FEB 10 1984

In Reply Refer To:
Docket: 50-285/83-28

Omaha Public Power District
ATTN: W. C. Jones, Division Manager
Production Operations
1623 Harney Street
Omaha, Nebraska 68102

Gentlemen:

This refers to the Systemetic Assessment of Licensee Performance (SALP) of the Fort Calhoun Station. The SALP Board met on November 8, 1983, to evaluate the performance of the subject facility for the period September 1, 1982, through August 31, 1983. The performance analyses and resulting evaluations were discussed with you in a meeting in Omaha on December 20, 1983.

The performance of your facility was evaluated in the selected functional areas identified in Section IV of the enclosed SALP Board Report. The SALP Board evaluation process consists of categorizing performance in each functional area. The categories which we have used to evaluate the performance of your facility are defined in Section II of the enclosed SALP Board Report.

It is my view that Omaha Public Power District's overall performance at the Fort Calhoun Station is satisfactory. However, improvement is needed in the areas of radiochemical confirmatory measurements, training, and quality assurance.

Your letter of January 10, 1984, which provided responses to the recommendations of the 1982/1983 SALP Board Report, and the SALP Board Report appear as enclosures to this letter which issues the SALP Board Report as an NRC report. Copies of this letter and its attachments will be placed in the Public Document Room.

RPS-C	RPB2	DDRREP&EP	DRA	RA
WDJohnson:gb	JEGagliardo for	RPDenise	PCheck	JTCollins
2/13/84	2/7/84	2/9/84	/84	/84

10 5

IE01

Should you have any questions concerning this letter, we will be pleased to discuss them with you.

Sincerely,

Original Signed By
Paul S. Check
John T. Collins
Regional Administrator

Enclosures:
1. Letter 12/14/83, J. E. Gagliardo (NRC/RIV) to W. C. Jones (OPPD) including NRC Report 50-285/83-28
2. Letter 01/10/84, W. C. Jones (OPPD) to J. E. Gagliardo (NRC/RIV)
3. Attendance list, SALP Management Meeting 12/20/83

cc:
W. G. Gates, Manager
Fort Calhoun Station
P.O. Box 399
Fort Calhoun, Nebraska 68023

Harry H. Voight, Esq.
LeBoeuf, Lamb, Leiby & MacRae
1333 New Hampshire Avenue, NW
Washington, DC 20036

bcc to DMB (IE01)

bcc distrib. by RIV:

RPB2	Resident Inspector
TPB	Section Chief (RPS-C)
RIV File	R. Denise, DRRP&EP
J. Collins, RA	Zack T. Pate, IMPO
MIS SYSTEM	ALL RRIs (9)
KANSAS STATE DEPT. HEALTH	
NEBRASKA STATE DEPT. HEALTH	

In Reply Refer To:
Docket: 50-285/83-28

December 14, 1983

Omaha Public Power District
ATTN: W. C. Jones, Division Manager
Production Operations
1623 Harney Street
Omaha, Nebraska 68102

Gentlemen:

This refers to the Systematic Assessment of Licensee Performance (SALP) Board Report of the Fort Calhoun Station. The SALP Board met on November 8, 1983, to evaluate the performance of the subject facility for the period September 1, 1982, through August 31, 1983. The performance analyses and resulting evaluations are documented in the enclosed SALP Board Report. These analyses and evaluations will be discussed with you in a meeting scheduled for December 20, 1983.

The performance of your facility was evaluated in the selected functional areas identified in Section IV of the enclosed SALP Board Report.

The SALP Board evaluation process consists of categorizing performance in each functional area. The categories which we have used to evaluate the performance of your facility are defined in Section II of the enclosed SALP Board Report. Section III of the enclosed SALP Board Report contains a summary of the performance categories assigned to the various functional areas.

Any comments which you may have concerning our evaluation of the performance of your facility should be submitted to this office by January 10, 1984. Your comments, if any, and the SALP Board Report, will both appear as enclosures to the Region IV Administrator's letter which issues the SALP Report as an NRC Report. In addition to the issuance of the report, this letter will, if appropriate, state the NRC position on matters relating to the status of your safety program.

Comments which you may submit at your option are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL 96-511.

RPS-C	RPS-C	RRPB2		
LYandell/lk	WDJohnson	JGagliardo	PChuck	JCollins
12/12/83	12/12/83	12/13/83	13 Dec/83	12/14/83

Should you have any questions concerning this letter, we will be pleased to discuss them with you.

Sincerely,
Original Signed By
J. E. Gagliardo

J. E. Gagliardo, Acting Chief
Reactor Project Branch 2

Enclosure:
Appendix - NRC Report 50-285/83-28

cc w/enclosure:
W. G. Gates, Manager
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P. O. Box 399
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Washington, D.C. 20036

No DMB distribution at this time

bcc's distributed by RIV:
R. C. DeYoung, IE
J. T. Collins, RA, RIV
P. Check, DRA, RIV

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 1000
ARLINGTON, TEXAS 76011

December 14, 1983

In Reply Refer To:
Docket: 50-285/83-28

Omaha Public Power District
ATTN: W. C. Jones, Division Manager
Production Operations
1623 Harney Street
Omaha, Nebraska 68102

Gentlemen:

This refers to the Systematic Assessment of Licensee Performance (SALP) Board Report of the Fort Calhoun Station. The SALP Board met on November 8, 1983, to evaluate the performance of the subject facility for the period September 1, 1982, through August 31, 1983. The performance analyses and resulting evaluations are documented in the enclosed SALP Board Report. These analyses and evaluations will be discussed with you in a meeting scheduled for December 20, 1983.

The performance of your facility was evaluated in the selected functional areas identified in Section IV of the enclosed SALP Board Report.

The SALP Board evaluation process consists of categorizing performance in each functional area. The categories which we have used to evaluate the performance of your facility are defined in Section II of the enclosed SALP Board Report. Section III of the enclosed SALP Board Report contains a summary of the performance categories assigned to the various functional areas.

Any comments which you may have concerning our evaluation of the performance of your facility should be submitted to this office by January 10, 1984. Your comments, if any, and the SALP Board Report, will both appear as enclosures to the Region IV Administrator's letter which issues the SALP Report as an NRC Report. In addition to the issuance of the report, this letter will, if appropriate, state the NRC position on matters relating to the status of your safety program.

Comments which you may submit at your option are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL 96-511.

Should you have any questions concerning this letter, we will be pleased to discuss them with you.

Sincerely,

J. E. Gagliardo, Acting Chief
Reactor Project Branch 2

Enclosure:
Appendix - NRC Report 50-285/83-28

cc w/enclosure:
W. G. Gates, Manager
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Fort Calhoun, NE 68023

Harry J. Voigt, Esq.
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APPENDIX

U. S. NUCLEAR REGULATORY COMMISSION

REGION IV

Report: 50-285/83-28 License: DPR-40

Docket: 50-285

Licensee: Omaha Public Power District
1623 Harney Street
Omaha, Nebraska 68102

Facility Name: Fort Calhoun Station

Appraisal Period: September 1, 1982, through August 31, 1983

SALP Board Members:

J. E. Gagliardo, Director, Division of Resident, Reactor Project and Engineering Programs
B. Murray, Acting Director, Division of Vendor and Technical Programs
W. D. Johnson, Chief, Reactor Project Section C
L. A. Yandell, Senior Resident Reactor Inspector
J. R. Miller, Chief, Operating Reactor Branch 3, NRR

Reviewed by: W. D. Johnson, Chief, Reactor Project Section C — Date 12/13/83

Approved by: J. E. Gagliardo, Acting Chief, Reactor Project Branch 2 — Date 12/13/83

I. INTRODUCTION

The NRC has established a Systematic Assessment of Licensee Performance (SALP) program as an integrated NRC staff effort to collect available observations and data on a predetermined schedule and to evaluate licensee performance based on these observations and data. Emphasis is placed upon NRC understanding the licensee's performance in the 12 functional areas listed in the body of the report and discussing and sharing this understanding with the licensee. SALP is an integrated part of the regulatory process used to assure licensee's adherence to the NRC rules and regulations. SALP is oriented toward furthering the NRC's understanding of the manner in which: (1) the licensee management directs, guides, and provides resources for assuring plant safety; and (2) such resources are used and applied. The integrated SALP assessment is intended to be sufficiently diagnostic to provide meaningful guidance to licensee management related to quality and safety of plant operation, modifications, and new construction.

The integrated review was conducted by a SALP Board composed of NRC personnel who are knowledgeable of the licensee's activities. The SALP Board met on November 8, 1983, to review data and observations and to assess the licensee's performance in 12 areas. This SALP report is the SALP Board's assessment of the licensee's safety performance at Omaha Public Power District's (OPPD) Fort Calhoun Station during the period of September 1, 1982, through August 31, 1983.

The results of the SALP Board assessments in the selected functional areas will be discussed with the licensee at a meeting held on December 20, 1983.

II. CRITERIA

Licensee performance was assessed in 12 selected functional areas. Each of these functional areas represents an area significant to nuclear safety. Evaluation criteria as listed below were used, as appropriate, in each of the functional area assessments:

1. Management involvement in assuring quality
2. Approach to resolution of technical issues from safety standpoint
3. Responsiveness to NRC initiatives
4. Enforcement history
5. Reporting and analysis of reportable events
6. Staffing (including management)
7. Training effectiveness and qualification

In addition, SALP Board members considered other criteria, as appropriate.

Based upon the SALP Board assessment, each functional area evaluated is classified in one of the three performance categories. The definition of each of these performance categories is:

Category 1: Reduced NRC attention may be appropriate. Licensee management attention and involvement are aggressive and oriented toward nuclear safety; licensee resources are ample and effectively used such that a high level of performance with respect to operational safety or construction is being achieved.

Category 2: NRC attention should be maintained at normal levels. Licensee management attention and involvement are evident and are concerned with nuclear safety; licensee resources are adequate and are reasonably effective such that satisfactory performance with respect to operational safety or construction is being achieved.

Category 3: Both NRC and licensee attention should be increased. Licensee management attention or involvement is acceptable and considers nuclear safety, but weaknesses are evident; licensee resources appear to be strained or not effectively used such that minimally satisfactory performance with respect to operational safety or construction is being achieved.

III. SUMMARY OF RESULTS

In summary, the licensee's performance, as determined during the SALP Board meeting, is shown in the table below, along with the performance category from the previous SALP evaluation period:

SUMMARY OF RESULTS

Functional Area	Performance Category This Evaluation Period (September 1, 1982-August 31, 1983)	Performance Category Previous Evaluation Period (July 1, 1981-August 31, 1982)
A. Plant Operations	1	1
B. Radiological Controls		2
1. Radiation Protection	2	Not Assigned
2. Radwaste Systems and Effluent Control/ Monitoring	2	Not Assigned
3. Transportation/Solid Radwaste	3	Not Assigned
4. Confirmatory Measurements Chemistry/Radiochemistry	3	Not Assigned
5. Environmental Monitoring	2	Not Assigned
C. Maintenance	2	2
D. Surveillance	1	1
E. Fire Protection	2	2
F. Emergency Preparedness	2	2
G. Security and Safeguards	2	2
H. Refueling	1	2
I. Licensing Activities	2	1
J. Training	3	Not Assigned
K. Quality Assurance	3	3
L. Management Controls	2	2

The total NRC inspection effort during this SALP evaluation period consisted of 36 inspections involving a total of 2,913 hours onsite by NRC inspectors.

IV. PERFORMANCE ANALYSIS

A. Plant Operations

1. Analysis

This area has been inspected on a continuing basis by the NRC resident inspector. The two violations listed below involved activities in the functional area of plant operations:

a. The performance of steps added by a procedure change was not documented in an engineered safeguards surveillance test. (Severity Level IV, 8309-01)

b. The annunciator status log was not being maintained current. (Severity Level IV, 8311-01)

The following LER involved the functional area of plant operations:

o A safety-related shock suppressor was removed during the 10-year inservice inspection and not replaced within 72 hours after core reloading began as required by the Technical Specifications. (83-02/03L-0)

Fort Calhoun Station continues to maintain an experienced group of senior operators and reactor operators, and operates a fully manned six-shift rotation. Although attrition in both groups has occurred due to retirement and termination, new personnel have been licensed to ensure conformance with new shift manning regulations going into effect on January 1, 1984. The plant manager, two of the four technical area supervisors, the training supervisor, the operations QA supervisor, and the plant engineer all hold and maintain senior reactor operator licenses and provide support and technical expertise to the operations department. Operating personnel exhibit a strong commitment to procedural compliance and a good understanding of technical issues associated with plant operations. On several occasions, changes and corrections to operating instructions and valve lineups were initiated by the operators to improve these documents. As part of their August 1983 visit to the plant, the NRC license examiners spent significant time in the control room and commented favorably on the professional attitude displayed by the operators. This businesslike manner is reflected in the high plant availability record and good enforcement history in this area during this SALP evaluation period. Reportable events have been submitted in a timely manner and with complete information.

One occurrence this evaluation period reflected a weakness in operator training and system knowledge. The failure to shut the isolation valve between the spent fuel pool and the safety injection refueling water tank after pumping had been secured, allowed about 1000 gallons of contaminated liquid to continue draining (or siphoning) to the tank and overflow into the auxiliary building corridor and railroad bay. No offsite consequences resulted, but significant decontamination efforts inside the auxiliary building were required because of this failure to fully understand system operation and interaction.

The licensee has initiated a program to eliminate nuisance alarms in the control room and has reduced the number of inoperable annunciators. The maintenance order book has been relocated outside the control room to reduce traffic and distractions to the operators. A new system has been implemented for providing interim drawings to the control room, ensuring that the operators have current information as quickly as possible.

2. Conclusions

The licensee's performance in this functional area is excellent. A well qualified operating staff, strong operations oriented management personnel, and a good understanding of operating philosophy combine for a sound, capable, operating organization.

The licensee is considered to be in performance category 1 in this area.

3. Board Recommendations

a. Recommended NRC Actions

The NRC inspection effort in this functional area should be reduced.

b. Recommended Licensee Actions

Licensee management should continue its active involvement in the Fort Calhoun Station operation. Efforts should be continued to license additional plant supervisors not presently holding an SRO license on the plant.

B. Radiological Controls

Seven inspections regarding radiological controls were conducted during the assessment period by region-based radiation specialist inspectors. These seven inspections included the following areas: radiation protection-normal operations, radiation protection-refueling, radwaste management, confirmatory measurements, environmental surveillance, and transportation activities. The following specific areas are included within the general functional area of radiological controls:

1. Radiation Protection

a. Analysis

Two violations were identified involving radiation protection activities. These violations were:

(1) failure to follow plant procedures regarding the review of radiation work permits (Severity Level V, 8230-01)

(2) failure to control radioactive material (Severity Level IV, 8303-01)

The accumulated exposure for calendar year 1982 was 217 man-Rem. This is well below the 1982 PWR national average of 578 man-REM. The 1983 exposure for the period ending August 31 was about 400 man-Rem. Even though the 1983 man-Rem values are higher than 1982, the 1983 exposures reflect good control practices considering the licensee was involved in an extended outage in early 1983 to accomplish their 10-year inservice inspection program.

The lack of timely corrective action for NRC initiatives identified as open items has been a concern during this assessment and previous assessment period. Many of these open items date back to the 1980 health physics appraisal inspection. A management meeting was held with the licensee during July 6 and 7, 1983, at the Region IV office to review these concerns and establish commitment dates for completion of the outstanding open items. The delinquent open items involved all areas included in the general functional area of radiation controls. However, most of the items were in the specific area of radiation protection.

The licensee completed an extensive decontamination program in the auxiliary building. Contamination levels have been reduced to permit personnel access in the various corridors without the use of protective clothing. The licensee initiated a new in-house training program for five inexperienced chemistry/health physics technicians. This training program is designed to train personnel that have no previous experience. After completion of a formal 1-year training program, the trainees are qualified to work in the health physics department as entry level technicians.

The high turnover of personnel within the health physics department was a concern discussed on the 1981-82 SALP report. Improvement was noted during this assessment period in that only one technician has terminated employment. It was also noted that the licensee has increased their health physics staff which resulted in less reliance on contractor technicians.

Progress has been made during this assessment period toward the establishment of a comprehensive ALARA program. However, weaknesses continue to exist in the licensee's ALARA program. A full-time ALARA coordinator has not been designated, nor has an ALARA training program been established for the individual that functions as the part-time ALARA coordinator. The present ALARA program lacks proper coordination from parties that have program input such as design/engineering department, offsite ALARA function, onsite ALARA coordinator, and the onsite radiation protection department.

b. Conclusions

The overall radiation protection program has improved during this assessment period. The licensee has demonstrated an accelerated effort to close NRC concerns identified as open items. The licensee's actions regarding management controls, resolution of technical issues, enforcement history, staffing, and training are considered adequate. Better coordination needs to be established within the licensee's organization to ensure that a comprehensive ALARA program is implemented.

The licensee is considered to be in performance category 2 in this area.

c. Board Recommendations

(1) Recommended NRC Actions

The level of NRC inspection effort should be maintained at normal levels for this functional area.

(2) Recommended Licensee Actions

Attention should continue to ensure that NRC-identified initiatives are closed in a timely manner. Management attention is needed to ensure that a comprehensive ALARA program is implemented.

2. Radwaste Systems, Effluent Treatment and Releases, and Effluent Monitoring

a. Analysis

One inspection covering the area of effluent releases, effluent monitoring, and liquid and gaseous radwaste systems was conducted during this assessment period. No violations or deviations were identified during this inspection.

The licensee's program regarding management involvement and control, resolution of technical issues, reports, staffing, audits, and adherence to plant procedures is considered adequate.

One unresolved item involving the availability of documentation to verify sensitivities for measurements made by an offsite vendor was identified. Several open items identified during previous assessment periods remain to be closed.

b. Conclusions

The licensee's performance in this area is considered adequate. No significant problem areas have been identified in this area.

The licensee is considered to be in performance category 2 in this area.

c. Board Recommendations

(1) Recommended NRC Actions

The NRC inspection effort should be maintained at normal levels.

(2) Recommended Licensee Actions

Attention should be given to the completion of existing open items.

3. Transportation/Solid Radwaste

a. Analysis

One inspection was conducted in this area during the assessment period. No violations or deviations were noted. However, numerous weaknesses were identified primarily involving the lack of adequate procedures to provide for a comprehensive program that would ensure compliance with applicable NRC and DOT regulations. Weaknesses were noted in the areas of audits, management oversight of transportation activities, selection of packages, preparation of packages for shipment, prior notification, training, and shipping records. These weaknesses were discussed with the licensee during a management meeting held July 6 and 7, 1983. During this meeting, the licensee provided commitments regarding the completion of actions to correct the observed weaknesses.

b. Conclusions

The Board is concerned relative to the lack of detailed implementing procedures and licensee management oversight of transportation activities.

The licensee is considered to be in performance category 3 in this area.

c. Board Recommendations

(1) Recommended NRC Actions

The level of NRC inspection effort in this functional area should be increased with special emphasis on the review of implementing procedures.

(2) Recommended Licensee Action:

Increased management oversight of transportation activities and the development of procedures are necessary to provide adequate guidance to ensure compliance with applicable regulations. Take necessary action to close the nine NRC concerns addressed as open items in NRC Inspection Report 50-285/82-26. Review the existing transportation and solid waste program to ensure that new regulations appearing in 10 CFR 71, 10 CFR 61, and 10 CFR 20.311 have been included in appropriate procedures.

4. Confirmatory Measurements, Chemistry/Radiochemistry

a. Analysis

Two inspections of this area were performed during the assessment period. One deviation was identified involving:

- o failure of the new chemistry/radiochemistry supervisor to meet the experience recommendations of ANSI-N18.1-1971. (8303)

Eleven NRC concerns documented as open items were identified in the first inspection conducted during the assessment period. These 11 open items involved personnel qualifications, staffing, training, audits, QC/QA program, instrument calibration, sampling, disagreements in analytical results, and implementing procedures. During the second inspection, it was noted that adequate progress had been completed to close 7 of the existing 11 open items.

The results of the first inspection conducted during this assessment period indicated problems in gas analyses results in that only 32 percent agreement existed between the NRC's and the licensee's measurements for 50 individual gaseous analyses. The overall sample comparison results (gaseous, liquids, and filters) indicated 52 percent agreement between the NRC and the licensee based on 102 individual analyses. The second inspection indicated that the licensee continues to have agreement problems. The results of the second comparison indicated 52 percent agreement between the NRC's and the licensee's results for 23 individual gaseous analyses and the overall sample

comparison increased to 76 percent agreement. The usual expected agreement should be greater than 90 percent for all samples analyzed.

The licensee has a high reliance on contractor personnel at the shift chemistry/radiochemistry technician level; four of the seven technicians are contractors.

b. Conclusions

The licensee has been responsive to the NRC concerns regarding the high percent of disagreements regarding gaseous sample analysis. The licensee has devoted considerable time and effort in the review of this area. However, problems continue to exist. It appears that the problems involve improper calibration techniques, preparation of calibration standards, and difficulties in obtaining duplicate samples.

The licensee is considered to be in performance category 3 in this area.

c. Board Recommendations

(1) Recommended NRC Actions

The level of NRC inspection effort in this functional area should be increased with special emphasis on the licensee's analysis of gaseous samples.

(2) Recommended Licensee Actions

Continued effort is necessary to resolve the high number of disagreements associated with gaseous sample analyses. Review of existing calibration procedures and the gaseous sample system is necessary. The licensee should consider obtaining the services of contractor expertise to evaluate their present program.

5. Environmental Surveillance

a. Analysis

The offsite environmental surveillance program was inspected during the assessment period. No violations or deviations were noted. Three NRC concerns were identified

as open items. The concerns involved the expertise of audit team members; lack of adequate written procedures for collection, preparation, and shipment of environmental samples; and the location and calibration of air samples.

The licensee's program is considered adequate in the areas of management controls, resolution of technical issues, responsiveness to NRC initiatives, enforcement history, reports, staffing, and training.

The licensee is in the final review stage by NRR of their proposed radiological effluent Technical Specifications (NUREG-0472). Several changes to the licensee's existing environmental surveillance program will be necessary in order to meet NUREG-0472 requirements.

b. Conclusions

No significant problems have been identified in this area. A routine program has been in operation for several years. A low personnel turnover has been associated with this area and is reflected in the stability of the program.

The licensee is considered to be in performance category 2 in this area.

c. Board Recommendations

(1) Recommended NRC Actions

The NRC inspection effort should continue at normal levels.

(2) Recommended Licensee Actions

Initiate action to close identified open items.

C. Maintenance

1. Analysis

This area has been inspected by region-based NRC inspectors and on a continuing basis by the NRC resident inspector. The two violations listed below involved activities in the functional area of maintenance:

a. Failure to make entry in jumper & bypass log for jumper installed during the integrated leak rate test. (Severity Level IV, 8301-01)

b. Failure to properly cap, plug, and seal openings into CQE items that are in storage. (Severity Level V, 8315-03)

The following eight LERs involved the functional area of maintenance:

a. Main steam isolation valves failed to shut while plant was in a cold shutdown condition. (82-019/03L-0)

b. Four of the ten main steam safety valve lift setpoints were found out of tolerance. (82-020/03L-0)

c. Containment Pressure Switch A/PC-742-1 was found to initiate above the Technical Specification limit of 5 psig due to drift. (82-021/03L-0)

d. One of the pressurizer code safety valve lift setpoints was found by an outside laboratory to be out of tolerance. (83-001/03L-0)

e. Containment Pressure Switches A/PC-742-1 and A/PC-742-2 were found to initiate above the Technical Specification limit of 5 psig. (33-004/03L-0)

f. Failure of the potentiometer module in the Reactor Protective System (RPS) "B" Channel for Axial Power Distribution, causing the negative setpoint to drift out of tolerance in the nonconservative direction. (83-005/03L-0)

g. Failure of the potentiometer module in the RPS "D" Channel for Axial Power Distribution, causing the axial shape index internal tilt "pre-trip" setpoint to drift out of tolerance in the nonconservative direction. (83-006/03L-0)

h. Failure of the potentiometer module in the RPS "B" Channel for Axial Power Distribiton, causing the positive trip setpoint to drift out of tolerance in the nonconservative direction. (83-007/03L-0)

The pressure switches in LERs 82-021 and 83-004 are causally linked and under investigation by the licensee. After the first failure, new switches of the same type were installed in this

channel and in A/PC-742-2. The surveillance frequency was increased to every 6 months to determine if significant drifting might be a recurrent problem. After both these switches were found out-of-tolerance at the next surveillance test, they were recalibrated and an Engineering Evaluation and Assistance Request (EEAR) FC-83-83 was submitted to evaluate the need for changeout to a newer variety switch. This EEAR is presently under evaluation by the licensee and the increased surveillance frequency has been continued.

The failed potentiometer modules are 3 items out of a total of 36 in the RPS (9 per channel), and each seemed to fail in a different manner. EEAR 83-93 was issued to evaluate the failure, and replacement modules were determined to be identical to the original items provided by the NSSS vendor. In addition, three spares have been set up and are being bench tested by the licensee's I&C group to attempt to establish the precise failure mechanism.

The licensee effectively utilized a computerized tracking system, for the first time during the last refueling outage, which began 3 weeks earlier than scheduled. Several major maintenance events were conducted during this outage. These included refueling of the core, the 10-year inservice inspection of the reactor vessel and internals, eddy current testing of both steam generator tube bundles, and the containment integrated leak rate test. The smoothly run outage can be attributed in large part to the extensive advance planning; the flexibility of the scheduling system to accommodate unexpected changes; the shift outage meetings which allowed attention to be directed to specific problem areas; and the stable, well-qualified maintenance staff.

The licensee has revised Procedure G-21, "Station Modification Control," to expand the duties of the system acceptance committee and provide for increased plant staff involvement in the closeout of design change packages. The strength of this concept is that it looks at not only the completion of the physical installation, but also drawing updates, surveillance test requirements, emergency and operating procedure updates, equipment manual availability, and appropriate training requirements.

The licensee has been responsive to generic issues raised by causally linked LERs, circulars, bulletins, and generic letters. OPPD has demonstrated a good understanding of the technical issues and exhibits conservatism in its approach to solutions.

Examples of this are found in the licensee's handling of the containment pressure switches and the potentiometer module failures. The other reportable events related to maintenance have been completed and submitted in a timely manner.

A new format for the jumper log has been implemented which allows for better control of these temporary installations. Any jumper involving safety-related equipment requires two PRC member signatures (one with a senior license) and the plant manager's concurrence before it can be installed. Some of the long term outstanding jumpers still exist, dating back to 1973, but the majority have been incorporated into the plant as permanent changes. For these remaining items, EEARs have been written and the licensee has indicated that these jumpers will be closed out during the next evaluation period.

As discussed in the previous SALP report, the tracking of maintenance orders continues to be a concern, however, the licensee is working towards a system that will have all maintenance order (MO) information stored in a computerized tracking system and available for display at numerous CRT terminals. Until this system is implemented, the manually maintained MO log will continue to be the only record of MOs issued and will continue to show an excessive number of uncompleted MOs with no status information.

In response to an NRC concern regarding the closing of design changes, the licensee established an update team to review all modifications through December 31, 1980. This effort was expanded to include maintenance orders; for it was determined that in some instances, maintenance activities had, in effect, been modifications. The scope of the update team's efforts included document review, system walkdown, drawing markup, and initiation of closeout forms. The work of the update team was discussed briefly in last year's SALP report, and more recently, in NRC Inspection Report 82-24. The major part of this effort is scheduled to be completed by December 31, 1983, and members have been added to the team to assist in reviewing this information. The tasking priority for the update team has been modifications affecting safety-related systems, systems inside of containment, fire protection systems, systems which contained radioactive fluids/gasses, and then all other systems. This effort and its progress was one of the topics of discussion with the licensee during the Region IV Branch Chief's visit to the site in June of this year. The NRC still maintains its concern that older modifications from the mid-to-late 1970's might not

have been adequately tested and that the update team needs to address this matter when older design changes are presented to the plant staff for closeout.

2. Conclusions

The licensee has initiated several management control programs that have strengthened the maintenance program, and will be implementing others to provide better control in this functional area. The plant has a stable, well-qualified maintenance staff that has seen little turnover the past two SALP periods.

The licensee is considered to be in performance category 2 in this area.

3. Board Recommendations

a. Recommended NRC Actions

The NRC inspection effort in this functional area should remain at the present level. Increased attention should be focused on the activities of the update team.

b. Recommended Licensee Actions

The board recommends that the licensee continue to focus management attention on the update team and the timely completion of this work. Implementation of the maintenance order tracking system should continue.

D. Surveillance

1. Analysis

This area has been inspected by region-based NRC inspectors and on a continuing basis by the NRC resident inspector. No violations or deviations were identified in this area.

Fort Calhoun continues to maintain a well-developed and effectively managed surveillance test program. The program ensures that only current procedures are used, QC verification is obtained, QA hold points are identified, and calibrated test equipment is used. The NRC resident inspector reviewed the entire package of completed surveillances for 2 randomly selected months during this evaluation period, 1 during normal operations and 1 during refueling outage. The tests were found to have been complete, properly signed-off and reviewed, and

performed within the time intervals established by the Technical Specifications. During the last refueling outage, new Technical Specification requirements with regard to new test requirements and modified test intervals came into effect. The master schedule reflected these changes and the revisions were incorporated into the surveillance program and performed within the required time frame.

2. Conclusions

The licensee operates and maintains a well-developed and effectively managed surveillance test program.

The licensee is considered to be in performance category 1 in this area.

3. Board Recommendations

a. Recommended NRC Actions

The NRC inspection effort in this functional area should be reduced.

b. Recommended Licensee Actions

The Board recommends that the licensee continue to exercise strong management control of the surveillance program.

E. Fire Protection

1. Analysis

This area has been inspected by region-based NRC inspectors, a special team of NRC inspectors and contractor personnel, and on a continuing basis by the NRC resident inspector. The four violations listed below involve activities in the functional area of fire protection:

a. Failure to provide approved fire protection measures to ensure safe, hot, shutdown capability (six examples of inadequate separation, nonrated fire barriers, inadequate penetration seals, or inadequate suppression). (Severity Level IV, 8312-01)

b. Failure to complete analysis of all fire areas for potential associated circuits interaction with safe shutdown capability. (Severity Level IV, 8312-02)

c. Failure to provide approved fire protection measures and repair procedures to ensure capability to achieve and maintain cold shutdown. (Severity Level IV, 8312-03)

d. Failure to install fixed fire suppression system in the control room. (Severity Level V, 8312-04)

The Fort Calhoun Station received a special team inspection to examine the plant's implementation of and compliance to the safe shutdown requirements of 10 CFR 50, Appendix R, Sections III.G and III.L. As background to this inspection, OPPD did not request any exemptions to Appendix R requirements. This inspection examined the licensee's fire protection features which must be capable of limiting fire damage so that one train of equipment, cabling, and associated circuits necessary to achieve and maintain hot shutdown is free of fire damage. The team also inspected the alternatives specified in Appendix R, Sections III.G.2 and III.G.3, for assuring that this capability exists. The inspection team examined the licensee's capability to cooldown to cold shutdown conditions in the event of a fire in the control room or cable spreading room. The plant's alternative shutdown capability was reviewed to verify conformance to Sections III.G and III.L of Appendix R and the Safety Evaluation Report issued April 8, 1982, with supplement dated August 12, 1982. A test drill of Emergency Procedure EP-24A, "Forced Evacuation of the Control Room Due to Fire," was conducted satisfactorily. The cold shutdown portion of the procedure was walked down by the inspectors with no problems. Selected fire areas and the related associated circuits were reviewed by actual inspection of the area, review of drawings, and review of analyses conducted by the licensee. Lack of management attention in the area of Appendix R compliance contributed to the incomplete status and the four violations. The majority of these items may be cleared by exemption requests.

2. Conclusions

The licensee has implemented the fire protection/prevention program in conformance with regulatory requirements, and is working toward compliance with the requirements of 10 CFR 50, Appendix R, Sections III.G and III.L.

The licensee is considered to be in performance category 2 in this area.

3. Board Recommendations

a. Recommended NRC Actions

The NRC inspection effort in this functional area should remain at the present level.

b. Recommended Licensee Actions

The licensee management should ensure that fire protection measures required by Appendix R are fully implemented or that the appropriate exemptions be obtained for those areas acceptable to the NRC.

F. Emergency Preparedness

1. Analysis

This area has been inspected by region-based NRC inspectors, and on a periodic basis by the NRC resident inspector. The two violations listed below involve activities in the functional area of emergency preparedness:

a. Inadequate inventory of emergency plan supplies. (Severity Level V, 8227-01)

b. Inadequate training of shift supervisors as emergency duty officers in emergency response situations. (Severity Level IV, 8310-01)

An emergency preparedness exercise was conducted during the evaluation period and revealed one significant problem concerning the effectiveness of command and decision-making in the technical support center (TSC). The licensee's exercise observers noted similar TSC problems, and the licensee's management have committed to evaluating the TSC operation.

An emergency preparedness appraisal followup audit was conducted during the evaluation period and all but 8 of the original 65 open items were determined to have been adequately corrected. Of the remaining eight, one item resulted in a violation when it was discovered that the licensee had not performed an emergency locker inventory according to emergency preparedness test procedures.

A second item of the remaining eight involved the licensee's capability for meeting the 3-hour sample and analysis time for post-accident liquid effluent samples if an offsite laboratory

must be used. This subject was discussed during the December 9, 1982, SALP management meeting. The licensee and the Nebraska Public Power District (NPPD) have determined that the Cooper Nuclear Station (CNS) will analyze a diluted, depressurized sample once the Fort Calhoun postaccident sampling system (PASS) becomes operable. A drill to demonstrate the 3-hour sample analysis capability is now scheduled for completion by November 1, 1983.

Two routine, unannounced inspections of the emergency preparedness program were conducted during the evaluation period. The first inspection revealed a significant problem with the licensee's emergency preparedness training program, resulting in a violation. The licensee's shift supervisors were not being adequately trained in emergency classification, notification, and offsite warning procedures. A key emergency plan implementing procedure describing the initiation of public warning was not included in the training program despite its issuance 15 months prior to the inspection. Following a discussion of the training deficiencies with the inspector, the plant management took immediate steps to correct the problems. Following further evaluation, the licensee's management staff committed to conducting a generic review of the training program with emphasis on practical factors performance by employees. This study is to be completed by December 31, 1983.

A subsequent routine, unannounced inspection was conducted which revealed an open item involving a problem with the training of one control room telephone communicator. The shift supervisor emergency preparedness training violation appeared to have been adequately corrected.

Management involvement and control in the emergency preparedness program appeared to be adequate, except in the area of training as reported above. OPPD staffing of the emergency preparedness program also was considered to be adequate during the reporting period.

There were no reportable events in the emergency preparedness area received during this reporting period.

2. Conclusions

OPPD has the capability to protect the public health and safety in the event of an accident at the Fort Calhoun Station, but deficiencies identified in the emergency preparedness area

indicated programmatic breakdown in the area of training. Corrective action has been timely and effective in most cases. Responses to the NRC have been timely, thorough, and acceptable in most cases.

The licensee is considered to be in performance category 2 in this area.

3. Board Recommendations

a. Recommended NRC Actions

The NRC inspection effort in this functional area should remain at the present level.

b. Recommended Licensee Actions

The licensee should complete a thorough generic training program evaluation with careful review by management. Emphasis should be placed on improving the efficacy of practical factors training.

An offsite postaccident sampling analysis procedure, meeting the 3-hour limit, should be fully implemented.

The licensee should complete the evaluation of the TSC operation and management and should demonstrate the proper implementation of needed corrective measures during the 1983 emergency preparedness exercise.

G. Security and Safeguards

1. Analysis

Three physical security inspections and one inspection of material control and accounting was conducted during the assessment period by region-based physical security specialists. The NRC senior resident inspector inspected routinely in this area.

One violation was identified in this functional area during the assessment period. The one violation was in the audit of the security program. The licensee's quality assurance department performed an audit of the security program in accordance with 10 CFR 73.45, rather than 10 CFR 73.55; the regulation applicable to Fort Calhoun. This resulted in a Severity Level IV (83-02) violation.

The licensee's recommended actions for the previous assessment period included a recommendation for additional staffing resources. The licensee did not initiate this action until late in the current assessment period.

The licensee has made significant changes in their physical security plan with satisfactory results during this assessment period. Physical security events, in accordance with 10 CFR 73.71(c), are reported to the NRC in a timely fashion.

2. Conclusions

NRC attention should be maintained at normal levels. Licensee site management attention and involvement are evident and reasonably effective.

The licensee is considered to be in performance category 2 in this area.

3. Board Recommendations

a. The NRC inspection effort in this function should remain about the same.

b. Recommended Licensee Actions

The licensee's quality assurance department should give increased attention to the federal regulations applicable to security. Quality assurance attention should be more thorough, complete, and effective in uncovering weaknesses in the security system, procedures, and practices to ensure that a high level of performance is achieved.

H. Refueling

1. Analysis

This area has been inspected on a continuing basis by the NRC resident inspector during the period of outage activities. Fort Calhoun Station was engaged in a refueling outage from December 6, 1982, to April 2, 1983, for Cycle 8 refueling. A total of 28 new bundles were inserted into the core.

No violations or deviations were identified during this evaluation period.

The licensee utilized a different fuel load/shuffle scheme than those in previous years in order to reduce neutron flux to the reactor vessel as part of OPPD's efforts in response to the

pressurized thermal shock issue. This included an extensive analysis effort and revised Technical Specifications in the area of peaking factors and power distribution limits.

A review of the refueling procedure and observations of refueling activities gave evidence of prior planning and effective control of activities. This was particularly significant this outage since the entire core had to be offloaded as part of the 10-year inservice inspection of the reactor vessel and internals. This complete core offload and the subsequent reload were accomplished without mishap in accordance with approved procedures. It was noted that Technical Specification requirements were being observed and that personnel participating in the evolution had been briefed and were knowledgeable of the procedure.

During the previous year's work under the DOE program, the licensee had been cited for failing to perform steps in accordance with procedures which had resulted in a fuel pin being dropped to the base of the inspection stand without the operator's knowledge. The licensee exhibited closer management control of the subcontractor this year and the work was performed without incident.

2. Conclusions

The licensee demonstrates effective control of refueling activities. The licensee is considered to be in performance category 1 in this area.

3. Board Recommendations

a. Recommended NRC Actions

The NRC inspection effort in this functional area may be reduced.

b. Recommended Licensee Actions

Licensee management is encouraged to continue its involvement in the planning of refueling outages, the observation of refueling activities, and the emphasis on adherence to procedures.

I. Licensing Activities

1. Analysis

The NRC Office of Nuclear Reactor Regulation has performed an assessment of licensee performance in this area. Refer to Attachment 1 for details of this assessment.

2. Conclusions

During the SALP reporting period, OPPD was very involved in licensing actions, reasonably approached resolution of most technical issues from a safety standpoint, was responsive, and had a good reportable event record. On the negative side, some licensing issues are requiring an inordinate amount of time to reach resolution and the training of operators need improvement.

The licensee is considered to be in performance category 2 in this functional area.

3. Board Recommendations

a. Recommended NRC Actions

None

b. Recommended Licensee Actions

OPPD should be more agressive in resolving licensing issues that have been unresolved for a number of years. This will entail more management and technical attention. OPPD should improve the training of licensed operators.

J. Training

1. Analysis

This functional area was inspected by region-based NRC inspectors and on a periodic basis by the NRC resident inspector. No violations or deviations were identfied in this functional area.

The licensee is conducting requalification training for licensed operators in accordance with 10 CFR Part 55, Appendix A, and the approved requalification training plan. The Fort Calhoun Station training manual is maintained current in conformance to the approved requalification training plan. Training records

have been maintained correctly, and a computerized system is now being used to keep summary records of each individual's completed training.

However, there were indications during this SALP evaluation period that the Fort Calhoun Station training department is under a heavy work load and may not be capable of meeting the increased training demands of the future. The training department at Fort Calhoun Station has had only a net increase of one during this period. The plant is currently operating a training program with a trainee/instructor ratio of about 30-to-1. This shortage of manpower places excessive demands on those few training personnel qualified to give lectures and assist in RO and SRO licensing qualification. It has been noted by the NRC resident inspector that, at times, the training has suffered from the burden placed on the instructors. Hours of lecture time sometimes get shortened and trainees are left with a self-study program. Training material for plant modifications and changes is sometimes sketchy and inadequate to fully prepare operators in the use of new equipment. The license examiners commented during the exit interview of August 4, 1983, that plant operator knowledge of the Ginna steam generator tube rupture incident was weak, and that many of the lesson plans and training material were inadequate. This latter comment is noteworthy in that this material becomes the study package to be used by any trainee who misses the appropriate lecture, and is expected to provide training equivalent to the lecture.

Three sets of examinations were administered to Fort Calhoun personnel during this evaluation period. Only four of the eight senior reactor operator candidates passed, and two of these were reexams. These results are poorer than last year and are below the industry norm. Several candidates failed licensing examinations the first time and one candidate failed three times, reflecting a weakness of the licensee's training department to adequately screen and prepare candidates for licenses.

Interviews by an NRC inspector revealed that some of the shift supervisors were poorly prepared to meet their responsibilities as emergency duty officer during radiological emergency situations. There was evidence of insufficient training, and in one case, a very hurried, perfunctory training program that failed to prepare the supervisor for the task.

2. Conclusions

The licensee's training department is weak and having difficulty in meeting all the demands placed on it. The poor record in

operator license examinations this evaluation period is a reflection of this weakness.

The licensee is considered to be in performance category 3 in this area.

3. Board Recommendations

a. Recommended NRC Actions

The NRC inspection effort in this functional area should be increased.

b. Recommended Licensee Actions

Licensee management should implement strong measures to reverse the trend that has been exhibited this evaluation period. Of primary importance is the need to expand the training staff in order to upgrade lesson outlines and material, to share the classroom/lecture responsibilities, and to provide more individualized attention to trainees with regard to screening, testing, and licensee examination preparation. The poor examination success rate indicates the need for a more careful screening program for license candidates and the capability to evaluate each trainee's progress throughout the process.

K. Quality Assurance

1. Analysis

This functional area was inspected by region-based NRC inspectors and the NRC resident inspector. This area was given increased inspection coverage this evaluation period since it was considered in performance category 3 the previous SALP evaluation period. The violation listed below involved activities in the functional area of quality assurance:

- Failure to take prompt corrective action in the quality assurance program to address deficiencies identified by the NRC in the areas of licensee records vault and the records program for construction records. (Severity Level IV, 8317-01)

A second violation, discussed in the Security and Safeguards Section, also is related to quality assurance. This violation resulted from a QA department audit that was performed according

to incorrect criteria by personnel that seemed to lack the required background and training.

The two deviations listed below involved activities in the functional area of quality assurance:

a. In response to a violation from the previous SALP evaluation period, the licensee committed to having certain QA forms completed and signed to document all continuing training of quality assurance personnel. In deviation from the above, it was found that the appropriate forms were not required by the QA procedure and that some of the forms were not being used. (8308-01)

b. In response to a previous NRC inspection report, the licensee committed to achieving compliance with their own QA procedure by requiring that responses to QA identified discrepancies be responded to in writing within 30 days from receipt of an audit report. In deviation from the above, this compliance was not achieved and numerous failures were identified up to the time of this inspection. (8308-02)

During the previous SALP evaluation period, one of the weaknesses identified was the lack of a full-time QA manager. This position was filled approximately halfway through that evaluation period. It was identified in the last SALP report that efforts had been initiated to redefine the QA program to provide for increased management involvement. The QA manual was to be rewritten to clearly identify the increased scope of the QA program and better define organizational interfaces.

Much of this work has been completed, but problems remain evident during this extended transition period. As seen in the violation and deviations above, matters previously identified continue to surface as recurring problems. It was as if the working QA program was placed "on hold" while the transition to the new program was given priority. The failure to meet commitments as described in the above deviations might be attributed in part to the QA program changeover period, but this does not allow the licensee to ignore or overlook existing program requirements in effect. The NRC has been responsive to the licensee's position that this past year has been a year for program change, but after 18 months the program is still not fully implemented. Four of the sixteen identified quality assurance department procedures have not been issued and the old quality assurance procedures have not been canceled. The

long-term-carryover problem with the QA records vault and the construction QA records are examples of inattention to program details. It was noted by the NRC inspector during his June 1983 inspection, that the matter of construction QA records had been raised as an issue of concern in an internal OPPD memorandum almost a year earlier. Another example is the licensee's response to Violation 8302-01 regarding the security program audit by the OPPD QA department. Their response of April 21, 1983, stated that this one lengthy inspection would be broken into several different audits for better control and coverage of the security area. The audit schedule of March 3, 1983, reflected these changes, but the audit for the security plan and procedures had been incorrectly scheduled at a 3-year inspection interval by the QA department and a 2-year interval inspection by the Safety and Review Committee, when a 12-month interval is required by the regulations.

The licensee's commitment to have all QA records microfilmed by December 31, 1983, will not be met, since the area of construction QA records will not be addressed as to availability, categorization, and reproduction until early 1984. This was one of the subjects discussed at an enforcement meeting at the Region IV offices shortly after the close of this SALP evaluation period.

2. Conclusions

The licensee continues to experience problems in the area of Quality Assurance, and the excessive period of transition to the new program has contributed to this situation.

The licensee is considered to be in performance category 3 in this area.

3. Board Recommendations

a. Recommended NRC Actions

The NRC inspection effort in this functional area should remain at the increased levels established by the last SALP evaluation.

b. Recommended Licensee Actions

The licensee management should become more involved with the resolution of these long term problems, and with the implementation of the upgraded QA program. The

microfilming of records needs to be completed, with particular attention being given to construction QA records.

L. Management Control

1. Analysis

This area was inspected by region-based NRC inspectors and the NRC resident inspector. Management involvement is considered in every inspection as it pertains to the area being inspected. Of the 14 violations identified during this evaluation period and discussed in Sections IV.A through IV.K of this report, 8 could be specifically related to management controls as well as to one of the other previously discussed functional areas. These violations (and their assigned functional areas) are 8230-01 (Radiological Controls), 8302-01 (Security), 8310-01 (Emergency Preparedness), 8312-01 through 8312-04 (Fire Protection), and 8317-01 (Quality Assurance). The following LERs involved activities in the functional area of management controls:

a. Safety Injection Leakage Cooler control valves were found to not be environmentally qualified. (82-018/03L-0)

b. Heatup and cooldown curves in use since December 1979, were found to be 12 degrees nonconservative. (83-003/01T-0)

Strong management involvement has been evident during this evaluation period in the areas of plant operations, surveillance, maintenance, and refueling. The licensee continues to maintain a large number of personnel, including some in the corporate management structure, that possess NRC senior operator license experience. This enhances cooperation and understanding between the site organization and the corporate support/technical organizations.

Examples that have indicated strong license management controls include the following:

a. OPPD's management has been actively working to resolve any conflicts between union responsibilities and NRC regulations regarding the rule that goes into effect on January 1, 1984, requiring two senior operators on shift. The licensee had implemented long range planning goals to ensure that a sufficient number of senior operators are available, and is addressing the administrative issues that need to be resolved.

b. The licensee participated in an extensive licensing application and review effort to enable UF^6 to be brought onsite for storage. This was a "first-of-a-kind" effort and is a result of OPPD's technical capabilities to support such an undertaking.

c. Strong management emphasis has enabled the Systems Acceptance Committee to become an effective vehicle for in-depth plant staff review of design change package completion.

d. The use of the computerized tracking system for the first time during the 1983 refueling outage reflects OPPD management's commitment to be better informed and to have more position control of large evolutions of this nature.

e. Toward the end of the refueling outage, a Part 21 report from another facility brought to OPPD's attention potential problems with Bergen-Patterson EA3 Pipe Clamps. Prompt management attention resulted in immediate contacts with the vendor and a commitment of manpower and resources to perform engineering analysis and design. The necessary welders and craft personnel were assembled, the required material for shear lugs was purchased and delivered, and the 8-man-days of corrective maintenance effort were factored into the outage schedule without a major impact on the overall milestones.

f. In March of this year, the licensee received a CE information bulletin describing cracks that had been found in the feedwater nozzles at Maine Yankee, and more recently, at St. Lucie. In response to this information, OPPD, on its own initiative, brought in a qualified consultant to perform ultrasonic testing on the Fort Calhoun Station feedwater nozzles. This work was completed in 2 days and results were satisfactory.

g. Strong management attention involving several different OPPD organizations has resulted in a much improved system for maintaining current drawings in the control room and at the alternate shutdown panel. This matter of drawing updates and current information in the control room had been an item of concern identified by the NRC during the previous SALP evaluation.

h. On the basis of reports from a Maine Yankee inspection, Fort Calhoun expended additional effort to perform a visual inspection of the thermal shield support pins and spacer pins. The foresight of this decision became evident a few months later when the thermal shield problem at St. Lucie was discovered. The results of the Fort Calhoun inspection provdied additional assurance to the NRC that the plant could continue to operate safely without endangering the safety and health of the public.

There have been notable management weaknesses this evaluation period, the most significant being in the areas of radiological controls and quality assurance. The lack of timely corrective action for NRC identified open items in the radiological controls area had been a matter of concern to the Board in previous SALP evaluations. A total accumulation of almost 50 items, dating back as far as 1976, indicated a lack of overall management control of this area and little appreciation for the priority of these items. The ALARA program continues to be identified as a weak area, and the licensee's organization needs to be better coordinated to ensure that an acceptable, working ALARA program is implemented. It was concluded that OPPD management was not objective in their assessment and comparison against published standards of the qualifications and professional experience of two personnel in supervisory positions within the Chemical/Radiological Protection Department.

A lack of management attention in the area of quality assurance has allowed previously identified items to remain problems with no apparent resolution. The excessive amount of time being taken to implement the new QA program has, in some respects, caused the day-to-day working program to suffer. The discussion in Section IV.K contains more specific items, but the overall assessment is that the quality assurance area appears to lack strong management direction.

Other examples that have indicated that stronger management attention is needed include the following:

a. The maintenance order tracking system needs to be implemented in order to provide some practical means of determining status and evaluating priorities.

b. The high license examination failure rate and the excessive number of repeat examinations indicate a weakness in the training program that requires increased management oversight.

c. The licensee needs to improve their method for tracking requlatory requirements and commitments in the security area.

d. A lack of management attention in the area of Appendix R compliance contributed to the incomplete status and the resultant violations as described in Section IV.E.

2. Conclusions

Licensee management overall has been significantly involved in the operation of the Fort Calhoun Station, but has demonstrated significant weaknesses in the areas of quality assurance and radiological controls.

The licensee is considered to be in performance category 2 in this area.

3. Board Recommendations

a. Recommended NRC Actions

The NRC inspection effort in this functional area should remain at the present level.

b. Recommended Licensee Actions

Licensee management is urged to increase their involvement in the areas and situations described above.

V. SUPPORTING DATA AND SUMMARIES

A. Violations

(NRC Inspection Reports 82-17 through 82-32 and 83-01 through 83-22)

Functional Areas	Violations Severity Levels I	II	III	IV	V	Deviation Plant Operations
(1) Plant Operations				2		
(2) Radiological Controls						
(a) radiation protection				1	1	
(b) radwaste systems, effluent releases, effluent monitoring						
(c) transportation/ solid radwaste						
(d) confirmatory measurement, chemistry/radio-chemistry						1
(e) environmental surveillance						
(3) Maintenance				1	1	
(4) Surveillance						
(5) Fire protection				3	1	
(6) Emergency Preparedness				1	1	
(7) Security and Safeguards				1		
(8) Refueling						
(9) Licensing activities						
(10) Training						
(11) Quality Assurance				1		2
(12) Management Controls						
TOTALS				10	4	3

B. Licensee Report Data

1. Licensee Event Reports (LERs)

The Regional SALP Board reviewed the LERs for the period September 1, 1982, through August 31, 1983. This review included LERs 82-018 through 82-021 and 83-001 through 83-007.

The classification of cause and number of LERs during this report period (9/1/82 through 8/31/83) are listed as follows:

Cause	
Component Failure	8
Defective Procedure	1
Design/Fabrication Error	0
External Cause	0
Personnel Error	2
Other	0
TOTAL	11

The SALP Board reviewed the licensee's classification of each LER. The SALP Board did not identify any significant differences between the classification made by the licensee and those made independently by the SALP Board.

The NRC Office for Analysis and Evaluation of Operational Data performed a review of licensee LERs, focusing on the accuracy and completeness of the reports. Refer to Attachment 2 for details of this review.

2. Part 21 Reports

None

C. Licensee Activities

1. Major Outages

An unscheduled shutdown occurred on December 3, 1982, when the high pressure turbine first state blading was damaged. This resulted in an early start of the 1983 refueling outage originally scheduled to start January 3, 1983. Major activities accomplished during this outage included:

a. Insertion of 28 new fuel bundles into the core, and a complete rearrangement of the core bundle pattern to reduce thermal neutron flux to the vessel.

b. Completion of the 10-year inservice inspection of the reactor vessel and internals.

c. Eddy current testing of both steam generator tube bundles.

d. Performance of the containment integraged leak rate test.

e. Repairs to the HP turbine rotor to allow operation until a new rotor is available for installation at the next refueling outage.

The reactor went critical April 2, 1983, and low-power physics testing was conducted through April 5, 1983. The unit was placed on-line April 7, 1983, after completion of turbine overspeed tests and steam valve tests. Escalation to 100 percent power occurred over the next month at various intervals while power range testing was being conducted.

2. Power Limitations

The NRC did not establish any additional core power limitations from the previous operating cycle, but the plant is operating at 2 to 3 percent reduced electrical output due to the absence of the first stage of the high-pressure turbine. This entire stage was removed after blading had been thrown to allow operation with the existing turbine rotor until the new rotor is available.

D. Major Inspection Activities

1. A followup to the emergency preparedness appraisal of December 7-17, 1981, was conducted by a team of NRC inspectors and contract personnel on November 8-12, 1982. This inspection closed out the 4 previously identified items enumerated in the NRC confirmatory action letter of December 24, 1981, and 53 other items addressed in the appraisal. Eight items from the appraisal remained open for review at a later time. A total of 169 inspector-hours were involved in this inspection effort.

2. A special inspection was conducted during the period May 16-20, 1983, by a team of eight NRC inspectors and contract personnel to review implementation of and compliance to the safe shutdown requirements of 10 CFR 50, Appendix R, Section III.G. The scope and results of this inspection are discussed in more detail in Section IV.E of this report. This inspection effort involved a total of 320 inspector-hours.

E. Escalated Enforcement Activities

1. Civil Penalties

None

2. Orders

No enforcement orders were issued during the evaluation period.

F. Investigations and Allegations

None

G. Enforcement Conferences

None

H. Management Conferences

On June 13, 1983, the Regional Administrator and the Senior Resident Inspector for Fort Calhoun Station met with the OPPD Division Manager, Production Operations, at the Jones Street offices to discuss the extensive number of radiation protection and radiochemistry related open items that remained from as far back as 1980. As a result, OPPD representatives met with the appropriate NRC personnel at the Region IV offices on July 6-7, 1983, to resolve or establish a program leading to resolution of each item. This meeting and the status of the various items is covered in NRC Inspection Report 50-285/83-25.

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

Facility Name: Fort Calhoun Station, Unit 1
Licensee: Omaha Public Power District
NRR Project Manager: Ed Tourigny

I. Introduction

This report presents the results of an evaluation of the licensee, Omaha Public Power District, in the functional area of licensing activities. It is intended to provide NRR's input to the SALP review process as described in NRC Manual Chapter 0516. The review covers the period September 1, 1982 to August 31, 1983.

The basic approach used for this evaluation was to first select a number of licensing issues which involved a significant amount of staff manpower. Comments were then solicited from the staff. In most cases the staff applied the evaluation criteria for the performance attributes based on their experience with the licensee or his products. Finally, this information was assembled in a matrix which allowed evaluation of the licensee's performance. This evaluation is based on staff input from ten branches in four divisions.

II. Summary of Results

NRC Manual Chapter 0516 specifies that each functional area evaluated will be assigned a performance category based on a composite of a number of attributes. The single final rating is to be tempered with judgment as to the significance of the industrial elements.

Based on this approach, the performance of Omaha Public Power District in the functional area - Licensing Activities - is rated category 2.

III. Criteria

Evaluation criteria, as given in NRC Manual Chapter Appendix 0516 Table 1, were used for this evaluation.

IV. Performance Analyses

The licensee's performance evaluation is based on consideration of seven attributes as given in the NRC Manual Chapter. For most of the licensing actions considered in this evaluation, only three of the attributes were of significance. Therefore, the composite rating is heavily based on the following attributes:

- Management involvement
- Approach to resolution of technical issues
- Responsiveness

With exception of Enforcement History, for which there was no basis within NRR for evaluation, the remaining attributes of

- Reportable events
- Staffing
- Training

were judged to apply only to a few licensing activities.

The evaluation was based on our evaluation of the following licensing activities:

- Responses to NUREG-0737 items
- Short Term Assessment of Pressurized Thermal Shock Issue
- Masonry Wall Design Review
- Radiological Effluent Technical Specifications (RETS) Review
- Cycle 8 Safety Evaluation Review
- Fire Doors/Snubbers TS Changes
- TSs on Inoperability of Safety System Channels
- Operator Licensing
- Amend TSs Regarding Appendix J.

A. Management Involvement in Assuring Quality

The average rating for this attribute is 1.7, and the overall rating is category 2. There were no individual category 3 ratings. There is evidence of prior planning and assignment of priorities and decision making usually at a level that ensures adequate management review. Regarding specific positive features, the District's management was highly involved in responses to NUREG-0737, pressurized thermal shock assessment, and inoperability of safety system channels. This included management meetings with the staff to resolve mutual concerns. Regarding specific negative features, the District's management could have been more cooperative in completing the coolant activity issue in a more timely manner; it was resolved during the rating period, but was an unresolved issue for a number of years. In addition, it is felt that the District's management could have been more aggressive in resolving the RETS issues which have been ongoing for a number of years and are still not fully resolved.

B. Approach to Resolution of Technical Issues from a Safety Standpoint

The average rating for this attribute is 1.7, and the overall rating is category 2. There was one individual category 3 rating. The District continues to show an understanding of issues involved in licensing actions and

conservatism is generally exhibited. The District's approach to technical issues is generally sound and thorough. Regarding specific positive features, the District's technical personnel were highly involved in reponses to NUREG-0737, pressurized thermal shock assessment, and inoperability of safety system channels. This included technical meetings with the technical staff to resolve mutual concerns. Regarding specific negative features, the District could have been more cooperative in completing the coolant activity issue in a more timely manner; it was resolved during the rating period but was an unresolved issue for a number of years. In addition, it is felt that the District from a technical point of view could have been more aggressive in completing the RETS issues which have been ongoing for a number of years and are still not fully resolved.

C. Responsiveness to NRC Initiatives

The average rating for this attribute is 1.5, and the overall rating is category 1. There was one individual category 3 rating. The District meets deadlines in most cases, provides viable and generally sound and thorough responses, and there are few longstanding regulatory issues attributable to the licensee. Regarding specific positive features, the District was very responsive in addressing pressurized thermal shock issues. Regarding specific negative features, the coolant iodine issues required a number of years to resolve and the RETS resolution of all issues is not yet complete.

D. Enforcement History

There is no basis for an NRR evaluation of this attribute.

E. Reportable Events

A Category 1 was assigned to reportable events. This is based solely upon the project manager's interface with the District during the rating period. The District keeps the project manager informed in a timely manner of all events right after the event occurs and with periodic followup calls. Examples were high pressure turbine failure, overflow of the SIRW tank, leakage in steam generator A (secondary side), loss of offsite power line, fire in turbine building, and drug use by contract personnel. LERs are addressed elsewhere, but it is worth while to state here that a low number of LERs were received during the rating period (in the absolute sense and in relationship to other plants), and this can be attributed to the responsible way the District operates the plant.

F. Staffing

A category 1 was assigned to staffing. This is based solely upon the project manager's interface with the District during the rating period. This rating applies only to the District's staffing as far as licensing actions are concerned. NRR has no basis to rank the District as far as other staffing is concerned (e.g. operations, maintenance, quality assurance, health physics).

G. Training

A category 3 was assigned to training. Three sets of examinations were administered to the District during the rating period. Four out of eight senior reactor operator candidates passed. These results are poorer than the previous year and are below the industry norm. This rating applies only to the District's training as far as reactor operator licensing is concerned. NRR has no basis to rank the District as far as other training is concerned (e.g. maintenance, health physics).

V. Conclusion

Based on the evaluation of seven attributes of Omaha Public Power District's performance for a number of significant activities in the functional area of licensing, an overall performance rating of category 2 is determined. On the positive side, the District is (1) very involved in licensing actions, (2) reasonably approaches resolution of most technical issues from a safety standpoint, (3) is responsive, and (4) has a good reportable event record. On the negative side, some licensing issues are requiring an inordinate amount of time to reach resolution and the training of operators needs improvement.

A comparison was made between the current period rating and the previous one. The current rating is 2 and the previous one was 1. There are a number of reasons why the rating changed. One reason is that the licensing actions that were addressed during the current period are more complex. In other words, the "easier" licensing actions are completed in general and the "harder" ones remain. Examples are RETS, Appendix J TSs, Inoperability of Safety System Channels and coolant activity. As such, more work is being required by the NRC staff and the District's staff and longer periods of time are being required to reach resolution. Although a large number of licensing actions were completed during the rating period (27*), a large number remain (39*). Another reason why the overall rating changes was that there were a number of individual rating changes. Training went from a 2 to a 3. Management involvement went from a 1 to a 2. Approach to technical resolution went from a 1 to a 2. Responsiveness and Reportable Events remained at 1.

*Based upon Operating Reactors Licensing Actions Summary, NUREG-0748, Volume 3, No. 8.

Staffing went from a 2 to 1. Thus, in conclusion, there is a need for the District to raise its individual ratings for management involvement, approach to technical resolution and training in order to be able to attain a better overall category rating.