UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
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MAR - 4 1996

Docket: 50-285
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Omaha Public Power District
ATTN: T. L. Patterson, Division Manager
Nuclear Operations
Fort Calhoun Station FC-2-4 Adm
P.O. Box 399, Hwy. 75 - North of Fort Calhoun
Fort Calhoun, NE 68023-0399

SUBJECT: SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE (SALP)
REPORT 50-285/96-99

Enclosed for your review is the SALP report for the Fort Calhoun Station for the period of July 31, 1994, through January 27, 1996. A public meeting to discuss this report with you and your staff has been scheduled for 1 p.m. on March 14, 1996, at the Training Center Auditorium at the Fort Calhoun Station facility. During this meeting, you are encouraged and expected to candidly comment on our report. And, while this is a forum for Omaha Public Power District and the NRC, it will be open to observation by members of the public and other interested parties.

In accordance with NRC policy, I have reviewed the recommendations of the SALP Board and I concur with the ratings and the views. The Operations and Maintenance areas were rated as Category 2, which indicates overall good safety performance. The Engineering and Plant Support areas were rated as Category 1, which reflects superior safety performance. The fact that the ratings are the same as those for your previous SALP assessment reflects, in part, our view that the improvement rate which we noted at end of your previous SALP period was not sustained throughout the past eighteen months. We are encouraged that you recognized this situation during the last portion of the SALP period and instituted aggressive corrective actions.

In the operations functional area, there was a contrast between the excellent staff performance observed during off-normal situations and the inconsistent performance seen during routine operations. It appears that this was due, in part, to the occasional reluctance of the operations staff to provide leadership in all facets of plant operations, both inside and outside of the control room.

Safety performance in the maintenance area remained good. Improvements in the planning and scheduling process have contributed to the good material condition of the plant; however, there were numerous instances of individual inattention to detail, especially during the last 6 months of the assessment period.

In engineering, while the SALP Board found overall safety performance to be superior, it was not consistent throughout the SALP period. Contributing to the inconsistent performance were the occasional failures of engineering to communicate information to other organizations in a timely manner. Additionally, management attention was consistently required to ensure engineering evaluations had a broad perspective and that engineering issues were promptly and appropriately resolved.

Overall performance in the plant support area remained superior. No performance deficiency with programmatic safety significance were noted. The occasional performance shortcomings, which were identified, were addressed in an aggressive and comprehensive manner. The integration of quality audits and self assessments into the plant support programs was evident and appeared to be an essential component of these program successes.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Title 10, Code of Federal Regulations, a copy of this letter and the SALP report will be placed in the NRC's Public Document Room.

Should you have any questions concerning the SALP report, I would be pleased to discuss them with you. While no written response is required to the SALP report, if you wish, you may provide written comments within 30 days of the SALP meeting.

Sincerely,

L. J. Callan
Regional Administrator

Enclosure:
NRC SALP Report 50-285/96-99

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E-Mail report to D. Nelson (DJN)
E-Mail report to NRR Event Tracking System (IPAS)

bcc t MB (IE40)

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J. Dyer, D/DRP
Branch Chief (DRP/A)
Project Engineer (DRP/A)
Branch Chief (DRP/TSS)
Resident Inspector
The Chairman, O-16-G15
Commissioner Rogers, O-16-G15
Commissioner Dicus, O-16-G15
J. Taylor, O-17-G21
A. Thadani, O-12-G18
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FORT CALHOUN STATION
SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE
Report 50-285/96-99

I. BACKGROUND

An NRC SALP Board, comprised of the individuals listed below, met on February 6, 1996, to review and assess safety performance at Fort Calhoun Station during the period July 31, 1994, through January 27, 1996. The Board was conducted in accordance with NRC Management Directive 8.6, "Systematic Assessment of Licensee Performance." The resulting assessment was reviewed and approved by the Region IV Administrator.

Board Chairman

K. E. Brockman, Deputy Director, Division of Reactor Safety, Region IV

Board Members

A. T. Howell, Deputy Director, Division of Reactor Projects, Region IV
W. H. Bateman, Director, Project Directorate IV-2, Office of Nuclear Reactor Regulation

Functional Areas and Ratings:

Functional Area	This Period	Previous Period
Operations	2	2
Maintenance	2	2
Engineering	1	1
Plant Support	1	1

II. PERFORMANCE ANALYSIS

A. Plant Operations

Overall performance in the operations area reflected a good safety perspective. Management oversight and involvement continued to be strong. A conservative operating philosophy in response to equipment failures and off-normal events was consistently demonstrated; however, routine operations continued to pose challenges to the control room staff. Programs and procedures were generally good. Problem identification was a strength, but problem resolution was protracted or performance was ineffective in certain key areas. A few months before the end of the assessment period, enhancement efforts were initiated, but the SALP period ended without sufficient time to validate improved performance.

Management involvement in day-to-day operations was extensive. Probabilistic risk analysis information was applied to on-line maintenance and other activities. The daily morning meetings concentrated on emergent work and operations priorities. The condition report review group was effective in providing an independent focus on newly generated condition reports. After concerns were identified early in the assessment period about training effectiveness, management involvement with, and support of training programs increased.

Operator and operations department performance in response to off-normal events remained excellent. When immediate-response events occurred, operators focused on those actions important to safety and management applied conservative decision making. The manual trip of the reactor following two instances of component cooling water leakage into a reactor coolant pump lube oil heat exchanger demonstrated this conservatism.

In contrast, the operations department's response to the problems and challenges of routine operations did not demonstrate the same consistently high performance level. Problems during routine operations were attributable to three factors. First, the operating staff did not always exhibit leadership in overall station operations. An example of this weakness is the fact that operations did not bring to resolution many of the long-standing equipment problems that have impacted operational efficiency. Second, crew interactions were not as precise and formal as those practiced during time critical activities. Third, the operations staff was slow to support and respond to management s efforts to improve performance.

Programs and procedures used in operations were generally good; however, there were several deficiencies which had operational impacts. Procedural deficiencies contributed to leaving the emergency diesel generator outside the design emergency starting condition following the conduct of surveillance testing, and to improperly moving heavy loads over irradiated fuel. Also, little progress was made in implementing the labelling and procedure upgrade programs.

Self assessments were effective in identifying problems, but corrective actions were not always effective in bringing identified problems to resolution. For example, in early 1995 your self assessment identified numerous control room equipment and design deficiencies; however, operations has not ensured that the correction of these issues has received a high enough priority level, and as a result many of the identified deficiencies have remained uncorrected. From a positive perspective, you identified that operators believed that departmental initiatives and communications were generally top-down with little opportunity for response or feedback; in response, you initiated a new corrective action program to promote participation all levels of the organization. This new program was initiated late in the assessment period -- the results will be determined in the future.

The performance rating in the Operations area is Category 2.

B. Maintenance

Maintenance performance was very good. Management involvement and oversight was evident throughout the assessment period. Maintenance programs were well developed, and enhancements in the planning and scheduling processes greatly improved schedule effectiveness. A number of long-standing and repetitive equipment problems were resolved during this assessment period. The conduct of maintenance and surveillance activities was good; however, there were many shortcomings during the refueling outage and there was a performance decline in the conduct of on-line maintenance during the last few months of the assessment period. Management continued to foster a questioning attitude relative to problem identification and in most cases resolved identified concerns in a prompt and thorough manner.

Management and supervision continued to demonstrate a high level of involvement in maintenance activities, including the oversight of field work and work planning. Emergent work was prioritized and procedures for evaluating the risk of emergent work were established. The licensee established a maintenance schedule for risk significant equipment which was based on insights from the plant's individual plant examination.

The overall material condition of the plant was good. Management attention during the latter part of the SALP period resulted in the resolution of a number of long-standing and recurring operator work-arounds, and plant and control room deficiencies. Boric acid leaks and a degraded level of cleanliness in some areas of the plant detracted from the overall good level of material condition and cleanliness.

Maintenance programs continued to be a strength. A significant reduction in the corrective maintenance backlog resulted, in part, from enhancements to the planning and scheduling processes. The preventive maintenance program was effective, as evidenced by a small backlog and the incorporation of risk considerations into maintenance and surveillance activities.

The overall performance of maintenance and surveillance activities remained good, but performance problems occurred throughout the assessment period. During the refueling outage, there were several instances of less than superior performance lapses (e.g., dropped shipping cask, improper heavy load movement); and, during the last 6 months of the SALP period, there were several challenges associated with a lack of attention to detail, performing work which exceeded the scope of the work documents, and performing work without the required work instructions. Additionally, a reactor trip was caused by licensed operator personnel error during the conduct of a surveillance activity.

Overall procedural quality was good. There were some instances of inadequate work instructions, particularly those involving troubleshooting. Also, while the reactor vessel head was removed and fuel was in the core, the procedures associated with the heavy load movement did not require containment integrity.

Problem identification and resolution by maintenance were very good. Personnel throughout the organization exhibited a questioning attitude relative to plant and equipment safety. Several programmatic problems were identified by the licensee through the use of external assessments and through the performance enhancement program. The licensee implemented a number of actions to address identified issues.

The performance rating in the Maintenance area is Category 2.

C. Engineering

Overall, engineering performance continued to be superior, with a strong safety perspective. Most concerns expressed in the previous SALP report were satisfactorily addressed. Effective programs have been established for controlling temporary modifications, tracking and testing plant modifications, reporting problem conditions, and assuring operational safety. Normally, operability evaluations were well performed, and management goals and priorities were effectively communicated. Engineering work products were of high quality, reflecting a strong technical capability. Self assessments identified areas needing improvement, determined the root causes of the problem areas, and proposed appropriate corrective actions.

The engineering organization consistently demonstrated conservatism with regard to plant safety. Management was proactive in instituting programs for assessing system performance, determining system reliability, and trending equipment history (e.g., system report cards and notebooks). Engineering support to the plant was evident in both day-to-day activities and long-term planning. However, there were isolated examples of inattention to detail and delays in communicating pertinent information which detracted from overall performance. Examples of these shortcomings include the control room air conditioning operability determination, and the analyses concerning the diesel generator temperature limits and governor control switch.

Engineering programs and procedures were well-developed. The erosion/corrosion and temporary modification programs, and the Probabilistic Risk Analysis Oversight Committee were all noted strengths. A lack of control measures for maintaining adequate quantities of tri-sodium phosphate for emergency shutdown conditions and inconsistencies between various design documents indicated, however, that additional emphasis on design basis control is warranted.

Production Engineering played a key role in assuring plant safety and providing quality support to plant activities. The 10 CFR 50.59 review process was effectively implemented. Design Engineering was actively involved in the station modification review team and daily emergent issues work meetings. During the refueling outage, design engineers were integrated into the in-plant staff, enabling them to gain better insight into plant activities and problems. Probabilistic risk analysis insights were incorporated into the design process. System Engineering support to both plant operations and maintenance was considered superior. System engineers were knowledgeable, and demonstrated commitment and ownership of their assigned systems.

The licensee performed high quality self-assessment and engineering reviews. Some shortcomings were noted, however, in bringing corrective actions to a final resolution. There were two instances (RMS-9 circuit breaker; turbine-driven auxiliary feedwater pump control switch) where root-cause analyses were not as timely or thorough as desired. Also, there were isolated instances where engineering did not communicate relatively important information to affected organizations in a timely manner. The licensee recently implemented a new condition reporting system to address these weaknesses.

The performance rating in the Engineering area is Category 1.

D. Plant Support

Performance in the plant support area continued at the superior level demonstrated during the previous SALP period. Radiological controls performance was effective in dealing with the challenges presented by poor fuel performance. The emergency preparedness program was consistent, with effective communications channels with off-site response organizations. Security performance was exceptional, and demonstrated both management commitment and technical competence. The fire protection and housekeeping programs were effectively implemented.

The radiological control practices at the station were very good. The radiological protection organization is staffed with highly trained and qualified personnel, and is committed to continual improvement of individual qualifications. Personnel exposure continued at a low level, in spite of the increase in general area radiation rates associated with fuel problems. Contaminated areas were well posted and controlled, and radiation area postings were comprehensive and effective. An emphasis on job pre-planning, shielding, and radiation worker practices within the as-low-as-reasonably-achievable (ALARA) program was effective in mitigating the effects of the increased source term. There were, however, isolated instances where a lack of attention to detail by radiation workers resulted in access control and other administrative problems. The licensee used excellent quality assurance audits and surveillances, with critical self assessments, to maintain program effectiveness.

The emergency planning function was effectively implemented. Personnel were well trained. Simulator performance shortcomings concerning the timeliness of off-site notifications were quickly and effectively addressed, and there were no performance shortcomings identified during actual response opportunities. Effective communications channels were maintained with off-site response organizations and decision makers. Comprehensive audits and surveillances contributed to program effectiveness and consistency.

Performance in the security area continued to be superior. Worker and management cooperation was evident. Both assessment and control equipment were maintained in a high state of repair. When needed, compensatory actions were effectively implemented. The training for and qualifications of the

security staff reflected both an individual and organizational commitment to excellence. Self assessments were an integral part of the organizational philosophy and were effectively used as a means to improve performance.

The fire protection and housekeeping programs at the station were effectively implemented. Occasional instances of combustible material control and general housekeeping shortcomings were effectively addressed by the licensee.

The performance rating in the Plant Support area is Category 1.