



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

APR 29 1985

Please Fax  
to R. Huey  
@ SONGS

MEMORANDUM FOR: Dennis F. Kirsch, Acting Director  
Division of Reactor Safety and Projects  
Region V

FROM: James G. Partlow, Director  
Division of Inspection Programs  
Office of Inspection and Enforcement

SUBJECT: INSPECTIONS BY IE PERSONNEL - SAN ONOFRE

IE Inspection Report No. 50-206/85-12; 50-361/85-09; 50-362/85-08, dated April 10, 1985, provides the results of an inspection performed by IE personnel covering the operations, surveillance, and procurement areas (IPs 42700, 71707, 71710, 61700, 61726, and 38701) at the San Onofre Nuclear Generating Station (SONGS).

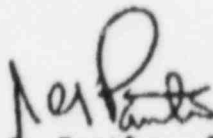
One aspect of this inspection was to provide an input to assess regional implementation of the IE inspection program. Based on a review of inspection reports and 766 data (tabulated in the enclosure) for the previous two years, the following observations were made relative to SONGS:

1. The minimum and basic programs of IE Manual Chapter 2515 have been implemented in the operations, surveillance, and procurement areas. The quality of the associated reports was considered above average.
2. The two unresolved items associated with the vital batteries were not previously identified in the regional inspection reports, although the written inspection program could have led to their discovery. This area has been identified as a generic weakness throughout all the regions and has been separately addressed in an IE Office Director memorandum to Regional Administrators dated February 26, 1985.
3. Region V inspection reports had identified several weaknesses in the licensee's performance for controlling system lineups. Some of the Region V findings in this area led to escalated enforcement actions. IE inspection findings 50-361/85-09-04 and 50-361/85-09-05 appear to be consistent with the previously identified Region V findings.
4. Region V Inspection Report 50-206/84-19; 50-361/84-24; 50-352/84-24 identified housekeeping weaknesses in the same area of the Unit 2 Safety Equipment Building as did the IE inspectors in Paragraph 2.c of their report.

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5. Unresolved Item 50-206/85-12-01 pertains to the licensee's apparent failure to determine the as-found condition for the containment integrated leak rate test (CILRT) performed on Unit 1 during May/June 1984. This issue was not previously identified despite the fact that the CILRT had been reviewed as part of Inspection Report 50-206/84-13; 50-361/84-16; 50-362/84-17. We note, however, that uncertainty may exist among licensees and within the NRC concerning the proper interpretation of some of the regulatory requirements applicable to CILRTs, particularly the requirement to determine and report the as-found condition. Consequently, we are revising the applicable inspection procedures (IPs 70307, 70313, and 70323) and have drafted an IE Information Notice for issuance in the near future.
6. The two concerns associated with the surveillance testing of the Unit 3 auxiliary feedwater pumps (Unresolved Items 50-362/85-08-01 and 50-362/85-08-02) had not been previously identified in the regional inspection reports. However, the licensee mistakes that led to these identified concerns occurred relatively recently (November 1984 - January 1985) and the affected area had not yet been sampled by Region V inspectors.

Based upon our limited review of the licensee's operations and surveillance activities, we generally concur in the Region V assignment of a SALP rating of category three in operations and category two in surveillance for the SALP period July 1, 1982 through May 30, 1983.



James G. Partlow, Director  
Division of Inspection Programs  
Office of Inspection and Enforcement

Enclosure:  
As stated

766 DATA SUMMARY FOR SAN ONOFRE UNITS 2 AND 3A. Plant Operations

1. Program Requirements (Minimum/Basic and Supplemental Programs) reviewed during the inspection.
  - a. IP 71707 - Operational Safety Verification - done daily/weekly/biweekly.
  - b. IP 71710 - ESF System Walkdown - done bimonthly.
  - c. IP 42700 - Procedures - done when required (Supplemental Program).
2. Inspections Conducted.

|    | PROCEDURE       | REPORT<br>NUMBER | FROM<br>DATE | TO<br>DATE | STAFF<br>HRS | PCT<br>COMPLETE | STATUS |
|----|-----------------|------------------|--------------|------------|--------------|-----------------|--------|
| a. | IP 71707-Unit 2 | 8243             | 122282       | 011983     | 18           | 100             | C      |
|    |                 | 8303             | 011683       | 030183     | 44           | 100             | C      |
|    |                 | 8310             | 030183       | 032283     | 20           | 100             | C      |
|    |                 | 8315             | 032383       | 060283     | 72           | 100             | C      |
|    |                 | 8322             | 032683       | 042283     | --           | ---             | -      |
|    |                 | 8324             | 042583       | 060283     | 38           | 100             | C      |
|    |                 | 8325             | 060383       | 070583     | 35           | 100             | C      |
|    |                 | 8327             | 070683       | 080383     | 36           | 100             | C      |
|    |                 | 8329             | 080483       | 091683     | 49           | 100             | C      |
|    |                 | 8333             | 091783       | 102833     | 16           | 100             | C      |
|    |                 | 8340             | 102983       | 120983     | 25           | 100             | C      |
|    |                 | 8343             | 121083       | 012184     | 30           | 100             | C      |
|    |                 | 8406             | 012284       | 022984     | 34           | 100             | C      |
|    |                 | 8411             | 030784       | 042984     | 7            | 100             | C      |
|    |                 | 8416             | 043084       | 061184     | 39           | 100             | C      |
|    |                 | 8418             | 061184       | 080584     | 42           | 100             | C      |
|    |                 | 8424             | 090684       | 101284     | 188          | 100             | C      |
|    |                 | 8427             | 101584       | 111383     | 82           | ---             | -      |
|    |                 | 8435             | 111484       | 121584     | 27           | 100             | C      |
| b. | IP 71707-Unit 3 | 8235             | 122282       | 011983     | 7            | 100             | C      |
|    |                 | 8303             | 012483       | 022083     | 10           | 100             | C      |
|    |                 | 8304             | 011683       | 030183     | 44           | 100             | C      |
|    |                 | 8308             | 030183       | 032283     | 18           | 100             | C      |
|    |                 | 8311             | 022183       | 032583     | 18           | 100             | C      |
|    |                 | 8313             | 032383       | 060283     | 48           | 100             | C      |
|    |                 | 8321             | 032683       | 042283     | 12           | 100             | C      |
|    |                 | 8323             | 042583       | 060283     | 36           | 100             | C      |
|    |                 | 8324             | 060383       | 070583     | 23           | 100             | C      |
|    |                 | 8326             | 070683       | 080383     | 26           | 100             | C      |
|    |                 | 8327             | 080483       | 091683     | 21           | 100             | C      |
|    |                 | 8331             | 091783       | 102883     | 18           | 100             | C      |
|    |                 | 8339             | 102983       | 120983     | 79           | 100             | C      |

| PROCEDURE          | REPORT<br>NUMBER | FROM<br>DATE | TO<br>DATE | STAFF<br>HRS | PCT<br>COMPLETE | STATUS |
|--------------------|------------------|--------------|------------|--------------|-----------------|--------|
|                    | 8342             | 121083       | 012184     | 41           | 100             | C      |
|                    | 8406             | 012284       | 022984     | 34           | 100             | C      |
|                    | 8411             | 030784       | 042984     | 30           | 100             | C      |
|                    | 8417             | 043084       | 061184     | 37           | 100             | C      |
|                    | 8418             | 061184       | 080584     | 72           | 100             | C      |
|                    | 8424             | 090684       | 101284     | 133          | 100             | C      |
|                    | 8428             | 101584       | 111384     | 37           | ---             | -      |
|                    | 8435             | 111484       | 121584     | 22           | 100             | C      |
| c. IP 71710-Unit 2 | 8310             | 030183       | 03228      | 6            | 100             | C      |
|                    | 8315             | 03238        | 060283     | 10           | 100             | C      |
|                    | 8325             | 060383       | 070583     | 16           | 100             | C      |
|                    | 8329             | 080483       | 091683     | 10           | 100             | C      |
|                    | 8340             | 102983       | 120983     | 18           | 100             | C      |
|                    | 8416             | 043084       | 061184     | 6            | 100             | C      |
|                    | 8418             | 061184       | 080584     | --           | ---             | -      |
|                    | 8424             | 090684       | 101284     | 19           | 100             | C      |
|                    | 8435             | 111484       | 121584     | --           | ---             | -      |
| d. IP 71710-Unit 3 | 8313             | 032383       | 060283     | 10           | 100             | C      |
|                    | 8324             | 060383       | 070583     | 16           | 100             | C      |
|                    | 8327             | 080483       | 091683     | 20           | 100             | C      |
|                    | 8339             | 102983       | 120983     | 20           | 100             | C      |
|                    | 8417             | 043084       | 061184     | 7            | 100             | C      |
|                    | 8418             | 061184       | 080584     | 24           | 100             | C      |
|                    | 8424             | 090684       | 101284     | 20           | 100             | C      |
|                    | 8435             | 111484       | 121584     | --           | ---             | -      |

e. IP 42700 Unit 2 Not accomplished during this period.

f. IP 42700 Unit 3 Not accomplished during this period.

#### B. Surveillance

1. Program Requirements (Minimum/Basic and Supplemental Programs) reviewed during the inspection.

a. IP 61725 Surveillance Test and Calibration Program - done every 3 years.

b. IP 61726 Monthly surveillance observation - done monthly.

c. IP 61700 - Surveillance - done when required.

2. Inspections conducted.

| PROCEDURE          | REPORT<br>NUMBER                     | FROM<br>DATE | TO<br>DATE | STAFF<br>HRS | PCT<br>COMPLETE | STATUS |
|--------------------|--------------------------------------|--------------|------------|--------------|-----------------|--------|
| a. IP 61726 Unit 2 | 8305                                 | 012483       | 022083     | 8            | 100             | C      |
|                    | 8312                                 | 022183       | 032583     | 5            | 100             | C      |
|                    | 8316                                 | 030183       | 033183     | 2            | 100             | C      |
|                    | 8327                                 | 070683       | 080383     | 3            | 100             | C      |
|                    | 8328                                 | 080483       | 091683     | 6            | 100             | C      |
|                    | 8333                                 | 091783       | 102883     | 2            | 100             | C      |
|                    | 8340                                 | 102983       | 120983     | 4            | 100             | C      |
|                    | 8343                                 | 121083       | 012184     | 3            | ---             | -      |
|                    | 8406                                 | 012284       | 022984     | -            | ---             | -      |
|                    | 8411                                 | 030784       | 042984     | 1            | 20              | C      |
|                    | 8416                                 | 043084       | 061184     | 5            | 100             | C      |
|                    | 8418                                 | 061184       | 080584     | -            | -               | C      |
|                    | 8424                                 | 090684       | 010284     | 5            | 100             | C      |
|                    | 8427                                 | 101584       | 111384     | 32           | ---             | -      |
|                    | 8435                                 | 111484       | 121584     | 3            | 100             | C      |
| b. IP 61726 Unit 3 | 8303                                 | 012483       | 022083     | 7            | 100             | C      |
|                    | 8311                                 | 022183       | 032583     | 5            | 100             | C      |
|                    | 8315                                 | 030183       | 033183     | 2            | 100             | C      |
|                    | 8326                                 | 070683       | 080383     | 1            | 100             | C      |
|                    | 8327                                 | 080483       | 091683     | -            | ---             | -      |
|                    | 8331                                 | 091783       | 102883     | 8            | 100             | C      |
|                    | 8339                                 | 102983       | 120983     | -            | ---             | C      |
|                    | 8342                                 | 121808       | 012184     | 2            | ---             | -      |
|                    | 8406                                 | 012284       | 012184     | 2            | ---             | C      |
|                    | 8411                                 | 030784       | 042984     | 2            | 50              | C      |
|                    | 8417                                 | 043084       | 061184     | 13           | 100             | C      |
|                    | 8418                                 | 061184       | 080584     | 5            | 60              | C      |
|                    | 8424                                 | 090684       | 101284     | 7            | 100             | C      |
|                    | 8428                                 | 101584       | 111384     | 2            | ---             | -      |
|                    | 8435                                 | 111484       | 121584     | 4            | 100             | C      |
| c. IP 61700 Unit 2 | 8301                                 | 010383       | 012183     | 17           | 100             | C      |
| d. IP 61700 Unit 3 | 8301                                 | 010383       | 012183     | 6            | 100             | C      |
| e. IP 61725 Unit 2 | Not accomplished during this period. |              |            |              |                 |        |
| f. IP 61725 Unit 3 | Not accomplished during this period. |              |            |              |                 |        |

C. Procurement

1. Program Requirements (Minimum/basic and supplemental programs) reviewed during the inspection.

a. IP 38701B Procurement Program - done each inspection period.

b. IP 38702B - Receipt, Storage and Handling of Equipment and Materials Program done each inspection period.

c. IP 38700B - Procurement - no longer required.

|    | PROCEDURE        | REPORT<br>NUMBER | FROM<br>DATE | TO<br>DATE | STAFF<br>HRS | PCT<br>COMPLETE | STATUS |
|----|------------------|------------------|--------------|------------|--------------|-----------------|--------|
| a. | IP 38700B-Unit 2 | 8307             | 020783       | 021183     | 7            | 100             | C      |
| b. | IP 38700B-Unit 3 | 8307             | 020783       | 021183     | 7            | 100             | C      |
| c. | IP 38701B-Unit 2 | 8415             | 060484       | 060884     | 17           | 100             | C      |
| d. | IP 38701B-Unit 3 | 8415             | 060484       | 060884     | 16           | ---             | C      |
| e. | IP 38702B-Unit 2 | 8415             | 060484       | 060884     | 8            | 100             | C      |
| f. | IP 38702B-Unit 3 | 8415             | 060484       | 060884     | 8            | ---             | C      |





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MEMORANDUM FOR: Dennis F. Kirsch, Acting Director  
Division of Reactor Safety and Projects  
Region V

FROM: James G. Partlow, Director  
Division of Inspection Programs  
Office of Inspection and Enforcement

SUBJECT: INSPECTIONS BY IE PERSONNEL - SAN ONOFRE

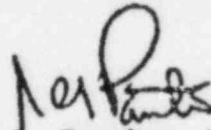
IE Inspection Report No. 50-206/85-12; 50-361/85-09; 50-362/85-08, dated April 10, 1985, provides the results of an inspection performed by IE personnel covering the operations, surveillance, and procurement areas (IPs 42700, 71707, 71710, 61700, 61726, and 38701) at the San Onofre Nuclear Generating Station (SONGS).

One aspect of this inspection was to provide an input to assess regional implementation of the IE inspection program. Based on a review of inspection reports and 766 data (tabulated in the enclosure) for the previous two years, the following observations were made relative to SONGS:

1. The minimum and basic programs of IE Manual Chapter 2515 have been implemented in the operations, surveillance, and procurement areas. The quality of the associated reports was considered above average.
2. The two unresolved items associated with the vital batteries were not previously identified in the regional inspection reports, although the written inspection program could have led to their discovery. This area has been identified as a generic weakness throughout all the regions and has been separately addressed in an IE Office Director memorandum to Regional Administrators dated February 26, 1985.
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4. Region V Inspection Report 50-206/84-19; 50-361/84-24; 50-352/84-24 identified housekeeping weaknesses in the same area of the Unit 2 Safety Equipment Building as did the IE inspectors in Paragraph 2.c of their report.

5. Unresolved Item 50-206/85-12-01 pertains to the licensee's apparent failure to determine the as-found condition for the containment integrated leak rate test (CILRT) performed on Unit 1 during May/June 1984. This issue was not previously identified despite the fact that the CILRT had been reviewed as part of Inspection Report 50-206/84-13; 50-361/84-16; 50-362/84-17. We note, however, that uncertainty may exist among licensees and within the NRC concerning the proper interpretation of some of the regulatory requirements applicable to CILRTs, particularly the requirement to determine and report the as-found condition. Consequently, we are revising the applicable inspection procedures (IPs 70307, 70313, and 70323) and have drafted an IE Information Notice for issuance in the near future.
6. The two concerns associated with the surveillance testing of the Unit 3 auxiliary feedwater pumps (Unresolved Items 50-362/85-08-01 and 50-362/85-08-02) had not been previously identified in the regional inspection reports. However, the licensee mistakes that led to these identified concerns occurred relatively recently (November 1984 - January 1985) and the affected area had not yet been sampled by Region V inspectors.

Based upon our limited review of the licensee's operations and surveillance activities, we generally concur in the Region V assignment of a SALP rating of category three in operations and category two in surveillance for the SALP period July 1, 1982 through May 30, 1983.



James G. Partlow, Director  
Division of Inspection Programs  
Office of Inspection and Enforcement

Enclosure:  
As stated



## Enclosure

766 DATA SUMMARY FOR SAN ONOFRE UNITS 2 AND 3A. Plant Operations

1. Program Requirements (Minimum/Basic and Supplemental Programs) reviewed during the inspection.
  - a. IP 71707 - Operational Safety Verification - done daily/weekly/biweekly.
  - b. IP 71710 - ESF System Walkdown - done bimonthly.
  - c. IP 42700 - Procedures - done when required (Supplemental Program).
2. Inspections Conducted.

|    | PROCEDURE       | REPORT<br>NUMBER | FROM<br>DATE | TO<br>DATE | STAFF<br>HRS | PCT<br>COMPLETE | STATUS |
|----|-----------------|------------------|--------------|------------|--------------|-----------------|--------|
| a. | IP 71707-Unit 2 | 8243             | 122282       | 011983     | 18           | 100             | C      |
|    |                 | 8303             | 011683       | 030183     | 44           | 100             | C      |
|    |                 | 8310             | 030183       | 032283     | 20           | 100             | C      |
|    |                 | 8315             | 032383       | 060283     | 72           | 100             | C      |
|    |                 | 8322             | 032683       | 042283     | --           | ---             | -      |
|    |                 | 8324             | 042583       | 060283     | 38           | 100             | C      |
|    |                 | 8325             | 060383       | 070583     | 35           | 100             | C      |
|    |                 | 8327             | 070683       | 080383     | 36           | 100             | C      |
|    |                 | 8329             | 080483       | 091683     | 49           | 100             | C      |
|    |                 | 8333             | 091783       | 102833     | 16           | 100             | C      |
|    |                 | 8340             | 102983       | 120983     | 25           | 100             | C      |
|    |                 | 8343             | 121083       | 012184     | 30           | 100             | C      |
|    |                 | 8406             | 012284       | 022984     | 34           | 100             | C      |
|    |                 | 8411             | 030784       | 042984     | 7            | 100             | C      |
|    |                 | 8416             | 043084       | 061184     | 39           | 100             | C      |
|    |                 | 8418             | 061184       | 080584     | 42           | 100             | C      |
|    |                 | 8424             | 090684       | 101284     | 188          | 100             | C      |
|    |                 | 8427             | 101584       | 111383     | 82           | ---             | -      |
|    |                 | 8435             | 111484       | 121584     | 27           | 100             | C      |
| b. | IP 71707-Unit 3 | 8235             | 122282       | 011983     | 7            | 100             | C      |
|    |                 | 8303             | 012483       | 022083     | 10           | 100             | C      |
|    |                 | 8304             | 011683       | 030183     | 44           | 100             | C      |
|    |                 | 8308             | 030183       | 032283     | 18           | 100             | C      |
|    |                 | 8311             | 022183       | 032583     | 18           | 100             | C      |
|    |                 | 8313             | 032383       | 060283     | 48           | 100             | C      |
|    |                 | 8321             | 032683       | 042283     | 12           | 100             | C      |
|    |                 | 8323             | 042583       | 060283     | 36           | 100             | C      |
|    |                 | 8324             | 060383       | 070583     | 23           | 100             | C      |
|    |                 | 8326             | 070683       | 080383     | 26           | 100             | C      |
|    |                 | 8327             | 080483       | 091683     | 21           | 100             | C      |
|    |                 | 8331             | 091783       | 102883     | 18           | 100             | C      |
|    |                 | 8339             | 102983       | 120983     | 79           | 100             | C      |

| PROCEDURE          | REPORT<br>NUMBER | FROM<br>DATE | TO<br>DATE | STAFF<br>HRS | PCT<br>COMPLETE | STATUS |
|--------------------|------------------|--------------|------------|--------------|-----------------|--------|
|                    | 8342             | 121083       | 012184     | 41           | 100             | C      |
|                    | 8406             | 012284       | 022984     | 34           | 100             | C      |
|                    | 8411             | 030784       | 042984     | 30           | 100             | C      |
|                    | 8417             | 043084       | 061184     | 37           | 100             | C      |
|                    | 8418             | 061184       | 080584     | 72           | 100             | C      |
|                    | 8424             | 090684       | 101284     | 133          | 100             | C      |
|                    | 8428             | 101584       | 111384     | 37           | ---             | -      |
|                    | 8435             | 111484       | 121584     | 22           | 100             | C      |
| c. IP 71710-Unit 2 | 8310             | 030183       | 03228      | 6            | 100             | C      |
|                    | 8315             | 03238        | 060283     | 10           | 100             | C      |
|                    | 8325             | 060383       | 070583     | 16           | 100             | C      |
|                    | 8329             | 080483       | 091683     | 10           | 100             | C      |
|                    | 8340             | 102983       | 120983     | 18           | 100             | C      |
|                    | 8416             | 043084       | 061184     | 6            | 100             | C      |
|                    | 8418             | 061184       | 080584     | --           | ---             | -      |
|                    | 8424             | 090684       | 101284     | 19           | 100             | C      |
|                    | 8435             | 111484       | 121584     | --           | ---             | -      |
| d. IP 71710-Unit 3 | 8313             | 032383       | 060283     | 10           | 100             | C      |
|                    | 8324             | 060383       | 070583     | 16           | 100             | C      |
|                    | 8327             | 080483       | 091683     | 20           | 100             | C      |
|                    | 8339             | 102983       | 120983     | 20           | 100             | C      |
|                    | 8417             | 043084       | 061184     | 7            | 100             | C      |
|                    | 8418             | 061184       | 080584     | 24           | 100             | C      |
|                    | 8424             | 090684       | 101284     | 20           | 100             | C      |
|                    | 8435             | 111484       | 121584     | --           | ---             | -      |

e. IP 42700 Unit 2 Not accomplished during this period.

f. IP 42700 Unit 3 Not accomplished during this period.

## B. Surveillance

1. Program Requirements (Minimum/Basic and Supplemental Programs) reviewed during the inspection.

a. IP 61725 Surveillance Test and Calibration Program - done every 3 years.

b. IP 61726 Monthly surveillance observation - done monthly.

c. IP 61700 - Surveillance - done when required.

2. Inspections conducted.

|    | PROCEDURE       | REPORT<br>NUMBER                     | FROM<br>DATE | TO<br>DATE | STAFF<br>HRS | PCT<br>COMPLETE | STATUS |
|----|-----------------|--------------------------------------|--------------|------------|--------------|-----------------|--------|
| a. | IP 61726 Unit 2 | 8305                                 | 012483       | 022083     | 8            | 100             | C      |
|    |                 | 8312                                 | 022183       | 032583     | 5            | 100             | C      |
|    |                 | 8316                                 | 030183       | 033183     | 2            | 100             | C      |
|    |                 | 8327                                 | 070683       | 080383     | 3            | 100             | C      |
|    |                 | 8329                                 | 080483       | 091683     | 6            | 100             | C      |
|    |                 | 8333                                 | 091783       | 102883     | 2            | 100             | C      |
|    |                 | 8340                                 | 102983       | 120983     | 4            | 100             | C      |
|    |                 | 8343                                 | 121083       | 012184     | 3            | ---             | -      |
|    |                 | 8406                                 | 012284       | 022984     | -            | ---             | -      |
|    |                 | 8411                                 | 030784       | 042984     | 1            | 20              | C      |
|    |                 | 8416                                 | 043084       | 061184     | 5            | 100             | C      |
|    |                 | 8418                                 | 061184       | 080584     |              |                 | C      |
|    |                 | 8424                                 | 090684       | 010284     | 5            | 100             | C      |
|    |                 | 8427                                 | 101584       | 111384     | 32           | ---             | -      |
|    |                 | 8435                                 | 111484       | 121584     | 3            | 100             | C      |
| b. | IP 61726 Unit 3 | 8303                                 | 012483       | 022083     | 7            | 100             | C      |
|    |                 | 8311                                 | 022183       | 032583     | 5            | 100             | C      |
|    |                 | 8315                                 | 030183       | 033183     | 2            | 100             | C      |
|    |                 | 8326                                 | 070683       | 080383     | 1            | 100             | C      |
|    |                 | 8327                                 | 080483       | 091683     | -            | ---             | -      |
|    |                 | 8331                                 | 091783       | 102883     | 8            | 100             | C      |
|    |                 | 8339                                 | 102983       | 120983     | -            | ---             | C      |
|    |                 | 8342                                 | 121808       | 012184     | 2            | ---             | -      |
|    |                 | 8406                                 | 012284       | 012184     | 2            | ---             | C      |
|    |                 | 8411                                 | 030784       | 042984     | 2            | 50              | C      |
|    |                 | 8417                                 | 043084       | 061184     | 13           | 100             | C      |
|    |                 | 8418                                 | 061184       | 080584     | 5            | 60              | C      |
|    |                 | 8424                                 | 090684       | 101284     | 7            | 100             | C      |
|    |                 | 8428                                 | 101584       | 111384     | 2            | ---             | -      |
|    |                 | 8435                                 | 111484       | 121584     | 4            | 100             | C      |
| c. | IP 61700 Unit 2 | 8301                                 | 010383       | 012183     | 17           | 100             | C      |
| d. | IP 61700 Unit 3 | 8301                                 | 010383       | 012183     | 6            | 100             | C      |
| e. | IP 61725 Unit 2 | Not accomplished during this period. |              |            |              |                 |        |
| f. | IP 61725 Unit 3 | Not accomplished during this period. |              |            |              |                 |        |

C. Procurement

1. Program Requirements (Minimum/basic and supplemental programs) reviewed during the inspection.
  - a. IP 38701B Procurement Program - done each inspection period.
  - b. IP 38702B - Receipt, Storage and Handling of Equipment and Materials Program done each inspection period.
  - c. IP 38700B - Procurement - no longer required.

|    | PROCEDURE        | REPORT<br>NUMBER | FROM<br>DATE | TO<br>DATE | STAFF<br>HRS | PCT<br>COMPLETE | STATUS |
|----|------------------|------------------|--------------|------------|--------------|-----------------|--------|
| a. | IP 38700B-Unit 2 | 8307             | 020783       | 021183     | 7            | 100             | C      |
| b. | IP 38700B-Unit 3 | 8307             | 020783       | 021183     | 7            | 100             | C      |
| c. | IP 38701B-Unit 2 | 8415             | 060484       | 060884     | 17           | 100             | C      |
| d. | IP 38701B-Unit 3 | 8415             | 060484       | 060884     | 16           | ---             | C      |
| e. | IP 38702B-Unit 2 | 8415             | 060484       | 060884     | 8            | 100             | C      |
| f. | IP 38702B-Unit 3 | 8415             | 060484       | 060884     | 8            | ---             | C      |

April 30, 1985

MEMORANDUM FOR: F. Randall Huey, Senior Resident Inspector  
San Onofre Nuclear Generating Station

FROM: A. D'Angelo, Resident Inspector

SUBJECT: INSPECTION REPORT NO. 50-206/85-12, FINDING CONCERNING  
CONTAINMENT INTEGRATED LEAK RATE TEST AT SAN ONOFRE UNIT 1

During a recent Headquarters' team inspection at San Onofre, a finding was identified by the team which concerns the San Onofre Unit 1 Containment Integrated Leak Rate Test (CILRT). The unresolved item which the team had raised concerns the performance of an as-found analysis for Type A ILRT test. The requirements for this test are contained in 10 CFR Part 50, Appendix J and are discussed in the body of this memo.

Appendix J requires the performance of a periodic leak rate test on the primary containment to verify that containment integrity is in tact. Three test types are discussed in Appendix J for leak testing of primary reactor containments. These tests are designated Type A, B, and C and are performed as follows:

Type A test - This test is an integrated test of the entire reactor containment which is generally performed once every three and one-third years.

Type B test - A test designed to locally test a containment penetration which contains resilient seals, gaskets, or a sealing compound.

Type C test - A local test designed for testing containment isolation valves which would not fall under category B type test. Both B and C tests are generally performed on a two year cycle between Type A test.

A licensee performing a Type A test would normally test all penetrations by utilizing Type B and C test methods prior to conducting a Type A test. This is done primarily to insure an acceptable Type A test since this test requires the entire containment be pressurized to the calculated maximum accident containment pressure. Should a Type B or C test fail, the licensee would then conduct the necessary maintenance work to bring the tested penetration leakage rate within allowable limits. The post-maintenance test on this penetration would be another Type B or C test, as appropriate, to demonstrate that the penetration local leak rate is within acceptable limits. Once all the penetrations are locally tested and found to be satisfactory, the licensee would then begin to conduct the integrated Type A test for the entire containment.

Therefore, the Type A test would yield as-left data since all penetrations had been previously tested and any necessary maintenance or adjustment would have been performed. The licensee would then document all test data, including the local leak rate tests which were performed just prior to the Type A, and submit the technical report to the Director of Nuclear Reactor Regulation.

The issue that has been raised by the Headquarters' team is that the licensee has submitted a CILRT report which was conducted in June of 1984 which did not contain an analysis of the as-found condition of the Unit 1 containment. The licensee has submitted their Type A results along with all Type B and C tests results (pre and post maintenance) to the NRC but has not included an as-found analysis of the primary containment leak rate and therefore, violated a requirement of 10 CFR Part 50, Appendix J.

The as-found analysis would be calculated by utilizing the Type A CILRT test just conducted, and adding to that measured leak rate (which is the as-left condition) the difference in local leak rates (Type B or C) where maintenance and/or adjustment were made to isolation valves. The result would then be a calculated leak rate for the as-found (or as-is) condition of the containment.

Appendix J specifies the leakage testing requirements for Type A test within Paragraph III.A.1 which states the following:

"Containment inspection in accordance V.A shall be performed as a prerequisite to the performance of Type A test. During the period between the initiation of the containment inspection and the performance of the Type A test, no repairs or adjustments shall be made so that the containment can be tested in as close to the 'as-is' condition as practicable".

At first reading, it would appear that the licensee has clearly violated the Appendix J requirement as stated above. However, closer inspection of Appendix J states the following in the very next sentence:

"During the period between the completion of one Type A test and the initiation of the containment inspection for the subsequent Type A test, repairs or adjustments shall be made to components whose leakage exceeds that specified in the technical specification as soon as practicable after identification. If during a Type A test, including the supplemental test specified in III.A.3.(b), potentially excessive leakage paths are identified which will interfere with satisfactory completion of the test, or which result in the Type A test not meeting the acceptance criteria III.A.4.(b) or III.A.5.(b), the Type A test shall be terminated and the leakage through such paths shall be measured using local leakage testing methods. Repairs and/or adjustments to the equipment shall be made and a Type A test performed. The corrective action taken and the change in leakage rate determined from the test and overall integrated leakage determined from the local leak and Type A test shall be included in the report submitted to the Commission as specified in V.B."

Appendix J appears to make a distinction in that the period of time between the initiation of the containment inspection and the performance of the Type A test, no repairs shall be made to the containment. However, Appendix J also states that during periods between periodic Type A tests, repairs or adjustments shall be made to components whose leakage rates exceed Technical Specification requirements. Therefore, it appears that if the licensee does not declare their containment inspection to start until after all local leakage rate tests have been completed, they would then be in compliance with Appendix J.



Appendix J also references an American National Standard (ANSI) which is N45.4-1972, Leakage Rate Testing of Containment Structures for Nuclear Reactors. This standard sets forth various test methods to be used for containment leakage rate tests. This standard contains in Paragraph 4.2 titled Retesting:

"For retesting, an initial record proof test shall be conducted at time periods and pressures established by the responsible organization before any preparatory repairs are made. This will disclose the normal state of repair of the containment structure and a record of the results shall be retained. If the results of this test prove that the containment leakage rate exceeds the specified maximum, local and integral tests may be performed and any necessary work done to bring the leakage rate within the specified limits. A proof leakage rate test shall then be made to demonstrate that the maximum allowable leakage rate is not exceeded."

The ANSI standard requires that no preparatory repairs be made until a Type A test is preformed. However, this, in my opinion, is not intended to require that during the three and one-third year period between periodic Type A tests that no repair and/or adjustment be made until a subsequent Type A test is performed, but merely to state that no preliminary exercising or adjustments to valves be made prior to the start of a Type A test. It would be unreasonable to interpret this paragraph as requiring that no repair and/or adjustment be made until a Type A CILRT could be performed. Also, a local leak rate such as Type B or C performed pre and post maintenance and that difference added to the Type A would yield essentially the same results.

Clarification on this issue is given in an internal NRC memorandum from R. Matson to J. Snizek, dated January 11, 1982. The memorandum states the following in the third paragraph, "If repairs and/or adjustments made as a result of the Type B and C testing programs, or other reasons, are made to the primary containment boundary prior to the Type A test sequence, local leak tests must be performed on the affected portion of the containment boundary to determine the leakage rates before and after the repairs and adjustments. The "as-found" Type A test result can then be obtained by adding the difference between the affected path leakages before and after the repairs and/or adjustments, to the overall measured Type A test result. A periodic Type A test should be called a "failure" if the "as-found" Type A test results (with or without correction from local leak tests) exceeds 0.75 La (maximum allowable leakage rate)."

Unfortunately this clarification and guidance was not documented in an IE bulletin or notice or other document to the industry and therefore the industry did not have this interpretation from NRC available prior to the conduct of Type A tests.

In an effort to identify any previous enforcement actions, I conducted a review of all enforcement actions taken by the agency during 1983 and 1984 in an effort to identify whether this occurrence has been documented at other facilities. The results of my search revealed that one Notice of Violation has been issued to a licensee, the Wisconsin Public Service Corporation, which is the licensee for Kewaunee, Docket No. 50-305. A review of the NOV revealed that the licensee had performed Type B and C tests prior to performing the Type A test and failed to add the pre and post repair differential leakage to

obtain an as-found value for containment leakage. This is the identical situation which is occurring at San Onofre. The basis for the violation

however, is the Kewaunee Technical Specification which discusses the performance of Type A test and states in paragraph 4 that, "The periodic test shall be performed without preliminary leak detection survey or leak repairs." Therefore, in the case of Kewaunee, the violation is very clear in that the technical specification specifically prohibits preliminary leak test or repair prior to the conduct of a Type A. This requirement is not contained in the San Onofre Technical Specifications.

Another violation is in preparation in Region III on the identical subject. This violation is against the Northern States Power Company, Docket No. 50-263. The basis of the Region III proposed violation is as follows: "Appendix J, paragraph III.A.1.a states: "During the period between the initiation of the containment inspection and the performance of a Type A test, no repairs or adjustments shall be made so that the containment can be tested in as close to the 'as-is' condition as practicable". The Region III violation has been proposed, however, there exists disagreement within Region III on the basis and requirement of this violation and the issue has been referred to I&E Headquarters for resolution. Based on my review of NOV's generated since 1983, only the proposed Region III NOV would be identical to the San Onofre Unit 1 situation.

I have also conducted an informal survey of several licensees and one architect engineer within Region V to determine current industry practice. The organizations contacted were Arizona Public Service, Pacific Gas and Electric and the Bechtel Power Corporation, San Francisco Division. All three organizations performed their periodic Type A test in the identical fashion that Southern California Edison Co. performs their Type A test. All three organizations stated that, to the best of their knowledge, it is industry practice to perform a local leak rate test, perform maintenance and/or adjustment, if needed, perform a post maintenance local leak rate (Type B or C) and then start the containment inspection for the CILRT.

The dilemma at hand then is one of enforcing an interpretation, as discussed in the January 11, 1982 letter above, by NRR of a regulation which is not clear. I recommend that no Notice of Violation be issued at present and further suggest that the agency take action to clarify the NRC's position on the current Appendix J.

Original signed

Anthony J. D'Angelo  
Resident Inspector  
San Onofre Nuclear Generating Station

cc: D. F. Kirsch

A. E. Chaffee  
P. H. Johnson  
C. Clark

MEMORANDUM FOR FILE

May 15, 1985

SUBJECT: FSAR Requirements for Specific Acceptance Testing  
of Safety Related Batteries  
San Onofre Nuclear Generating Station, Units 2 & 3

PURPOSE: The purpose of this memorandum is to document the results of a review to determine if specific acceptance tests were completed as prescribed by FSAR 8.3.2.

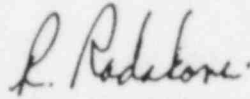
DISCUSSION: The FSAR required that the first performance test of battery capacity be carried out within the first two (2) years of service. This and other capacity tests were done under startup testing. The particular procedures used to accomplish this testing were Startup Procedures 2PE-448-01 and 3PE-448-01. The objectives of these procedures are to demonstrate that the 125V DC power systems provides a reliable source of power under normal and emergency conditions, and is capable of supplying the design load capacity under emergency conditions. This was done through the use of specified capacity tests, recommended by IEEE 450 and specified as objective 1.5 and 1.8 of Procedures 2PE-448-01 and 3PE-448-01. Objective 1.5 requires verifying the name plate rated capacity of the battery. This in accordance with IEEE 450 is an Acceptance Test as well as a Performance Test. Objective 1.8 requires verifying the ability of the battery to meet the designed (calculated) DC load requirements of the 125V DC power system (Class IE). This in accordance with IEEE 450 is a Service Test. The initial energization of the batteries occurred in 1979 and the performance of Procedures 2PE-448-01 and 3PE-448-01 occurred within two years of the initial energization date. The successful completion of these tests satisfies the requirements of FSAR Section 8.3.2.

Memorandum For File

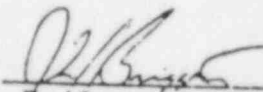
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May 15, 1985

CONCLUSION: NSSS Engineering has concluded that the requirements of FSAR 8.3.2.2.1.8, IEEE 450-1975, Recommended Practice for Maintenance, Testing, and Replacement of Large Stationary Type Power Plant and Substation Lead Storage Batteries, have been adequately satisfied by the performance of Startup Test Procedure 2PE-448-01 for Unit 2 and 3PE-448-01 for Unit 3.



R. RADAKOVIC

Approved: 

F. Briggs III

Supervising Engineer II

RR006/mdr

cc: J. T. Reilly  
K. L. Johnson  
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CDM Files