



NUCLEAR REGULATORY COMMISSION

REGION II

101 MARIETTA ST., N.W., SUITE 3100
ATLANTA, GEORGIA 30303

DEC 31 1980

MEMORANDUM FOR: Chairman, Systematic Assessment of Licensee Performance (SALP)
Review Group, IE

FROM: James P. O'Reilly, Director, RII

SUBJECT: SALP BOARD RESULTS FOR VIRGINIA ELECTRIC AND POWER COMPANY

The results of the regional evaluations and the action plans for the region are documented in the Enclosures to this memorandum. During the development of the SALP evaluations for each VEPCO site, it was determined that an evaluation of VEPCO's overall performance in its nuclear operations would be beneficial to the NRC and the utility. A format for the utility evaluation was developed, and is forwarded as Enclosure 1 to this memorandum. Enclosures 2 and 3 document the results of the SALP evaluation for North Anna 1 and 2 and Surry 1 and 2. North Anna 3 and 4 were not evaluated as no construction activity was in progress during the evaluation period. Items identified in the evaluations for regional action have been added to the Outstanding Items List for each facility.

Region II conducted a management meeting with VEPCO during which the collective results of these evaluations were presented. This method of presentation to senior corporate executives is considered very desirable in that it provides the decision makers of each utility with the NRC's evaluation of its overall performance in nuclear activities. This, of course, includes identification of both weak and strong areas. The management meeting was held at the VEPCO Corporate office in Richmond, VA on October 18, 1980.

James P. O'Reilly
James P. O'Reilly

Enclosures:

1. Performance Evaluation, VEPCO
2. Performance Evaluation, North Anna
Power Station with Appendices A and B
3. Performance Evaluation, Surry Power
Station with Appendices A and B

cc w/encl:

Regional Directors
R. C. DeYoung, IE
A. Dromerick, NRR
L. Engles, NRR
D. Neighbors, NRR

CONTACT: R. C. Lewis
(242-5535)

Enclosure 1

SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE
FOR
VIRGINIA ELECTRIC AND POWER COMPANY

Region IIUTILITY PERFORMANCE EVALUATION

Utility: Virginia Electric and Power Company

Units: North Anna 1, 2
Surry 1, 2
North Anna 3, 4 (No construction activity during audit period.)

Appraisal Period: April 1, 1979 - August 31, 1980

Review Board Members:

R. C. Lewis, Acting Chief, RONS Branch
P. J. Kellogg, Chief Reactor Projects Section 3
C. M. Upright, Acting Chief, Nuclear Support Section 2
A. Dromerick, Licensing Project Manager NRR
L. Engles, Licensing Project Manager NRR*
D. Neighbors, Licensing Project Manager NRR*

*By Telephone

Background

SALP evaluations for each site were generated as prerequisites to the NRC identifying the general performance level of each utility with an NRC license. These evaluations are forwarded to an interoffice review board formed of senior members from all Offices of the NRC involved in licensed activities. The board will, by virtue of receiving all SALP evaluations, form a national perspective of licensee performance. Additionally, the evaluations will provide a means for highlighting areas of NRC programs that may require changes or redirection.

In developing the site evaluations it was determined that an overall evaluation of the utility's performance in its nuclear activities was desirable. Additional enclosures document the individual site evaluations.

The utility and site evaluations were presented in a meeting with senior corporate management in order to provide the decision makers of each utility with the NRC's evaluation of its overall performance in nuclear activities.

A. Areas of Good Performance

VEPCO is generally responsive to NRC regulations and to findings of noncompliance. Corporate and site reorganizations have occurred. These changes should improve management attention to the sites. These organizations have already demonstrated improved onsite communications. The reorganizations included a split of nuclear and fossil managers at the corporate level up to the executive vice president. Additional management positions at the sites, and related personnel changes have improved management controls at the sites.

B. Areas Where Improved Performance is Warranted

VEPCO has had several cases of commitments to NRC not being accomplished by the due dates. Their corporate commitment tracking system has been upgraded. Improvement in this area is expected.

Many items reported as LER's appear to be avoidable if more attention were given to closely monitoring operating trends and thereby being able to take corrective action prior to entering a Limiting Condition for Operation Action statement. Additionally, prompt issuance of procedural changes could avoid Technical Specification violations that occur due to the use of procedures containing outdated limits. These areas appear to have been degraded due to the increased staff workloads required by IE Bulletins and changing requirements.

C. Overall Evaluation

VEPCO is, in general, responsive to NRC requirements, findings of noncompliance, and information requests from the NRC. VEPCO's reliance on subcontractors and their Architect-Engineers is detrimental sometimes to their providing rapid responses to NRC concerns although they apparently make a good effort to do so. Their performance is evaluated to be slightly below average for Region II. However, their reorganization appears to be improving their performance. A continuation of this uptrend is expected.

Enclosure 2

SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE
FOR
NORTH ANNA UNITS 1 AND 2

Region II

LICENSEE PERFORMANCE EVALUATION (OPERATIONS)

Facility: North Anna Power Station

Licensee: Virginia Electric and Power Company

Unit Identification:

| <u>Docket No.</u> | <u>License No./Date of Issuance</u> | <u>Unit No.</u> |
|-------------------|-------------------------------------|-----------------|
| 50-338 | NPF-4/November 26, 1977 | 1 |
| 50-339 | NPF-7/April 11, 1980 | 2 |

Reactor Information

| | <u>Unit 1</u> | <u>Unit 2</u> |
|------|---------------|---------------|
| NSSS | Westinghouse | Westinghouse |
| MWT | 2775 | 2775 |

Appraisal Period: May 1, 1979 through April 30, 1980. These dates were used to provide a comparable basis for all operating reactors in Region II. Significant events or enforcement items occurring after these dates were considered in arriving at the indicated conclusions.

Appraisal Completion Date: September 19, 1980

Review Board Members:

R. C. Lewis - Acting Chief, RONS Branch
P. Kellogg - Chief, Reactor Projects Section 3
A. Dromerick - Licensing Project Manager
L. Engles - Licensing Project Manager (By telephone on 9/4)
A. Johnson - Project Coordinator
E. Webster - Senior Resident Inspector (By telephone)
M. Kidd - Past Senior Resident Inspector (By telephone on 9/4)

A. Number and Nature of Noncompliance Items

| <u>Noncompliance Category:</u> | <u>Unit 1</u> | <u>Unit 2</u> |
|---|----------------------------------|----------------------------------|
| Violations | 0 | 0 |
| Infractions | 27 | 5 |
| Deficiencies | 10 | 0 |
| | | |
| <u>Areas of Noncompliance:</u> <u>(List Areas as Required)</u> | <u>Unit 1</u> <u>(Points)</u> | <u>Unit 2</u> <u>(Points)</u> |
| Reporting | 20 | 70 |
| Procedures | 10 | 0 |
| Security | 12 | 0 |
| Training | 10 | 0 |
| Plant Operation | 10 | 30 |
| Review | 40 | 0 |
| Administration | 16 | 0 |
| Quality Assurance | 108 | 0 |
| Surveillance | 74 | 0 |
| Design | <u>10</u> | <u>0</u> |
| Total Points | 310 | 100 |

The board considered the number of noncompliance items in the quality assurance area as significant but not indicative of poor performance. This is an average result of the inspections performed by the quality assurance group at all Region II facilities utilizing the team concept. Future inspection results in this area, compared with these results, will be more indicative of both relative and absolute performance.

Additionally, it was noted that an increased potential for noncompliance may be observed during the startup period of Unit 2. Significant differences in the Technical Specifications between the two units may result in operator confusion and misunderstanding of some specifications. This may also lead to increased LER's in the area of surveillance.

The number of items concerning surveillances on Unit 1 is attributed to the unit completing its first refueling outage. Many problems are associated with the first performance of some surveillances.

B. Number and Nature of Licensee Event Reports

| <u>Type of Events:</u> | <u>Unit 2</u> | <u>Unit 2</u> |
|------------------------|---------------|---------------|
| Personnel Error | 23 | 0 |
| Design | 30 | 0 |
| Defective Procedures | 7 | 0 |
| Casual Events - Linked | 6 | 0 |
| Component Failure | 57 | 0 |
| Other | 25 | 0 |

Licensee Event Reports Reviewed (Report Nos.)

Unit 1 LERs 79-48 through 80-37 (143 reports)
 No Unit 2 LERs during this period.

The board's review of LERs identified three areas worthy of mention. These areas are secondary steam generator chemistry controls, instrumentation, and electrical problems. In the steam generator chemistry controls area it was noted that excessive tube corrosion had occurred during the first operating cycle apparently due to resin intrusions and the failure to recognize the effects of this problem. The licensee is closely monitoring this problem area and we would expect no further problems of this type. In the area of electrical problems associated with the emergency diesel generators, the licensee has been successful in identifying and correcting the problems. With respect to solid state protection system and individual rod position indication drift, these problems appear to be comparable to other plants with similar equipment.

C. Escalated Enforcement ActionsCivil Penalties

None.

Orders

None.

Immediate Action Letters

February 26, 1980 - concerning testing, and report of abnormalities of loose parts inside the reactor coolant system. Westinghouse recommendations were carried out prior to and during power operation of Unit 1.

D. Management Conferences Held During Past Twelve Months

None.

E. Justification of Evaluations of Functional Areas Categorized as Requiring an Increase in Inspection Frequency/Scope (See evaluation sheets)

Item 16 - The area of quality control is recommended for increased inspection frequency. This area has just been taken over by VEPCO from a contractor for both Units at North Anna and, as such, is a new program. Early inspection in this area should provide valuable input to this program.

F. Comparison of Unit 1 With Unit 2

A comparison of Unit 2 preoperational and startup programs with Unit 1 indicates slightly improved performance on Unit 2. This small improvement is less than normally expected for a second unit with dual licensed operators.

The reason for the only slight improvement appears to be caused by the differences in Technical Specification between the units. Unit 2 has more restrictive specifications than Unit 1. Further improvement in Unit 2 operations is expected during the first cycle of operations.

G. Overall Evaluation

The licensee's performance of licensed activities is considered to be acceptable. Problems identified during the appraisal period are not considered to be abnormal for a facility's first year of operation or for a unit conducting preoperational and startup test programs. The licensee is generally responsive to NRC findings and requests for information. The licensee's performance is evaluated to be average as compared to other Region II plants.

Appendix A - Functional Areas

Appendix B - Action Plan

Appendix A

2-A-1

FUNCTIONAL AREAS (Operations)

Inspection
Frequency and/or Scope

| FUNCTIONAL AREA | Increase | No. Change | Decrease |
|--|----------|------------|----------|
| 1. Management Control | | X | |
| 2. Plant Operations | | X | |
| 3. Refueling Operations and Activities | | X | |
| 4. Maintenance | | X | |
| 5. Surveillance and Preoperational Testing | | X | |
| 6. Training | | X | |
| 7. Radiation Protection | | X | |
| 8. Environmental Protection | | X | |
| 9. Emergency Planning | | X | |
| 10. Fire Protection | | X | |
| 11. Security and Safeguards | | X | |
| 12. Design Changes and Modifications | | X | |
| 13. Reporting | | X | |
| 14. QA Audit | | X | |
| 15. Committee Activities | | X | |
| 16. Quality Control | X | | |
| 17. Procurement | | X | |

R.C. Lewis

(BRANCH CHIEF)

12/24/80

(DATE)

Appendix B

2-B-1

Region II

ACTION PLAN

Facility - North Anna Power Station

Appraisal Date: September 3, 1980

1. Escalated Enforcement Action

No escalated Enforcement Action is warranted at this time. The licensee appears to be responsive to concerns expressed by the NRC and their programs for correction of identified items appear to be effective. It is felt that the recent (April) reorganization will provide increased efficiency and closer management attention to daily activities.

2. Inspection Program Changes

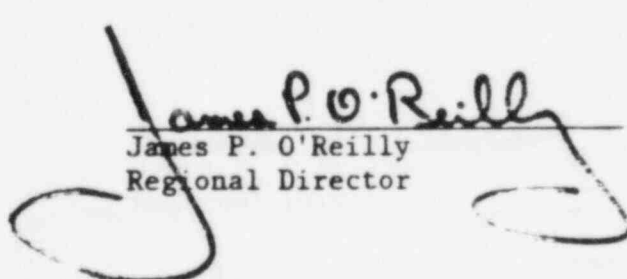
An increased frequency of inspection is recommended for quality control. This will be accomplished by the resident inspectors devoting increased inspection effort to this area. A quality assurance inspection will be conducted in February 1981, to verify the adequacy of the licensee's program for quality control.

3. Management Meetings Planned

A management meeting was held to discuss this appraisal with the licensee in October. No additional meetings outside those required by the routine inspection program are recommended.

4. Status of Action From Previous Appraisals

Past regional appraisals have been reviewed to determine the status of actions recommended. All previously recommended action have been completed.


James P. O'Reilly
Regional Director

Enclosure 3

SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE
FOR
SURRY POWER STATION UNITS 1 AND 2

Region II

Licensee Performance Evaluation (Operations)

Facility: Surry Power Station

Licensee: Virginia Electric and Power Company

Unit Identification:

| Docket No. | License No./Date of Issuance | Unit No. |
|------------|------------------------------|----------|
| 50-280 | DPR-32/May 25, 1972 | 1 |
| 50-281 | DPR-37/January 29, 1973 | 2 |

| Reactor Information | <u>Unit 1</u> | <u>Unit 2</u> |
|---------------------|---------------|---------------|
| NSSS | Westinghouse | Westinghouse |
| MWT | 2441 | 2441 |

Appraisal Period: May 1, 1979 through April 30, 1980. These dates were used to provide a comparable basis for all operating reactors in Region II. Significant events or enforcement items occurring after these dates were considered in arriving at the indicated conclusions.

Appraisal Completion Date: September 14, 1980

Review Board Members:

- R. C. Lewis, Acting Chief, RONS Branch
- D. Burke, Senior Resident Inspector (Telephone)
- C. Upright, Acting Chief, Nuclear Support Section #2
- A. Johnson, Project Coordinator
- P. Kellogg, Chief, Reactor Projects Section 3
- D. Neighbors, Licensing Project Manager (Contacted by telephone for input on September 3, 1980)

A. Number and Nature of Noncompliance Items

| Noncompliance category: | Unit 1 | Unit 2 |
|-------------------------|--------|--------|
| Violations | 0 | 3 |
| Infractions | 19 | 13 |
| Deficiencies | 5 | 9 |

| Areas of Noncompliance: | Unit 1 | Unit 2 |
|-----------------------------|----------|----------|
| (List Areas as Required) | (Points) | (Points) |
| Maintenance | 22 | 28 |
| Security | 22 | 30 |
| Plant Operation | 70 | 12 |
| Fire Protection | 10 | 10 |
| Radiation Protection | 42 | 354 |
| Quality Assurance | 22 | 4 |
| Surveillance Pre-op Testing | 12 | -- |
| Design and Modifications | 10 | 10 |
| TOTAL POINTS | 210 | 448 |

The board in its deliberation of noncompliance items reviewed the results of previous regional audits, and concluded that no adverse trends with respect to noncompliance are indicated. The board reached the general conclusion that Surry has been responsive to NRC regulations and to findings of noncompliance. The recent reorganization at the corporate and site levels appear to be providing increased responsiveness to regional concerns.

Additional items which the board considered in recommending the enclosed action plan are the recent startup program on Unit 2; attention to operating trends; and attention to new systems operation and procedures. Specifically, it was the board's determination that a majority of the problems associated with the Unit 2 startup might have been precluded by the implementation of an improved preoperational test program.

Several items reported in LERs as operating in degraded modes, such as boric acid concentrations being out of specification, appeared to be avoidable if more attention was given to reviewing operating trends and correcting procedural deficiencies. Several items stemming from conducting operations on revised/new systems without revised or new procedures appeared to be avoidable. Closer attention is recommended for these areas for a plant recovering from a major maintenance outage.

B. Number and Nature of Licensee Event Reports

| Type of Events: | Unit 1 | Unit 2 |
|--------------------------|--------|--------|
| Personnel errors | 5 | 2 |
| Design | 18 | 0 |
| Defective procedures | 2 | 1 |
| Component failure | 16 | 1 |
| Casually - linked events | 2 | 0 |
| Other | 5 | 0 |

Licensee Event Reports Reviewed (Report Nos.)

Unit 1 LERs 79-12 through 80-20 (48 Reports)

Unit 2 LERs 79-11 through 80-1 (4 Reports)

It was noted during this review that many LERs were the result of violating revised limits. In some cases, the revised limits stemming from T. S. changes were not promptly transferred into procedural changes resulting in the out-of-specification readings. In other cases, the revised limits were taxing the capabilities of the installed instrumentation (i.e., maximum limits very close to minimum limits on tanks levels). It was felt the licensee was making a determined effort to identify these types of items and correct them. However, the staff workload required by IE Bulletins and changing requirements has adversely impacted these corrective efforts.

C. Escalated Enforcement Actions

Civil Penalties

May 14, 1980 - \$8,000 based on a radioactive shipment on April 14, 1980, which was not properly surveyed.

Orders

Show Cause Orders issued March 13, 1979, suspending facility operation pending seismic reanalysis and necessary modification of large bore safety-related piping were effective for both Units 1 and 2. These Orders were issued before the period covered by this audit. On August 22, 1979, the Order was lifted for Unit 1 and on March 27, 1980, the Order was lifted for Unit 2.

Immediate Action Letters

December 21, 1979 - concerning inspection and testing requirements for large - bore Bergen-Paterson shock and sway arrestors on Unit 1 prior to restart of plant.

September 7, 1979 - concerning seismic reanalysis for smaller pipe and hangers to be completed on Unit 1 following the lifting of the Show Cause Order of March 13, 1979. This IAL generally dealt with IE Bulletins 79-02 and 79-14.

D. Management Conferences Held During Past Twelve Months

January 30, 1980 - at IE:RII concerning investigation prompted by allegations from two operators who had damaged new fuel at the power station.

April 30, 1980 - at IE:RII concerning inadequate radiological surveillance conducted on a shipment to Barnwell, SC. Notice of Violation transmitted May 28, 1980 levied an \$8,000 civil penalty.

E. Justification of Evaluation of Functional Areas Categorized as Requiring an Increase in Inspection Frequency/Scope (See Evaluation Sheets)

Item 2 - Plant Operations - Increased inspection frequency is recommended for this area due to the restart of Unit 2 following the major maintenance outage and the problems that may be experienced due to the length of the outage. This will be accomplished by the resident inspectors devoting a major portion of their inspection effort toward this area until the Unit 2 startup program is finished and the identified problems resolved.

F. Comparison of Unit 1 With Unit 2

A comparison of Unit 1 (in operation) with Unit 2 (in a steam generator repair outage (SGRP)) is not useful for the period of this evaluation. Unit 2 had a greater health physics work load during the outage. Subsequently more items were identified with respect to that activity. As Unit 1 progresses through their SGRP, which will begin during the next audit period, an appropriate comparison will be available.

G. Overall Evaluation

The licensee's performance of licensed activities is considered to be acceptable. Problems identified during the appraisal period were primarily associated with the steam generator repair outage which was the first of a kind in the industry. The licensee's performance is evaluated as being well below average during the period appraised. There has been a marked improvement in management controls, and the regional inspections identify continuing improved performance.

Appendix A: Functional Areas

Appendix B: Action Plan

3-A-1
FUNCTIONAL AREAS (Operations)

Inspection
Frequency and/or Scope

| FUNCTIONAL AREA | Increase | No. Change | Decrease |
|--|----------|------------|----------|
| 1. Management Control | | X | |
| 2. Plant Operations | X | | |
| 3. Refueling Operations & Activities | X | X | |
| 4. Maintenance | | X | |
| 5. Surveillance & Preoperational Testing | | X | |
| 6. Training | | X | |
| 7. Radiation Protection | | X | |
| 8. Environmental Protection | | X | |
| 9. Emergency Planning | | X | |
| 10. Fire Protection | | X | |
| 11. Security & Safeguards | | X | |
| 12. Design Changes & Modifications | | X | |
| 13. Reporting | | X | |
| 14. QA Audits | | X | |
| 15. Committee Activities | | X | |
| 16. Quality Control | | X | |
| 17. Procurement | | X | |
| | | | |
| | | | |
| | | | |

R.C. Lewis
(Branch Chief)

12/24/80
Date

Appendix B

3-B-1

Region II

ACTION PLAN

Facility - Surry Power Station

Appraisal Date: September 4, 1980

1. Escalated Enforcement Action

No escalated Enforcement Action is warranted at this time. The licensee appears to be responsive to concerns expressed by the NRC. Their programs for correction of identified items appear to be effective. It is felt that the recent (April) reorganization will provide increased efficiency and closer management attention to daily activities.

2. Inspection Program Changes

An increased frequency of inspection of plant operations will be accomplished by the resident inspectors devoting a major portion of their inspection effort to this area until the Unit 2 startup program is finished and the identified problems resolved.

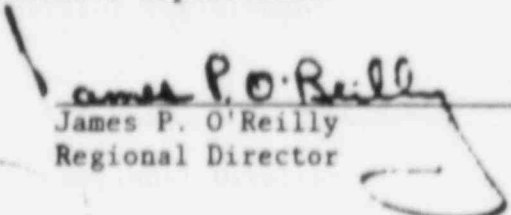
3. Management Meetings Planned

A management meeting was held to discuss this appraisal with the licensee in October. No additional meetings outside those required by the routine inspection program are planned.

4. Status of Action From Previous Appraisals

Past regional appraisals have been reviewed to determine the status of actions recommended. All previously recommended actions have been completed.

Note: In addition to the above Action Plan items, Region II management has emphasized to the licensee's management the continuing need for particular emphasis on radiation protection measures during the current extended Unit 1 outage for steam generator replacement.


James P. O'Reilly
Regional Director

3-A-1
FUNCTIONAL AREAS (Operations)

Inspection
Frequency and/or Scope

| FUNCTIONAL AREA | Increase | No. Change | Decrease |
|--|----------|------------|----------|
| 1. Management Control | | X | |
| 2. Plant Operations | X | | |
| 3. Refueling Operations & Activities | | X | |
| 4. Maintenance | | X | |
| 5. Surveillance & Preoperational Testing | | X | |
| 6. Training | | X | |
| 7. Radiation Protection | | X | |
| 8. Environmental Protection | | X | |
| 9. Emergency Planning | | X | |
| 10. Fire Protection | | X | |
| 11. Security & Safeguards | | X | |
| 12. Design Changes & Modifications | | X | |
| 13. Reporting | | X | |
| 14. QA Audits | | X | |
| 15. Committee Activities | | X | |
| 16. Quality Control | | X | |
| 17. Procurement | | X | |
| | | | |
| | | | |
| | | | |

R.C. Lewis
(Branch Chief)

12/24/80
Date

Appendix B

3-B-1

Region II

ACTION PLAN

Facility - Surry Power Station

Appraisal Date: September 4, 1980

1. Escalated Enforcement Action

No escalated Enforcement Action is warranted at this time. The licensee appears to be responsive to concerns expressed by the NRC. Their programs for correction of identified items appear to be effective. It is felt that the recent (April) reorganization will provide increased efficiency and closer management attention to daily activities.

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An increased frequency of inspection of plant operations will be accomplished by the resident inspectors devoting a major portion of their inspection effort to this area until the Unit 2 startup program is finished and the identified problems resolved.

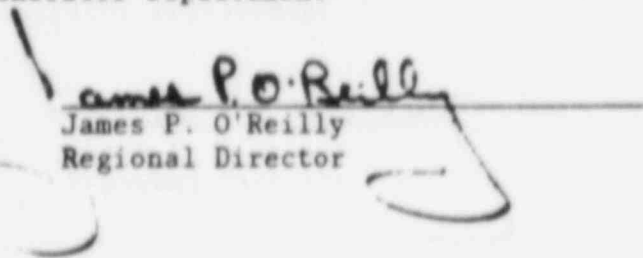
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James P. O'Reilly
Regional Director