation
3.                    System number [First (2) digits].
4.                    Sub-system number [(2) or (3) digits].
5.                    Type of test (H) Hydrostatic, (P) Pneumatic, (L) Leakage, (F) Functional, (I) Inservice, (S) Static head.
6.                    Number of test performed within the specific sub-system.

### **INSTRUMENT AIR SYSTEM SYSTEM 13**

**04-CB-5101-P-01** Test Date: 04/02/02

This test being performed due to the replacement and modification of valve 4-40-205. Reference WO# 32002032 and PCM 01-063. There was no leakage noted during this test.

### **CONDENSATE STORAGE SYSTEM 18**

**04-CST-1802-F-03** Test Date: 03/15/02

This test was performed to meet the 1989 Edition of ASME Section XI periodic pressure Test requirements. No leakage was noted during this test.

### **INTAKE COOLING WATER SYSTEM 19**

**04-ICW-19116-L-01** Test Date: 02/21/01

This test performed due to replacement of piping and valve 4-50-321, ref WO# 31001090. There was no leakage was observed during this test.

**04-ICW-19112-L-01** Test Date: 06/14/01

This test was performed due to the replacement of valve 4-50-331 under WO# 30018454. There was no leakage observed during this test.

**04-ICW-1973-I-03** Test Date: 03/12/02

This test was performed to meet the 1989 Edition of ASME Section XI periodic pressure Test requirements. There was no leakage was noted during this test.

### **COMPONENT COOLING WATER SYSTEM 30**

**04-CCW-30326-L-02** Test Date: 4/3/02

This test was performed due to replacement of relief valve RV-4-715, reference WO# 30019204. There was no leakage was noted during the test.



### **SPENT FUEL POOL COOLING SYSTEM 33**

**04-SFPC-3353-L-01** Test Date: 05/31/01

This test was performed due to replacement of valve 4-821. Reference WO# 30017327. There was no leakage noted during this test.

### **REACTOR COOLANT SYSTEM 41**

**04-RCS-4114-L-01** Test Date: 1/30/01

This test was performed due to the ASME XI repair/replacement of the CRDM part length H-14 and B-8, welded dowel pin replacement. There was no leakage noted during this test.

**04-RCS-4101-L-06** Test Date: 04/07/02

This test involved the leakage test of the Reactor Coolant System piping inside containment following the Unit 4 Cycle 20 Refueling Outage. This leakage test addressed the following replacements.

| <b>Component</b> | <b>WO#</b> | <b>Replaced</b>       |
|------------------|------------|-----------------------|
| RV-4-551A        | 31015608   | Remove, install spare |
| RV-4-551B        | 31015607   | Remove, install spare |
| RV-4-551C        | 31015606   | Remove, install spare |
| PCV-4-455A       | 30008376   | Replace Bonnet        |

No leakage was observed during this test.

## **FEEDWATER SYSTEM 74**

**04-FW-7431-I-03:** Test Date: 3/15/02

This Inservice test was performed to meet ASME Section XI 1989 Edition periodic pressure test requirements. No leakage observed during this test.

**04-FW-7433-I-03:** Test Date: 3/15/02

This Inservice test was performed to meet ASME Section XI 1989 Edition periodic pressure test requirements. No leakage observed during this test.

**04-FW-7426-I-03:** Test Date: 3/15/02

This Inservice test was performed to meet ASME Section XI 1989 Edition periodic pressure test requirements. No leakage observed during this test.

**04-FW-7425-I-03:** Test Date: 3/15/02

This Inservice test was performed to meet ASME Section XI 1989 Edition periodic pressure test requirements. No leakage observed during this test.

**04-FW-7432-I-03:** Test Date: 3/15/02

This Inservice test was performed to meet ASME Section XI 1989 Edition periodic pressure test requirements. No leakage observed during this test.

**04-FW-7427-I-03:** Test Date: 3/16/02

This Inservice test was performed to meet ASME Section XI 1989 Edition periodic pressure test requirements. No leakage observed during this test.

## **BOLTED JOINT EXAMINATIONS**

The bolted joint examinations were performed in accordance with 4-OSP-045.1 and 4-OSP-045.2 for class 1 and class 2 bolted components. The class 1 inspection included all class 1 bolted components. The class 2 inspections consisted of all bolted joints inside the containment. The class 2 components outside containment will be inspected during the cycle 21 refueling outage. The inspections identified 6 bolted connections that had evidence of leakage. They are listed below with the corresponding condition report number. All leakage was evaluated by engineering as required by ASME XI.

| <b><u>Component</u></b> | <b><u>Condition Report Number</u></b> | <b><u>Valve Code Class</u></b> |
|-------------------------|---------------------------------------|--------------------------------|
| RV-4-551A               | CR 02-0562                            | 1                              |
| RV-4-551B               | CR 02-0562                            | 1                              |
| RV-4-551C               | CR 02-0562                            | 1                              |
| CV-4-387                | CR 02-0578                            | 1                              |
| 4-876A                  | CR 02-0538                            | 1                              |
| RV-4-382                | CR 02-0563                            | 2                              |

**TURKEY POINT  
UNIT 4**

**2002 REFUELING OUTAGE**

**SUMMARY OF IWL EXAMINATIONS**

**PSC**Precision  
Surveillance  
CorporationVOLUME 1Main  
Title TURKEY POINT NUCLEAR PLANT UNITS 3 & 4 30<sup>TH</sup> YEAR  
CONTAINMENT TENDON SURVEILLANCESub  
Title

BY

WRITTEN BY: CHRISTOPHER COX

REVIEWED BY: PAUL C. SMITH

APPROVED BY: *Ronald D. Hough*  
RONALD D. HOUGH, P.E. 149300567

ENGINEERING DEPARTMENT

ABSTRACT

Based upon the data gathered during the 2001 In-Service Inspection, the conclusion is reached that no abnormal degradation of the Post Tensioning System has occurred at the Turkey Point Unit 3 and Unit 4 Containment Buildings.

## REVISION CONTROL LOG

| Rev. | Revision Date | By | Approved By | Pages Affected  |
|------|---------------|----|-------------|---|
| ①    | Dec           | NH | RJK         | I-IV, 1-82, A3001-A3289, A4001-A4157, B3001-B3020, B4001- |
| ②    | Dec           | NH | RJK         | B4015, C1-C288, D1-D18, E1-E20, F1-F334                   |
| △    |               |    |             |   |
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# PSC

Precision  
Surveillance  
Corporation

Main Title TURKEY POINT NUCLEAR PLANT UNITS 3 & 4 30<sup>TH</sup> YEAR  
CONTAINMENT TENDON SURVEILLANCE

Sub-  
Title

BY

WRITTEN BY: CHRISTOPHER COX

REVIEWED BY: PAUL C. SMITH

APPROVED BY: RONALD D. HOUGH, P.E.

ENGINEERING DEPARTMENT

## ABSTRACT

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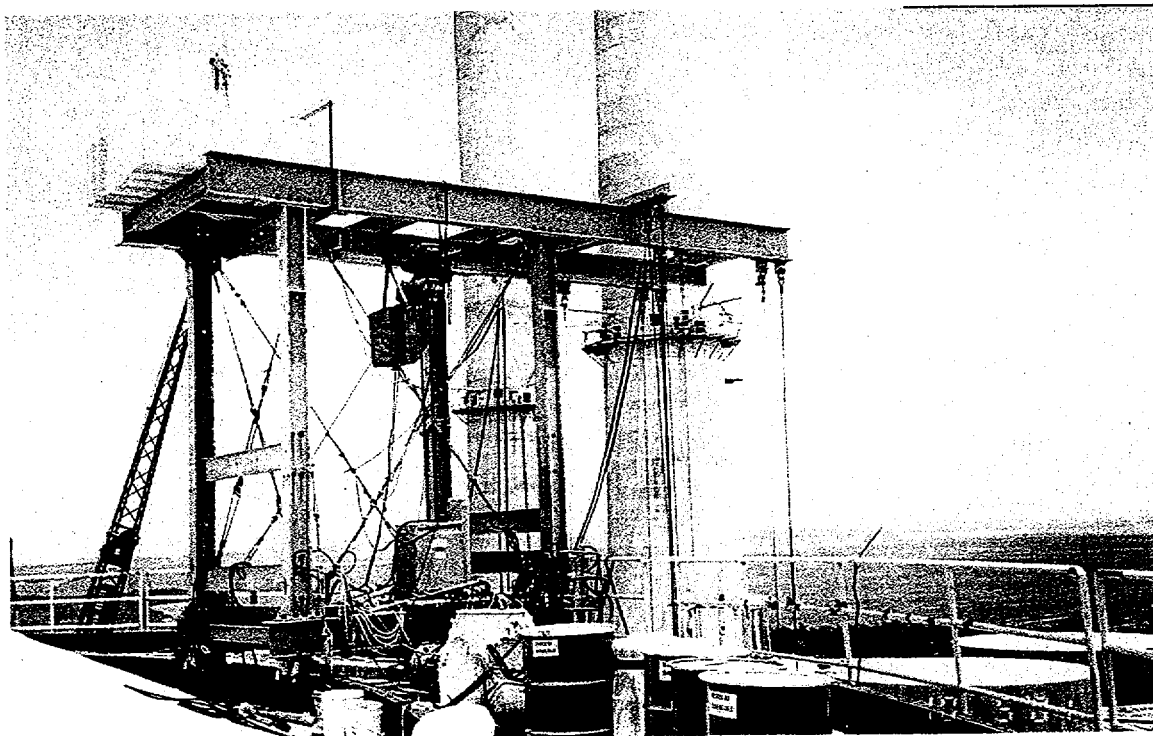
## REVISION CONTROL LOG

| Rev. | Revision Date | By      | Approved By | Pages Affected  |
|------|---------------|---------|-------------|---|
| 0    | Dec           | 11/1/81 | RDK         | i-xv, 1-62, A3001-A3269, A4001-A4157, B3001-B3020, B4001- |
| 0    | Dec           | 11/7/81 | RDK         | B4015, C1-C268, D1-D18, E1-E20, F1-F334                   |
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**FPL**

**FLORIDA POWER & LIGHT COMPANY  
TURKEY POINT NUCLEAR PLANT - UNIT 3&4  
30TH YEAR  
CONTAINMENT TENDON SURVEILLANCE**



**2001**

**PRECISION SURVEILLANCE CORP.  
3468 WATLING STREET  
EAST CHICAGO, IN 46312  
(219) 397-5826**





**FLORIDA POWER & LIGHT COMPANY  
TURKEY POINT NUCLEAR PLANT - UNIT 3&4  
30TH YEAR CONTAINMENT TENDON  
SURVEILLANCE**



## **SUMMARY**

The purpose of this report is to present the results of the 2001 Physical In-Service Tendon Inspection of Turkey Point's Unit 3 & 4 Containment Building post tensioning systems. The results of this investigation are discussed in detail in the body of this report and are summarized as follows:

1. The sheathing filler (grease) samples were tested and found to have acceptable levels of water soluble ions, (Chlorides, Nitrates, and Sulfides) and water content except 34V15 in Unit 3 which had a water content of 11.00%. A second sample tested had a water content of 16%, CR 01-0801, sup. 4 was written to record this finding. During detensioning this tendon was drained and refilled with new grease. In addition, 51H01 shop end in Unit 4 was found to have a chloride content of 15 ppm and a moisture content of 37% (see Cr 01-1441, sup.1). All neutralization numbers were above the IWL requirement of 0mg KOH/g and acceptable. No visible breakdown of the grease was noted either by color or consistency for all grease samples tested.
2. None of the surveillance tendons exhibited significant water either during removal of the grease can, or around the tendon anchorage except for 34V15 field end in Unit 3 (CR 01-0801, sup. 1) and 51H01 field end in Unit 4 (CR 01-1441) which had 80 ounces and 64 ounces respectively. However, two ends in Unit 3 had drops to less than half an ounce and three ends in Unit 4 also had drops to one ounce.
3. Acceptable corrosion levels were found to all tendon ends and no cracks were found on any anchorage components. Bearing plates to four tendon ends (three in Unit 3 and one in Unit 4) had corrosion levels of greater than five outside the gasket area where they had been subjected to water. CR 00-1434, sup. 1 and CR 01-1441 were written to address this issue. Cracks surrounding the bearing plates were within allowable tolerance of  $\leq 0.010$ " except on two tendon ends. Inspection of the cracks by the responsible engineer, the largest of which was 0.031" in width, deemed them not to be significant.
4. One additional protruding wire was found on 34V15 and one missing buttonhead on 2D18 field end in Unit 3 which were recorded in CR 01-0801. No additional broken, missing or protruding wires were found on any Unit 4 surveillance tendon.



**FLORIDA POWER & LIGHT COMPANY  
TURKEY POINT NUCLEAR PLANT - UNIT 3&4  
30TH YEAR CONTAINMENT TENDON  
SURVEILLANCE**



**SUMMARY**

5. The hydraulic jacks used for liftoffs, detensioning and retensioning tendons, as well as the ram used for wire testing, were found to be in a properly calibrated status throughout the surveillance.
6. The tendon liftoffs were found to be above the expected lower limit in all cases.
7. All wire samples tested were found to be acceptable in diameter, yield strength and ultimate strength.
8. All detensioned tendons were retensioned with acceptable elongations after calculation and review, and all were restored to acceptable force levels.
9. All tendons were resealed and regreased accepting more grease than was removed. No tendon accepted greater than 10% of the tendon duct volume in Unit 3, however, three tendons accepted greater than 10% in Unit 4. NCR FN748-014 and CR 01-01801, SUP.3 were written to address the amount of grease placed into these tendons.
10. An IWL Inspection of the containment (under separate attached report) concluded that the containment concrete and reinforcing steel integrity have not been damaged or affected adversely from original construction to present date.
11. Two corroded tendon caps located in the inspection pits and subjected to standing water were replaced. 13H01 shop end in Unit 3 was replaced per CR 00-1434, sup. 1 and 51H01 shop end in Unit 4 was replaced per CR 01-1441.

Based on the data gathered during the 2001 Physical In-Service Inspection and reported herein, the conclusion is reached that no abnormal degradation of the Post Tensioning System has occurred at the Turkey Point Unit 3 & 4 Containment Buildings.





FLORIDA POWER & LIGHT COMPANY  
TURKEY POINT NUCLEAR PLANT - UNIT 3&4  
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TURKEY POINT NUCLEAR PLANT - UNIT 3&4  
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TURKEY POINT NUCLEAR PLANT - UNIT 3&4  
30TH YEAR CONTAINMENT TENDON  
SURVEILLANCE**



## **INTRODUCTION**

This report details the 30th Year Physical Tendon Surveillance of the Unit 3 & 4 Containment Structure Post Tensioning System at Florida Power and Light's Turkey Point Nuclear Plant. The Containment Building surveillance program is a systematic means of assessing the quality and structural performance of the post tensioning system. The thirtieth year tendon surveillance is the eighth in a series.

The tendon surveillance program consists of a periodic inspection of the physical condition of a selected group of tendons on one Unit while a visual inspection is performed on the other. This program provides confidence in the condition and functional capability of the system, and an opportunity for timely corrective measures if adverse conditions are detected. Physical tendon surveillance consists of sheathing filler inspection, anchorage inspection, tendon liftoff, inspection and side test of removed wire samples (for detensioned tendons) and tendon retensioning with the tendons being resealed after completion of all inspections.

The thirtieth year tendon surveillance began in February 2001 and was completed in August 2001. The surveillance was conducted in accordance with PSC Surveillance Manual, a copy of this manual is included in Section 9, Appendix F of this Surveillance Report.

A group of four vertical, eight horizontal and eight dome tendons were selected for the physical inspection on Unit 3 while a group of four vertical, five horizontal and six dome tendons for visual inspection on Unit 4. The tendon selection was performed by Turkey Point with one of each group of the physical inspections on Unit 3 selected for detensioning. Due to the inaccessibility of certain tendons because of safety concerns, relief was given to some of the original tendons chosen for inspection, when this takes place a substitute tendon is chosen. Please refer to PSC Procedure SQ 2.0 for full disclosure of the substitutions made for this surveillance.

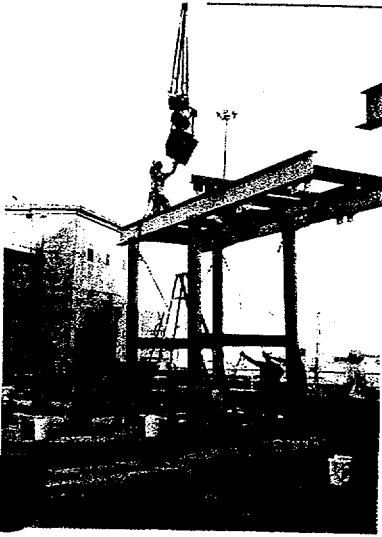


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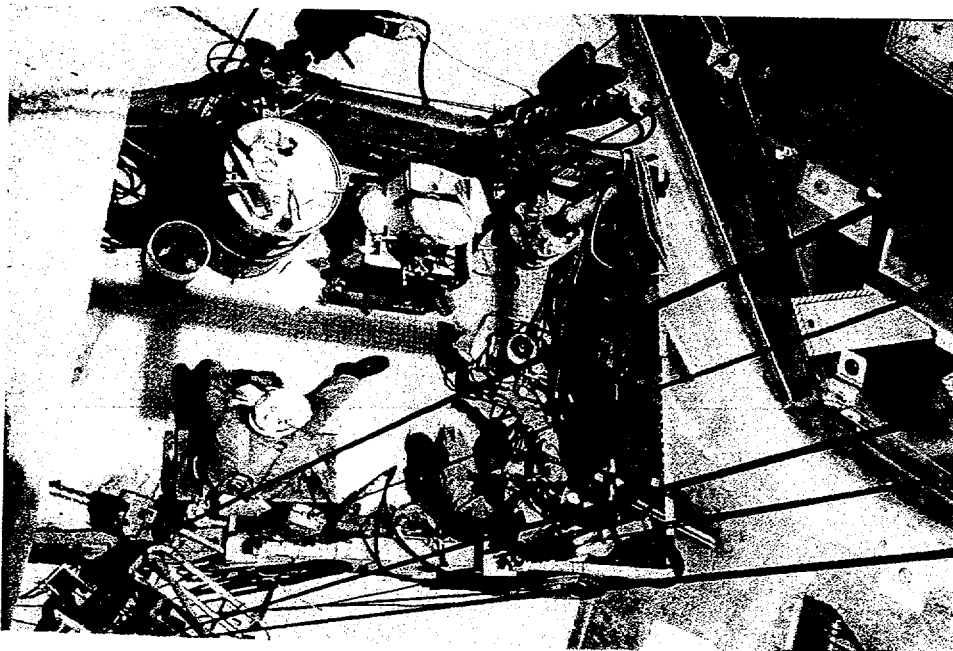
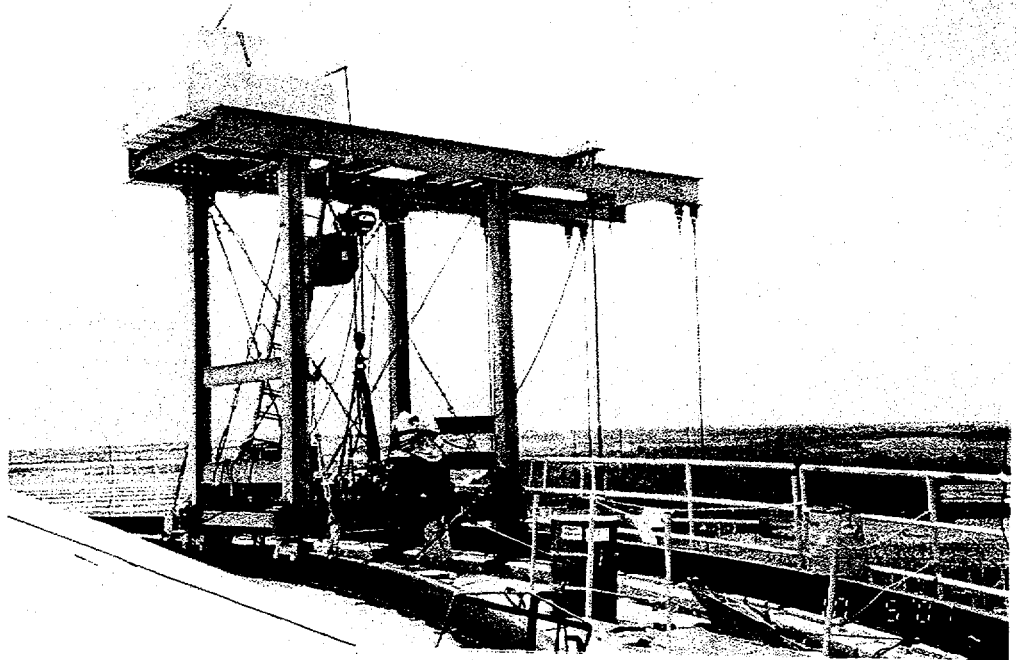


**INTRODUCTION (continued)**

The surveillance was conducted from February to August 2001 and included the steps as shown in the next few pages:



The surveillance was performed from access platforms suspended from steel support frames on top of the containment building.

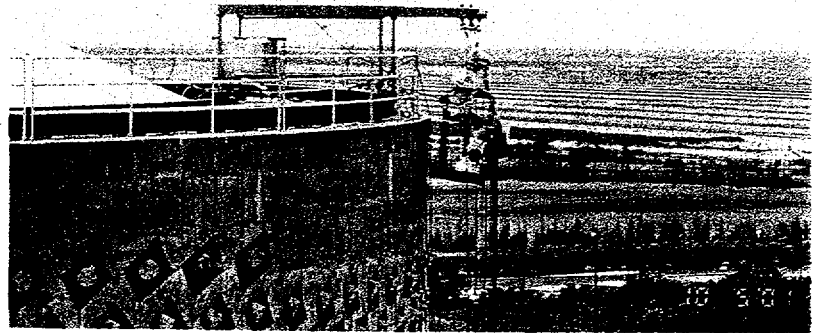
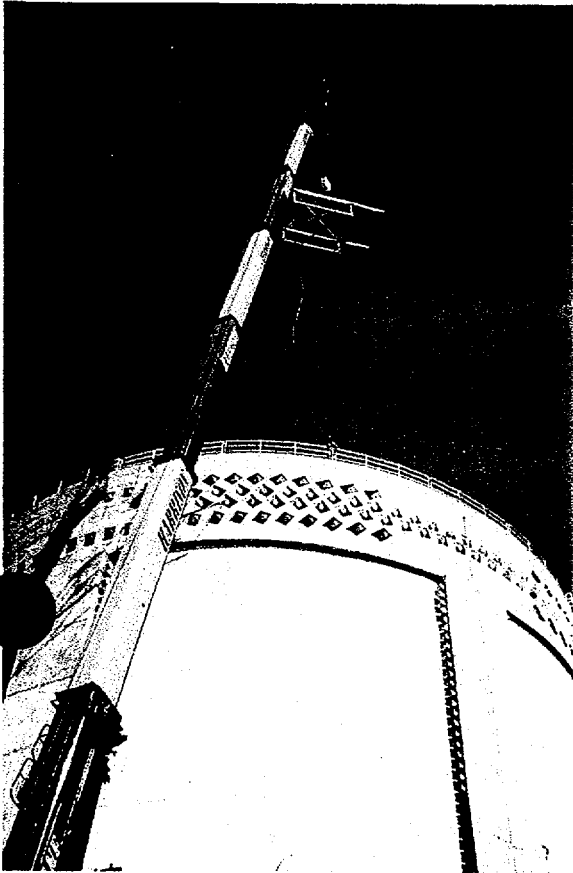




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TURKEY POINT NUCLEAR PLANT - UNIT 3&4  
30TH YEAR CONTAINMENT TENDON  
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**INTRODUCTION (continued)**



Unit 4 visual inspections were conducted from a smaller platform, also supported from a structural frame on top of the containment.

The top of the vertical tendons was accessed by removing the lean-mix concrete.

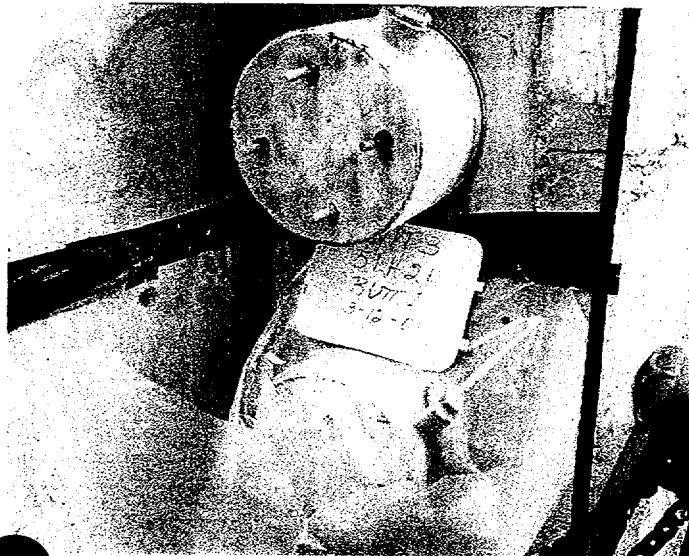




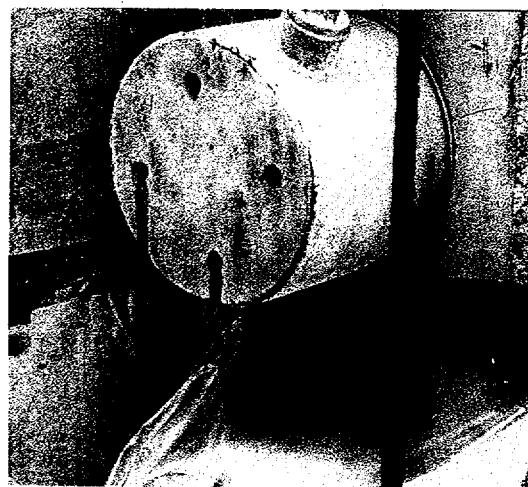
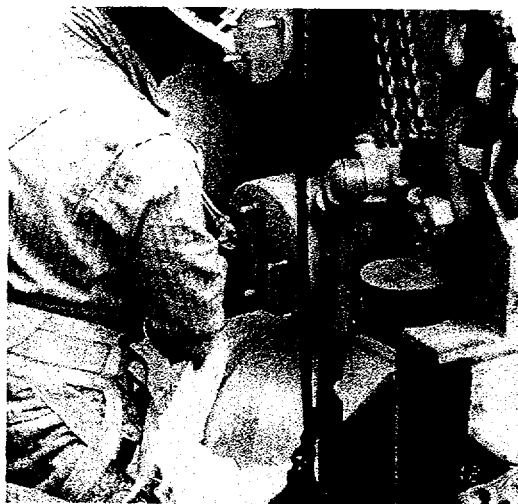
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30TH YEAR CONTAINMENT TENDON  
SURVEILLANCE



INTRODUCTION (continued)



The wall adjacent to the tendon is covered in plastic and the can is removed. Care is taken to look for and catch any water that is present.



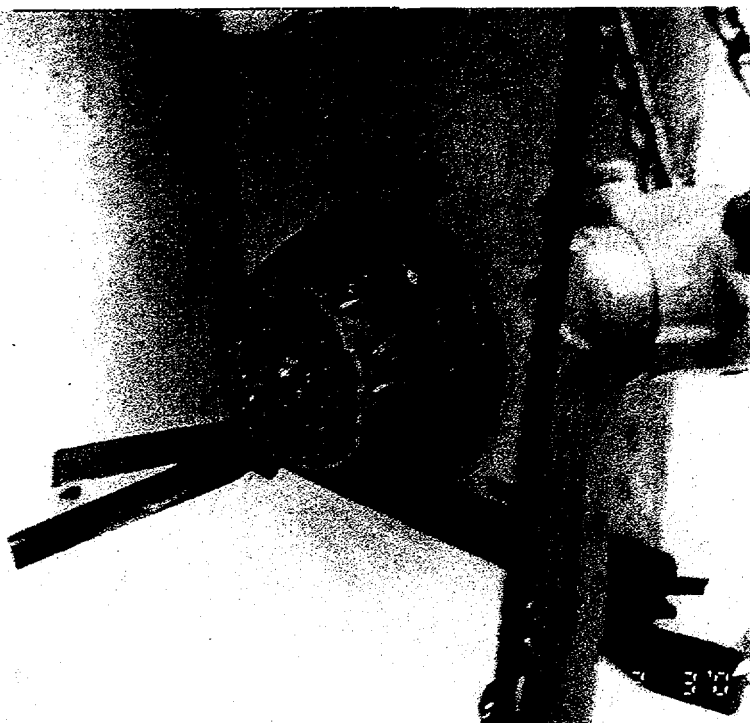
Grease color is observed and recorded.



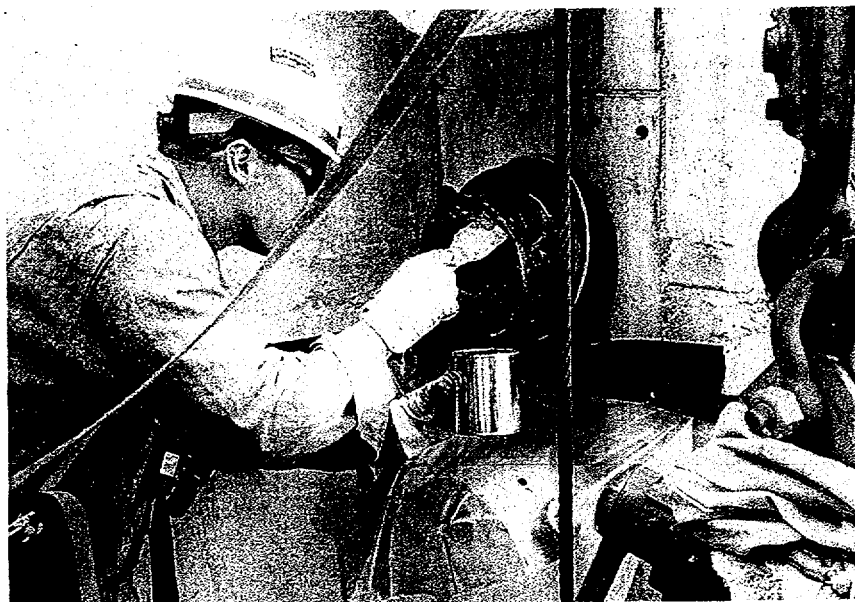
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30TH YEAR CONTAINMENT TENDON  
SURVEILLANCE**



**INTRODUCTION (continued)**



The grease cover is noted and recorded on data sheet SQ 6.0 after which grease samples are then taken for testing.





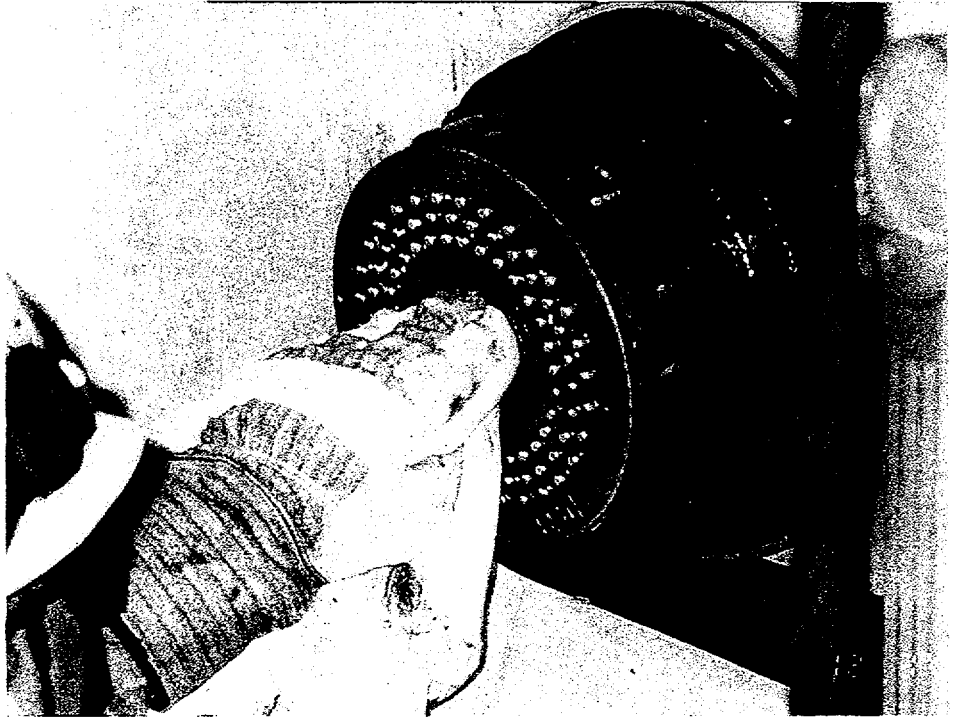


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INTRODUCTION (continued)

The anchorage is cleaned with brushes and solvent ready for QC inspection.

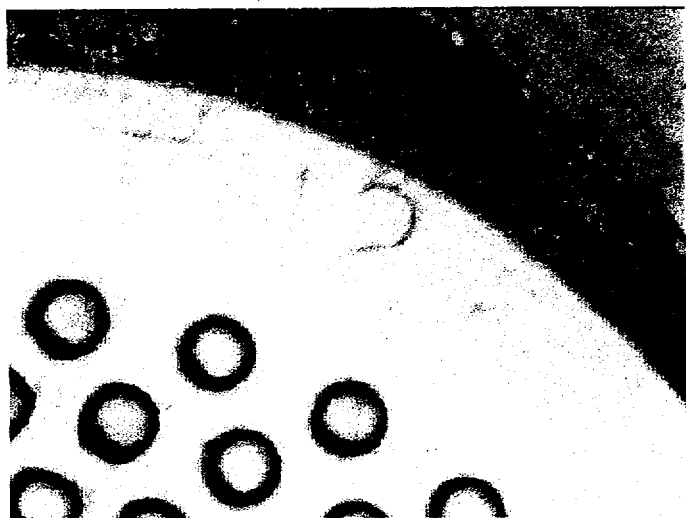
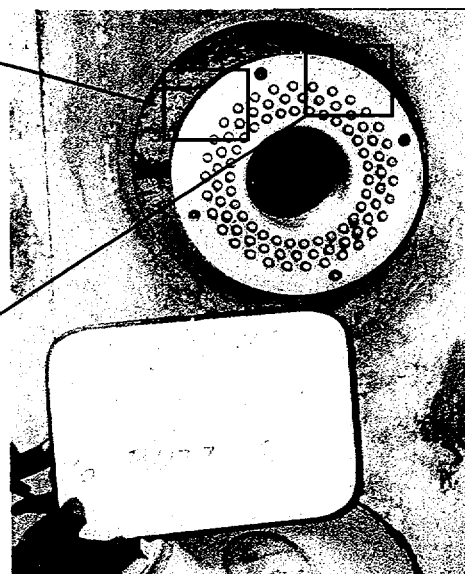
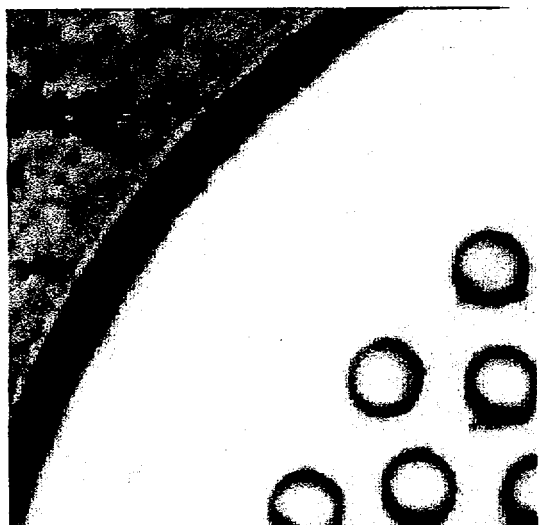




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TURKEY POINT NUCLEAR PLANT - UNIT 3&4  
30TH YEAR CONTAINMENT TENDON  
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**INTRODUCTION (continued)**



Each anchorhead has a unique ID number recorded on the installation sheets which is used to confirm that the right tendon is being inspected (shown above). This tendon is 62H43.



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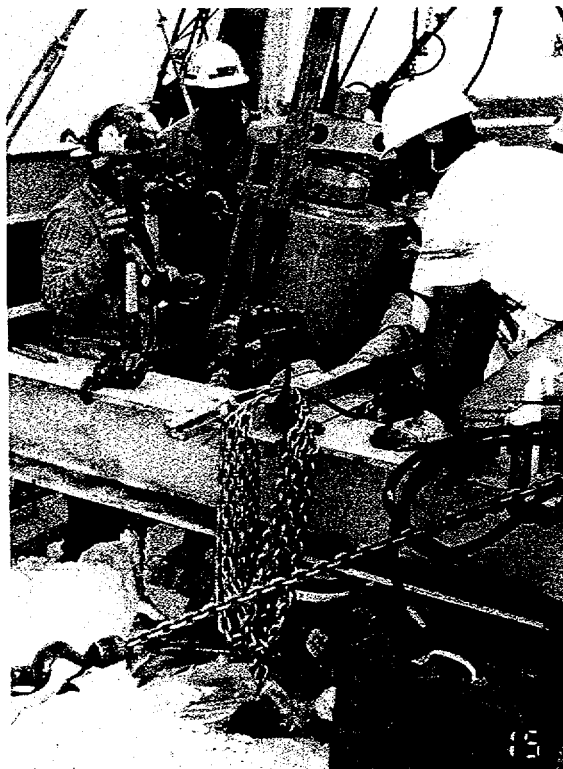
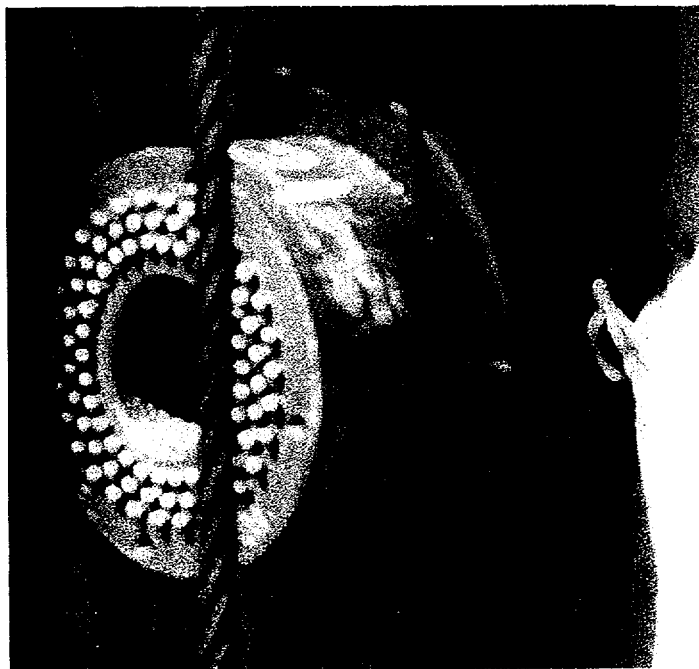


**INTRODUCTION (continued)**



After inspection the shims are wired to prevent excessive movement when the force on the shims is removed during liftoff.

A pullrod is attached to the anchorhead and also to the ram. A jack chair on the front of the ram provides a window for access to the shims, for liftoff and removal.





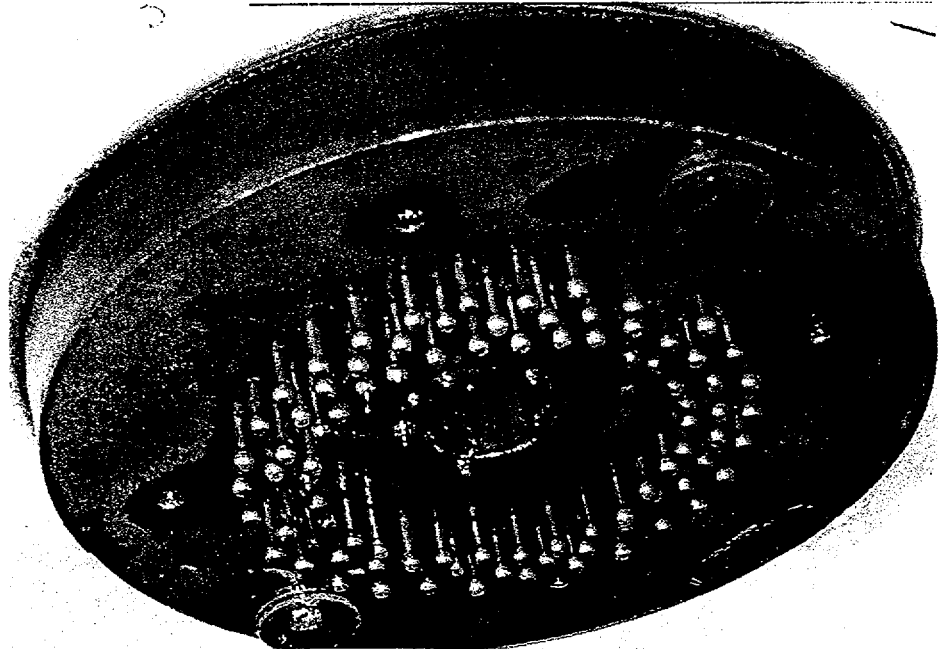
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30TH YEAR CONTAINMENT TENDON  
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**INTRODUCTION (continued)**

After liftoff, shims are removed from tendons that are to have a wire removed for physical testing and the head is driven back to expose the ends of the wires (buttonheads).

A wire is pulled from one end and the movement observed at the other. Once movement is verified the buttonhead is cut and the wire is removed from the tendon. During removal the wire is measured and inspected for corrosion condition.



Once a wire is removed the ram is recoupled and restressed by inserting shims between the bearing plate and the anchorhead.

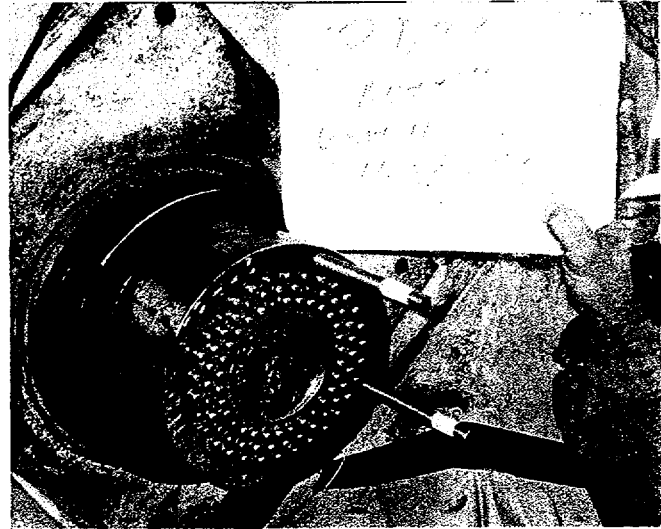


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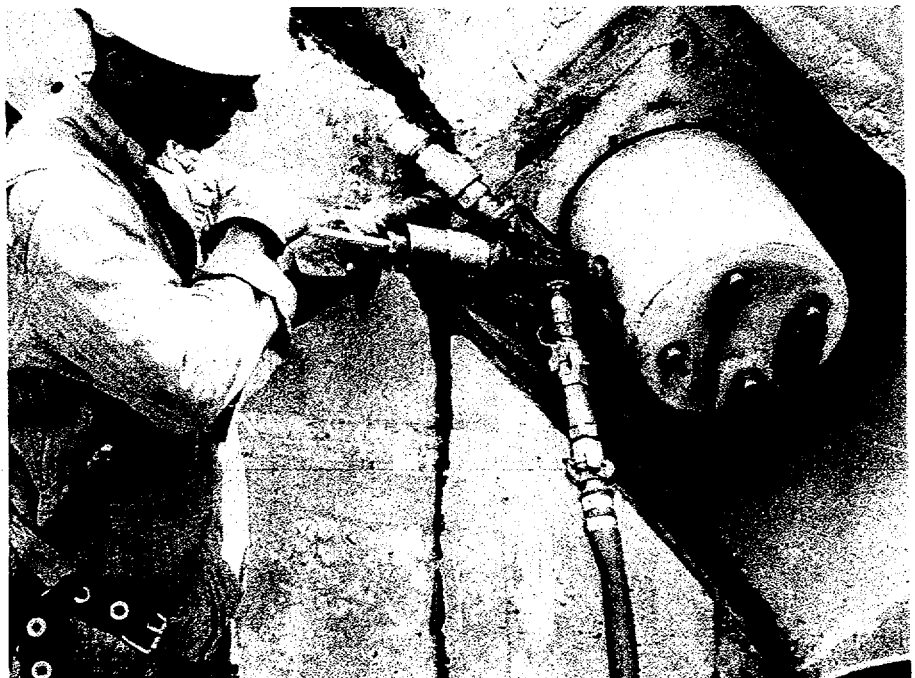


**INTRODUCTION (continued)**

After liftoff has been completed the ram is removed and the tendon anchorage components are hand coated with grease. The can is then replaced.



After re-installation of the can grease is heated to around 200 degrees and pumped into the tendon and can to ensure that it is completely full of corrosion protection medium.





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**I. SURVEILLANCE PROCEDURES**

Volume 3, Section 9, Appendix F of the 30th Year Physical Surveillance Report contains the detailed procedures for conducting the tendon surveillance. The surveillance consists of the following steps:

1. Visual examination of casing filler grease.
2. Analytical testing of casing filler grease samples.
3. Inspection of the anchor assembly of each of the surveillance tendon ends for deleterious conditions such as corrosion, cracks, broken or missing buttonheads.
4. Inspection of concrete surrounding the bearing plate.
5. Measurement of the liftoff force for each of the physical surveillance tendons.
6. Removal of one wire from the surveillance tendons which are detensioned for examination and testing.
7. Retensioning of the detensioned tendons and measuring the corresponding tendon elongation.
8. Visual inspection for corrosion, pitting, or any significant physical change to the removed wires.
9. Testing of wires removed from tendons for yield strength, ultimate strength, and percentage elongation at failure.
10. Resealing tendon cans and replacement of lost sheathing filler into the tendon duct and grease can.
11. Evaluation of test and inspection results to assess the general condition of the post tensioning system.



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**II. SHEATHING FILLER ANALYSIS**

A sample of sheathing filler (grease) was removed from each end of the surveillance tendons. Chemical tests were performed on each sample by Suburban Laboratories, Inc., the results are presented in Section 5, Appendix B and are summarized in Table I.

The maximum acceptable limits are 10 percent by weight for water content and 10 parts per million for water-soluble chlorides, nitrates and sulfides. All samples met the acceptance criteria as stated above in all respects except 34V15 on Unit 3. The sample taken from the field (bottom) end had 11% water content and a second sample sent for verification produced a result of 16%, the results were addressed in CR 01-0801, sup. 4. This tendon was detentioned for corrosion evaluation, as much of the grease as possible was drained and the tendon refilled with new grease.

In addition, 51H01 shop end in Unit 4 was found with 37% moisture and 15 ppm of chlorides. This tendon was in the inspection pit and subjected to standing water, however, inspection revealed no corrosion to any of the anchorage components. The sample results were addressed in CR 01-1441, sup. 1

Also included was the report of the neutralization number of each grease sample. This test is generally performed by grease manufacturers on new batches of the product and is a method of determining the overbase additives in the grease. Degradation of the sheathing filler will yield a change in the acidity of the filler material as well as an increase in the ion content. The required neutralization number is  $> 0$  mg KOH/g per IWL limit. The testing performed can only detect neutralization numbers greater than 0.50 mg KOH/g. However, as the original neutralization number was zero there has been little or no change since installation indicating little degradation. Twenty-three samples were unable to detect a neutralization number greater than 0.50 mg KOH/g.

No visible breakdown of the grease by either color or consistency was noted on any of the tendons tested.



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**TABLE I: LABORATORY ANALYSIS OF SHEATHING**

| TENDON | END          | ION CONCENTRATION (PPM) |         |         | % WATER<br>CONTENT | NEUTRAL No.<br>mg KOH/g |
|--------|--------------|-------------------------|---------|---------|--------------------|-------------------------|
|        |              | CHLORIDE                | NITRATE | SULFIDE |                    |                         |
| 1D34   | FIELD/BT 2   | <0.50                   | <0.50   | <0.05   | 0.18               | 52.3                    |
| 1D48   | SHOP/BT 2-1  | <0.50                   | <0.50   | <0.05   | 0.43               | 38.8                    |
|        | FIELD/BT 6-5 | <0.50                   | <0.50   | <0.05   | 0.56               | 31.3                    |
| 1D49   | SHOP/BT 1-2  | <0.50                   | <0.50   | <0.05   | 0.28               | 46.3                    |
|        | FIELD/BT 6-5 | <0.50                   | <0.50   | <0.05   | 0.50               | 45.6                    |
| 2D18   | SHOP/BT 1    | <0.50                   | <0.50   | <0.05   | 0.10               | < 0.50                  |
|        | FIELD/BT 4   | <0.50                   | <0.50   | <0.05   | < 0.10             | < 0.50                  |
| 2D19   | SHOP/BT 4    | 5.00                    | <0.50   | <0.05   | 0.10               | 8.22                    |
|        | FIELD/BT 1   | 5.00                    | <0.50   | <0.05   | < 0.10             | 1.63                    |
| 2D32   | SHOP/BT 1    | 5.00                    | <0.50   | <0.05   | 0.27               | < 0.50                  |
| 3D8    | SHOP/BT 4    | <0.50                   | <0.50   | <0.05   | 0.28               | 34.0                    |
|        | FIELD/BT 5-6 | <0.50                   | <0.50   | <0.05   | < 0.10             | 46.6                    |
| 3D43   | SHOP/BT 1    | 5.00                    | <0.50   | <0.05   | 0.47               | < 0.50                  |
|        | FIELD/BT 3   | 5.00                    | <0.50   | <0.05   | 0.10               | < 0.50                  |
|        |              |                         |         |         |                    |                         |
| 12V14  | SHOP/TOP     | <0.50                   | <0.50   | <0.05   | 0.91               | 56.0                    |
|        | FIELD/BOT    | <0.50                   | <0.50   | <0.05   | 0.19               | 48.3                    |
| 12V22  | SHOP/TOP     | <0.50                   | <0.50   | <0.05   | 1.20               | 53.0                    |
|        | FIELD/BOT    | <0.50                   | <0.50   | <0.05   | 0.37               | 44.4                    |
| 34V15  | SHOP/TOP     | <0.50                   | <0.50   | <0.05   | 9.90               | 11.6                    |
|        | FIELD/BOT    | 5.00                    | <0.50   | <0.05   | 11.0/16.0 *        | 3.31                    |
| 61V10  | SHOP/TOP     | 5.00                    | <0.50   | <0.05   | 1.40               | 4.46                    |
|        | FIELD/BOT    | <0.50                   | <0.50   | <0.05   | 1.40               | 27.0                    |

Acceptance Limits

| <u>Test</u>            | <u>Limits</u>            |
|------------------------|--------------------------|
| Water Soluble Chloride | Less than 10.0 ppm       |
| Water Soluble Nitrates | Less than 10.0 ppm       |
| Water Soluble Sulfides | Less than 10.0 ppm       |
| Water Content          | Less than 10% Dry Weight |
| Neutralization No.     | Greater than 0 mg KOH/g  |

\* First result and the second verification sample result  
Ref: CR 01-0801, sup. 4





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**TABLE I: LABORATORY ANALYSIS OF SHEATHING FILLER OF UNIT 3**

| TENDON | END        | ION CONCENTRATION (PPM) |         |         | % WATER<br>CONTENT | NEUTRAL No.<br>mg KOH/g |
|--------|------------|-------------------------|---------|---------|--------------------|-------------------------|
|        |            | CHLORIDE                | NITRATE | SULFIDE |                    |                         |
| 42H29  | SHOP/BT 4  | 5.00                    | <0.50   | <0.05   | 0.39               | < 0.50                  |
|        | FIELD/BT 2 | 5.00                    | <0.50   | <0.05   | 0.19               | < 0.50                  |
| 42H30  | SHOP/BT 4  | <0.50                   | <0.50   | <0.05   | 0.10               | < 0.50                  |
|        | FIELD/BT 2 | 5.00                    | <0.50   | <0.05   | 0.24               | < 0.50                  |
| 42H75  | SHOP/BT 2  | 5.00                    | <0.50   | <0.05   | 0.20               | < 0.50                  |
| 51H18  | SHOP/BT 1  | 5.00                    | <0.50   | <0.05   | 0.65               | 19.8                    |
|        | FIELD/BT 5 | 5.00                    | <0.50   | <0.05   | 1.10               | 0.55                    |
| 51H21  | SHOP/BT 1  | 5.00                    | <0.50   | <0.05   | 0.68               | 1.37                    |
|        | FIELD/BT 5 | <0.50                   | <0.50   | <0.05   | 0.68               | < 0.50                  |
| 51H27  | SHOP/BT 1  | 5.00                    | <0.50   | <0.05   | 0.68               | < 0.50                  |
| 62H43  | SHOP/BT 6  | 2.50                    | <0.50   | <0.05   | 0.15               | < 0.50                  |
|        | FIELD/BT 2 | 2.50                    | <0.50   | <0.05   | < 0.10             | < 0.50                  |
| 64H22  | SHOP/BT 6  | <0.50                   | <0.50   | <0.05   | 0.24               | 1.11                    |
|        | FIELD/BT4  | <0.50                   | <0.50   | <0.05   | < 0.10             | < 0.50                  |
|        |            |                         |         |         |                    |                         |
| 13H01  | SHOP/BT 1  | <0.50                   | <0.50   | <0.05   | 4.50               | < 0.50                  |
| 13H02  | SHOP/BT 1  | <0.50                   | <0.50   | <0.05   | 0.48               | < 0.50                  |
| 13H03  | SHOP/BT 1  | <0.50                   | <0.50   | <0.05   | 1.70               | 0.56                    |

Acceptance Limits

| <u>Test</u>            | <u>Limits</u>            |
|------------------------|--------------------------|
| Water Soluble Chloride | Less than 10.0 ppm       |
| Water Soluble Nitrates | Less than 10.0 ppm       |
| Water Soluble Sulfides | Less than 10.0 ppm       |
| Water Content          | Less than 10% Dry Weight |
| Neutralization No.     | Greater than 0 mg KOH/g  |



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**TABLE I: LABORATORY ANALYSIS OF SHEATHING FILLER OF UNIT 4**

| TENDON | END          | ION CONCENTRATION (PPM) |         |         | % WATER<br>CONTENT | NEUTRAL No.<br>mg KOH/g |
|--------|--------------|-------------------------|---------|---------|--------------------|-------------------------|
|        |              | CHLORIDE                | NITRATE | SULFIDE |                    |                         |
| 1D36   | SHOP/BT 4    | <0.50                   | <0.50   | <0.50   | <0.10              | 1.12                    |
|        | FIELD/BT 1-2 | <0.50                   | <0.50   | <0.50   | <0.10              | 1.10                    |
| 2D5    | SHOP/BT 5-6  | <0.50                   | <0.50   | <0.50   | <0.10              | 3.90                    |
|        | FIELD/BT 1-2 | <0.50                   | <0.50   | <0.50   | <0.10              | 4.40                    |
| 2D6    | SHOP/BT 1-2  | <0.50                   | <0.50   | <0.50   | 0.10               | 0.56                    |
|        | FIELD/BT 5-6 | <0.50                   | <0.50   | <0.50   | 2.60               | 1.12                    |
| 2D23   | FIELD/BT 2   | <0.50                   | <0.50   | <0.50   | 0.10               | <0.50                   |
| 3D20   | SHOP/BT 5-6  | <0.50                   | <0.50   | <0.50   | 0.10               | 52.7                    |
|        | FIELD/BT 3   | <0.50                   | <0.50   | <0.50   | 0.24               | 49.8                    |
| 3D23   | SHOP/BT 5-6  | <0.50                   | <0.50   | <0.50   | <0.10              | 1.68                    |
|        | FIELD/BT 3   | <0.50                   | <0.50   | <0.50   | <0.10              | 9.97                    |
|        |              |                         |         |         |                    |                         |
| 12V26  | SHOP/TOP     | <0.50                   | <0.50   | <0.50   | 3.20               | 35.8                    |
|        | FIELD/BOT    | <0.50                   | <0.50   | <0.50   | 0.19               | 54.2                    |
| 23V11  | SHOP/TOP     | <0.50                   | <0.50   | <0.50   | 2.40               | 5.60                    |
|        | FIELD/BOT    | <0.50                   | <0.50   | <0.50   | <0.10              | <0.50                   |
| 45V10  | SHOP/TOP     | <0.50                   | <0.50   | <0.50   | 0.36               | 57.4                    |
|        | FIELD/BOT    | <0.50                   | <0.50   | <0.50   | 0.97               | 50.9                    |
| 45V24  | SHOP/TOP     | <0.50                   | <0.50   | <0.50   | 0.15               | 3.34                    |
|        | FIELD/BOT    | <0.50                   | <0.50   | <0.50   | 0.18               | <0.50                   |

Acceptance Limits

| <u>Test</u>            | <u>Limits</u>            |
|------------------------|--------------------------|
| Water Soluble Chloride | Less than 10.0 ppm       |
| Water Soluble Nitrates | Less than 10.0 ppm       |
| Water Soluble Sulfides | Less than 10.0 ppm       |
| Water Content          | Less than 10% Dry Weight |
| Neutralization No.     | Greater than 0 mg KOH/g  |



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**TABLE I: LABORATORY ANALYSIS OF SHEATHING FILLER OF UNIT 4**

| TENDON | END         | ION CONCENTRATION (PPM) |         |         | % WATER<br>CONTENT | NEUTRAL No.<br>mg KOH/g |
|--------|-------------|-------------------------|---------|---------|--------------------|-------------------------|
|        |             | CHLORIDE                | NITRATE | SULFIDE |                    |                         |
| 42H39  | SHOP/BT 4   | <0.50                   | <0.50   | <0.50   | 0.18               | <0.50                   |
|        | FIELD/BT 2  | <0.50                   | <0.50   | <0.50   | 0.14               | 2.22                    |
| 42H51  | SHOP/BT 4   | <0.50                   | <0.50   | <0.50   | <0.10              | 2.78                    |
|        | FIELD/BT 2  | <0.50                   | <0.50   | <0.50   | <0.10              | 3.32                    |
| 51H15  | SHOP/BT 1   | <0.50                   | <0.50   | <0.50   | 0.10               | <0.50                   |
|        | FIELD/BT 5  | <0.50                   | <0.50   | <0.50   | 0.10               | 1.11                    |
| 62H82  | SHOP/BT 6   | <0.50                   | <0.50   | <0.50   | 0.10               | 21.2                    |
|        | FIELD/ BT 2 | <0.50                   | <0.50   | <0.50   | 0.19               | 32.7                    |
| 64H14  | SHOP/BT 6   | <0.50                   | <0.50   | <0.50   | 0.10               | 0.56                    |
|        | FIELD/BT 4  | <0.50                   | <0.50   | <0.50   | 0.10               | <0.50                   |

Acceptance Limits

| <u>Test</u>            | <u>Limits</u>            |
|------------------------|--------------------------|
| Water Soluble Chloride | Less than 10.0 ppm       |
| Water Soluble Nitrates | Less than 10.0 ppm       |
| Water Soluble Sulfides | Less than 10.0 ppm       |
| Water Content          | Less than 10% Dry Weight |
| Neutralization No.     | Greater than 0 mg KOH/g  |



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### **III. ANCHORAGE COMPONENTS**

In the following discussion, all procedures referred to are included in Volume 3, Section 9, Appendix F of this report while all data sheets are included in Section 4, Appendix A.

Inspection of the anchorage components began with the removal of the grease can (PSC Procedure SQ 6.0). Complete grease coating (100%) was found on all of the surveillance tendon ends. The percentage of grease coverage was recorded on Data Sheet SQ 6.0 with the results tabulated in Table II.

During removal of the grease can and physical inspections of the anchorage assemblies water was found on 34V15 field end (80 oz.) of Unit 3 and 51H01 field end (64 oz.) of Unit 4. The water in 34V15 was evaluated in CR 01-0801, sup. 1 while the water in 51H01 is addressed in CR 01-1441. Smaller amounts were found in 13H01 shop end (0.5 oz.) and 13H03 shop end (drops) of Unit 3, along with 12V26 shop (top) (0.5 oz.), 23V11 shop (top) (<1.0 oz.) and 45V10 shop (top) (1.0 oz.) of Unit 4. No other surveillance tendon exhibited water either during visual or physical testing. Water Inspections were recorded on Data Sheet SQ 6.1 and are summarized in Table III.

The anchorage components (buttonhead, anchorhead, shims, and bearing plate) were inspected for corrosion level and cracks per PSC Procedure SQ 8.0. The results were recorded on Data Sheet SQ 8.0 and are summarized in Table IV. Corrosion levels on all items was either level 1 - "bright metal, no visible oxidation", or level 2 - "visible oxidation, no pitting" except on 13H01, 13H02 and 13H03 of Unit 3 and 51H01 of Unit 4. The condition of the bearing plates on these tendons were noted as >5 due to the excessive amount of rust and pitting. All of these tendon ends had been submerged in water for long periods of time. The cause of these tendons being submerged has since been corrected and caps were replaced or painted. The excessive amount of rust and pitting on tendons 13H01, 13H02, 13H03 and 51H01 are located outside the gasket area and is evaluated in CR 00-1434, sup. 1 and CR 01-1441. Inspection showed the condition of all anchorage components inside the can as acceptable. No evidence of cracking was observed in any of the anchorage components.



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**III. ANCHORAGE COMPONENTS (Continued)**

The buttonheads were inspected for their physical condition and a count was made of protruding or missing buttonheads per PSC Procedure SQ 8.0. The results of these inspections are also recorded on Data Sheet SQ 8.0, and summarized in Table V. A protruding buttonhead was found on the shop end of 34V15 (CR 01-0801) and a broken/missing buttonhead on the field end of 2D18 of Unit 3 (CR 01-0801). In addition a protruding buttonhead was found on the shop end of 1D49 which was previously recorded. The protruding wire on 34V15 was removed in addition to the standard wire from the detensioning process. No additional missing or protruding buttonheads were found on any of the Unit 4 surveillance tendons.

The concrete was inspected around the bearing plates for cracks per PSC Procedure SQ 8.3 with the results being recorded on Data Sheet SQ 8.3 and summarized in Table VI. Cracks that had a width in excess of 0.010" were found on only two inspection tendon ends, 3D43 shop end of Unit 3 and 42H51 field end in Unit 4. Inspection by the responsible engineer deemed them not to be significant. Some grout patches were noted as cracked, however, no rebar was exposed, they did not extend the depth of any bearing plates and were not found to occur in structurally significant concrete.

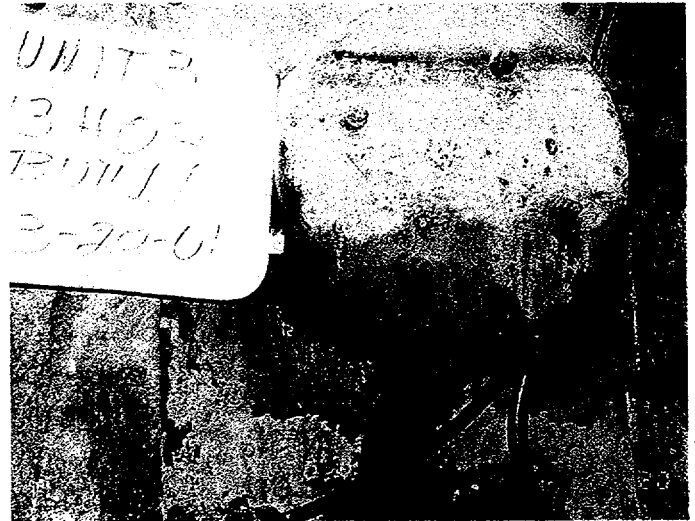
Bearing plate ID's were either illegible or not found on several tendon ends.



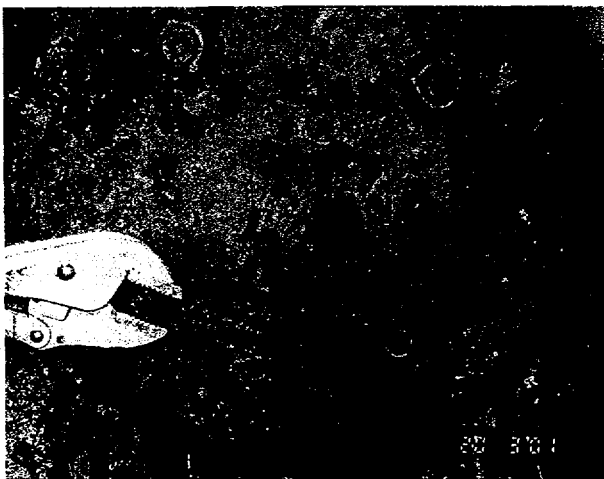
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**III. ANCHORAGE COMPONENTS (Continued)**



These pictures show the condition of the grease can and bearing plate on 31H01 to 31H03. However, once the cans were removed the anchorages were in good condition with no significant corrosion on any components and acceptable moisture content in the grease samples.

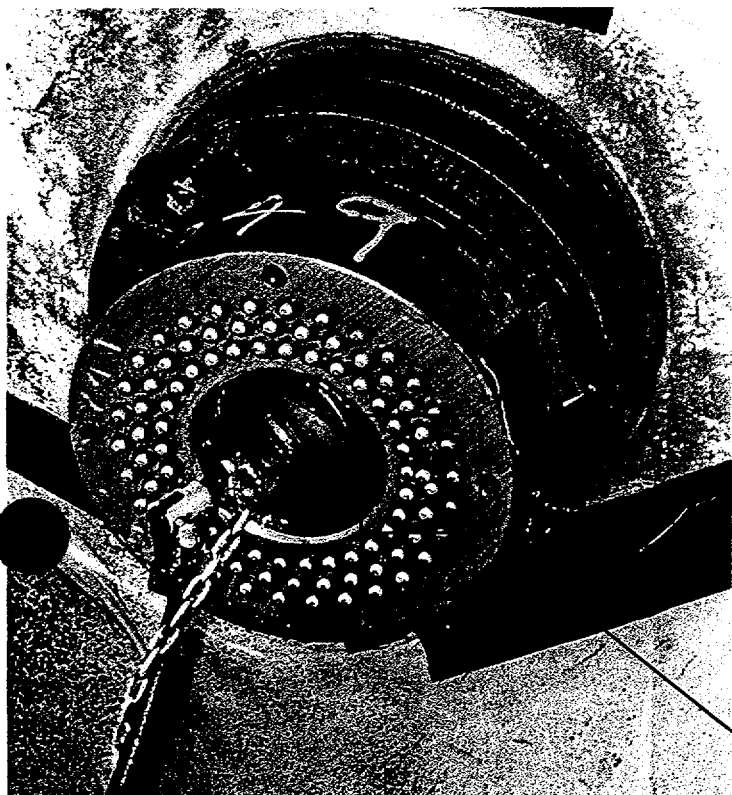




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III. ANCHORAGE COMPONENTS (Continued)



Protruding wire found to 1D49  
between buttress 2 and 1.





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III. ANCHORAGE COMPONENTS (Continued)

Protruding wire found to the shop (top) end of 34V15.





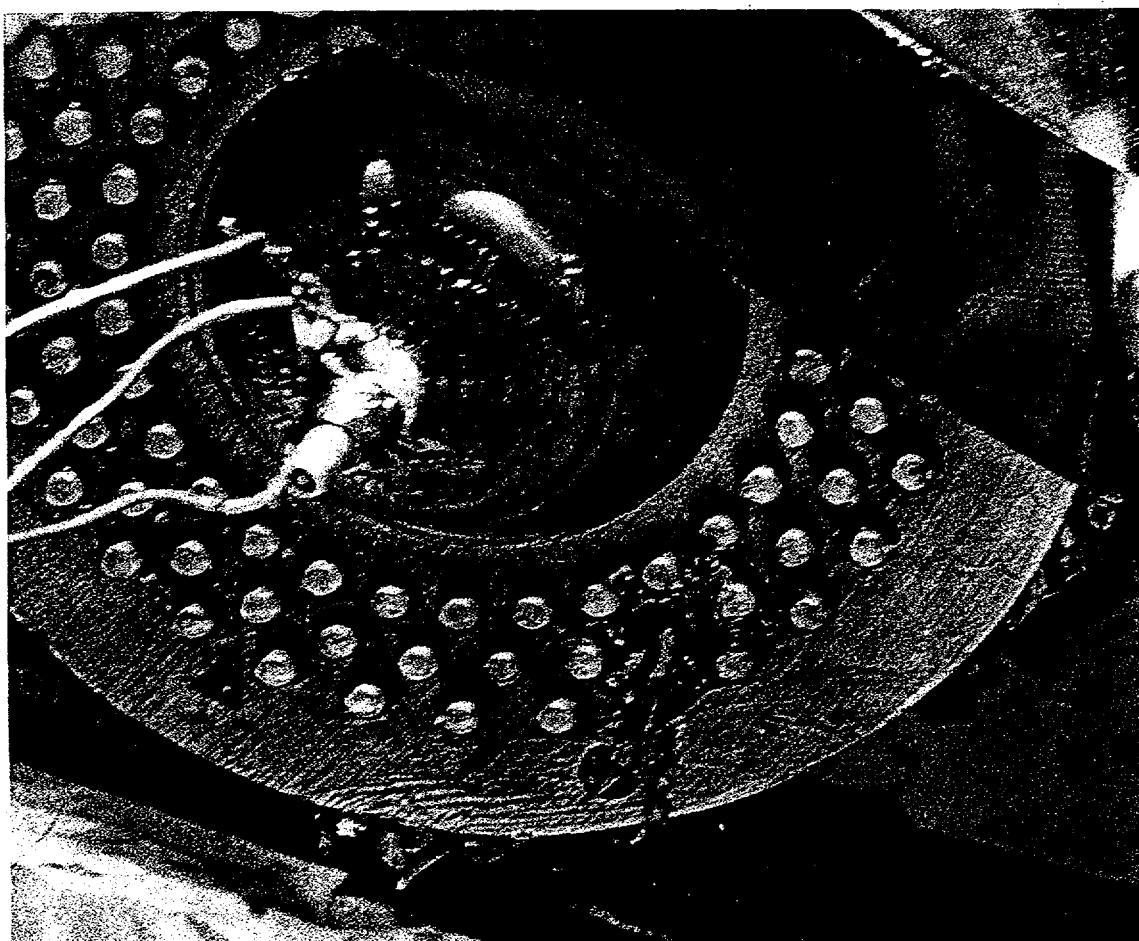


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**III. ANCHORAGE COMPONENTS (Continued)**

Missing wire found on the field end of 2D18 Unit 3.





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**TABLE II: SUMMARY OF DATA SHEETS SQ 6.0 GREASE CAN REMOVAL  
OF UNIT 3.**

| TENDON | END          | GREASE COATING (%) |                  |                 |       |
|--------|--------------|--------------------|------------------|-----------------|-------|
|        |              | GREASE<br>CAN      | BUTTON-<br>HEADS | ANCHOR-<br>HEAD | SHIMS |
| 1D34   | FIELD/BT 2   | 100                | 100              | 100             | 100   |
| 1D48   | SHOP/BT 2-1  | 100                | 100              | 100             | 100   |
|        | FIELD/BT 6-5 | 100                | 100              | 100             | 100   |
| 1D49   | SHOP/BT 1-2  | 100                | 100              | 100             | 100   |
|        | FIELD/BT 6-5 | 100                | 100              | 100             | 100   |
| 2D18   | SHOP/BT 1    | 100                | 100              | 100             | 100   |
|        | FIELD/BT 4   | 100                | 100              | 100             | 100   |
| 2D19   | SHOP/BT 4    | 100                | 100              | 100             | 100   |
|        | FIELD/BT 1   | 100                | 100              | 100             | 100   |
| 2D32   | SHOP/BT 1    | 100                | 100              | 100             | 100   |
| 3D8    | SHOP/BT 4    | 100                | 100              | 100             | 100   |
|        | FIELD/BT 5-6 | 100                | 100              | 100             | 100   |
| 3D43   | SHOP/BT 1    | 100                | 100              | 100             | 100   |
|        | FIELD/BT 3   | 100                | 100              | 100             | 100   |
|        |              |                    |                  |                 |       |
| 12V14  | SHOP/TOP     | 100                | 100              | 100             | 100   |
|        | FIELD/BOTTOM | 100                | 100              | 100             | 100   |
| 12V22  | SHOP/TOP     | 100                | 100              | 100             | 100   |
|        | FIELD/BOTTOM | 100                | 100              | 100             | 100   |
| 34V15  | SHOP/TOP     | 100                | 100              | 100             | 100   |
|        | FIELD/BOTTOM | 100                | 100              | 100             | 100   |
| 61V10  | SHOP/TOP     | 100                | 100              | 100             | 100   |
|        | FIELD/BOTTOM | 100                | 100              | 100             | N/A   |



**FLORIDA POWER & LIGHT COMPANY  
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30TH YEAR CONTAINMENT TENDON  
SURVEILLANCE**



**TABLE II: SUMMARY OF DATA SHEETS SQ 6.0 GREASE CAN REMOVAL  
OF UNIT 3.**

| TENDON | END        | GREASE COATING (%) |                  |                 |       |
|--------|------------|--------------------|------------------|-----------------|-------|
|        |            | GREASE<br>CAN      | BUTTON-<br>HEADS | ANCHOR-<br>HEAD | SHIMS |
| 42H29  | SHOP/BT 4  | 100                | 100              | 100             | 100   |
|        | FIELD/BT 2 | 100                | 100              | 100             | 100   |
| 42H30  | SHOP/BT 4  | 100                | 100              | 100             | 100   |
|        | FIELD/BT 2 | 100                | 100              | 100             | 100   |
| 42H75  | SHOP/BT 2  | 100                | 100              | 100             | 100   |
| 51H18  | SHOP/BT 1  | 100                | 100              | 100             | 100   |
|        | FIELD/BT 5 | 100                | 100              | 100             | 100   |
| 51H21  | SHOP/BT 1  | 100                | 100              | 100             | 100   |
|        | FIELD/BT 5 | 100                | 100              | 100             | 100   |
| 51H27  | SHOP/BT 1  | 100                | 100              | 100             | 100   |
| 62H43  | SHOP/BT 6  | 100                | 100              | 100             | 100   |
|        | FIELD/BT 2 | 100                | 100              | 100             | 100   |
| 64H22  | SHOP/BT 6  | 100                | 100              | 100             | 100   |
|        | FIELD/BT4  | 100                | 100              | 100             | 100   |
|        |            |                    |                  |                 |       |
| 13H01  | SHOP/BT 1  | 100                | 100              | 100             | 100   |
| 13H02  | SHOP/BT 1  | 100                | 100              | 100             | 100   |
| 13H03  | SHOP/BT 1  | 100                | 100              | 100             | 100   |



**FLORIDA POWER & LIGHT COMPANY  
TURKEY POINT NUCLEAR PLANT - UNIT 3&4  
30TH YEAR CONTAINMENT TENDON  
SURVEILLANCE**



**TABLE II: SUMMARY OF DATA SHEETS SQ 6.0 GREASE CAN REMOVAL  
OF UNIT 4**

| TENDON | END          | GREASE COATING (%) |                  |                 |       |
|--------|--------------|--------------------|------------------|-----------------|-------|
|        |              | GREASE<br>CAN      | BUTTON-<br>HEADS | ANCHOR-<br>HEAD | SHIMS |
| 1D36   | SHOP/BT 4    | 100                | 100              | 100             | 100   |
|        | FIELD/BT 1-2 | 100                | 100              | 100             | 100   |
| 2D5    | SHOP/BT 5-6  | 100                | 100              | 100             | 100   |
|        | FIELD/BT 1-2 | 100                | 100              | 100             | 100   |
| 2D6    | SHOP/BT 1-2  | 100                | 100              | 100             | 100   |
|        | FIELD/BT 5-6 | 100                | 100              | 100             | 100   |
| 2D23   | FIELD/BT 2   | 100                | 100              | 100             | 100   |
| 3D20   | SHOP/BT 5-6  | 100                | 100              | 100             | 100   |
|        | FIELD/BT 3   | 100                | 100              | 100             | 100   |
| 3D23   | SHOP/BT 5-6  | 100                | 100              | 100             | 100   |
|        | FIELD/BT 3   | 100                | 100              | 100             | 100   |
|        |              |                    |                  |                 |       |
| 12V26  | SHOP/TOP     | 100                | 100              | 100             | 100   |
|        | FIELD/BOTTOM | 100                | 100              | 100             | 100   |
| 23V11  | SHOP/TOP     | 100                | 100              | 100             | 100   |
|        | FIELD/BOTTOM | 100                | 100              | 100             | 100   |
| 45V10  | SHOP/TOP     | 100                | 100              | 100             | 100   |
|        | FIELD/BOTTOM | 100                | 100              | 100             | 100   |
| 45V24  | SHOP/TOP     | 100                | 100              | 100             | 100   |
|        | FIELD/BOTTOM | 100                | 100              | 100             | 100   |



**FLORIDA POWER & LIGHT COMPANY  
TURKEY POINT NUCLEAR PLANT - UNIT 3&4  
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**TABLE II: SUMMARY OF DATA SHEETS SQ 6.0 GREASE CAN REMOVAL  
OF UNIT 4.**

| TENDON | END         | GREASE COATING (%) |                  |                 |       |
|--------|-------------|--------------------|------------------|-----------------|-------|
|        |             | GREASE<br>CAN      | BUTTON-<br>HEADS | ANCHOR-<br>HEAD | SHIMS |
| 42H39  | SHOP/BT 4   | 100                | 100              | 100             | 100   |
|        | FIELD/BT 2  | 100                | 100              | 100             | 100   |
| 42H51  | SHOP/BT 4   | 100                | 100              | 100             | 100   |
|        | FIELD/BT 2  | 100                | 100              | 100             | 100   |
| 51H15  | SHOP/BT 1   | 100                | 100              | 100             | 100   |
|        | FIELD/BT 5  | 100                | 100              | 100             | 100   |
| 62H82  | SHOP/BT 6   | 100                | 100              | 100             | 100   |
|        | FIELD/ BT 2 | 100                | 100              | 100             | 100   |
| 64H14  | SHOP/BT 6   | 100                | 100              | 100             | 100   |
|        | FIELD/BT 4  | 100                | 100              | 100             | 100   |
|        |             |                    |                  |                 |       |
| 51H01  | FIELD/BT5   | 100                | 100              | 100             | 100   |

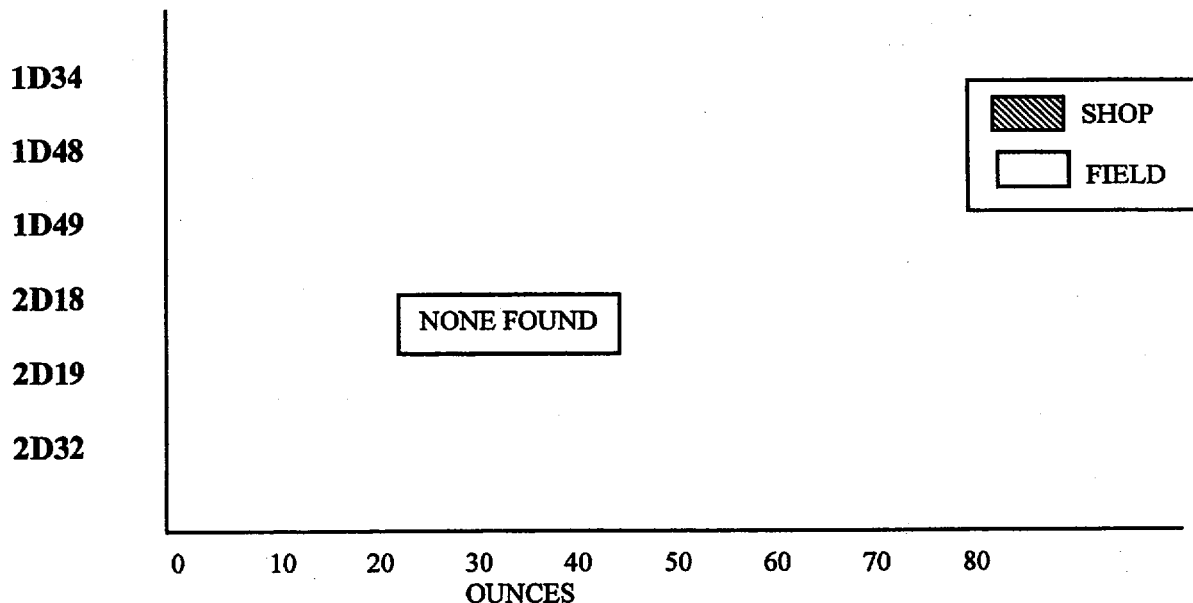


**FLORIDA POWER & LIGHT COMPANY  
TURKEY POINT NUCLEAR PLANT - UNIT 3&4  
30TH YEAR CONTAINMENT TENDON  
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**TABLE III: SUMMARY OF DATA SHEETS SQ 6.1  
INSPECT FOR WATER OF UNIT 3**

| TENDON | END          | WATER QUANTITY |
|--------|--------------|----------------|
| 1D34   | FIELD/BT 2   | NONE           |
| 1D48   | SHOP/BT 1-2  | NONE           |
|        | FIELD/BT 6-5 | NONE           |
| 1D49   | SHOP/BT 1-2  | NONE           |
|        | FIELD/BT 6-5 | NONE           |
| 2D18   | SHOP/BT 1    | NONE           |
|        | FIELD/BT 4   | NONE           |
| 2D19   | SHOP/BT 4    | NONE           |
|        | FIELD/BT 1   | NONE           |
| 2D32   | SHOP/BT 1    | NONE           |





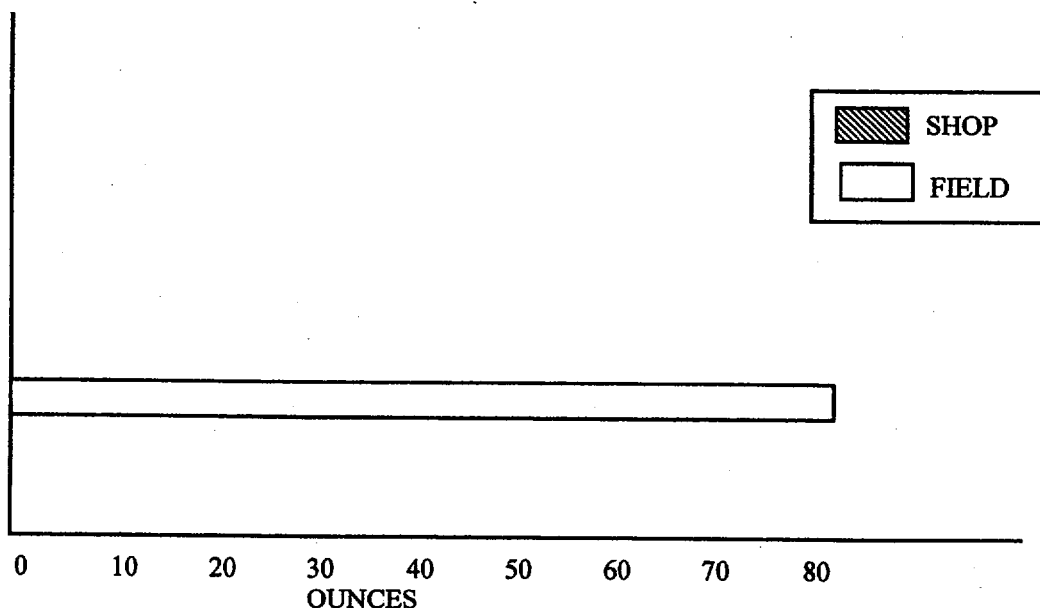
**FLORIDA POWER & LIGHT COMPANY  
TURKEY POINT NUCLEAR PLANT - UNIT 3&4  
30TH YEAR CONTAINMENT TENDON  
SURVEILLANCE**



**TABLE III: SUMMARY OF DATA SHEETS SQ 6.1  
INSPECT FOR WATER OF UNIT 3**

| TENDON | END          | WATER QUANTITY |
|--------|--------------|----------------|
| 3D8    | SHOP/BT 4    | NONE           |
|        | FIELD/BT 5-6 | NONE           |
| 3D43   | SHOP/BT 1    | NONE           |
|        | FIELD/BT 3   | NONE           |
| 12V14  | SHOP/TOP     | NONE           |
|        | FIELD/BOTTOM | NONE           |
| 12V22  | SHOP/TOP     | NONE           |
|        | FIELD/BOTTOM | NONE           |
| 34V15  | SHOP/TOP     | NONE           |
|        | FIELD/BOTTOM | 80 ounces      |
| 61V10  | SHOP/TOP     | NONE           |
|        | FIELD/BOTTOM | NONE           |

3D8  
3D43  
12V14  
12V22  
34V15  
61V10



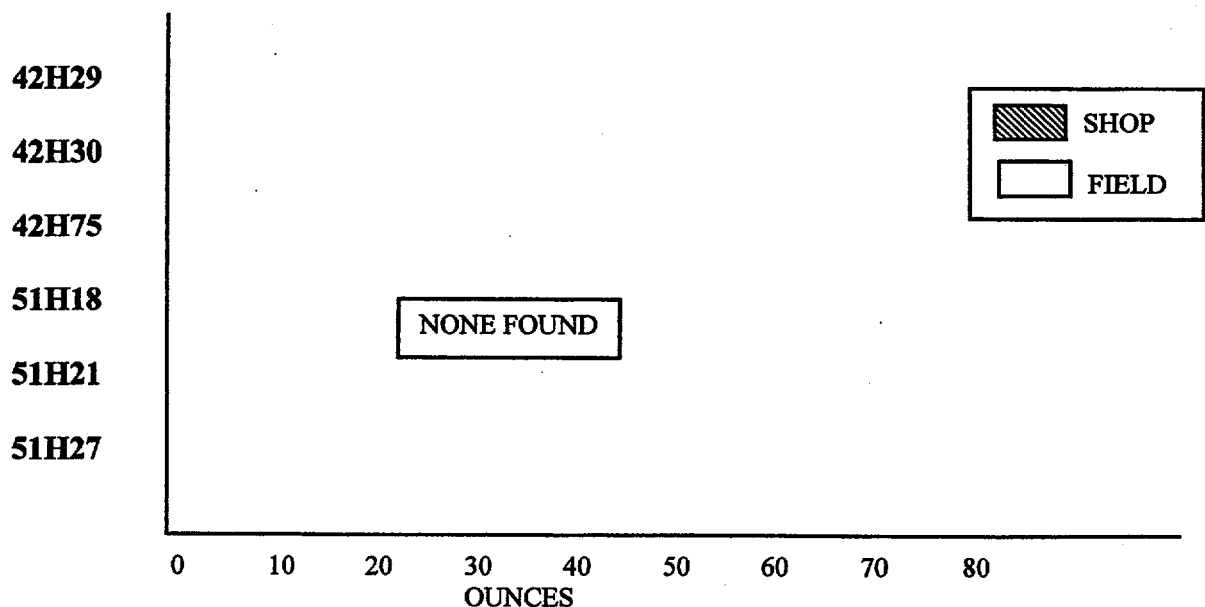


**FLORIDA POWER & LIGHT COMPANY  
TURKEY POINT NUCLEAR PLANT - UNIT 3&4  
30TH YEAR CONTAINMENT TENDON  
SURVEILLANCE**



**TABLE III: SUMMARY OF DATA SHEETS SQ 6.1  
INSPECT FOR WATER OF UNIT 3**

| TENDON | END        | WATER QUANTITY |
|--------|------------|----------------|
| 42H29  | SHOP/BT 4  | NONE           |
|        | FIELD/BT 2 | NONE           |
| 42H30  | SHOP/BT 4  | NONE           |
|        | FIELD/BT 2 | NONE           |
| 42H75  | SHOP/BT 2  | NONE           |
| 51H18  | SHOP/BT 1  | NONE           |
|        | FIELD/BT 5 | NONE           |
| 51H21  | SHOP/BT 1  | NONE           |
|        | FIELD/BT 5 | NONE           |
| 51H27  | SHOP/BT 1  | NONE           |





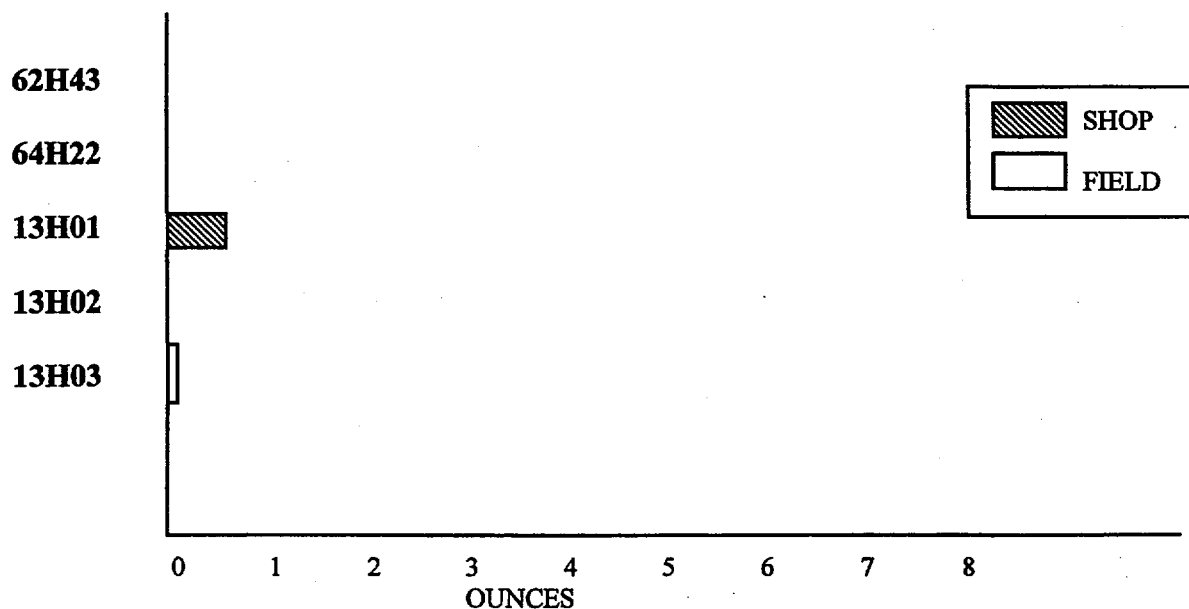


**FLORIDA POWER & LIGHT COMPANY  
TURKEY POINT NUCLEAR PLANT - UNIT 3&4  
30TH YEAR CONTAINMENT TENDON  
SURVEILLANCE**



**TABLE III: SUMMARY OF DATA SHEETS SQ 6.1:  
INSPECT FOR WATER OF UNIT 3**

| TENDON | END        | WATER QUANTITY |
|--------|------------|----------------|
| 62H43  | SHOP/BT 6  | NONE           |
|        | FIELD/BT 2 | NONE           |
| 64H22  | SHOP/BT 6  | NONE           |
|        | FIELD/BT4  | NONE           |
|        |            |                |
| 13H01  | SHOP/BT 1  | 0.5 OZ         |
| 13H02  | SHOP/BT 1  | NONE           |
| 13H03  | SHOP/BT 1  | 3 DROPS        |





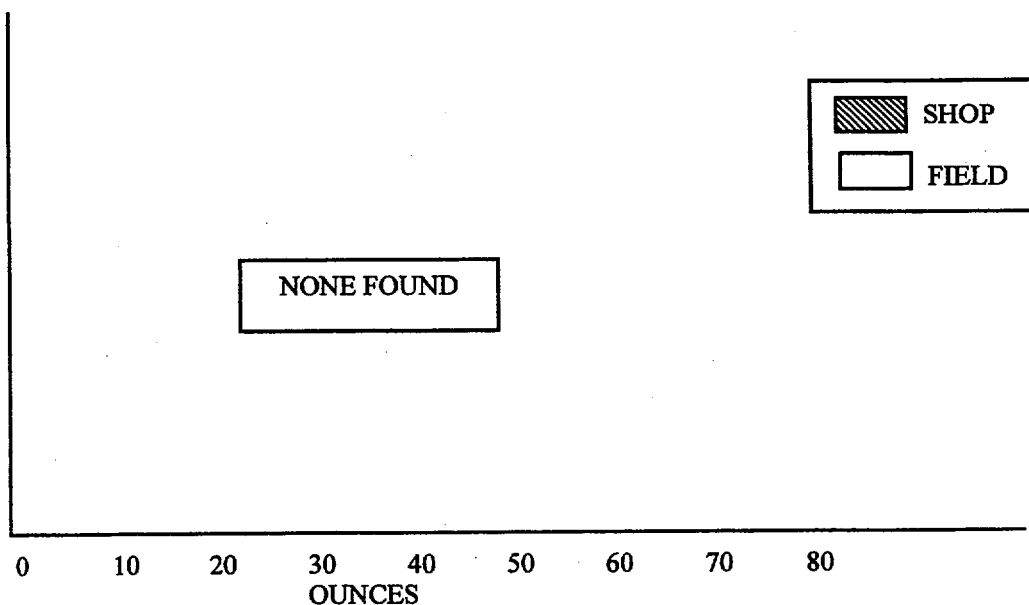
**FLORIDA POWER & LIGHT COMPANY  
TURKEY POINT NUCLEAR PLANT - UNIT 3&4  
30TH YEAR CONTAINMENT TENDON  
SURVEILLANCE**



**TABLE III: SUMMARY OF DATA SHEETS SQ 6.1  
INSPECT FOR WATER OF UNIT 4**

| TENDON | END          | WATER QUANTITY |
|--------|--------------|----------------|
| 1D36   | SHOP/BT 4    | NONE           |
|        | FIELD/BT 1-2 | NONE           |
| 2D5    | SHOP/BT 5-6  | NONE           |
|        | FIELD/BT 1-2 | NONE           |
| 2D6    | SHOP/BT 1-2  | NONE           |
|        | FIELD/BT 5-6 | NONE           |
| 2D23   | FIELD/BT 2   | NONE           |
| 3D20   | SHOP/BT 5-6  | NONE           |
|        | FIELD/BT 3   | NONE           |
| 3D23   | SHOP/BT 5-6  | NONE           |
|        | FIELD/BT 3   | NONE           |

1D36  
2D5  
2D6  
2D23  
3D20  
3D23



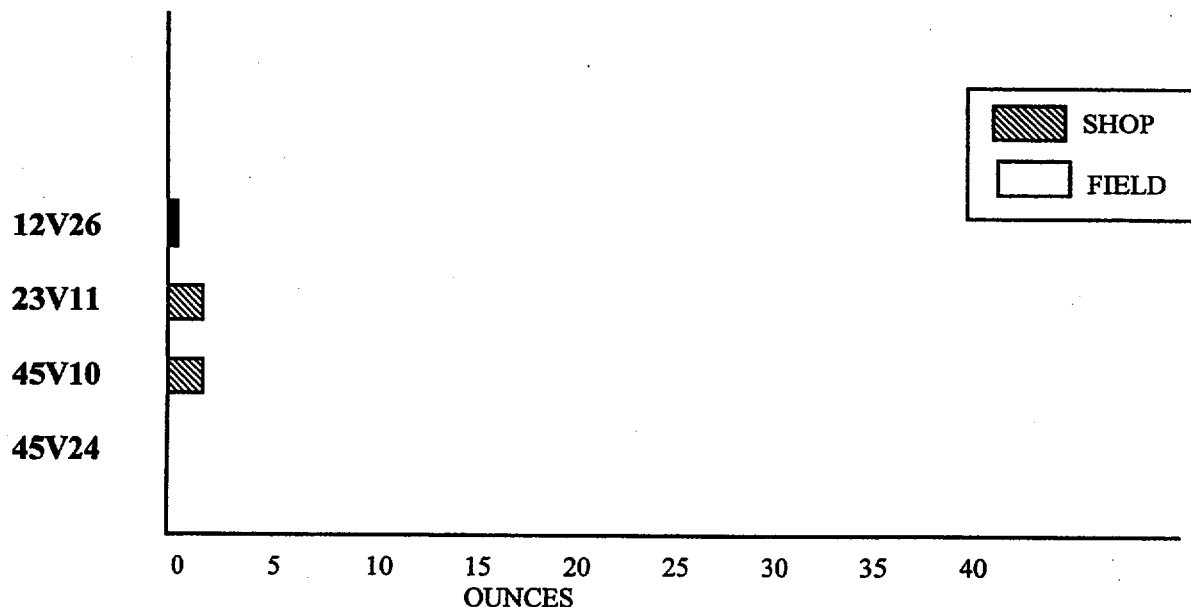


**FLORIDA POWER & LIGHT COMPANY  
TURKEY POINT NUCLEAR PLANT - UNIT 3&4  
30TH YEAR CONTAINMENT TENDON  
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**TABLE III: SUMMARY OF DATA SHEETS SQ 6.1  
INSPECT FOR WATER OF UNIT 4**

| TENDON | END          | WATER QUANTITY |
|--------|--------------|----------------|
| 12V26  | SHOP/TOP     | 0.5 oz.        |
|        | FIELD/BOTTOM | NONE           |
| 23V11  | SHOP/TOP     | < 1.0 oz.      |
|        | FIELD/BOTTOM | NONE           |
| 45V10  | SHOP/TOP     | 1.0 oz.        |
|        | FIELD/BOTTOM | NONE           |
| 45V24  | SHOP/TOP     | NONE           |
|        | FIELD/BOTTOM | NONE           |





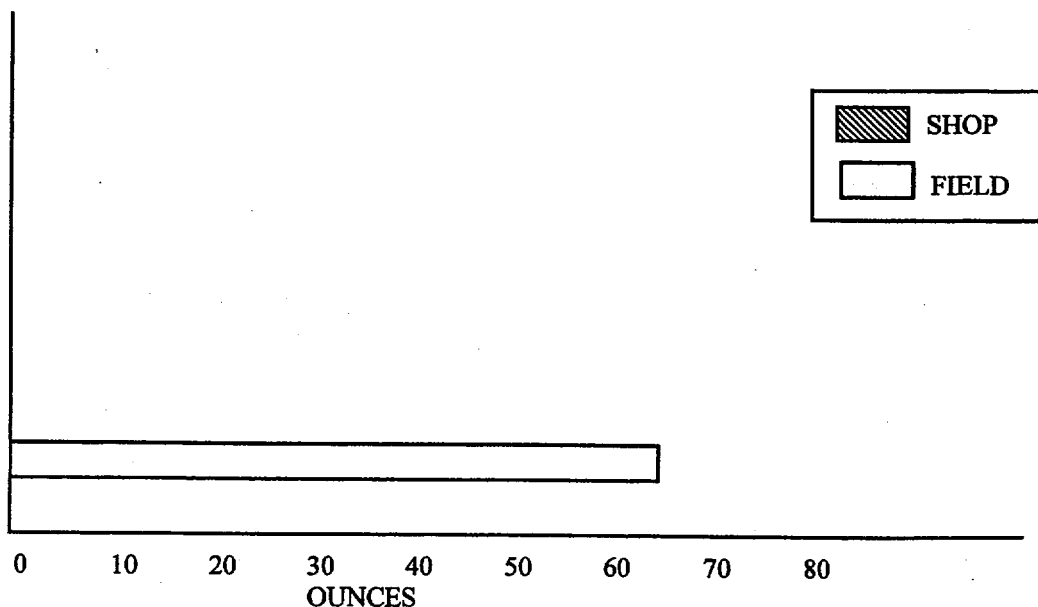
**FLORIDA POWER & LIGHT COMPANY  
TURKEY POINT NUCLEAR PLANT - UNIT 3&4  
30TH YEAR CONTAINMENT TENDON  
SURVEILLANCE**



**TABLE III: SUMMARY OF DATA SHEETS SQ 6.1  
INSPECT FOR WATER OF UNIT 4**

| TENDON | END         | WATER QUANTITY |
|--------|-------------|----------------|
| 42H39  | SHOP/BT 4   | NONE           |
|        | FIELD/BT 2  | NONE           |
| 42H51  | SHOP/BT 4   | NONE           |
|        | FIELD/BT 2  | NONE           |
| 51H15  | SHOP/BT 1   | NONE           |
|        | FIELD/BT 5  | NONE           |
| 62H82  | SHOP/BT 6   | NONE           |
|        | FIELD/ BT 2 | NONE           |
| 64H14  | SHOP/BT 6   | NONE           |
|        | FIELD/BT 4  | NONE           |
|        |             |                |
| 51H01  | FIELD/ BT 5 | 64 oz.         |

42H39  
42H51  
51H15  
62H82  
64H14  
51H01





**FLORIDA POWER & LIGHT COMPANY  
TURKEY POINT NUCLEAR PLANT - UNIT 3&4  
30TH YEAR CONTAINMENT TENDON  
SURVEILLANCE**



**TABLE IV: SUMMARY OF DATA SHEETS SQ 8.0  
ANCHORAGE CORROSION CONDITION OF UNIT 3**

| TENDON | END          | BUTTONHEAD<br>CORROSION<br>CONDITION | CORROSION LEVEL, CRACKS |         |                  |
|--------|--------------|--------------------------------------|-------------------------|---------|------------------|
|        |              |                                      | ANCHOR-<br>HEAD         | SHIMS   | BEARING<br>PLATE |
| 1D34   | FIELD/BT 2   | 1                                    | 2, NONE                 | 2, NONE | 2, NONE          |
| 1D48   | SHOP/BT 2-1  | 1                                    | 2, NONE                 | 2, NONE | 2, NONE          |
|        | FIELD/BT 6-5 | 1                                    | 2, NONE                 | 1, NONE | 1, NONE          |
| 1D49   | SHOP/BT 1-2  | 1                                    | 2, NONE                 | 2, NONE | 2, NONE          |
|        | FIELD/BT 6-5 | 1                                    | 2, NONE                 | 1, NONE | 2, NONE          |
| 2D18   | SHOP/BT 1    | 1                                    | 2, NONE                 | 2, NONE | 1, NONE          |
|        | FIELD/BT 4   | 2                                    | 2, NONE                 | 2, NONE | 1, NONE          |
| 2D19   | SHOP/BT 4    | 1                                    | 2, NONE                 | 2, NONE | 1, NONE          |
|        | FIELD/BT 1   | 1                                    | 2, NONE                 | 2, NONE | 2, NONE          |
| 2D32   | SHOP/BT 1    | 1                                    | 2, NONE                 | 2, NONE | 1, NONE          |
| 3D8    | SHOP/BT 4    | 2                                    | 2, NONE                 | 2, NONE | 1, NONE          |
|        | FIELD/BT 5-6 | 1                                    | 2, NONE                 | 2, NONE | 2, NONE          |
| 3D43   | SHOP/BT 1    | 1                                    | 2, NONE                 | 2, NONE | 2, NONE          |
|        | FIELD/BT 3   | 1                                    | 1, NONE                 | 1, NONE | 1, NONE          |
|        |              |                                      |                         |         |                  |
| 12V14  | SHOP/TOP     | 1                                    | 2, NONE                 | 2, NONE | 2, NONE          |
|        | FIELD/BOT.   | 1                                    | 2, NONE                 | N/A     | 2, NONE          |
| 12V22  | SHOP/TOP     | 1                                    | 2, NONE                 | 2, NONE | 2, NONE          |
|        | FIELD/BOT.   | 1                                    | 2, NONE                 | N/A     | 2, NONE          |
| 34V15  | SHOP/TOP     | 1                                    | 2, NONE                 | 2, NONE | 2, NONE          |
|        | FIELD/BOT.   | 1                                    | 2, NONE                 | N/A     | 2, NONE          |
| 61V10  | SHOP/TOP     | 1                                    | 2, NONE                 | 2, NONE | 2, NONE          |
|        | FIELD/BOT.   | 1                                    | 2, NONE                 | N/A     | 2, NONE          |

- 1 Bright metal; No visible corrosion.  
 2 Visible oxidation; No pitting.  
 0 < Pitting < 0.003 inches.



**FLORIDA POWER & LIGHT COMPANY  
TURKEY POINT NUCLEAR PLANT - UNIT 3&4  
30TH YEAR CONTAINMENT TENDON  
SURVEILLANCE**



**TABLE IV: SUMMARY OF DATA SHEETS SQ 8.0  
ANCHORAGE CORROSION CONDITION OF UNIT 3**

| TENDON | END        | BUTTONHEAD<br>CORROSION<br>CONDITION | CORROSION LEVEL, CRACKS |         |                  |
|--------|------------|--------------------------------------|-------------------------|---------|------------------|
|        |            |                                      | ANCHOR-<br>HEAD         | SHIMS   | BEARING<br>PLATE |
| 42H29  | SHOP/BT 4  | 1                                    | 2, NONE                 | 2, NONE | 1, NONE          |
|        | FIELD/BT 2 | 1                                    | 1, NONE                 | 2, NONE | 2, NONE          |
| 42H30  | SHOP/BT 4  | 1                                    | 2, NONE                 | 1, NONE | 1, NONE          |
|        | FIELD/BT 2 | 1                                    | 2, NONE                 | 2, NONE | 2, NONE          |
| 42H75  | SHOP/BT 2  | 1                                    | 2, NONE                 | 2, NONE | 2, NONE          |
| 51H18  | SHOP/BT 1  | 1                                    | 2, NONE                 | 2, NONE | 1, NONE          |
|        | FIELD/BT 5 | 1                                    | 2, NONE                 | 2, NONE | 2, NONE          |
| 51H21  | SHOP/BT 1  | 1                                    | 1, NONE                 | 1, NONE | 1, NONE          |
|        | FIELD/BT 5 | 1                                    | 2, NONE                 | 2, NONE | 2, NONE          |
| 51H27  | SHOP/BT 1  | 2                                    | 2, NONE                 | 2, NONE | 2, NONE          |
| 62H43  | SHOP/BT 6  | 1                                    | 2, NONE                 | 2, NONE | 2, NONE          |
|        | FIELD/BT 2 | 1                                    | 2, NONE                 | 1, NONE | 1, NONE          |
| 64H22  | SHOP/BT 6  | 1                                    | 2, NONE                 | 2, NONE | 2, NONE          |
|        | FIELD/BT4  | 1                                    | 1, NONE                 | 1, NONE | 1, NONE          |
|        |            |                                      |                         |         |                  |
| 13H01  | SHOP/BT 1  | 1                                    | 2, NONE                 | 2, NONE | > 5 *, NONE      |
| 13H02  | SHOP/BT 1  | 1                                    | 1, NONE                 | 1, NONE | > 5 *, NONE      |
| 13H03  | SHOP/BT 1  | 1                                    | 2, NONE                 | 1, NONE | > 5 *, NONE      |

- 1 Bright metal; No visible oxidation.
- 2 Reddish brown color, No pitting.
- 3  $0 < \text{Pitting} \leq 0.003$  inches.
- 4  $0.003 < \text{Pitting} \leq 0.006$  inches.
- $0.006 < \text{Pitting} \leq 0.010$  inches.

\* Heavy rust scale and deep pitting outside the gasket area.  
Evaluated in CR 00-1434, sup. 1 and found to be acceptable.



**FLORIDA POWER & LIGHT COMPANY  
TURKEY POINT NUCLEAR PLANT - UNIT 3&4  
30TH YEAR CONTAINMENT TENDON  
SURVEILLANCE**



**TABLE IV: SUMMARY OF DATA SHEETS SQ 8.0  
ANCHORAGE CORROSION CONDITION OF UNIT 4**

| TENDON | END          | BUTTONHEAD<br>CORROSION<br>CONDITION | CORROSION LEVEL, CRACKS |         |                  |
|--------|--------------|--------------------------------------|-------------------------|---------|------------------|
|        |              |                                      | ANCHOR-<br>HEAD         | SHIMS   | BEARING<br>PLATE |
| 1D36   | SHOP/BT 4    | 1                                    | 2, NONE                 | 2, NONE | 2, NONE          |
|        | FIELD/BT 1-2 | 1                                    | 2, NONE                 | 2, NONE | 2, NONE          |
| 2D5    | SHOP/BT 5-6  | 1                                    | 2, NONE                 | 2, NONE | PAINTED          |
|        | FIELD/BT 1-2 | 1                                    | 2, NONE                 | 2, NONE | 2, NONE          |
| 2D6    | SHOP/BT 1-2  | 1                                    | 2, NONE                 | 2, NONE | 2, NONE          |
|        | FIELD/BT 5-6 | 1                                    | 2, NONE                 | 2, NONE | 2, NONE          |
| 2D23   | FIELD/BT 2   | 1                                    | 2, NONE                 | 2, NONE | 2, NONE          |
| 2D20   | SHOP/BT 5-6  | 1                                    | 2, NONE                 | 2, NONE | 2, NONE          |
|        | FIELD/BT 3   | 1                                    | 2, NONE                 | 2, NONE | 2, NONE          |
| 3D23   | SHOP/BT 5-6  | 1                                    | 2, NONE                 | 2, NONE | 2, NONE          |
|        | FIELD/BT 3   | 1                                    | 2, NONE                 | 2, NONE | 2, NONE          |
|        |              |                                      |                         |         |                  |
| 12V26  | SHOP/TOP     | 1                                    | 1, NONE                 | 1, NONE | 1, NONE          |
|        | FIELD/BOT.   | 1                                    | 2, NONE                 | 2, NONE | 2, NONE          |
| 23V11  | SHOP/TOP     | 1                                    | 2, NONE                 | 1, NONE | 1, NONE          |
|        | FIELD/BOT.   | 1                                    | 2, NONE                 | 2, NONE | 2, NONE          |
| 45V10  | SHOP/TOP     | 1                                    | 1, NONE                 | 1, NONE | 1, NONE          |
|        | FIELD/BOT.   | 1                                    | 2, NONE                 | 2, NONE | 2, NONE          |
| 45V24  | SHOP/TOP     | 1                                    | 2, NONE                 | 1, NONE | 1, NONE          |
|        | FIELD/BOT.   | 1                                    | 2, NONE                 | 2, NONE | 2, NONE          |

- 1 Bright metal; No visible corrosion.  
 2 Visible oxidation; No pitting.  
 0 < Pitting ≤ 0.003 inches.



**FLORIDA POWER & LIGHT COMPANY  
TURKEY POINT NUCLEAR PLANT - UNIT 3&4  
30TH YEAR CONTAINMENT TENDON  
SURVEILLANCE**



**TABLE IV: SUMMARY OF DATA SHEETS SQ 8.0  
ANCHORAGE CORROSION CONDITION OF UNIT 4**

| TENDON | END         | BUTTONHEAD<br>CORROSION<br>CONDITION | CORROSION LEVEL, CRACKS |         |                  |
|--------|-------------|--------------------------------------|-------------------------|---------|------------------|
|        |             |                                      | ANCHOR-<br>HEAD         | SHIMS   | BEARING<br>PLATE |
| 42H39  | SHOP/BT 4   | 1                                    | 2, NONE                 | 2, NONE | 2, NONE          |
|        | FIELD/BT 2  | 1                                    | 2, NONE                 | 2, NONE | 2, NONE          |
| 42H51  | SHOP/BT 4   | 1                                    | 2, NONE                 | 2, NONE | 2, NONE          |
|        | FIELD/BT 2  | 2                                    | 2, NONE                 | 2, NONE | 2, NONE          |
| 51H15  | SHOP/BT 1   | 1                                    | 2, NONE                 | 2, NONE | 2, NONE          |
|        | FIELD/BT 5  | 1                                    | 2, NONE                 | 2, NONE | 2, NONE          |
| 62H82  | SHOP/BT 6   | 1                                    | 2, NONE                 | 2, NONE | 2, NONE          |
|        | FIELD/ BT 2 | 1                                    | 2, NONE                 | 2, NONE | 2, NONE          |
| 64H14  | SHOP/BT 6   | 1                                    | 2, NONE                 | 2, NONE | 2, NONE          |
|        | FIELD/BT 4  | 1                                    | 2, NONE                 | 2, NONE | 2, NONE          |
|        |             |                                      |                         |         |                  |
| 51H01  | FIELD/BT5   | 1                                    | 1, NONE                 | 1, NONE | >5 *, NONE       |

- 1 Bright metal; No visible oxidation.
- 2 Reddish brown color, No pitting.
- 3  $0 < \text{Pitting} \leq 0.003$  inches.
- 4  $0.003 < \text{Pitting} \leq 0.006$  inches.
- 5  $0.006 < \text{Pitting} \leq 0.010$  inches.

\* Heavy rust scale and deep pitting outside the gasket area.  
Evaluated in CR 01-1441 and found acceptable





**FLORIDA POWER & LIGHT COMPANY  
TURKEY POINT NUCLEAR PLANT - UNIT 3&4  
30TH YEAR CONTAINMENT TENDON  
SURVEILLANCE**



**TABLE V: SUMMARY OF DATA SHEETS SQ 8.0 TO UNIT 3 - BUTTONHEAD COUNT**

| TENDON | END          | ORIGINAL |                    | AS FOUND |                    | AS LEFT  |                    | REMOVED<br>FOR<br>TESTING | TOTAL | EFFECTIVE<br>WIRES<br>AS FOUND | EFFECTIVE<br>WIRES<br>AS LEFT |
|--------|--------------|----------|--------------------|----------|--------------------|----------|--------------------|---------------------------|-------|--------------------------------|-------------------------------|
|        |              | PROTRUDE | BROKEN/<br>MISSING | PROTRUDE | BROKEN/<br>MISSING | PROTRUDE | BROKEN/<br>MISSING |                           |       |                                |                               |
| 1D34   | FIELD/BT 2   | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
| 1D48   | SHOP/BT2-1   | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
|        | FIELD/BT 6-5 | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
| 1D49   | SHOP/BT 1-2  | 1        | 0                  | 1        | 0                  | 1        | 0                  | 0                         | 1     | 89                             | 89                            |
|        | FIELD/BT 6-5 | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
| 2D18   | SHOP/BT 1    | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
|        | FIELD/BT 4   | 0        | 0                  | 0        | 1                  | 0        | 1                  | 0                         | 1     | 90                             | 89                            |
| 2D19   | SHOP/BT 4    | 0        | 0                  | 0        | 0                  | 0        | 1                  | 1                         | 1     | 90                             | 89                            |
|        | FIELD/BT 1   | 0        | 0                  | 0        | 0                  | 0        | 1                  | 1                         | 1     | 90                             | 89                            |
| 2D32   | SHOP/BT 1    | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
| 3D8    | SHOP/BT 4    | 0        | 2                  | 0        | 2                  | 0        | 2                  | 0                         | 2     | 88                             | 88                            |
|        | FIELD/BT 5-6 | 0        | 2                  | 0        | 2                  | 0        | 2                  | 0                         | 2     | 88                             | 88                            |
| 3D43   | SHOP/BT 1    | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
|        | FIELD/BT 3   | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |



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**TABLE V: SUMMARY OF DATA SHEETS SQ 8.0 TO UNIT 3 - BUTTONHEAD COUNT**

| TENDON | END        | ORIGINAL |                    | AS FOUND |                    | AS LEFT  |                    | REMOVED<br>FOR<br>TESTING | TOTAL | EFFECTIVE<br>WIRES<br>AS FOUND | EFFECTIVE<br>WIRES<br>AS LEFT |
|--------|------------|----------|--------------------|----------|--------------------|----------|--------------------|---------------------------|-------|--------------------------------|-------------------------------|
|        |            | PROTRUDE | BROKEN/<br>MISSING | PROTRUDE | BROKEN/<br>MISSING | PROTRUDE | BROKEN/<br>MISSING |                           |       |                                |                               |
| 12V14  | SHOP/TOP   | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
|        | FIELD/BOT. | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
| 12V22  | SHOP/TOP   | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
|        | FIELD/BOT. | 0        | 1                  | 0        | 1                  | 0        | 1                  | 0                         | 1     | 89                             | 89                            |
| 34V15  | SHOP/TOP   | 0        | 0                  | 1        | 0                  | 0        | 2                  | 2                         | 2     | 89                             | 88                            |
|        | FIELD/BOT. | 0        | 0                  | 0        | 0                  | 0        | 1                  | 1                         | 1     | 90                             | 89                            |
| 61V10  | SHOP/TOP   | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
|        | FIELD/BOT. | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |



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**TABLE V: SUMMARY OF DATA SHEETS SQ 8.0 TO UNIT 3 - BUTTONHEAD COUNT**

| TENDON | END        | ORIGINAL |                    | AS FOUND |                    | AS LEFT  |                    | REMOVED<br>FOR<br>TESTING | TOTAL | EFFECTIVE<br>WIRES<br>AS FOUND | EFFECTIVE<br>WIRES<br>AS LEFT |
|--------|------------|----------|--------------------|----------|--------------------|----------|--------------------|---------------------------|-------|--------------------------------|-------------------------------|
|        |            | PROTRUDE | BROKEN/<br>MISSING | PROTRUDE | BROKEN/<br>MISSING | PROTRUDE | BROKEN/<br>MISSING |                           |       |                                |                               |
| 42H29  | SHOP/BT 4  | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
|        | FIELD/BT 2 | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
| 42H30  | SHOP/BT 4  | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
|        | FIELD/BT 2 | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
| 42H75  | SHOP/BT 2  | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
| 51H18  | SHOP/BT 1  | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
|        | FIELD/BT 5 | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
| 51H21  | SHOP/BT 1  | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
|        | FIELD/BT 5 | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
| 51H27  | SHOP/BT 1  | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
| 62H43  | SHOP/BT 6  | 0        | 0                  | 0        | 0                  | 0        | 1                  | 1                         | 1     | 90                             | 89                            |
|        | FIELD/BT 2 | 0        | 0                  | 0        | 0                  | 0        | 1                  | 1                         | 1     | 90                             | 89                            |
| 64H22  | SHOP/BT 6  | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
|        | FIELD/BT4  | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
|        |            |          |                    |          |                    |          |                    |                           |       |                                |                               |
| 13H01  | SHOP/BT 1  | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
| 13H02  | SHOP/BT 1  | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
| 13H03  | SHOP/BT 1  | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |



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**TABLE V: SUMMARY OF DATA SHEETS SQ 8.0 TO UNIT 4 - BUTTONHEAD COUNT**

| TENDON | END          | ORIGINAL |                    | AS FOUND |                    | AS LEFT  |                    | REMOVED        | TOTAL | EFFECTIVE         | EFFECTIVE        |
|--------|--------------|----------|--------------------|----------|--------------------|----------|--------------------|----------------|-------|-------------------|------------------|
|        |              | PROTRUDE | BROKEN/<br>MISSING | PROTRUDE | BROKEN/<br>MISSING | PROTRUDE | BROKEN/<br>MISSING | FOR<br>TESTING |       | WIRES<br>AS FOUND | WIRES<br>AS LEFT |
| 1D36   | SHOP/BT 4    | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0              | 0     | 90                | 90               |
|        | FIELD/BT 1-2 | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0              | 0     | 90                | 90               |
| 2D5    | SHOP/BT 5-6  | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0              | 0     | 90                | 90               |
|        | FIELD/BT 1-2 | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0              | 0     | 90                | 90               |
| 2D6    | SHOP/BT 1-2  | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0              | 0     | 90                | 90               |
|        | FIELD/BT 5-6 | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0              | 0     | 90                | 90               |
| 2D23   | FIELD/BT 2   | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0              | 0     | 90                | 90               |
| 3D20   | SHOP/BT 5-6  | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0              | 0     | 90                | 90               |
|        | FIELD/BT 3   | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0              | 0     | 90                | 90               |
| 3D23   | SHOP/BT 5-6  | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0              | 0     | 90                | 90               |
|        | FIELD/BT 3   | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0              | 0     | 90                | 90               |



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**TABLE V: SUMMARY OF DATA SHEETS SQ 8.0 TO UNIT 4 - BUTTONHEAD COUNT**

| TENDON | END       | ORIGINAL |                    | AS FOUND |                    | AS LEFT  |                    | REMOVED<br>FOR<br>TESTING | TOTAL | EFFECTIVE<br>WIRES<br>AS FOUND | EFFECTIVE<br>WIRES<br>AS LEFT |
|--------|-----------|----------|--------------------|----------|--------------------|----------|--------------------|---------------------------|-------|--------------------------------|-------------------------------|
|        |           | PROTRUDE | BROKEN/<br>MISSING | PROTRUDE | BROKEN/<br>MISSING | PROTRUDE | BROKEN/<br>MISSING |                           |       |                                |                               |
| 12V26  | SHOP/TOP  | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
|        | FIELD/BOT | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
| 23V11  | SHOP/TOP  | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
|        | FIELD/BOT | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
| 45V10  | SHOP/TOP  | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
|        | FIELD/BOT | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
| 45V24  | SHOP/TOP  | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
|        | FIELD/BOT | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |



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**TABLE V: SUMMARY OF DATA SHEETS SQ 8.0 TO UNIT 4 - BUTTONHEAD COUNT**

| TENDON | END         | ORIGINAL |                    | AS FOUND |                    | AS LEFT  |                    | REMOVED<br>FOR<br>TESTING | TOTAL | EFFECTIVE<br>WIRES<br>AS FOUND | EFFECTIVE<br>WIRES<br>AS LEFT |
|--------|-------------|----------|--------------------|----------|--------------------|----------|--------------------|---------------------------|-------|--------------------------------|-------------------------------|
|        |             | PROTRUDE | BROKEN/<br>MISSING | PROTRUDE | BROKEN/<br>MISSING | PROTRUDE | BROKEN/<br>MISSING |                           |       |                                |                               |
| 42H39  | SHOP/BT 4   | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
|        | FIELD/BT 2  | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
| 42H51  | SHOP/BT 4   | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
|        | FIELD/BT 2  | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
| 51H15  | SHOP/BT 1   | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
|        | FIELD/BT 5  | 0        | 1                  | 0        | 1                  | 0        | 1                  | 0                         | 1     | 89                             | 89                            |
| 62H82  | SHOP/BT 6   | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
|        | FIELD/ BT 2 | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
| 64H14  | SHOP/BT 6   | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
|        | FIELD/BT 4  | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |
|        |             |          |                    |          |                    |          |                    |                           |       |                                |                               |
| 51H01  | FIELD/BT 5  | 0        | 0                  | 0        | 0                  | 0        | 0                  | 0                         | 0     | 90                             | 90                            |



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**TABLE VI: SUMMARY OF DATA SHEETS SQ 8.3 CONCRETE INSPECTION OF UNIT 3.**

| TENDON | END          | BEARING<br>PLATE ID | CRACKS WITH WIDTHS >0.010" |                     |                    |
|--------|--------------|---------------------|----------------------------|---------------------|--------------------|
|        |              |                     | QUANTITY                   | MAX.<br>LENGTH (IN) | MAX. WIDTH<br>(IN) |
| 1D34   | FIELD/BT 2   | NONE                | NONE                       | N/A                 | N/A                |
| 1D48   | SHOP/BT 2-1  | PC 13               | NONE                       | N/A                 | N/A                |
|        | FIELD/BT 6-5 | PC 13               | NONE                       | N/A                 | N/A                |
| 1D49   | SHOP/BT 1-2  | NONE                | NONE                       | N/A                 | N/A                |
|        | FIELD/BT 6-5 | PC 13               | NONE                       | N/A                 | N/A                |
| 2D18   | SHOP/BT 1    | PC 13               | NONE                       | N/A                 | N/A                |
|        | FIELD/BT 4   | NONE                | NONE                       | N/A                 | N/A                |
| 2D19   | SHOP/BT 4    | PC 13               | NONE                       | N/A                 | N/A                |
|        | FIELD/BT 1   | PC 13               | NONE                       | N/A                 | N/A                |
| 2D32   | SHOP/BT 1    | NONE                | NONE                       | N/A                 | N/A                |
| 3D8    | SHOP/BT 4    | PC 13               | NONE                       | N/A                 | N/A                |
|        | FIELD/BT 5-6 | PC 13 OR 15         | NONE                       | N/A                 | N/A                |
| 3D43   | SHOP/BT 1    | PC 13               | 2                          | *                   | 0.025              |
|        | FIELD/BT 3   | PC 13               | NONE                       | N/A                 | N/A                |
|        |              |                     |                            |                     |                    |
| 12V14  | SHOP/TOP     | NONE FOUND          | NONE                       | N/A                 | N/A                |
|        | FIELD/BOTTOM | NONE FOUND          | NONE                       | N/A                 | N/A                |
| 12V22  | SHOP/TOP     | NONE FOUND          | NONE                       | N/A                 | N/A                |
|        | FIELD/BOTTOM | NONE FOUND          | NONE                       | N/A                 | N/A                |
| 34V15  | SHOP/TOP     | NONE FOUND          | NONE                       | N/A                 | N/A                |
|        | FIELD/BOTTOM | NONE FOUND          | NONE                       | N/A                 | N/A                |
| 61V10  | SHOP/TOP     | NONE FOUND          | NONE                       | N/A                 | N/A                |
|        | FIELD/BOTTOM | NONE FOUND          | NONE                       | N/A                 | N/A                |

\* Crack spans between adjacent dome pockets ( $\approx 36"$ )



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**TABLE VI: SUMMARY OF DATA SHEETS SQ 8.3 CONCRETE INSPECTION OF UNIT 3.**

| TENDON | END        | BEARING<br>PLATE ID | CRACKS WITH WIDTHS >0.010" |                     |                    |
|--------|------------|---------------------|----------------------------|---------------------|--------------------|
|        |            |                     | QUANTITY                   | MAX.<br>LENGTH (IN) | MAX. WIDTH<br>(IN) |
| 42H29  | SHOP/BT 4  | PC 11               | NONE                       | N/A                 | N/A                |
|        | FIELD/BT 2 | NONE FOUND          | NONE                       | N/A                 | N/A                |
| 42H30  | SHOP/BT 4  | PC 11               | NONE                       | N/A                 | N/A                |
|        | FIELD/BT 2 | NONE FOUND          | NONE                       | N/A                 | N/A                |
| 42H75  | SHOP/BT 2  | NONE FOUND          | NONE                       | N/A                 | N/A                |
| 51H18  | SHOP/BT 1  | NONE FOUND          | NONE                       | N/A                 | N/A                |
|        | FIELD/BT 5 | NONE FOUND          | NONE                       | N/A                 | N/A                |
| 51H21  | SHOP/BT 1  | NONE FOUND          | NONE                       | N/A                 | N/A                |
|        | FIELD/BT 5 | NONE FOUND          | NONE                       | N/A                 | N/A                |
| 51H27  | SHOP/BT 1  | NONE FOUND          | NONE                       | N/A                 | N/A                |
| 62H43  | SHOP/BT 6  | NONE FOUND          | NONE                       | N/A                 | N/A                |
|        | FIELD/BT 2 | NONE FOUND          | NONE                       | N/A                 | N/A                |
| 64H22  | SHOP/BT 6  | NONE FOUND          | NONE                       | N/A                 | N/A                |
|        | FIELD/BT 4 | NONE FOUND          | NONE                       | N/A                 | N/A                |
|        |            |                     |                            |                     |                    |
| 13H01  | SHOP/BT 1  | NONE FOUND          | NONE                       | N/A                 | N/A                |
| 13H02  | SHOP/BT 1  | NONE FOUND          | NONE                       | N/A                 | N/A                |
| 13H03  | SHOP/BT 1  | NONE FOUND          | NONE                       | N/A                 | N/A                |





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**TABLE VI: SUMMARY OF DATA SHEETS SQ 8.3 CONCRETE INSPECTION OF UNIT 4**

| TENDON | END          | BEARING<br>PLATE ID | CRACKS WITH WIDTHS >0.010" |                     |                    |
|--------|--------------|---------------------|----------------------------|---------------------|--------------------|
|        |              |                     | QUANTITY                   | MAX.<br>LENGTH (IN) | MAX. WIDTH<br>(IN) |
| 1D36   | SHOP/BT 4    | PC 25               | NONE                       | N/A                 | N/A                |
|        | FIELD/BT 1-2 | PC 25               | NONE                       | N/A                 | N/A                |
| 2D5    | SHOP/BT 5-6  | PC 25               | NONE                       | N/A                 | N/A                |
|        | FIELD/BT 1-2 | PC 25               | NONE                       | N/A                 | N/A                |
| 2D6    | SHOP/BT 1-2  | PC 25               | NONE                       | N/A                 | N/A                |
|        | FIELD/BT 5-6 | PC 25               | NONE                       | N/A                 | N/A                |
| 2D23   | FIELD/BT 2   | PC 25               | NONE                       | N/A                 | N/A                |
| 3D20   | SHOP/BT 5-6  | PC 25               | NONE                       | N/A                 | N/A                |
|        | FIELD/BT 3   | PC 25               | NONE                       | N/A                 | N/A                |
| 3D23   | SHOP/BT 5-6  | PC 25               | NONE                       | N/A                 | N/A                |
|        | FIELD/BT 3   | PC 25               | NONE                       | N/A                 | N/A                |
|        |              |                     |                            |                     |                    |
| 12V26  | SHOP/TOP     | NOT VISIBLE         | NONE                       | N/A                 | N/A                |
|        | FIELD/BOTTOM | NOT VISIBLE         | NONE                       | N/A                 | N/A                |
| 23V11  | SHOP/TOP     | PC 26               | NONE                       | N/A                 | N/A                |
|        | FIELD/BOTTOM | NOT VISIBLE         | NONE                       | N/A                 | N/A                |
| 45V10  | SHOP/TOP     | PC 20               | NONE                       | N/A                 | N/A                |
|        | FIELD/BOTTOM | NOT VISIBLE         | NONE                       | N/A                 | N/A                |
| 45V24  | SHOP/TOP     | PC 26               | NONE                       | N/A                 | N/A                |
|        | FIELD/BOTTOM | NOT VISIBLE         | NONE                       | N/A                 | N/A                |



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**TABLE VI: SUMMARY OF DATA SHEETS SQ 8.3 CONCRETE INSPECTION OF UNIT 4**

| TENDON | END         | BEARING<br>PLATE ID | CRACKS WITH WIDTHS >0.010" |                     |                    |
|--------|-------------|---------------------|----------------------------|---------------------|--------------------|
|        |             |                     | QUANTITY                   | MAX.<br>LENGTH (IN) | MAX. WIDTH<br>(IN) |
| 42H39  | SHOP/BT 4   | NOT VISIBLE         | NONE                       | N/A                 | N/A                |
|        | FIELD/BT 2  | NOT VISIBLE         | NONE                       | N/A                 | N/A                |
| 42H51  | SHOP/BT 4   | NOT VISIBLE         | NONE                       | N/A                 | N/A                |
|        | FIELD/BT 2  | NOT VISIBLE         | 1                          | * SEE NOTE          | < 0.030"           |
| 51H15  | SHOP/BT 1   | NOT VISIBLE         | NONE                       | N/A                 | N/A                |
|        | FIELD/BT 5  | NOT VISIBLE         | NONE                       | N/A                 | N/A                |
| 62H82  | SHOP/BT 6   | NOT VISIBLE         | NONE                       | N/A                 | N/A                |
|        | FIELD/ BT 2 | NOT VISIBLE         | NONE                       | N/A                 | N/A                |
| 64H14  | SHOP/BT 6   | NOT VISIBLE         | NONE                       | N/A                 | N/A                |
|        | FIELD/BT 4  | NOT VISIBLE         | NONE                       | N/A                 | N/A                |

\* NOTE: PLEASE REFERENCE SUPPLEMENT VOLUME VI, PAGE 40 OF THE VT-1C INSPECTIONS.



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#### IV. HYDRAULIC JACK CALIBRATIONS

Precision Surveillance has developed a program for calibrating hydraulic jacks utilizing regression analysis (PSC Procedure QA 12.8.G-W). This is a process where a straight line is mathematically best fitted to a set of data points (in this case, force verses gauge pressure). This results in calculating ram area (slope) and constant (y-intercept) for each jack calibration. Completed calibrations for all of the hydraulic jacks used are contained in Appendix E and are summarized in Table VII.

A before and after comparison of the stressing jacks' ram areas revealed that none of the stressing jacks' calibrations varied by more than 0.93% indicating that they were in a properly calibrated status.

The wire testing ram 7702 was also found to be in a properly calibrated status.

Note that the force exerted by a jack can be calculated as follows:

$$\begin{array}{ccccccc} \text{Force} & = & \text{Area} & \times & \text{Pressure} & + & \text{Constant} \\ (\text{F}) & & (\text{in}^2) & & (\text{KSI}) & & (\text{K}) \end{array}$$



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**TABLE VII: HYDRAULIC JACK CALIBRATIONS**

| JACK<br>ID | BEFORE SURVEILLANCE |                            |                    | FORCE<br>(Fi) | AFTER SURVEILLANCE |                            |                    | FORCE<br>(Ff) | MAX<br>PRESS. | VARI<br>% |
|------------|---------------------|----------------------------|--------------------|---------------|--------------------|----------------------------|--------------------|---------------|---------------|-----------|
|            | DATE                | AREA<br>(in <sup>2</sup> ) | CONSTANT<br>(kips) |               | DATE               | AREA<br>(in <sup>2</sup> ) | CONSTANT<br>(kips) |               |               |           |
| 9122       | 2/7/01              | 126.257                    | -1.693             | 970485.9      | 9/6/01             | 125.661                    | -2.162             | 965427.7      | 7700          | 0.52      |
| 9181       | 2/2/01              | 150.415                    | -0.775             | 856590.5      | 9/11/01            | 151.047                    | -3.339             | 857628.9      | 5700          | 0.12      |
| 9182       | 2/3/01              | 148.474                    | -3.712             | 842589.8      | 9/5/01             | 149.324                    | -0.739             | 850407.8      | 5700          | 0.93      |
|            |                     |                            |                    |               |                    |                            |                    |               |               |           |
| 7702       | 5/23/01             | 1.539                      | 0.246              | 13327.5       | 7/16/01            | 1.542                      | 0.078              | 13185.0       | 8500          | 1.07      |

RAM 7702 USED FOR WIRE TESTING



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**V. TENDON LIFTOFFS AND DETENSIONING**

A liftoff is performed on each surveillance tendon to monitor the force exerted by the tendon onto the structure. PSC Procedure SQ 9.0 (Volume 3, Section 9, Appendix F) details the steps to be taken to perform a liftoff. The results are documented on Data Sheet SQ 9.0 and are summarized in Table VIII.

It should be noted that performing a liftoff has only a localized effect on a tendon; therefore, it is acceptable to use the same jacks for both ends of a tendon by executing the liftoff on separate occasions.

All vertical, dome and horizontal tendon liftoffs were found to be above the expected lower limit and above minimum design. Liftoffs were found to be within their respective range of the predicted forces and would indicate performance within the expected design.

IWL requires that "the average of all measured tendon force for each type of tendon is equal or greater than the minimum required prestress specified at the anchorage for that type of tendon".

Minimum design stress values for Turkey Point tendons by group per design are:

|              |  |
|--------------|--|
| Domes:       | 536.4 kips for a 90 wire tendon (5.96 kips/wire) |
| Verticals:   | 582.3 kips for a 90 wire tendon (6.47 kips/wire) |
| Horizontals: | 530.1 kips for a 90 wire tendon (5.89 kips/wire) |

The horizontal group average for the five tendons tested is 583.8 kips and above the group minimum, therefore acceptable. The averages for domes was 651.35 kips and verticals was 624.43 kips, both groups were above the required group minimum.

No additional or broken wires were noted during or after liftoffs.



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**TABLE VIII: SUMMARY OF DATA SHEETS SQ 9.0 TENDON LIFTOFFS OF UNIT 3.**

| TENDON       | END          | EFFECT.<br>WIRES | JACK<br>NO. | LIFTOFF<br>PRESS.<br>(PSI) | LIFTOFF<br>FORCE<br>(KIPS) | AVE.<br>L/OFF<br>(KIPS) | NORM.<br>FACTOR | NORM.<br>L/OFF<br>FORCE<br>(KIPS) | MAX.<br>L/OFF<br>FORCE<br>(KIPS) | LOWER<br>LIMIT<br>(KIPS) | 90%<br>LOWER<br>LIMIT<br>(KIPS) | 95%<br>LOWER<br>LIMIT<br>(KIPS) | ACCEPT |
|--------------|--------------|------------------|-------------|----------------------------|----------------------------|-------------------------|-----------------|-----------------------------------|----------------------------------|--------------------------|---------------------------------|---------------------------------|--------|
| <b>1D48</b>  | SHOP/BT 2-1  | 90               | 9182        | 4446.6                     | 656.4                      | 658.1                   | 1.027           | 675.8                             | 743                              | 524                      | 472                             | 498                             | YES    |
|              | FIELD/BT 6-5 | 90               | 9182        | 4470.0                     | 659.9                      |                         |                 |                                   |                                  |                          |                                 |                                 |        |
| <b>2D19</b>  | SHOP/BT 4    | 90               | 9181        | 4006.6                     | 601.8                      | 591.7                   | 0.975           | 576.9                             | 743                              | 536                      | 483                             | 510                             | YES    |
|              | FIELD/BT 1   | 90               | 9182        | 3943.3                     | 581.7                      |                         |                 |                                   |                                  |                          |                                 |                                 |        |
| <b>3D8</b>   | SHOP/BT 4    | 88               | 9181        | 4620                       | 694.1                      | 691.7                   | 1.028           | 711                               | 726.5                            | 524                      | 472                             | 498                             | YES    |
|              | FIELD/BT 5-6 | 88               | 9122        | 5473                       | 689.3                      |                         |                 |                                   |                                  |                          |                                 |                                 |        |
| <b>3D43</b>  | SHOP/BT 1    | 90               | 9182        | 4446.6                     | 656.4                      | 650.2                   | 0.987           | 641.7                             | 667                              | 524                      | 472                             | 498                             | YES    |
|              | FIELD/BT 3   | 90               | 9181        | 4286.6                     | 644.0                      |                         |                 |                                   |                                  |                          |                                 |                                 |        |
|              |              |                  |             |                            |                            |                         |                 |                                   |                                  |                          |                                 |                                 |        |
| <b>12V14</b> | SHOP/TOP     | 90               | 9182        | 4500                       | 664.4                      | 664.4                   | 0.974           | 647.1                             | 743                              | 582                      | 524                             | 553                             | YES    |
| <b>12V22</b> | SHOP/TOP     | 89               | 9122        | 5066.6                     | 637.9                      | 637.9                   | 0.984           | 627.6                             | 734.8                            | 576                      | 518                             | 547                             | YES    |
| <b>12V24</b> | SHOP/TOP     | 89               | 9182        | 4283                       | 632.2                      | 632.2                   | 0.984           | 622                               | 743                              | 576                      | 518                             | 547                             | YES    |
| <b>34V15</b> | SHOP/TOP     | 89               | 9181        | 4250                       | 638.4                      | 638.4                   | 0.961           | 613.5                             | 734.7                            | 576                      | 518                             | 547                             | YES    |
| <b>61V8</b>  | SHOP/TOP     | 90               | 9181        | 4380                       | 658                        | 658                     | 0.958           | 630.3                             | 743                              | 582                      | 524                             | 553                             | YES    |
| <b>61V10</b> | SHOP/TOP     | 90               | 9182        | 4286.6                     | 632.7                      | 632.7                   | 0.958           | 606.1                             | 669                              | 582                      | 524                             | 553                             | YES    |



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**TABLE VIII: SUMMARY OF DATA SHEETS SQ 9.0 TENDON LIFTOFFS OF UNIT 3.**

| TENDON | END        | EFFECT.<br>WIRES | JACK<br>NO. | LIFTOFF<br>PRESS.<br>(PSI) | LIFTOFF<br>FORCE<br>(KIPS) | AVE.<br>L/OFF<br>(KIPS) | NORM.<br>FACTOR | NORM.<br>L/OFF<br>FORCE<br>(KIPS) | MAX.<br>L/OFF<br>FORCE<br>(KIPS) | LOWER<br>LIMIT<br>(KIPS) | 90%<br>LOWER<br>LIMIT<br>(KIPS) | 95%<br>LOWER<br>LIMIT<br>(KIPS) | ACCEPT |
|--------|------------|------------------|-------------|----------------------------|----------------------------|-------------------------|-----------------|-----------------------------------|----------------------------------|--------------------------|---------------------------------|---------------------------------|--------|
| 42H30  | SHOP/BT 4  | 90               | 9181        | 3910                       | 587.3                      | 587                     | 0.965           | 566.4                             | 743                              | 530                      | 477                             | 504                             | YES    |
|        | FIELD/BT 2 | 90               | 9182        | 3976.6                     | 586.7                      |                         |                 |                                   |                                  |                          |                                 |                                 |        |
| 51H18  | SHOP/BT 1  | 90               | 9182        | 4160                       | 613.9                      | 611.4                   | 0.979           | 598.5                             | 743                              | 530                      | 477                             | 504                             | YES    |
|        | FIELD/BT 5 | 90               | 9181        | 4053.3                     | 608.9                      |                         |                 |                                   |                                  |                          |                                 |                                 |        |
| 51H21  | SHOP/BT 1  | 90               | 9182        | 4356.6                     | 643.1                      | 620.7                   | 0.959           | 595.2                             | 743                              | 530                      | 477                             | 504                             | YES    |
|        | FIELD/BT 5 | 90               | 9181        | 3983.3                     | 598.3                      |                         |                 |                                   |                                  |                          |                                 |                                 |        |
| 62H43  | SHOP/BT 6  | 90               | 9181        | 3686.6                     | 553.7                      | 560                     | 1.023           | 572.8                             | 743                              | 530                      | 477                             | 504                             | YES    |
|        | FIELD/BT 2 | 90               | 9182        | 3840                       | 566.4                      |                         |                 |                                   |                                  |                          |                                 |                                 |        |
| 64H22  | SHOP/BT 6  | 90               | 9122        | 4666.6                     | 587.4                      | 582.1                   | 1.007           | 586.1                             | 743                              | 530                      | 477                             | 504                             | YES    |
|        | FIELD/BT4  | 90               | 9181        | 3840                       | 576.8                      |                         |                 |                                   |                                  |                          |                                 |                                 |        |



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**VI. WIRE INSPECTION AND TESTING**

One wire was scheduled for removal from each detensioned tendon for visual inspection and tensile testing. PSC Procedure SQ 10.3 outlines the details involved with the wire testing and the data was recorded on Data Sheets SQ 10.2 and SQ 10.3 with the results summarized in Table IX.

All wire diameters were within the acceptance criteria of  $0.250 \pm 0.002$ ". The corrosion condition of the samples from tendons 2D19 and 62H43 were level 1 or level 2, however, samples from tendon 34V15 were level 3, 4 or 5 which is addressed in CR 01-0801. Despite the corrosion observed on some samples the Ultimate Strength exceeded the minimum strength criteria of 240,000 psi (240 ksi) for all wire samples tested and all elongations exceeded the minimum requirement of 4%.

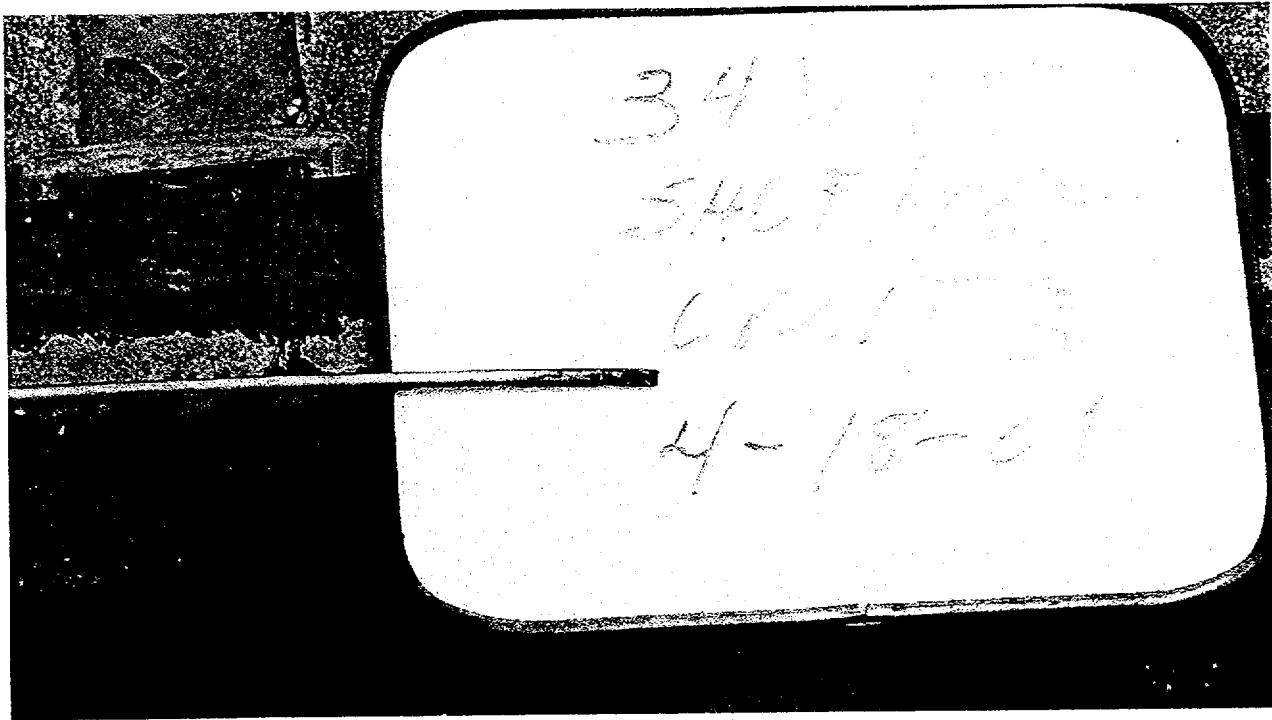




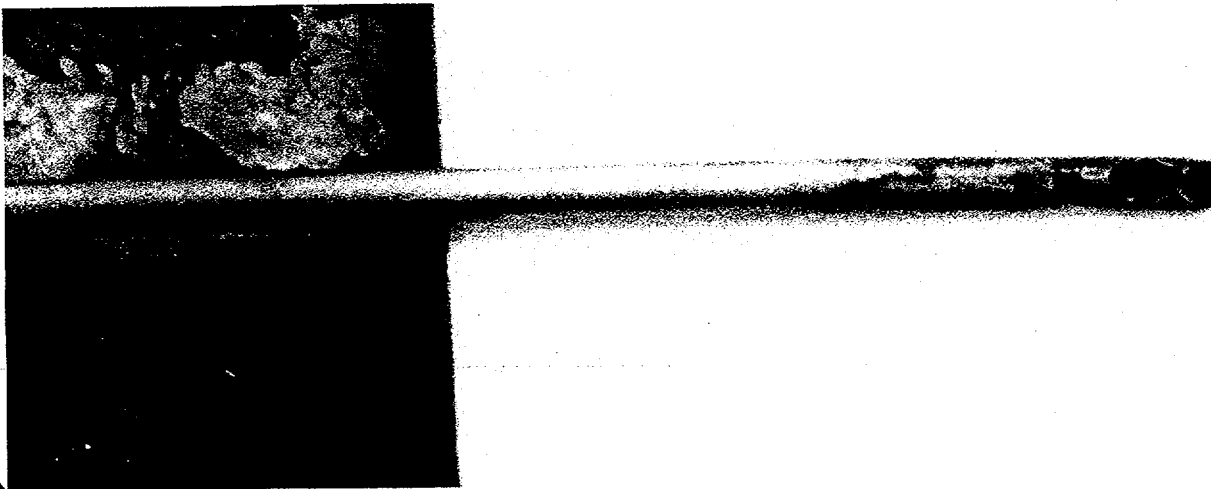
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VI. WIRE INSPECTION AND TESTING



Broken wire removed from 34V15.





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**TABLE IX: SUMMARY OF DATA SHEETS SQ 10.2 & 10.3  
VISUAL INSPECTION AND TENSILE TESTING OF WIRE OF UNIT 3**

| TENDON       | SAMPLE No. | CORROSION CONDITION | SAMPLE LOCATION (FT) | DIAMETER (IN) | YIELD STRENGTH (PSI) | ULTIMATE STRENGTH (PSI) | ELONGATION % | ACCEPTABLE |
|--------------|------------|---------------------|----------------------|---------------|----------------------|-------------------------|--------------|------------|
| <b>2D19</b>  | 1          | 1                   | 20 - 29              | 0.25          | 216,941              | 255,502                 | 4.10         | YES        |
|              | 2          | 1                   | 60 - 69              | 0.25          | 223,681              | 257,853                 | 4.50         | YES        |
|              | 3          | 1                   | 110 - 119            | 0.25          | 219,919              | 257,226                 | 4.40         | YES        |
| <b>34V15</b> | 1          | 5                   | 20 - 29              | 0.25          | 222,461              | 255,259                 | 4.15         | YES        |
|              | 4          | 3                   | 90 - 99              | 0.2493        | 223,507              | 258,334                 | 4.10         | YES        |
|              | 5          | 3                   | 120 - 129            | 0.25          | 223,072              | 258,112                 | 4.15         | YES        |
|              | 6          | 4                   | 130 - 139            | 0.2493        | 225,555              | 257,924                 | 4.25         | YES        |
| <b>62H43</b> | 1          | 2                   | 20 - 29              | 0.25          | 222,270              | 255,502                 | 4.20         | YES        |
|              | 2          | 2                   | 70 - 79              | 0.25          | 220,076              | 251,740                 | 4.10         | YES        |
|              | 3          | 2                   | 120 - 129            | 0.25          | 219,449              | 254,718                 | 4.50         | YES        |



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**VII. TENDON RETENSIONING AND RESEALING**

Those tendons that were detensioned for wire removal, 2D19, 34V15 and 62H43 were retensioned per PSC Procedure SQ 11.0 (Volume 3, Section 9, Appendix F). The results of the retensioning process were recorded on Data Sheets SQ 11.0 and the results summarized in Table X. All new elongations were compared to calculated elongations due to thread strength analysis and OTSC0090-01 which gave a new overstress force of 15% higher than the as found liftoff, or 15% higher than the expected whichever was greater.

All of the tendons were found to be acceptable for retension elongation (within  $\pm 10\%$ ) except 62H43 which had a 14% variance. This variance was evaluated as being due to a friction point breaking free between points 2 and 3. This can be seen on the attached graph of 62H43 where the curve starts to rise steeply from mid point after starting flatter. The standard tendon elongation is linear and the non-linear plot found during the retensioning of 62H43 supports the resolution in NCR FN 748-005. All tendons were locked off at forces greater than those initially found and all liftoffs were within  $-0\% + 6\%$ .

After completion of all inspections, the anchorage components were hand coated with cold grease to ensure complete coverage, the cans were reinstalled with new gaskets, and the necessary amount of sheathing filler (grease) was added. In all cases, the same amount or more grease was added than removed. Three tendons in Unit 4 accepted greater than 10% of the calculated tendon duct volume, tendons 1D36, 2D6 and 23V11. The results were evaluated in CR 01-0801, Sup. 3. and determined to be acceptable. Results of the grease replacement were recorded on Data Sheets SQ 12.1 and are summarized in Table XI.



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**TABLE X: SUMMARY OF DATA SHEETS SQ 11.0  
TENDON RETENSIONING OF UNIT 3**

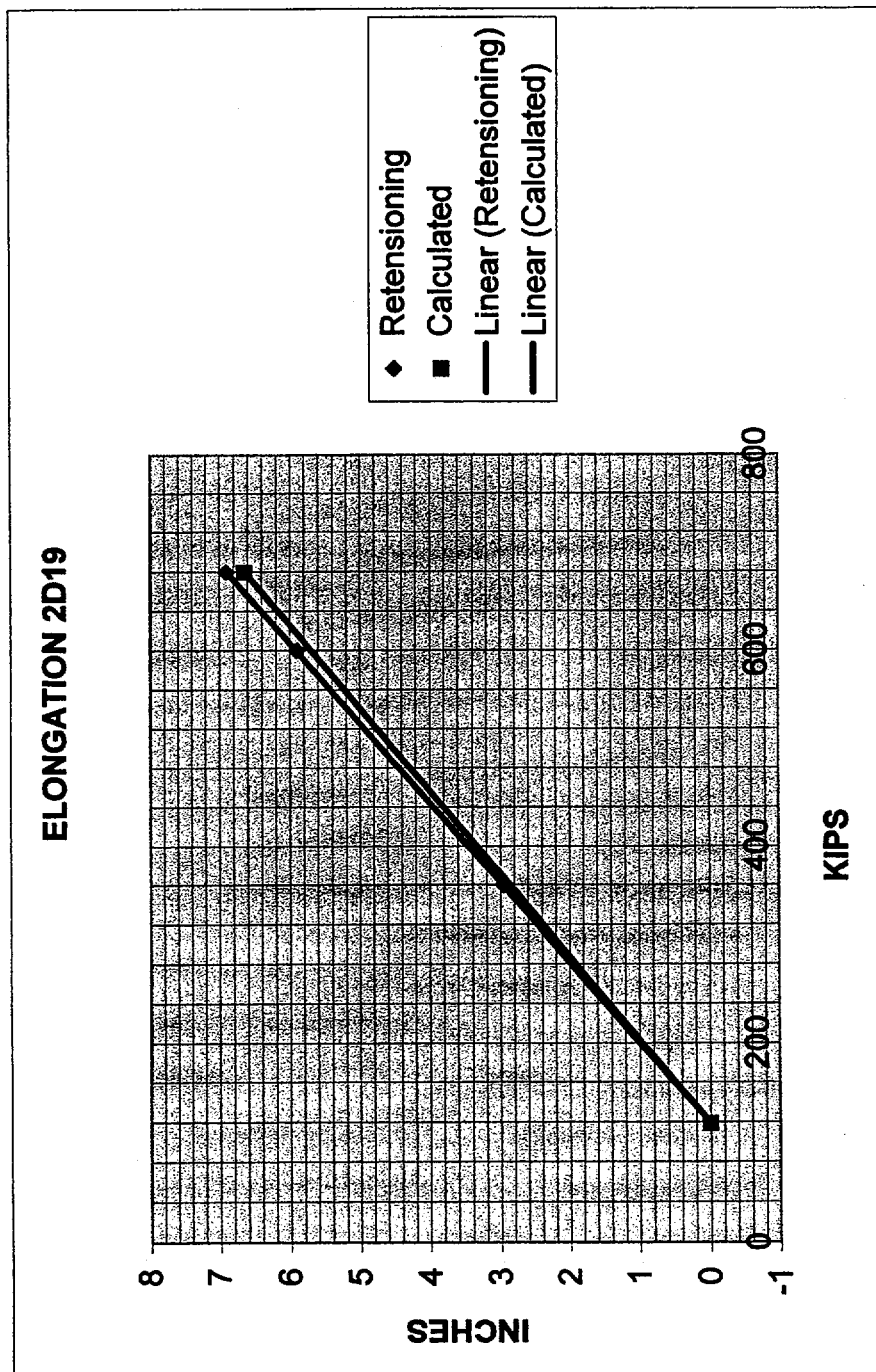
| TENDON       | END        | ORIG.<br>ELONG | OBSERVED<br>ELONGATION |       | %<br>VARI. | ACCEPT | LIFTOFF<br>BEFORE<br>RETEN. | RETENSIONING |        |       | %<br>VARI. | ACCEPT. |
|--------------|------------|----------------|------------------------|-------|------------|--------|-----------------------------|--------------|--------|-------|------------|---------|
|              |            | TOTAL          | EACH                   | TOTAL |            |        |                             | JACK         | PRESS. | L/OFF |            |         |
| <b>2D19</b>  | SHOP/BT 4  | 6.64 *         | 2.80                   | 6.90  | +3.9       | YES    | 601.8                       | 9181         | 4040   | 606.9 | +0.85      | YES     |
|              | FIELD/BT 1 | —              | 4.10                   | —     | —          | —      | 581.7                       | 9182         | 3950   | 582.7 | +0.17      | YES     |
| <b>34V15</b> | SHOP/TOP   | 8.87 *         | 9.35                   | 9.35  | +5.4       | YES    | 638.4                       | 9182         | 4443   | 655.9 | +2.74      | YES     |
| <b>62H43</b> | SHOP/BT 6  | 7.77 *         | 4.20                   | 8.90  | +14.5      | NO **  | 553.7                       | 9181         | 4560   | 574   | +3.67      | YES     |
|              | FIELD/BT 2 | —              | 4.70                   | —     | —          | —      | 566.4                       | 9182         | 4060   | 599   | +5.76      | YES     |

\* Based on engineering evaluation and OTSC 0090-01 Section D page 16.

\*\* See NCR FN748-005

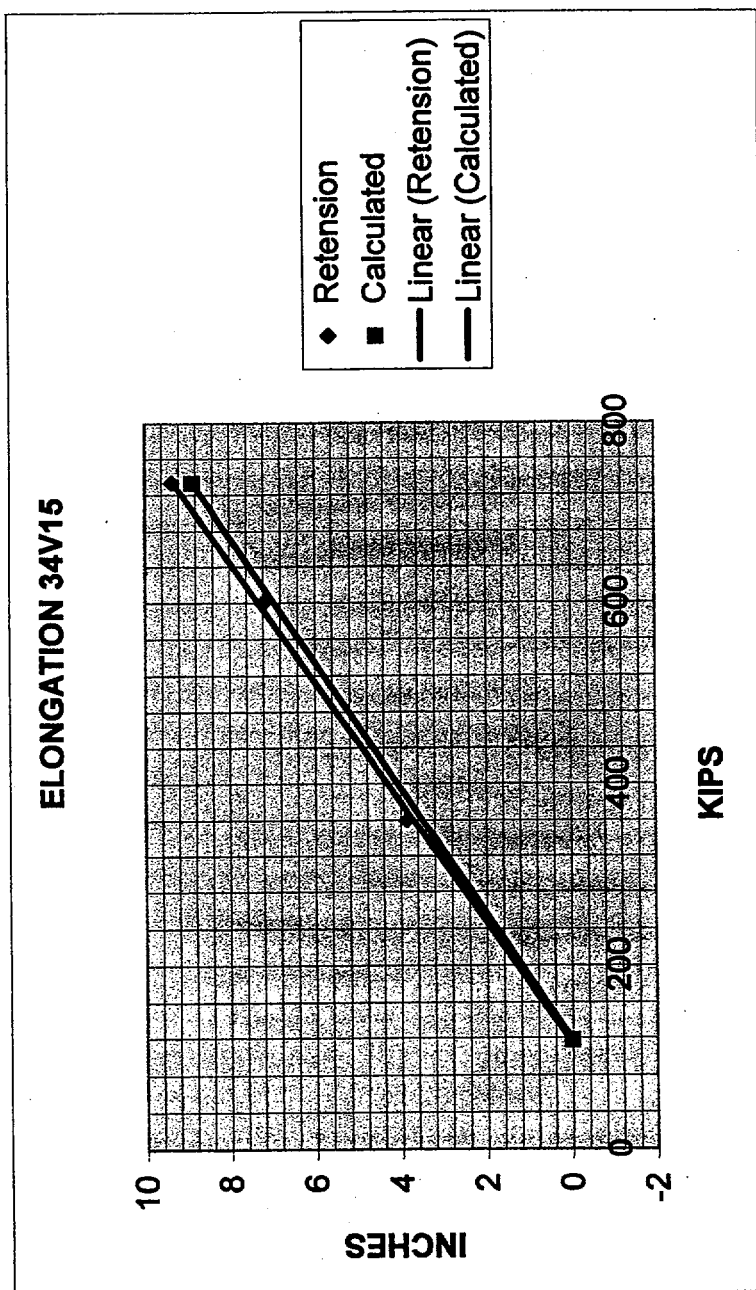


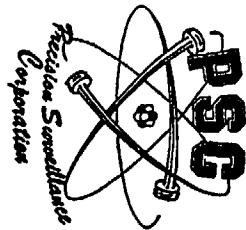
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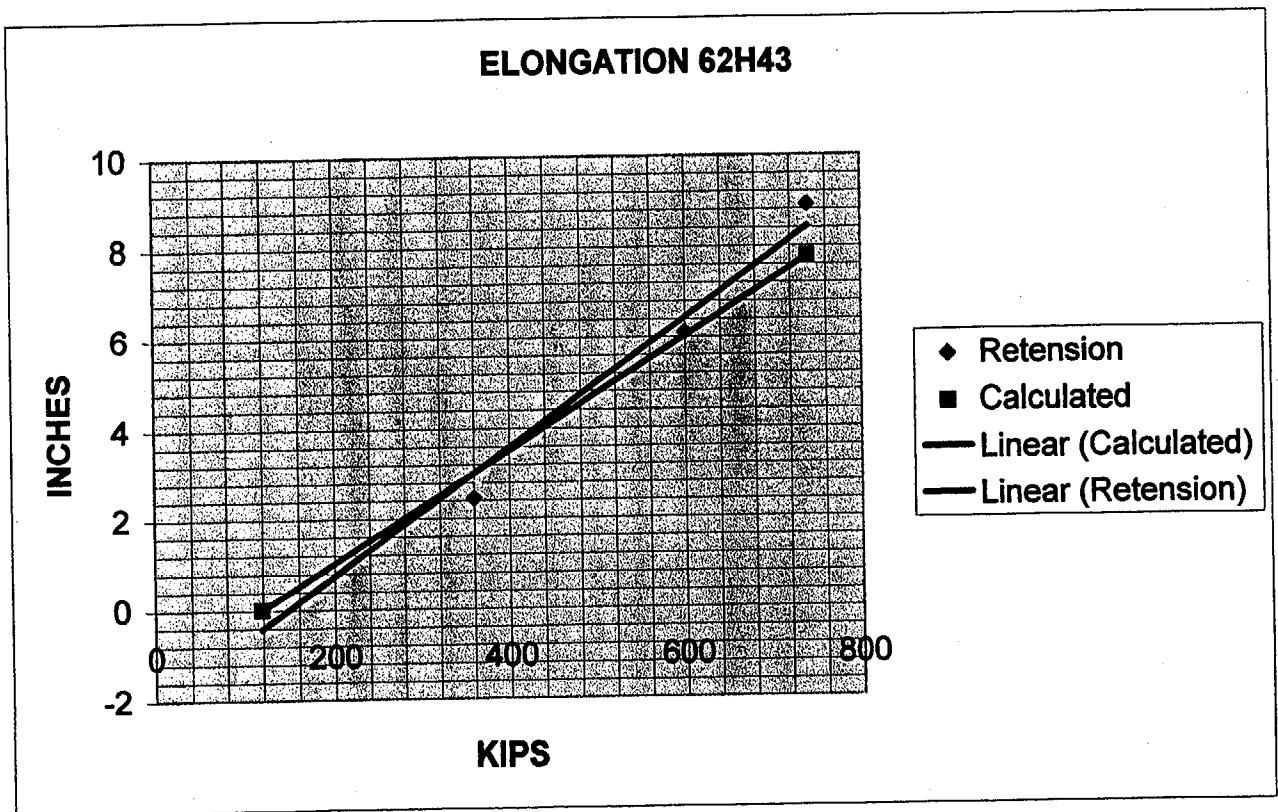


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**TABLE XI: SUMMARY OF DATA SHEETS SQ 12.1 GREASE LOSS Vs GREASE REPLACEMENT OF UNIT 3.**

| TENDON | GREASE REMOVED |       |                 | GREASE REPLACED |       |                 | DIFF.<br>(GAL.) | NET<br>VOLUME | % VAR.<br>DIFF. |
|--------|----------------|-------|-----------------|-----------------|-------|-----------------|-----------------|---------------|-----------------|
|        | SHOP           | FIELD | TOTAL<br>(GAL.) | SHOP            | FIELD | TOTAL<br>(GAL.) |                 |               |                 |
| 1D34   | 0.00           | 2.00  | 2.00            | 0.00            | 3.00  | 3.00            | 1.00            | 56.52         | 1.77%           |
| 1D48   | 3.25           | 2.75  | 6.00            | 7.25            | 0.00  | 7.25            | 1.25            | 42.94         | 2.91%           |
| 1D49   | 1.75           | 2.75  | 4.50            | 7.25            | 0.00  | 7.25            | 2.75            | 42.53         | 6.47%           |
| 2D18   | 3.25           | 4.25  | 7.50            | 8.00            | 0.00  | 8.00            | 0.50            | 52.24         | 0.96%           |
| 2D19   | 20.75          | 20.00 | 40.75           | 0.00            | 41.00 | 41.00           | 0.25            | 54.51         | 0.46%           |
| 2D32   | 1.50           | 0.00  | 1.50            | 2.50            | 0.00  | 2.50            | 1.00            | 50.89         | 1.97%           |
| 3D8    | 2.75           | 1.75  | 4.50            | 0.00            | 5.50  | 5.50            | 1.00            | 41.59         | 2.40%           |
| 3D43   | 19.75          | 16.00 | 35.75           | 37.50           | 0.00  | 37.50           | 1.75            | 49.93         | 3.50%           |
| 12V14  | 1.75           | 41.75 | 43.50           | 15.00           | 29.25 | 44.25           | 0.75            | 78.94         | 0.95%           |
| 12V22  | 1.75           | 36.75 | 38.50           | 15.00           | 24.75 | 39.75           | 1.25            | 79.89         | 1.56%           |
| 34V15  | 2.25           | 65.50 | 67.75           | 27.00           | 44.25 | 71.25           | 3.50            | 79.15         | 4.42%           |
| 61V10  | 1.75           | 25.75 | 27.50           | 4.75            | 24.75 | 29.50           | 2.00            | 79.18         | 2.53%           |
| 42H29  | 2.75           | 1.50  | 4.25            | 0.00            | 6.25  | 6.25            | 2.00            | 67.61         | 2.96%           |
| 42H30  | 2.75           | 1.00  | 3.75            | 0.00            | 6.25  | 6.25            | 2.50            | 67.61         | 3.70%           |
| 42H75  | 1.00           | 0.00  | 1.00            | 2.25            | 0.00  | 2.25            | 1.25            | 67.75         | 1.85%           |
| 51H18  | 2.00           | 1.75  | 3.75            | 5.50            | 0.00  | 5.50            | 1.75            | 67.68         | 2.59%           |
| 51H21  | 2.00           | 1.75  | 3.75            | 6.50            | 0.00  | 6.50            | 2.75            | 67.33         | 4.08%           |
| 51H27  | 2.00           | 0.00  | 2.00            | 4.50            | 0.00  | 4.50            | 2.50            | 67.61         | 3.70%           |
| 62H43  | 9.75           | 5.50  | 15.25           | 18.00           | 0.00  | 18.00           | 2.75            | 67.75         | 4.06%           |
| 64H22  | 1.75           | 4.25  | 6.00            | 6.75            | 0.00  | 6.75            | 0.75            | 67.75         | 1.11%           |
|        |                |       |                 |                 |       |                 |                 |               |                 |
| 13H01  | 1.50           | 0.00  | 1.50            | 3.00            | 0.00  | 3.00            | 1.50            | 67.64         | 2.22%           |
| 13H02  | 2.00           | 0.00  | 2.00            | 2.50            | 0.00  | 2.50            | 0.50            | 67.64         | 0.74%           |
| 13H03  | 2.25           | 0.00  | 2.25            | 6.25            | 0.00  | 6.25            | 4.00            | 67.64         | 5.91%           |





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**TABLE XI: SUMMARY OF DATA SHEETS SQ 12.1 GREASE LOSS Vs GREASE  
REPLACEMENT OF UNIT 4**

| TENDON | GREASE REMOVED |       |                 | GREASE REPLACED |       |                 | DIFF.<br>(GAL.) | NET<br>VOLUME | % VAR.<br>DIFF. |
|--------|----------------|-------|-----------------|-----------------|-------|-----------------|-----------------|---------------|-----------------|
|        | SHOP           | FIELD | TOTAL<br>(GAL.) | SHOP            | FIELD | TOTAL<br>(GAL.) |                 |               |                 |
| 1D36   | 2.00           | 2.50  | 4.50            | 0.00            | 19.25 | 19.25           | 14.75           | 55.02         | 26.81           |
| 2D5    | 2.25           | 3.50  | 5.75            | 0.00            | 7.25  | 7.25            | 1.50            | 41.94         | 3.58            |
| 2D6    | 1.50           | 1.00  | 2.50            | 0.00            | 7.00  | 7.00            | 4.50            | 41.03         | 10.97           |
| 2D23   | 0.00           | 5.00  | 5.00            | 0.00            | 7.00  | 7.00            | 2.00            | 59.17         | 3.38            |
| 3D20   | 1.75           | 1.75  | 3.50            | 6.25            | 0.00  | 6.25            | 2.75            | 54.00         | 5.09            |
| 3D23   | 3.00           | 3.00  | 6.00            | 9.00            | 0.00  | 9.00            | 3.00            | 60.94         | 4.92            |
| 12V26  | 1.25           | 1.75  | 3.00            | 1.75            | 1.25  | 3.00            | 0.00            | 78.91         | 0.00            |
| 23V11  | 0.50           | 46.25 | 46.75           | 0.00            | 56.00 | 56.00           | 9.25            | 79.67         | 11.61           |
| 45V10  | 1.75           | 8.75  | 10.50           | 12.50           | 0.75  | 13.25           | 2.75            | 79.53         | 3.46            |
| 45V24  | 0.75           | 31.50 | 32.25           | 0.00            | 32.50 | 32.50           | 0.25            | 80.11         | 0.31            |
| 42H39  | 1.25           | 1.50  | 2.75            | 0.00            | 3.00  | 3.00            | 0.25            | 67.26         | 0.37            |
| 42H51  | 1.00           | 1.50  | 2.50            | 0.00            | 4.75  | 4.75            | 2.25            | 67.51         | 3.33            |
| 51H15  | 1.00           | 1.25  | 2.25            | 7.25            | 0.00  | 7.25            | 5.00            | 67.97         | 7.36            |
| 62H82  | 1.00           | 2.50  | 3.50            | 0.00            | 5.25  | 5.25            | 1.75            | 67.61         | 2.59            |
| 64H14  | 1.00           | 1.00  | 2.00            | 3.50            | 0.00  | 3.50            | 1.50            | 67.54         | 2.22            |
|        |                |       |                 |                 |       |                 |                 |               |                 |
| 51H01  | 0.25           | 0.00  | 0.25            | 7.00            | 0.00  | 7.00            | 6.75            | 67.59         | 9.99            |



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**VIII. COMPARISON WITH ORIGINAL INSTALLATION DATA**

A comparison of the liftoff forces from this surveillance to the original installation lock-off forces is made in an effort to detect any evidence of system degradation. The lock-off forces are compared in order to detect any abnormal force loss which would possibly indicate an underestimation of the creep, shrinkage and/or elastic shortening effects in the Containment Building. This comparison is summarized in detail in table XII.

The losses for the tendon groups were found to be 20.34% for the vertical tendons, 15.01% for the dome tendons and 25.45% for the horizontal tendons. All values were above the predicted lower limit and these losses appear to be as expected for a containment of this age and do not indicate any degradation of the system.



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**TABLE XII: COMPARISON OF ORIGINAL LOCKOFF FORCES TO AS FOUND FORCES  
UNIT 3**

| TENDON | LIFTOFF FORCE |            | LOSS<br>(kips) | PERCENTAGE<br>% | AVERAGE<br>PERCENTAGE |
|--------|---------------|------------|----------------|-----------------|-----------------------|
|        | ORIGINAL      | @ 30 YEARS |                |                 |                       |
| 1D48   | 768           | 675.8      | 92.2           | 12.01           | 15.01                 |
| 2D19   | 771           | 576.9      | 194.1          | 25.18           |                       |
| 3D8    | 765           | 711.0      | 54.0           | 7.06            |                       |
| 3D43   | 762           | 641.7      | 120.3          | 15.79           |                       |
|        |               |            |                |                 |                       |
| 12V14  | 774           | 647.1      | 126.9          | 16.40           | 20.34                 |
| 12V22  | 763           | 627.6      | 135.4          | 17.75           |                       |
| 12V24  | 792           | 622.0      | 170.0          | 21.46           |                       |
| 34V15  | 792           | 613.5      | 178.5          | 22.54           |                       |
| 61V8   | 792           | 630.3      | 161.7          | 20.42           |                       |
| 61V10  | 792           | 606.1      | 185.9          | 23.47           |                       |
|        |               |            |                |                 |                       |
| 42H30  | 801           | 566.4      | 234.6          | 29.29           | 25.45                 |
| 51H18  | 778           | 598.5      | 179.5          | 23.07           |                       |
| 51H21  | 793           | 595.2      | 197.8          | 24.94           |                       |
| 62H43  | 774           | 572.8      | 201.2          | 25.99           |                       |
| 64H22  | 771           | 586.1      | 184.9          | 23.98           |                       |



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**IX. IWL CONCRETE INSPECTION**

**PURPOSE**

This inspection was completed to determine the base line condition of the containment and to determine if any condition exists which could affect the containment integrity. The report, including data sheets and photographs, can be found attached to this report

**SCOPE**

The inspections were completed to PSC Procedure SQ8.4 and FPL-ENG-IWL 2.0 with FPL Relief Request No. 21. Unit #3 and Unit #4 were VT3-C remote inspected per PSC demonstration. These inspections determine the need for VT1-C inspection. In addition, FPL in a proactive action had grease drippage and leaks cleaned, unused steel brackets removed, corroded caps painted, and exposed metal or rebar grouted or painted under a series of Condition Reports.

**SUMMARY OF RESULTS**

The VT3-C inspection and VT1-C inspections were documented on FPL -ENG-IWL 2.0 Attachment 1 forms and are included in Supplemented Volumes V, VI and VII, Appendix A, B and C. Appendix includes the general notes and photographs used as supplementary data to the inspections. The VT1-C inspection required for the In-Service Inspection of Tendon Ends are included in Sections A9 and B9 of these appendices.

The VT3-C inspections have been completed in conjunction with the following Condition Reports.

|                   |  |
|-------------------|--|
| CR 00-1434 Sup. 1 | Tendon ends 13H01, 02 and 03   |
| CR 01-0497 Sup. 1 | Cleaning of grease, caps, removal of unused steel attachments and painting of caps.  |
| CR 01-1326        | Cleaning, coating, painting and/or patching of exposed steel or rebar as applicable. |
| CR 01-1441        | Tendon end caps 51H01 - Inspection and replacement                                   |

In many instances the results of some indications were found not to exist after cleaning or were corrected as the CR work was completed.

For example, all the buttresses and dome bearing pockets of both units required cleaning of old grease spills, leaking all-threads tightened, grease inlet caps tightened and corroded caps cleaned and painted under CR01-0497. To assist in this scope, the VT3-C inspections were completed, which generated Tables XIII and XIV for Units #3 and #4 respectively. The data on these tables indicated over 200 cap gaskets were in question, but after cleaning none of the cans displayed active leaks. Therefore, none of the gaskets were required to be replaced at this time.



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The collection of grease and dirt over the years made it impossible to determine their condition until after cleaning. The tightening or resealing of the all-thread, washers and nuts on caps and grease inlet caps under CR 01-497 stopped all leaking of oil and grease. These leaks were small in volume and resealing them is not a repair, but maintenance of the system. The total amount of oil and dry grease removed was less than five gallons per Unit, which is less than the allowable grease loss of one horizontal tendon. It is likely that some leaks or new leaks will appear over time due to thermal changes, but this is of no concern and can be addressed at the next inspection period.

The heavy corroded caps were all cleaned and painted, except for two, which were replaced. 13H01 cap in Unit 3 was replaced per CR 00-1434, sup. 1 and 51H01 in Unit 4 was replaced per CR 01-1441. Both of these caps are located in the inspection pits and were subjected to standing water.

One location of Unit #4 showed moderate grease spillage and leakage at buttress 3 right side levels 14 and 15, which VT3-C inspection from a remote distance was unable to determine source of leakage. This area is inaccessible for cleaning or closer inspection due to high radiation levels. However, there is no sign that this has any effect on containment integrity. This is due to the fact that the grease loss is minimal and there are no clear signs of cap gasket leakage. The VT3-C reported many types of acceptable indications and 68 indications that required VT1-C, 22 on Unit #3 and 46 on Unit #4. All indications were acceptable or corrected to acceptable condition, except the three inaccessible locations listed on Tables XV and XVI. From review of VT3-C inspection, all three have been determined to be minor and to have no effect on the containment integrity. All of these conditions are evaluated in CR 01-1684 and were found acceptable. All exposed rebar and metal (i.e., plates, mesh, form tie ends, etc.) were cleaned and protected per the FPL CR 01-1326.

Efflorescence was present at many locations around the containment, particularly at the ring girder. These deposits were determined to be from run-off and have larger than normal deposits due to the plant location at ocean edge. The salt and other minerals are blow into the air and settle on the containment until flushed by rain water to the location of build-up. This is of no concern as no signs were found of the water or efflorescence affecting anything but the surface.

## **CONCLUSION**

PSC inspection and review of corrective maintenance shows the containment concrete and reinforcing steel integrity have not been damaged or affected adversely from original construction to present date.

This report section complies to requirement of IWL and is approved by:

*Ronald D. Hough*

Ronald D. Hough, P.E.  
Responsible Professional Engineer  
President, Precision Surveillance Corporation



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**TABLE XIII UNIT #3 VT3-C TENDON ENDS**

| BUTTRESS<br># & SIDE             | INSPECTION<br>SHEET | DESCRIPTION  | INDICATION                                   | CONDITION<br>REPORT                  | RESULTS   |
|----------------------------------|---------------------|--|--|--------------------------------------|---|
| 1 LEFT                           | A3 PAGE 7           | CAP 71<br>CAP 60<br>CAP54<br>CAPS 36 & 37  | HEAVY RUST<br>TYPE 1,2,3<br>TYPE 1<br>TYPE 1 | 01-497<br>01-497<br>01-497<br>01-497 | CLEANED & PAINTED<br>*NO INDICATION<br>*NO INDICATION<br>*NO INDICATION |
| 1 LEFT                           | A3 PAGE 8           | CAPS 33 & 34<br>CAPS 36 & 37<br>CAP 1  | TYPE 2<br>TYPE 1<br>HEAVY RUST               | 01-497<br>01-497<br>00-1434          | *NO INDICATION<br>*NO INDICATION<br>CAP REPLACEMENT                     |
| 2 RIGHT                          | A3 PAGE 12          | CAPS 35,37,64,81 & 83<br>CAPS 31,32 & 33   | TYPE 1<br>TYPE 2                             | 01-497<br>01-497                     | *NO INDICATION<br>*NO INDICATION  |
| 1 TO 2<br>RING<br>GIRDER         | A3 PAGE 15          | CAPS 2D14,1D50,1D46,2D09,2D11<br>CAPS 2D26,2D22,1D42,1D28,2D03   | TYPE 2<br>TYPE 1                             | 01-497<br>01-497                     | *NO INDICATION<br>*NO INDICATION  |
| 2 RIGHT                          | A3 PAGE 1           | CAP 83   | TYPE 1                                       | 01-497                               | *NO INDICATION  |
| 2 RIGHT                          | A3 PAGE 4           | CAP 37   | TYPE 2                                       | 01-497                               | *NO INDICATION  |
| 2 LEFT                           | A4 PAGE 1           | CAP 79   | TYPE 1                                       | 01-497                               | *NO INDICATION  |
| 2 LEFT                           | A4 PAGE 10          | CAPS 48,49,70 & 80<br>CAPS 43 & 74<br>CAP 66<br>CAP 78   | TYPE 2<br>TYPE 1<br>TYPE 3<br>TYPE 1,2,3     | 01-497<br>01-497<br>01-497<br>01-497 | *NO INDICATION<br>*NO INDICATION<br>*NO INDICATION<br>*NO INDICATION    |
| 2 LEFT                           | A4 PAGE 11          | CAPS 28 THRU 32 & 37<br>CAPS 16 & 35<br>CAPS 17,19,41 & 42   | TYPE 1<br>TYPE 2<br>TYPE 1,2                 | 01-497<br>01-497<br>01-497           | *NO INDICATION<br>*NO INDICATION<br>*NO INDICATION                      |
| 3 RIGHT                          | A4 PAGE 13          | CAPS 38 & 39<br>CAPS 51,52,53 & 76<br>CAP 59<br>CAP 80   | TYPE 1<br>TYPE 2<br>TYPE 1,3<br>TYPE 3       | 01-497<br>01-497<br>01-497<br>01-497 | *NO INDICATION<br>*NO INDICATION<br>*NO INDICATION<br>*NO INDICATION    |
| 3 RIGHT                          | A4 PAGE 14          | LEVEL 10 THRU 14   | TYPE 1,2,3                                   | 01-497                               |   |
| 2 TO 3<br>RING<br>GIRDER         | A4 PAGE 17          | CAPS 1D28,1D14,1D10,1D06,3D47,3D45 & 3D39<br>CAPS 3D34 & 3D36<br>CAP 1D14  | TYPE 1<br>TYPE 2<br>TYPE 3                   | 01-497<br>01-497<br>01-497           | *NO INDICATION<br>*NO INDICATION<br>*NO INDICATION                      |
| 3 LEFT                           | A5 PAGE 9           | CAPS 46,47,48,49,58,61,66,71,77 & 79   | TYPE 2                                       | 01-497                               | *NO INDICATION  |
| 3 LEFT                           | A5 PAGE 10          | CAPS 5 & 19<br>CAP 23  | TYPE 2<br>TYPE 1                             | 01-497<br>01-497                     | *NO INDICATION<br>*NO INDICATION  |
| 4 RIGHT                          | A5 PAGE 11          | CAPS 61 & 81<br>CAPS 18,22,40,50 & 60<br>CAPS 18,19 & 27   | TYPE 1,2<br>TYPE 2<br>TYPE 3                 | 01-497<br>01-497<br>01-497           | *NO INDICATION<br>*NO INDICATION<br>*NO INDICATION                      |
| 3 TO 4<br>DOME<br>RING<br>GIRDER | A5 PAGE 15          | CAPS 2D09,2D08,3D08,3D06<br>CAPS 2D28,2D22,3D02<br>CAPS 3D19,3D21,2D10,2D14,2D26,2D24,2D26 &<br>3D02<br>CAPS 2D21 & 3D16 | TYPE 1<br>TYPE 1,2<br>TYPE 2<br>TYPE 2,3     | 01-497<br>01-497<br>01-497<br>01-497 | *NO INDICATION<br>*NO INDICATION<br>*NO INDICATION<br>*NO INDICATION    |
| 4 LEFT                           | A6 PAGE 1           | CAPS 77,81   | TYPE 1                                       | 01-497                               | *NO INDICATION  |
| 5 RIGHT                          | A6 PAGE 2           | CAP 65<br>CAP 53   | TYPE 1<br>TYPE 2                             | 01-497<br>01-497                     | *NO INDICATION<br>*NO INDICATION  |

TYPE 1 IS POSSIBLE GREASE LEAK AT CAP GASKET, IF FOUND VT1-C INSPECTION IS REQUIRED.  
 TYPE 2 IS POSSIBLE GREASE LEAK AT CAP ALL-THREADS, WHICH MAY BE CORRECTED WITHOUT VT1-C BY CR.  
 TYPE 3 IS POSSIBLE GREASE LEAK AT CAP'S GREASE INLET, WHICH MAY BE CORRECTED WITHOUT VT1-C  
 UNDER SCOPE OF CONDITION REPORT (CR).  
 \*RESULTS AFTER COMPLETING WORK SPECIFIED ACTIONS OF CONDITION REPORT.



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TABLE CONTINUED

**TABLE XIII. UNIT #3 VT3-C TENDON**

| BUTTRESS<br># & SIDE     | INSPECTION<br>SHEET      | DESCRIPTION  | INDICATION                           | CONDITION<br>REPORT                  | RESULTS  |
|--------------------------|--------------------------|--|--------------------------------------|--------------------------------------|--|
| 4 LEFT                   | A6 PAGE 3                | CAP 54   | TYPE 1                               | 01-497                               | *NO INDICATION   |
| 4 LEFT                   | A6 PAGE 14               | CAPS 35,37,54,72,76,80<br>CAPS 32,33   | TYPE 1<br>TYPE 2                     | 01-497<br>01-497                     | *NO INDICATION<br>*NO INDICATION                                     |
| 5 RIGHT                  | A6 PAGE 15               | CAPS 65,78,81<br>CAPS 22,23,34,35<br>CAPS 32,35  | TYPE 1<br>TYPE 2<br>TYPE 3           | 01-497<br>01-497<br>01-497           | *NO INDICATION<br>*NO INDICATION<br>*NO INDICATION                   |
| 4 TO 5<br>RING<br>GIRDER | A6 PAGE 21               | CAPS 1D08,1D14,1D21,1D28,<br>2D28 & 2D38<br>CAPS 1D10,1D26,2D28,2D38 & 2D47<br>CAP 2D28  | TYPE 1<br>TYPE 2<br>TYPE 3           | 01-497<br>01-497<br>01-497           | *NO INDICATION<br>*NO INDICATION<br>*NO INDICATION                   |
| 5 LEFT                   | A7 PAGE 1                | CAP 76   | TYPE 1                               | 01-497                               | *NO INDICATION   |
| 5 LEFT                   | A7 PAGE 2                | CAP 64   | TYPE 1                               | 01-497                               | *NO INDICATION   |
| 5 LEFT                   | A7 PAGE 3                | CAP 53   | TYPE 1                               | 01-497                               | *NO INDICATION   |
| 6 RIGHT                  | A7 PAGE 3                | CAP 54   | TYPE 1                               | 01-497                               | *NO INDICATION   |
| 5 RIGHT                  | A7 PAGE 4                | CAP 37   | TYPE 1                               | 01-497                               | *NO INDICATION   |
| 5 LEFT                   | A7 PAGE 24               | CAPS 53,64,76,82<br>CAPS 54,55,65,67,68,71,73  | TYPE 1<br>TYPE 2                     | 01-497<br>01-497                     | *NO INDICATION<br>*NO INDICATION                                     |
| 6 RIGHT                  | A7 PAGE 26               | CAPS 33,57,60,61<br>CAPS 49,50,59,60,61<br>CAP 71  | TYPE 1<br>TYPE 2<br>TYPE 3           | 01-497<br>01-497<br>01-497           | *NO INDICATION<br>*NO INDICATION<br>*NO INDICATION                   |
| 5 TO 6<br>RING<br>GIRDER | A7 PAGE 29<br>A7 PAGE 30 | CAP 1D28<br>CAPS 1D50,1D55,3D06<br>CAPS 1D31,1D32,1D33,1D35,1D36,<br>3D02,1D42,1D47,1D52,3D20,<br>3D24,1D46,3D28,1D53,1D50<br>CAP 3D03 | TYPE 1<br>TYPE 1<br>TYPE 2<br>TYPE 3 | 01-497<br>01-497<br>01-497<br>01-497 | *NO INDICATION<br>*NO INDICATION<br>*NO INDICATION<br>*NO INDICATION |
| 6 LEFT                   | A8 PAGE 1                | CAP 73   | TYPE 3                               | 01-497                               | *NO INDICATION   |
| 1 RIGHT                  | A8 PAGE 2                | CAPS 66,67,68  | TYPE 1                               | 01-497                               | *NO INDICATION   |
| 6 LEFT                   | A8 PAGE 16               | CAPS 37,55,74,79<br>CAPS 41,55<br>CAP 30   | TYPE 1<br>TYPE 2<br>TYPE 3           | 01-497<br>01-497<br>01-497           | *NO INDICATION<br>*NO INDICATION<br>*NO INDICATION                   |
| 1 RIGHT                  | A8 PAGE 18               | CAPS 56,67,68<br>CAPS 33,47,81<br>CAPS 31,35,56  | TYPE 1<br>TYPE 2<br>TYPE 3           | 01-497<br>01-497<br>01-497           | *NO INDICATION<br>*NO INDICATION<br>*NO INDICATION                   |
| 6 TO 1<br>RING<br>GIRDER | A8 PAGE 22               | CAPS 2D37,2D39,3D48,2D49<br>CAPS 2D34,3D48,3D33,3D35,3D38,3D39   | TYPE 1<br>TYPE 2                     | 01-497<br>01-497                     | *NO INDICATION<br>*NO INDICATION                                     |

TYPE 1 IS POSSIBLE GREASE LEAK AT CAP GASKET, IF FOUND VT1-C INSPECTION IS REQUIRED.

TYPE 2 IS POSSIBLE GREASE LEAK AT CAP ALL-THREADS, WHICH MAY BE CORRECTED WITHOUT VT1-C BY CR.

TYPE 3 IS POSSIBLE GREASE LEAK AT CAP'S GREASE INLET, WHICH MAY BE CORRECTED WITHOUT VT1-C  
UNDER SCOPE OF CONDITION REPORT (CR).

\*RESULTS AFTER COMPLETING WORK SPECIFIED ACTIONS OF CONDITION REPORT.



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**TABLE XIV. UNIT #4 VT3-C TENDON ENDS**

| BUTTRESS<br># & SIDE     | INSPECTION<br>SHEET | DESCRIPTION   | INDICATION   | CONDITION<br>REPORT                            | RESULTS  |
|--------------------------|---------------------|---|--|--|--|
| 1 RIGHT                  | B3 PAGE 18          | CAPS 34,43,49,60,64<br>CAPS 9,10,37,44,81<br>CAP 31   | TYPE 1<br>TYPE 2<br>TYPE 3                         | 01-497<br>01-497<br>01-497                     | *B3 PAGE 21<br>NO INDICATION   |
| 2 LEFT                   | B3 PAGE 20          | CAPS 58 THRU 66,83<br>CAPS 54 THRU 57,83<br>CAPS 77,79,80   | TYPE 1<br>TYPE 2<br>CORROSION                      | 01-497<br>01-497<br>01-497                     | *B3 PAGE 22<br>NO INDICATION   |
| 1 TO 2<br>RING GIRDER    | B3 PAGE 28          | CAPS 2D01,2D24,1D38,1D40,1D41<br>CAPS 1D32,2D03,2D17  | TYPE 1<br>TYPE 2                                   | 01-497<br>01-497                               | *NO INDICATION<br>*NO INDICATION   |
| 2 RIGHT                  | B4 PAGE 17          | CAPS 25,27,28,60,74<br>CAPS 58,79,83<br>CAP 80  | TYPE 1<br>TYPE 2<br>TYPE 3                         | 01-497<br>01-497<br>01-497                     | *B4 PAGE 20<br>NO INDICATION   |
| 3 LEFT                   | B4 PAGE 18          | CAP 41<br>CAPS 29,34,36,37,38<br>CAP 39   | TYPE 1<br>TYPE 2<br>TYPE 3                         | 01-497<br>01-497<br>01-497                     | *B4 PAGE 21<br>NO INDICATION   |
| 2 TO 3<br>RING GIRDER    | B4 PAGE 25          | CAPS 3D34,3D52,3D50,2D40,2D31,2D45,3D33<br>CAP 3D54<br>CAPS 3D43,3D55   | TYPE 1<br>TYPE 2<br>TYPE 3                         | 01-497<br>01-497<br>01-497                     | *NO INDICATION<br>*NO INDICATION<br>*NO INDICATION                                     |
| 3 RIGHT                  | B5 PAGE 18          | CAPS 49,64,55,53,54,41<br>CAPS 55,53,54,41,46,52,37,45,56,82<br>CAPS 41,53,54,46,52,36,75,76                                  | TYPE 1<br>TYPE 2<br>TYPE 3                         | 01-497<br>01-497<br>01-497                     | *NO INDICATION<br>*NO INDICATION<br>*NO INDICATION                                     |
| 3 RIGHT                  | B5 PAGE 19          | LEVEL 14 THRU 15  | UNDETERMINED                                       | 01-497   | INACCESSABLE   |
| 4 LEFT                   | B5 PAGE 20          | CAPS 78,38,39,43,69,76<br>CAPS 78,45,74,80,82<br>CAPS 38,41,50,70,71  | TYPE 1<br>TYPE 2<br>TYPE 3                         | 01-497<br>01-497<br>01-497                     | *B5 PAGE 22<br>NO INDICATION   |
| 3 TO 4<br>RING<br>GIRDER | B5 PAGE 26          | CAPS 3D02,1D42,1D46,1D54,1D43<br>CAPS 3D04,3D10,1D40,1D41,3D01<br>CAPS 1D52,1D29,1D31,1D35,1D39<br>CAP 3D09<br>CAPS 3D14,3D13 | TYPE 1<br>TYPE 1,2<br>TYPE 2<br>TYPE 1,3<br>TYPE 3 | 01-497<br>01-497<br>01-497<br>01-497<br>01-497 | *NO INDICATION<br>*NO INDICATION<br>*NO INDICATION<br>*NO INDICATION<br>*NO INDICATION |
| 4 RIGHT                  | B6 PAGE 21          | CAPS 20,21,27,28,38,52,60,63,64,65<br>CAPS 40,43<br>CAPS 19,25,31,35,39,41,48,80,83<br>CAPS 16,26,10,11,62,76                 | TYPE 1<br>TYPE 1,2<br>TYPE 2<br>TYPE 1,3           | 01-497<br>01-497<br>01-497<br>01-497           | *B6 PAGE 24<br>*B6 PAGE 25<br>NO INDICATION  |
| 5 LEFT                   | B6 PAGE 23          | CAP 1   | CORROSION  | 01-1441  | CAP REPLACED   |
| 4 TO 5<br>RING<br>GIRDER | B6 PAGE 28          | CAPS 2D44,1D04,1D08,1D12,1D16,<br>1D03,1D19,2D37,2D39,2D47<br>CAPS 1D21,1D25,1D27<br>CAPS 2D49,1D23<br>CAPS 2D35              | TYPE 1<br>TYPE 1,2<br>TYPE 2<br>CORROSION          | 01-497<br>01-497<br>01-497<br>01-497           | *NO INDICATION<br>*NO INDICATION<br>*NO INDICATION<br>*NO INDICATION                   |
| 5 RIGHT                  | B7 PAGE 18          | CAPS 45,50,66<br>CAPS 39,40,67<br>CAPS 75,79  | TYPE 1<br>TYPE 2<br>TYPE 3                         | 01-497<br>01-497<br>01-497                     | *NO INDICATION<br>*NO INDICATION<br>*NO INDICATION                                     |
| 6 LEFT                   | B7 PAGE 19          | CAPS 27,30,31,32,34,37,40,43,46,48, 49,54,59,60,62<br>CAP 38  | TYPE 1<br>TYPE 2                                   | 01-497<br>01-497                               | *NO INDICATION<br>*NO INDICATION   |
| 5 TO 6<br>RING GIRDER    | B7 PAGE 23          | CAPS 3D16,2D24,3D31<br>CAPS 2D21,2D03   | TYPE 1<br>TYPE 2                                   | 01-497<br>01-497                               | *NO INDICATION<br>*NO INDICATION   |

TYPE 1 IS POSSIBLE GREASE LEAK AT CAP GASKET, IF FOUND VT1-C INSPECTION IS REQUIRED.

TYPE 2 IS POSSIBLE GREASE LEAK AT CAP ALL-THREADS, WHICH MAY BE CORRECTED WITHOUT VT1-C BY CR.

TYPE 3 IS POSSIBLE GREASE LEAK AT CAP'S GREASE INLET, WHICH MAY BE CORRECTED WITHOUT VT1-C

UNDER SCOPE OF CONDITION REPORT (CR).

\*RESULTS AFTER COMPLETING WORK SPECIFIED ACTIONS





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**TABLE CONTINUED      TABLE XIV. UNIT #4 VT3-C TENDON ENDS**

| BUTTRESS<br># & SIDE     | INSPECTION<br>SHEET | DESCRIPTION   | INDICATION | CONDITION<br>REPORT | RESULT         |
|--------------------------|---------------------|---|------------|---------------------|----------------|
| 6 RIGHT                  | B8 PAGE 19          | CAPS 13,18,20,23,31,69,74,80                                    | TYPE 1     | 01-497              | *NO INDICATION |
|                          |                     | CAPS 8,10,27,26,60,76,78,82                                     | TYPE 2     | 01-497              | *NO INDICATION |
|                          |                     | CAP 5   | TYPE 3     | 01-497              | *NO INDICATION |
| 1 LEFT                   | B8 PAGE 21          | CAPS 18,21,24,33,34,38,41,42,56,67                              | TYPE 1     | 01-497              | *NO INDICATION |
|                          |                     | CAPS 10,11,12,14,16,29,36,40,42,52,53,54,55,59,78               | TYPE 2     | 01-497              | *NO INDICATION |
|                          |                     | CAPS 12,13,61   | TYPE 3     | 01-497              | *NO INDICATION |
| 6 TO 1<br>RING<br>GIRDER | B8 PAGE 25          | CAPS 3D29,3D51,1D27,1D13,1D03,1D01,1D26,3D50,<br>3D48,3D46,3D55 | TYPE 1     | 01-497              | *NO INDICATION |
|                          |                     | CAPS 3D43,3D38,3D28,3D55  | TYPE 2     | 01-497              | *NO INDICATION |

TYPE 1 IS POSSIBLE GREASE LEAK AT CAP GASKET, IF FOUND VT1-C INSPECTION IS REQUIRED.

TYPE 2 IS POSSIBLE GREASE LEAK AT CAP ALL-THREADS, WHICH MAY BE CORRECTED WITHOUT VT1-C BY CR.

TYPE 3 IS POSSIBLE GREASE LEAK AT CAP'S GREASE INLET, WHICH MAY BE CORRECTED WITHOUT VT1-C UNDER SCOPE OF CONDITION REPORT (CR).

\*RESULTS AFTER COMPLETING WORK SPECIFIED ACTIONS OF CONDITION REPORT.

**TABLE XV. UNIT #3 VT1-C**

| LOCATION | VT3-C INSP.<br>SHEET | VT1-C INSP.<br>SHEET | DESCRIPTION                       | ACCEPTED<br>BY VT1-C | ACCEPTED BY<br>CR ACTION | COMMENTS      |
|----------|----------------------|----------------------|-----------------------------------|----------------------|--------------------------|---------------|
| D1       | A3 PAGE 2            | A10 PAGE 1           | VOID IN WALL                      | YES                  |                          |               |
| D2       | A7 PAGE 3            | A10 PAGE 2           | SPALL & REBAR                     | NO                   | YES 01-1326              |               |
| D3       | A8 PAGE 1            | A10 PAGE 3           | EFFLORESCENCE                     | YES                  |                          |               |
| D4       | A8 PAGE 1            | A10 PAGE 4           | WOOD REMOVED                      | YES                  |                          |               |
| D5       | A4 PAGE 4            | A10 PAGE 5           | WOOD REMOVED                      | YES                  |                          |               |
| D6       | A8 PAGE 8            | A10 PAGE 6           | CONDUIT IN WALL                   | YES                  |                          |               |
| D7       | A8 PAGE 10           | A10 PAGE 7           | WOOD REMOVED                      | YES                  |                          |               |
| D8       | A8 PAGE 11           | A10 PAGE 8           | WOOD REMOVED                      | YES                  |                          |               |
| D9       | A8 PAGE 11           | A10 PAGE 9           | WOOD REMOVED                      | YES                  |                          |               |
| D10      | DELETED              |                      |                                   |                      |                          |               |
| D11      | A8 PAGE 11           | A10 PAGE 10          | WOOD REMOVED                      | NO                   | YES 01-1326              |               |
| D12      | A5 PAGE 4            | A10 PAGE 11          | GREASE LEAK                       | YES                  |                          |               |
| D13      | A7 PAGE 9            | A10 PAGE 13          | CRACKS IN GROUT                   | YES                  |                          |               |
| D14      | A7 PAGE 12           | A10 PAGE 14          | EXPOSED REBAR                     | NO                   | YES 01-1326              |               |
| D15      | DELETED              |                      |                                   |                      |                          |               |
| D16      | DELETED              |                      |                                   |                      |                          |               |
| D17      | A5 PAGE 4            | A10 PAGE 15          | GREASE LEAK                       | YES                  |                          |               |
| D18      | A7 PAGE 12           | A10 PAGE 17          | WOOD REMOVED                      | YES                  |                          |               |
| D19      | A6 PAGE 6            | A10 PAGE 18          | CRACK                             | YES                  |                          |               |
| D20      | A6 PAGE 7            | A10 PAGE 19          | GREASE LEAK                       | YES                  |                          |               |
| D21      | A5 PAGE 6            | A10 PAGE 20          | GREASE LEAK                       | YES                  |                          |               |
| D22      | A6 PAGE 11           | A10 PAGE 21          | GREASE LEAK IN<br>RESTRICTED AREA | NO                   | YES 01-1684              | INNACCESSIBLE |
| D23      | A4 PAGE 16           | A10 PAGE 22          | EXPOSED REBAR                     | NO                   | YES 01-1326              |               |
| D24      | A6 PAGE 20           | A10 PAGE 23          | VOID IN LOCATION<br>INACCESSABLE  | NO                   | YES 01-1684              | INACCESSIBLE  |
| D25      | A2 PAGE 6            | A10 PAGE 24          | WOOD REMOVED                      | YES                  |                          |               |



**FLORIDA POWER & LIGHT COMPANY  
TURKEY POINT NUCLEAR PLANT - UNIT 3&4  
30TH YEAR CONTAINMENT TENDON  
SURVEILLANCE**



**UNIT XVI. VT1-C UNIT 4**

| LOCATION | VT3-C INSP. SHEET | VT1-C INSP. SHEET B10 | DESCRIPTION    | ACCEPTED BY VT1-C | ACCEPTED BY C.R. ACTION | COMMENTS |
|----------|-------------------|-----------------------|----------------|-------------------|-------------------------|----------|
| 4D1      | B1 PAGE 2         | PAGE 1                | GREASE LEAK    | YES               |                         |          |
| 4D2      | B3 PAGE 6         | PAGE 2                | EXPOSED METAL  | NO                | YES 01-1326             |          |
| 4D3      | B3 PAGE 9         | PAGE 3                | EXPOSED METAL  | YES               |                         |          |
| 4D4      | B3 PAGE 12        | PAGE 4                | GREASE LEAK    | YES               |                         |          |
| 4D5      | B3 PAGE 11        | PAGE 5                | GREASE LEAK    | YES               |                         |          |
| 4D6      | B3 PAGE 14        | PAGE 6                | EXPOSED METAL  | NO                | YES 01-1326             |          |
| 4D7      | B3 PAGE 24        | PAGE 7                | CONCRETE VOID  | YES               |                         |          |
| 4D8      | B3 PAGE 24        | PAGE 8                | EXPOSED REBAR  | NO                | YES 01-1326             |          |
| 4D9      | B3 PAGE 26        | PAGE 9                | EXPOSED REBAR  | NO                | YES 01-1326             |          |
| 4D10     | B4 PAGE 9         | PAGE 10               | EXPOSED PLATE  | YES               | YES 01-1326             |          |
| 4D11     | B4 PAGE 23        | PAGE 11               | EXPOSED REBAR  | NO                | YES 01-1684             | *        |
| 4D12     | B5 PAGE 1         | PAGE 12               | EXPOSED METAL  | YES               | YES 01-1326             |          |
| 4D13     | B5 PAGE 2         | PAGE 13               | EXPOSED REBAR  | NO                | YES 01-1326             |          |
| 4D14     | B5 PAGE 3         | PAGE 14               | GREASE LEAK    | YES               |                         |          |
| 4D15     | B5 PAGE 4         | PAGE 15               | EXPOSED REBAR  | NO                | YES 01-1326             |          |
| 4D16     | B5 PAGE 6         | PAGE 16               | EXPOSED METAL  | YES               | YES 01-1326             |          |
| 4D17     | B5 PAGE 10        | PAGE 17               | GREASE LEAK    | YES               |                         |          |
| 4D18     | B5 PAGE 12        | PAGE 18               | EXPOSED REBAR  | NO                | YES 01-1326             |          |
| 4D19     | B5 PAGE 13        | PAGE 19               | EXPOSED REBAR  | NO                | YES 01-1326             |          |
| 4D20     | B5 PAGE 25        | PAGE 20               | EXPOSED REBAR  | NO                | YES 01-1326             |          |
| 4D21     | B5 PAGE 25        | PAGE 21               | CONCRETE VOID  | YES               | YES 01-1326             |          |
| 4D22     | B5 PAGE 25        | PAGE 22               | REMOVED WOOD   | YES               | YES 01-1326             |          |
| 4D23     | B6 PAGE 1         | PAGE 23               | EXPOSED REBAR  | NO                | YES 01-1326             |          |
| 4D24     | B6 PAGE 11        | PAGE 24               | GREASE LEAK    | YES               |                         |          |
| 4D25     | B6 PAGE 12        | PAGE 25               | EXPOSED REBAR  | NO                | YES 01-1326             |          |
| 4D26     | B7 PAGE 9         | PAGE 26               | EXPOSED REBAR  | NO                | YES 01-1326             |          |
| 4D27     | B7 PAGE 12        | PAGE 27               | GREASE LEAK    | YES               |                         |          |
| 4D28     | B7 PAGE 22        | PAGE 28               | REMOVED WOOD   | YES               | YES 01-1326             |          |
| 4D29     | B8 PAGE 1         | PAGE 29               | EXPOSED REBAR  | NO                | YES 01-1326             |          |
| 4D30     | B8 PAGE 12        | PAGE 30               | SPALL          | YES               | YES 01-1326             |          |
| 4D31     | B8 PAGE 13        | PAGE 31               | CONCRETE VOID  | YES               | YES 01-1326             |          |
| 4D32     | B8 PAGE 16        | PAGE 32               | EXPOSED REBAR  | NO                | YES 01-1326             |          |
| 4D33     | B8 PAGE 15        | PAGE 33               | EXPOSED REBAR  | NO                | YES 01-1326             |          |
| 4D34     | B4 PAGE 24        | PAGE 34               | EXPOSED REBAR  | NO                | YES 01-1326             |          |
| 4D35     | B3 PAGE 25        | PAGE 35               | CONCRETE VOID  | YES               |                         |          |
| 4D36     | B6 PAGE 27        | PAGE 36               | EXPOSED REBAR  | NO                | YES 01-1326             |          |
| 4D37     | B6 PAGE 23        | PAGE 37               | CORODED CAP    | NO                | YES 01-1441             |          |
| 4D38     | B4 PAGE 24        | PAGE 42               | EXPOSED REBAR  | NO                | YES 01-1326             |          |
| 4D39     | B6 PAGE 14        | PAGE 43               | GREASE LEAK    | YES               |                         |          |
| 4D40     | B8 PAGE 24        | PAGE 44               | CONCRETE VOID  | YES               |                         |          |
| 4D41     | B8 PAGE 24        | PAGE 45               | EXPOSED REBAR  | NO                | YES 01-1326             |          |
| 4D42     | B8 PAGE 24        | PAGE 46               | CONCRETE VOID  | YES               |                         |          |
| 4D43     | B8 PAGE 24        | PAGE 47               | EXPOSED METAL  | YES               |                         |          |
| 4D44     | B8 PAGE 24        | PAGE 48               | CONCRETE VOID  | YES               |                         |          |
| 4D45     | B8 PAGE 24        | PAGE 49               | EXPOSED METAL  | YES               |                         |          |
| 4D46     | B8 PAGE 9         | PAGE 50               | CONCRETE CRACK | YES               |                         |          |

\* Requires special equipment to reach.



**FLORIDA POWER & LIGHT COMPANY  
TURKEY POINT NUCLEAR PLANT - UNIT 3&4  
30TH YEAR CONTAINMENT TENDON  
SURVEILLANCE**



## **CONCLUSION**

Based upon an evaluation of the In-Service Inspection results for the Thirtieth Year Physical Tendon Surveillance reported herein, PSC concludes that Turkey Point's Unit 3 & 4 Containment Structure's have experienced no abnormal degradation of the post tensioning system.

In addition, PSC inspection of the containment and a review of corrective maintenance shows the containment concrete and reinforcing steel integrity have not been damaged or affected adversely from original construction to present date.

**TURKEY POINT  
UNIT 4**

**2002 REFUELING OUTAGE**

**SUMMARY OF IWE EXAMINATIONS**



**FPL**

**FLORIDA POWER & LIGHT**

**UNTITLED PLANT [IWE] - UNIT 4**

**INSERVICE INSPECTION RESULTS SUMMARY**

**May 28, 2002**

**REVISION 0**



DATE: 05/28/02  
REVISION: 0

UNTITLED PLANT [IWE] - UNIT 4  
INSERVICE INSPECTION RESULTS SUMMARY  
INTERVAL 1, PERIOD 2, OUTAGE 1 (02)  
CLASS - CTPBEAR COMPONENTS

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METALLIC CONTAINMENT LINER

| 4-001   |   | ASME         | STATUS         |              | N I O |   |   |   | REMARKS                               |  |
|---|---|--------------|----------------|--------------|-------|---|---|---|---------------------------------------|--|
| SUMMARY<br>NUMBER                                 | EXAMINATION AREA<br>IDENTIFICATION                            | SEC. XI      | EXAM<br>METHOD | DATA SHEET # | O     | N | G | T |                                       |  |
|   |   | CATEGORY     |                |              | R     | S | E | H |                                       |  |
|   |   | ITEM NO      |                |              | E     | I | O | E |                                       |  |
|   |   |              |                |              | C     | G | M | R | **CALIBRATION BLOCK**                 |  |
| 14 TO 74 DEGREES AT 14' TO 39'6" (REF. DWG. NO. ) |   |              |                |              |       |   |   |   |                                       |  |
| 410060  | PENETRATION #6<br>PZR RELIEF TANK N2<br>SUPPLY TYPEV DETAIL12 | E-A<br>E1.11 | C GEN.         | 4.7-032      | X     | - | - | - | 3/28/02 - General Visual<br>complete. |  |
| -----   |   |              |                |              |       |   |   |   |                                       |  |
| 410070  | PENETRATION #7<br>PZR RELIEF TANK H20<br>DEMIN. TYPEI DETAIL3 | E-A<br>E1.11 | C GEN.         | 4.7-032      | X     | - | - | - | 3/28/02 - General Visual<br>complete. |  |
| -----   |   |              |                |              |       |   |   |   |                                       |  |
| 410080  | PENETRATION #8<br>PZR STEAM SPACE SAMP.<br>TYPEIV DETAIL9     | E-A<br>E1.11 | C GEN.         | 4.7-032      | X     | - | - | - | 3/28/02 - General Visual<br>complete. |  |
| -----   |   |              |                |              |       |   |   |   |                                       |  |
| 410090  | PENETRATION #9<br>PZR LIQUID SPACE SAMP.<br>TYPEIV DETAIL9    | E-A<br>E1.11 | C GEN.         | 4.7-032      | X     | - | - | - | 3/28/02 - General Visual<br>complete. |  |
| -----   |   |              |                |              |       |   |   |   |                                       |  |
| 410100  | PENETRATION #10<br>R/C DRAIN TANK VENT<br>TYPEI DETAIL3       | E-A<br>E1.11 | C GEN.         | 4.7-032      | X     | - | - | - | 3/28/02 - General Visual<br>complete. |  |
| -----   |   |              |                |              |       |   |   |   |                                       |  |
| 410110  | PENETRATION #11<br>LOW HEAD SAFTEY INJ.<br>TYPEI DETAIL3      | E-A<br>E1.11 | C GEN.         | 4.7-032      | X     | - | - | - | 3/28/02 - General Visual<br>complete. |  |
| -----   |   |              |                |              |       |   |   |   |                                       |  |
| 410120  | PENETRATION #12<br>EXCESS LETDOWN HX IN<br>TYPEI DETAIL3      | E-A<br>E1.11 | C GEN.         | 4.7-032      | X     | - | - | - | 3/28/02 - General Visual<br>complete. |  |
| -----   |   |              |                |              |       |   |   |   |                                       |  |
| 410130  | PENETRATION #13<br>EXCESS LETDOWN HX OUT<br>TYPEI DETAIL3     | E-A<br>E1.11 | C GEN.         | 4.7-033      | X     | - | - | - | 3/28/02 - General Visual<br>complete. |  |

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UNTITLED PLANT [IWE] - UNIT 4  
INSERVICE INSPECTION RESULTS SUMMARY  
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METALLIC CONTAINMENT LINER

|   |  |                |        |              |       |   |   |   |                                       |                       |
|---|--|----------------|--------|--------------|-------|---|---|---|---------------------------------------|-----------------------|
| 4-001   |  | ASME           | STATUS |              | N I O |   |   |   | REMARKS                               |                       |
| SUMMARY   | EXAMINATION AREA   | SEC. XI        | EXAM   | DATA SHEET # | O     | N | G | T |                                       |                       |
|   |  | CATEGORY       |        |              | R     | S | E | H |                                       |                       |
|   |  | ITEM NO        |        |              | E     | I | O | E |                                       |                       |
| NUMBER  |  | IDENTIFICATION |        | METHOD       |       | C | G | M | R                                     | **CALIBRATION BLOCK** |
| 14 TO 74 DEGREES AT 14' TO 39'6" (REF. DWG. NO. ) |  |                |        |              |       |   |   |   |                                       |                       |
| 410140  | PENETRATION #14<br>LETDOWN TO NON REGEN<br>HX TYPEI DETAIL3  | E-A<br>E1.11   | C GEN. | 4.7-033      | X     | - | - | - | 3/28/02 - General Visual<br>complete. |                       |
| 410150  | PENETRATION #15<br>CHARGING TO REGEN HX<br>TYPEI DETAIL3     | E-A<br>E1.11   | C GEN. | 4.7-033      | X     | - | - | - | 3/28/02 - General Visual<br>complete. |                       |
| 410160  | PENETRATION #16<br>SPARE TYPEI DETAIL3                       | E-A<br>E1.11   | C GEN. | 4.7-033      | X     | - | - | - | 3/28/02 - General Visual<br>complete. |                       |
| 410170  | PENETRATION #17<br>SAFETY INJ. TEST &<br>PURGE TYPEI DETAIL3 | E-A<br>E1.11   | C GEN. | 4.7-033      | X     | - | - | - | 3/28/02 - General Visual<br>complete. |                       |
| 410180  | PENETRATION #18<br>SAFETY INJECTION TYPEI<br>DETAIL3         | E-A<br>E1.11   | C GEN. | 4.7-033      | X     | - | - | - | 3/28/02 - General Visual<br>complete. |                       |
| 410190  | PENETRATION #19 ( 2)<br>CONTAINMENT SPRAY<br>TYPEI DETAIL3   | E-A<br>E1.11   | C GEN. | 4.7-033      | X     | - | - | - | 3/28/02 - General Visual<br>complete. |                       |
| 410200  | PENETRATION #20<br>R/C HOTLEG SAMPLE<br>TYPEIV DETAIL9       | E-A<br>E1.11   | C GEN. | 4.7-033      | X     | - | - | - | 3/28/02 - General Visual<br>complete. |                       |
| 410210  | PENETRATION #21<br>VENT COOLER CW LINE<br>TYPEI DETAIL3      | E-A<br>E1.11   | C GEN. | 4.7-033      | X     | - | - | - | 3/28/02 - General Visual<br>complete. |                       |



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UNTITLED PLANT [IWE] - UNIT 4  
INSERVICE INSPECTION RESULTS SUMMARY  
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CLASS - CTPBEAR COMPONENTS

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METALLIC CONTAINMENT LINER

| 4-001   |  | ASME         | STATUS         |              | N I O |   |   |   | REMARKS                               |  |
|---|--|--------------|----------------|--------------|-------|---|---|---|---------------------------------------|--|
| SUMMARY<br>NUMBER                                 | EXAMINATION AREA<br>IDENTIFICATION                                 | SEC. XI      | EXAM<br>METHOD | DATA SHEET # | O     | N | G | T |                                       |  |
|   |  | CATEGORY     |                |              | R     | S | E | H |                                       |  |
|   |  | ITEM NO      |                |              | E     | I | O | E |                                       |  |
|   |  |              |                |              | C     | G | M | R | **CALIBRATION BLOCK**                 |  |
| 14 TO 74 DEGREES AT 14' TO 39'6" (REF. DWG. NO. ) |  |              |                |              |       |   |   |   |                                       |  |
| 410220  | PENETRATION #22<br>VENT COOLER CW RETURN<br>TYPEI DETAIL3          | E-A<br>E1.11 | C GEN.         | 4.7-033      | X     | - | - | - | 3/28/02 - General Visual<br>complete. |  |
| 410230  | PENETRATION #23<br>CONT SUMP PUMP/HOLD UP<br>TYPEI DETAIL3         | E-A<br>E1.11 | C GEN.         | 4.7-033      | X     | - | - | - | 3/28/02 - General Visual<br>complete. |  |
| 410240  | PENETRATION #24 (3)<br>CHARGE PUMP DIS TO RC<br>PUMP TYPEI DETAIL3 | E-A<br>E1.11 | C GEN.         | 4.7-033      | X     | - | - | - | 3/28/02 - General Visual<br>complete. |  |
| 410250  | PENETRATION #25<br>COOLANT PUMP DIS TO RC<br>PUMP TYPEI DETAIL3    | E-A<br>E1.11 | C GEN.         | 4.7-034      | X     | - | - | - | 3/28/02 - General Visual<br>complete. |  |
| 410260  | PENETRATION #31<br>RC DRAIN TK H2 ANAL<br>TYPEIV DETAIL9           | E-A<br>E1.11 | C GEN.         | 4.7-034      | X     | - | - | - | 3/28/02 - General Visual<br>complete. |  |
| 410270  | PENETRATION #32<br>CONT AIR SAMPLE IN<br>TYPEI DETAIL3             | E-A<br>E1.11 | C GEN.         | 4.7-034      | X     | - | - | - | 3/28/02 - General Visual<br>complete. |  |
| 410280  | PENETRATION #33<br>CONT AIR SAMPLE OUT<br>TYPEI DETAIL3            | E-A<br>E1.11 | C GEN.         | 4.7-034      | X     | - | - | - | 3/28/02 - General Visual<br>complete. |  |
| 410290  | PENETRATION #37<br>PLUGGED W/CONCRETE<br>TYPEVI DETAIL13           | E-A<br>E1.11 | C GEN.         | 4.7-034      | X     | - | - | - | 3/28/02 - General Visual<br>complete. |  |

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UNTITLED PLANT [IWE] - UNIT 4  
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METALLIC CONTAINMENT LINER

|         |   |          |        |              |  |                       |   |   |                          |
|---------|---|----------|--------|--------------|--|-----------------------|---|---|--------------------------|
| 4-001   |   | ASME     | STATUS |              |  | N                     | I | O |                          |
|         |   | SEC. XI  |        |              |  | O                     | N | G | T                        |
| SUMMARY | EXAMINATION AREA                                  | CATEGORY | EXAM   |              |  | R                     | S | E | H                        |
| NUMBER  | IDENTIFICATION                                    | ITEM NO  | METHOD | DATA SHEET # |  | E                     | I | O | E                        |
|         |   |          |        |              |  | C                     | G | M | R                        |
|         |   |          |        |              |  | REMARKS               |   |   |                          |
|         |   |          |        |              |  | **CALIBRATION BLOCK** |   |   |                          |
|         | 14 TO 74 DEGREES AT 14' TO 39'6" (REF. DWG. NO. ) |          |        |              |  |                       |   |   |                          |
| 410300  | PENETRATION #43                                   | E-A      | C GEN. | 4.7-034      |  | X                     | - | - | 3/28/02 - General Visual |
|         | R/C PUMP CW OUTLET                                | E1.11    |        |              |  |                       |   |   | complete.                |
|         | TYPEI DETAIL3                                     |          |        |              |  |                       |   |   |                          |
| -----   |   |          |        |              |  |                       |   |   |                          |
| 410310  | PENETRATION #44 (3)                               | E-A      | C GEN. | 4.7-034      |  | X                     | - | - | 3/28/02 - General Visual |
|         | CW TO EMERG CONT                                  | E1.11    |        |              |  |                       |   |   | complete.                |
|         | COOLERS TYPEI DETAIL3                             |          |        |              |  |                       |   |   |                          |
| -----   |   |          |        |              |  |                       |   |   |                          |
| 410320  | PENETRATION #45 (3)                               | E-A      | C GEN. | 4.7-034      |  | X                     | - | - | 3/28/02 - General Visual |
|         | CW FROM EMERG CONT                                | E1.11    |        |              |  |                       |   |   | complete.                |
|         | COOLERS TYPEI DETAIL3                             |          |        |              |  |                       |   |   |                          |
| -----   |   |          |        |              |  |                       |   |   |                          |
| 410330  | PENETRATION #51                                   | E-A      | C GEN. | 4.7-034      |  | X                     | - | - | 3/28/02 - General Visual |
|         | SPARE TYPEI DETAIL3                               | E1.11    |        |              |  |                       |   |   | complete.                |
| -----   |   |          |        |              |  |                       |   |   |                          |
| 410340  | PENETRATION #52                                   | E-A      | C GEN. | NDE-4.7      |  | X                     | - | - | 3/28/02 - General Visual |
|         | R/C DRAIN TANK DISCH.                             | E1.11    |        |              |  |                       |   |   | complete.                |
|         | TYPEI DETAIL3                                     |          |        |              |  |                       |   |   |                          |
| -----   |   |          |        |              |  |                       |   |   |                          |
| 410350  | PENETRATION #64B                                  | (2) E-A  | C GEN. | 4.7-034      |  | X                     | - | - | 3/28/02 - General Visual |
|         | S/G SAMPLE TYPEV                                  | E1.11    |        |              |  |                       |   |   | complete.                |
| -----   |   |          |        |              |  |                       |   |   |                          |
| 410351  | PENETRATION #66A                                  | (2) E-A  | C GEN. | 4.7-034      |  | X                     | - | - | 3/28/02 - General Visual |
|         | SPARE   | E1.11    |        |              |  |                       |   |   | complete.                |
| -----   |   |          |        |              |  |                       |   |   |                          |
| 410355  | PENETRATION #64C                                  | E-A      | C GEN. | 4.7-036      |  | X                     | - | - | 3/28/02 - General Visual |
|         | STEAM GEN SAMPLE                                  | E1.11    |        |              |  |                       |   |   | complete.                |



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UNTITLED PLANT [IWE] - UNIT 4  
INSERVICE INSPECTION RESULTS SUMMARY  
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## METALLIC CONTAINMENT LINER

4-001

| 4-001   |                        | ASME     | STATUS |              | N I O |   |   |   |                                    |
|---|------------------------|----------|--------|--------------|-------|---|---|---|------------------------------------|
| SUMMARY   | EXAMINATION AREA       | SEC. XI  |        |              |       | N | I | O |                                    |
| NUMBER  | IDENTIFICATION         | CATEGORY | EXAM   |              |       | R | S | E | H                                  |
|   |                        | ITEM NO  | METHOD | DATA SHEET # |       | E | I | O | E                                  |
|   |                        |          |        |              |       | C | G | M | R                                  |
| REMARKS   |                        |          |        |              |       |   |   |   |                                    |
| **CALIBRATION BLOCK**                             |                        |          |        |              |       |   |   |   |                                    |
| 14 TO 74 DEGREES AT 14' TO 39'6" (REF. DWG. NO. ) |                        |          |        |              |       |   |   |   |                                    |
| 410430  | PENETRATION #63        | E-A      | C GEN. | 4.7-036      |       | X | - | - | -                                  |
|   | INSTR. AIR BLEED TYPEI | E1.11    |        |              |       |   |   |   |                                    |
|   | DETAIL3                |          |        |              |       |   |   |   | 3/28/02 - General Visual complete. |
| -----   |                        |          |        |              |       |   |   |   |                                    |
| 410440  | PENETRATION #64 A      | E-A      | C GEN. | 4.7-036      |       | X | - | - | -                                  |
|   | S/G SAMPLE TYPEI       | E1.11    |        |              |       |   |   |   |                                    |
|   | DETAIL3                |          |        |              |       |   |   |   | 3/28/02 - General Visual complete. |

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UNTITLED PLANT [IWE] - UNIT 4  
INSERVICE INSPECTION RESULTS SUMMARY  
INTERVAL 1, PERIOD 2, OUTAGE 1 (02)  
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METALLIC CONTAINMENT LINER

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|  |                     |          |   |        |              |   |   |   |   |  |
|--|---------------------|----------|---|--------|--------------|---|---|---|---|--|
| 4-002  |                     | ASME     |   | STATUS |              | N I O<br>O N G T<br>R S E H<br>E I O E<br>C G M R |   |   |   | REMARKS  |
| SUMMARY  | EXAMINATION AREA    | SEC. XI  |   | EXAM   |              |   |   |   |   |  |
| NUMBER   | IDENTIFICATION      | CATEGORY |   | METHOD | DATA SHEET # |   |   |   |   |  |
|  |                     | ITEM NO  |   |        |              |   |   |   |   | **CALIBRATION BLOCK**  |
| 74 TO 134 DEGREES AT 14' TO 39'6" (REF. DWG. NO. ) |                     |          |   |        |              |   |   |   |   |  |
| 410940   | CONTAINMENT LINER   | E-A      | C | GEN.   | 4.7-002      | X   | - | - | - | 3/25/02 - General Visual   |
|  | LINER PLATE-GENERAL | E1.11    |   | GEN.   | 4.7-042      | X   | - | - | - | complete.  |
|  | VISUAL              |          |   | GEN.   | 4.7-045      | X   | - | - | - | 74 deg. to 105 deg. 14' to<br>39'6" inaccessible due to<br>fuel transfer canal.<br>3/27/02 - Pre-coating<br>baseline (4.7-042) as per WO<br># 30021557<br>4/3/02 - Post coating<br>baseline (4.7-045) as per WO<br># 30021557<br>note* elevation.22' - 30.6'<br>20'-30' from transfer canal<br>wall not completed. |

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METALLIC CONTAINMENT LINER

4-003

| SUMMARY<br>NUMBER | EXAMINATION AREA<br>IDENTIFICATION | ASME<br>SEC. XI<br>CATEGORY<br>ITEM NO | STATUS<br>EXAM<br>METHOD | DATA SHEET # | N<br>O<br>R<br>E<br>C | I<br>N<br>S<br>I<br>G | O<br>T<br>H<br>E<br>R<br>M | REMARKS<br>**CALIBRATION BLOCK** |
|-------------------|------------------------------------|--|--------------------------|--------------|-----------------------|-----------------------|----------------------------|----------------------------------|
|-------------------|------------------------------------|--|--------------------------|--------------|-----------------------|-----------------------|----------------------------|----------------------------------|

134 TO 194 DEGREES AT 14' TO 39'6" (REF. DWG. NO. )

|        |  |              |        |         |   |   |   |                                       |
|--------|--|--------------|--------|---------|---|---|---|---------------------------------------|
| 411030 | LINER PLATE<br>LINER PLATE (GENERAL<br>VISUAL) | E-A<br>E1.11 | C GEN. | 4.7-003 | X | - | - | 3/25/02 - General Visual<br>complete. |
|--------|--|--------------|--------|---------|---|---|---|---------------------------------------|

|        |   |              |        |         |   |   |   |                                       |
|--------|---|--------------|--------|---------|---|---|---|---------------------------------------|
| 411040 | PENETRATION 40<br>EQUIPMENT HATCH<br>(GENERAL VISUAL) | E-A<br>E1.11 | C GEN. | 4.7-034 | X | - | - | 3/28/02 - General Visual<br>complete. |
|--------|---|--------------|--------|---------|---|---|---|---------------------------------------|

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METALLIC CONTAINMENT LINER

4-004

|         |   |          |        |              |  |                       |   |   |                          |
|---------|---|----------|--------|--------------|--|-----------------------|---|---|--------------------------|
| 4-004   |   | ASME     | STATUS |              |  | N                     | I | O |                          |
|         |   | SEC. XI  |        |              |  | O                     | N | G | T                        |
| SUMMARY | EXAMINATION AREA                                    | CATEGORY | EXAM   |              |  | R                     | S | E | H                        |
| NUMBER  | IDENTIFICATION                                      | ITEM NO  | METHOD | DATA SHEET # |  | E                     | I | O | E                        |
|         |   |          |        |              |  | C                     | G | M | R                        |
|         |   |          |        |              |  | REMARKS               |   |   |                          |
|         |   |          |        |              |  | **CALIBRATION BLOCK** |   |   |                          |
|         | 194 TO 254 DEGREES AT 14' TO 39'6" (REF. DWG. NO. ) |          |        |              |  |                       |   |   |                          |
| 411120  | LINER PLATE   | E-A      | C GEN. | 4.7-004      |  | X                     | - | - | 3/25/02 - general Visual |
|         | LINER PLATE (GENERAL                                | E1.11    |        |              |  |                       |   |   | complete.                |
|         | VISUAL)   |          |        |              |  |                       |   |   |                          |
| -----   |   |          |        |              |  |                       |   |   |                          |
| 411130  | PENETRATION 28 (3)                                  | E-A      | C GEN. | 4.7-024      |  | X                     | - | - | 3/27/02 - General Visual |
|         | S/G BLOWDOWN SPECIAL                                | E1.11    |        |              |  |                       |   |   | complete.                |
|         | DETAIL15  |          |        |              |  |                       |   |   |                          |
| -----   |   |          |        |              |  |                       |   |   |                          |
| 411140  | PENETRATION 29                                      | E-A      | C GEN. | 4.7-024      |  | X                     | - | - | 3/27/02 - general Visual |
|         | INSTRUMENT AIR TYPE I                               | E1.11    |        |              |  |                       |   |   | complete.                |
|         | DETAIL3   |          |        |              |  |                       |   |   |                          |
| -----   |   |          |        |              |  |                       |   |   |                          |
| 411160  | PENETRATION 30                                      | E-A      | C GEN. | 4.7-024      |  | X                     | - | - | 3/27/02 - General Visual |
|         | SPARE TYPE I DETAIL3                                | E1.11    |        |              |  |                       |   |   | complete.                |
| -----   |   |          |        |              |  |                       |   |   |                          |
| 411180  | PENETRATION 65 A                                    | E-A      | C GEN. | 4.7-024      |  | X                     | - | - | 3/27/02 - General Visual |
|         | CONT. INTEGRITY&LEAK                                | E1.11    |        |              |  |                       |   |   | complete.                |
|         | RATE TYPE I DETAILS                                 |          |        |              |  |                       |   |   |                          |
| -----   |   |          |        |              |  |                       |   |   |                          |
| 411185  | PENETRATION 65 B                                    | E-A      | C GEN. | 4.7-024      |  | X                     | - | - | 3/27/02 - General Visual |
|         | CONT. INTEGRITY&LEAK                                | E1.11    |        |              |  |                       |   |   | complete.                |
|         | RATE TYPE I DETAILS                                 |          |        |              |  |                       |   |   |                          |
| -----   |   |          |        |              |  |                       |   |   |                          |
| 411186  | PENETRATION 65 C                                    | E-A      | C GEN. | 4.7-024      |  | X                     | - | - | 3/27/02 - General Visual |
|         | CONT. INTEGRITY&LEAK                                | E1.11    |        |              |  |                       |   |   | complete.                |
|         | RATE TYPE I DETAILS                                 |          |        |              |  |                       |   |   |                          |

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| 4-005   |  | ASME                           | STATUS         |              | N I O<br>O N G T<br>R S E H<br>E I O E<br>C G M R |   |   |   | REMARKS                               |
|---|--|--------------------------------|----------------|--------------|---|---|---|---|---------------------------------------|
| SUMMARY<br>NUMBER                                   | EXAMINATION AREA<br>IDENTIFICATION                                 | SEC. XI<br>CATEGORY<br>ITEM NO | EXAM<br>METHOD | DATA SHEET # |   |   |   |   | **CALIBRATION BLOCK**                 |
| 254 TO 314 DEGREES AT 14' TO 39'6" (REF. DWG. NO. ) |  |                                |                |              |   |   |   |   |                                       |
| 411310  | LINER PLATE<br>LINER PLATE (GENERAL<br>VISUAL)                     | E-A<br>E1.11                   | C GEN.         | 4.7-005      | X   | - | - | - | 3/25/02 - General Visual<br>complete. |
| 411320  | PENETRATION 38B (28)<br>ELECTRICAL<br>PENETRATIONS TYPEIII         | E-A<br>E1.11                   | C GEN.         | 4.7-023      | X   | - | - | - | 3/27/02 - General Visual<br>complete. |
| 411330  | PENETRATION 41<br>PERSONNEL AIRLOCK<br>SPECIAL                     | E-A<br>E1.11                   | C GEN.         | 4.7-008      | X   | - | - | - | 3/26/02 - General Visual<br>complete. |
| 411380  | PENETRATION 41<br>PERSONNEL AIRLOCK<br>SEALS SPECIAL               | E-D<br>E5.10                   | C VT-3         | 4.7-010      | X   | - | - | - | 3/26/02 - VT-3 complete               |
| 411390  | PENETRATION 41<br>PERSONNEL AIRLOCK<br>GASKETS SPECIAL             | E-D<br>E5.20                   | C VT-3         | 4.7-010      | X   | - | - | - | 3/26/02 - VT-3 complete.              |
| 411400  | PENETRATION 41 BOLTING<br>BOLTING (PEN.41 DIFF.<br>PRESSURE GAUGE) | E-G<br>E8.10                   | C VT-1         | 4.7-009      | X   | - | - | - | 3/26/02 - VT-1 complete.              |
| 411440  | MOISTURE BARRIER<br>LINER PLATE TO FLOOR<br>(MOISTURE BARRIER)     | E-D<br>E5.30                   | C VT-3         | 4.7-040      | X   | - | - | - | 3/29/02 - VT-3 complete.              |





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METALLIC CONTAINMENT LINER

4-006

|  |                      |          |        |              |   |   |   |                          |
|--|----------------------|----------|--------|--------------|---|---|---|--------------------------|
| 4-006  |                      | ASME     | STATUS |              | N | I | O |                          |
|  |                      | SEC. XI  |        |              | O | N | G | T                        |
| SUMMARY  | EXAMINATION AREA     | CATEGORY |        | EXAM         | R | S | E | H                        |
| NUMBER   | IDENTIFICATION       | ITEM NO  |        | METHOD       | E | I | O | E                        |
|  |                      |          |        |              | C | G | M | R                        |
|  |                      |          |        | DATA SHEET # |   |   |   | REMARKS                  |
|  |                      |          |        |              |   |   |   | **CALIBRATION BLOCK**    |
| 314 TO 14 DEGREES AT 14' TO 39'6" (REF. DWG. NO. ) |                      |          |        |              |   |   |   |                          |
| 411580   | MOISTURE BARRIER     | E-D      | C VT-3 | 4.7-041      | X | - | - | 3/29/02 - VT-3 complete. |
|  | LINER PLATE TO FLOOR | E5.30    |        |              |   |   |   |                          |
|  | (MOISTURE BARRIER)   |          |        |              |   |   |   |                          |

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|   |                                    |          |                |              |   |   |   |         |                          |
|---|------------------------------------|----------|----------------|--------------|---|---|---|---------|--------------------------|
| 4-007   |                                    | ASME     | STATUS         |              | N | I | O | REMARKS |                          |
| SUMMARY<br>NUMBER                                   | EXAMINATION AREA<br>IDENTIFICATION | SEC. XI  | EXAM<br>METHOD | DATA SHEET # | O | N | G |         | T                        |
|   |                                    | CATEGORY |                |              | R | S | E |         | H                        |
|   |                                    | ITEM NO  |                |              | E | I | O |         | E                        |
|   |                                    |          |                |              | C | G | M |         | R                        |
| **CALIBRATION BLOCK**                               |                                    |          |                |              |   |   |   |         |                          |
| 14 TO 74 DEGREES AT 39'6" TO 59'6" (REF. DWG. NO. ) |                                    |          |                |              |   |   |   |         |                          |
| 411590  | LINER PLATE                        | E-A      | C GEN.         | 4.7-011      | X | - | - | -       | 3/25/02 - General Visual |
|   | LINER PLATE (GENERAL               | E1.11    |                |              |   |   |   |         | complete.                |
|   | VISUAL)                            |          |                |              |   |   |   |         |                          |

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## METALLIC CONTAINMENT LINER

4-008

| 4-008             |   | ASME                           | STATUS         |              | N I O<br>O N G T<br>R S E H<br>E I O E<br>C G M R |   |   |   | REMARKS  |
|-------------------|---|--------------------------------|----------------|--------------|---|---|---|---|--|
| SUMMARY<br>NUMBER | EXAMINATION AREA<br>IDENTIFICATION                          | SEC. XI<br>CATEGORY<br>ITEM NO | EXAM<br>METHOD | DATA SHEET # |   |   |   |   | **CALIBRATION BLOCK**  |
|                   | 74 TO 134 DEGREES AT 39'6" TO 59'6" (REF. DWG. NO. )        |                                |                |              |   |   |   |   |  |
| 411630            | LINER PLATE<br>LINER PLATE (GENERAL<br>VISUAL)              | E-A<br>E1.11                   | C GEN.         | 4.7-007      | X   | - | - | - | 3/25/02 - General Visual<br>complete.<br>74 deg. to 105 deg. 39'6" to<br>59'6" inaccessible due to<br>fuel transfer canal. |
| 411640            | PENETRATION 49<br>EMERGENCY ESCAPE HATCH<br>SPECIAL DETAIL3 | E-A<br>E1.11                   | C GEN.         | 4.7-025      | X   | - | - | - | 3/27/02 - General Visual<br>complete.  |
| 411670            | PENETRATION 49<br>EMERGENCY ESCAPE HATCH<br>SEALS SPECIAL   | E-D<br>E5.10                   | C VT-3         | 4.7-038      | X   | - | - | - | 3/28/02 - VT-3 complete.   |
| 411680            | PENETRATION 49<br>BOLTING ESCAPE HATCH<br>DIFF.PRESS.GAUGE  | E-G<br>E8.10                   | C VT-1         | 4.7-039      | X   | - | - | - | 3/28/02 - VT-1 complete.<br>(assembled)  |
| 411690            | PENETRATION 49<br>BOLTING ESCAPE HATCH<br>DIFF.PRESS.VALVE  | E-G<br>E8.10                   | C VT-1         | 4.7-039      | X   | - | - | - | 3/28/02 - VT-1 complete.<br>(assembled)  |

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METALLIC CONTAINMENT LINER

4-009

ASME

STATUS

N I O  
O N G T  
R S E H  
E I O E  
C G M R

SUMMARY  
NUMBER

EXAMINATION AREA  
IDENTIFICATION

SEC. XI  
CATEGORY  
ITEM NO

EXAM  
METHOD

DATA SHEET #

REMARKS

\*\*CALIBRATION BLOCK\*\*

134 TO 194 DEGREES AT 39'6" to 59' 6" (REF. DWG. NO. )

411720

LINER PLATE

E-A

C GEN.

4.7-012

X - - -

3/26/02 - General Visual  
complete

LINER PLATE (GENERAL  
VISUAL)

E1.11



REVISION: 0

UNTITLED PLANT [IWE] - UNIT 4  
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## METALLIC CONTAINMENT LINER

4-011

|   |                                |          |        |              |       |   |   |   |                          |
|---|--------------------------------|----------|--------|--------------|-------|---|---|---|--------------------------|
| 4-011   |                                | ASME     | STATUS |              | N I O |   |   |   | REMARKS                  |
| SUMMARY   | EXAMINATION AREA               | SEC. XI  | EXAM   | DATA SHEET # | R     | S | E | T |                          |
|   |                                | CATEGORY |        |              | E     | I | O | E |                          |
|   |                                | ITEM NO  |        |              | C     | G | M | R |                          |
| NUMBER  | IDENTIFICATION                 |          | METHOD |              |       |   |   |   | **CALIBRATION BLOCK**    |
| 254 TO 314 DEGREES AT 39'6" TO 59'6" (REF. DWG. NO. ) |                                |          |        |              |       |   |   |   |                          |
| 411820  | LINEAR PLATE                   | E-A      | C GEN. | 4.7-016      | X     | - | - | - | 3/26/02 - General Visual |
|   | LINEAR PLATE (GENERAL VISUAL)  | E1.11    |        |              |       |   |   |   | complete.                |
| -----   |                                |          |        |              |       |   |   |   |                          |
| 411830  | PENETRATION 48A (4)            | E-A      | C GEN. | 4.7-017      | X     | - | - | - | 3/26/02 - General Visual |
|   | R/C PUMP POWER TYPE III DETAIL | E1.11    |        |              |       |   |   |   | complete.                |
| -----   |                                |          |        |              |       |   |   |   |                          |
| 411840  | PENETRATION 26 B               | E-A      | C GEN. | 4.7-018      | X     | - | - | - | 3/26/02 - General Visual |
|   | MAIN STEAM SPECIAL DETAIL4     | E1.11    |        |              |       |   |   |   | complete.                |
| -----   |                                |          |        |              |       |   |   |   |                          |
| 411845  | PENETRATION 26 C               | E-A      | C GEN. | 4.7-019      | X     | - | - | - | 3/26/02 - General Visual |
|   | MAIN STEAM SPECIAL DETAIL4     | E1.11    |        |              |       |   |   |   | complete.                |

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| 4-012   |  | ASME     | STATUS |              |  | N | I | O |                                    |
|---------|--|----------|--------|--------------|--|---|---|---|------------------------------------|
|         |  | SEC. XI  |        |              |  | O | N | G | T                                  |
| SUMMARY | EXAMINATION AREA                                     | CATEGORY | EXAM   |              |  | R | S | E | H                                  |
| NUMBER  | IDENTIFICATION                                       | ITEM NO  | METHOD | DATA SHEET # |  | E | I | O | E                                  |
|         |  |          |        |              |  | C | G | M | R                                  |
|         | 314 TO 14 DEGREES AT 39'6" TO 59'6" (REF. DWG. NO. ) |          |        |              |  |   |   |   |                                    |
| 411900  | LINER PLATE  | E-A      | C GEN. | 4.7-020      |  | X | - | - | -                                  |
|         | LINER PLATE (GENERAL VISUAL)                         | E1.11    |        |              |  |   |   |   | 3/26/02 - General Visual complete. |

REMARKS  
\*\*CALIBRATION BLOCK\*\*



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UNTITLED PLANT [IWE] - UNIT 4  
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METALLIC CONTAINMENT LINER

4-013

ASME STATUS

N I O

SEC. XI

STATUS

O N G T  
P S F H

| SUMMARY | EXAMINATION AREA |
|---------|------------------|
| NUMBER  | IDENTIFICATION   |

| CATEGORY | ITEM NO | DESCRIPTION | QTY | UNIT | PRICE | TOTAL |
|----------|---------|-------------|-----|------|-------|-------|
| 1        | 1       | ...         | ... | ...  | ...   | ...   |
| 2        | 2       | ...         | ... | ...  | ...   | ...   |
| 3        | 3       | ...         | ... | ...  | ...   | ...   |
| 4        | 4       | ...         | ... | ...  | ...   | ...   |
| 5        | 5       | ...         | ... | ...  | ...   | ...   |
| 6        | 6       | ...         | ... | ...  | ...   | ...   |
| 7        | 7       | ...         | ... | ...  | ...   | ...   |
| 8        | 8       | ...         | ... | ...  | ...   | ...   |
| 9        | 9       | ...         | ... | ...  | ...   | ...   |
| 10       | 10      | ...         | ... | ...  | ...   | ...   |
| 11       | 11      | ...         | ... | ...  | ...   | ...   |
| 12       | 12      | ...         | ... | ...  | ...   | ...   |
| 13       | 13      | ...         | ... | ...  | ...   | ...   |
| 14       | 14      | ...         | ... | ...  | ...   | ...   |
| 15       | 15      | ...         | ... | ...  | ...   | ...   |
| 16       | 16      | ...         | ... | ...  | ...   | ...   |
| 17       | 17      | ...         | ... | ...  | ...   | ...   |
| 18       | 18      | ...         | ... | ...  | ...   | ...   |
| 19       | 19      | ...         | ... | ...  | ...   | ...   |
| 20       | 20      | ...         | ... | ...  | ...   | ...   |
| 21       | 21      | ...         | ... | ...  | ...   | ...   |
| 22       | 22      | ...         | ... | ...  | ...   | ...   |
| 23       | 23      | ...         | ... | ...  | ...   | ...   |
| 24       | 24      | ...         | ... | ...  | ...   | ...   |
| 25       | 25      | ...         | ... | ...  | ...   | ...   |
| 26       | 26      | ...         | ... | ...  | ...   | ...   |
| 27       | 27      | ...         | ... | ...  | ...   | ...   |
| 28       | 28      | ...         | ... | ...  | ...   | ...   |
| 29       | 29      | ...         | ... | ...  | ...   | ...   |
| 30       | 30      | ...         | ... | ...  | ...   | ...   |
| 31       | 31      | ...         | ... | ...  | ...   | ...   |
| 32       | 32      | ...         | ... | ...  | ...   | ...   |
| 33       | 33      | ...         | ... | ...  | ...   | ...   |
| 34       | 34      | ...         | ... | ...  | ...   | ...   |
| 35       | 35      | ...         | ... | ...  | ...   | ...   |
| 36       | 36      | ...         | ... | ...  | ...   | ...   |
| 37       | 37      | ...         | ... | ...  | ...   | ...   |
| 38       | 38      | ...         | ... | ...  | ...   | ...   |
| 39       | 39      | ...         | ... | ...  | ...   | ...   |
| 40       | 40      | ...         | ... | ...  | ...   | ...   |
| 41       | 41      | ...         | ... | ...  | ...   | ...   |
| 42       | 42      | ...         | ... | ...  | ...   | ...   |
| 43       | 43      | ...         | ... | ...  | ...   | ...   |
| 44       | 44      | ...         | ... | ...  | ...   | ...   |
| 45       | 45      | ...         | ... | ...  | ...   | ...   |
| 46       | 46      | ...         | ... | ...  | ...   | ...   |
| 47       | 47      | ...         | ... | ...  | ...   | ...   |
| 48       | 48      | ...         | ... | ...  | ...   | ...   |
| 49       | 49      | ...         | ... | ...  | ...   | ...   |
| 50       | 50      | ...         | ... | ...  | ...   | ...   |
| 51       | 51      | ...         | ... | ...  | ...   | ...   |
| 52       | 52      | ...         | ... | ...  | ...   | ...   |
| 53       | 53      | ...         | ... | ...  | ...   | ...   |
| 54       | 54      | ...         | ... | ...  | ...   | ...   |
| 55       | 55      | ...         | ... | ...  | ...   | ...   |
| 56       | 56      | ...         | ... | ...  | ...   | ...   |
| 57       | 57      | ...         | ... | ...  | ...   | ...   |
| 58       | 58      | ...         | ... | ...  | ...   | ...   |
| 59       | 59      | ...         | ... | ...  | ...   | ...   |
| 60       | 60      | ...         | ... | ...  | ...   | ...   |
| 61       | 61      | ...         | ... | ...  | ...   | ...   |
| 62       | 62      | ...         | ... | ...  | ...   | ...   |
| 63       | 63      | ...         | ... | ...  | ...   | ...   |
| 64       | 64      | ...         | ... | ...  | ...   | ...   |
| 65       | 65      | ...         | ... | ...  | ...   | ...   |
| 66       | 66      | ...         | ... | ...  | ...   | ...   |
| 67       | 67      | ...         | ... | ...  | ...   | ...   |
| 68       | 68      | ...         | ... | ...  | ...   | ...   |
| 69       | 69      | ...         | ... | ...  | ...   | ...   |
| 70       | 70      | ...         | ... | ...  | ...   | ...   |
| 71       | 71      | ...         | ... | ...  | ...   | ...   |
| 72       | 72      | ...         | ... | ...  | ...   | ...   |
| 73       | 73      | ...         | ... | ...  | ...   | ...   |
| 74       | 74      | ...         | ... | ...  | ...   | ...   |
| 75       | 75      | ...         | ... | ...  | ...   | ...   |
| 76       | 76      | ...         | ... | ...  | ...   | ...   |
| 77       |         |             |     |      |       |       |

## EXAM METHOD

REC'D  
C G M R

REMARKS

**\*\*CALIBRATION BLOCK\*\***

14 TO 74 DEGREES AT 59'6" TO 125'10" (REF. DWG. NO. )

411940 LINER PLATE

**E-A**

C GEN.

4.7-031

**X**    -    -    -

3/28/02 - General Visual  
complete.

LINER PLATE (GENERAL E1.11

**E1.11**

VISUAL)

Area directly above crane rail is inaccessible from the 58' level.







REVISION: 0

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4-017

ASME STATUS

N I O  
O N G  
R S E  
E I O  
C G M R

REMARKS

**\*\*CALIBRATION BLOCK\*\***

254 TO 314 DEGREES AT 59'6" TO 125'10" (REF. DWG. NO. )

|        |                      |       |        |         |         |                           |
|--------|----------------------|-------|--------|---------|---------|---------------------------|
| 412100 | LINER PLATE          | E-A   | C GEN. | 4.7-027 | X - - - | 3/28/02 - General Visual  |
|        | LINER PLATE (GENERAL | E1.11 |        |         |         | complete.                 |
|        | VISUAL)              |       |        |         |         | Area directly above crane |
|        |                      |       |        |         |         | rail is inaccessible from |
|        |                      |       |        |         |         | 58' level.                |



DATE: 05/28/02  
REVISION: 0

UNTITLED PLANT [IWE] - UNIT 4  
INSERVICE INSPECTION RESULTS SUMMARY  
INTERVAL 1, PERIOD 2, OUTAGE 1 (02)  
CLASS - CTPBEAR COMPONENTS

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METALLIC CONTAINMENT LINER

|  |                       |          |        |         |              |   |   |   |                          |
|--|-----------------------|----------|--------|---------|--------------|---|---|---|--------------------------|
| 4-019  |                       | ASME     | STATUS |         |              | N | I | O |                          |
|  |                       | SEC. XI  |        |         |              | O | N | G | T                        |
| SUMMARY  | EXAMINATION AREA      | CATEGORY |        | EXAM    |              | R | S | E | H                        |
| NUMBER   | IDENTIFICATION        | ITEM NO  |        | METHOD  | DATA SHEET # | E | I | O | E                        |
|  |                       |          |        |         |              | C | G | M | R                        |
| **CALIBRATION BLOCK**                                    |                       |          |        |         |              |   |   |   |                          |
| 0 TO 360 DEGREES 125'10" TO TOP OF DOME (REF. DWG. NO. ) |                       |          |        |         |              |   |   |   |                          |
| 412210   | LINER PLATE (DOME)    | E-A      | C GEN. | 4.7-042 | X            | - | - | - | 3/29/02 - General Visual |
|  | DOME (GENERAL VISUAL) | E1.11    |        |         |              |   |   |   | complete.                |