

SALP REPORT - H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
50-261/95-99
DECEMBER 26, 1993 - JUNE 17, 1995

I. BACKGROUND

The SALP Board convened on July 6, 1995, to assess the nuclear safety performance of H. B. Robinson Unit No. 2 for the period of December 26, 1993, through June 17, 1995. The Board was conducted pursuant to NRC Management Directive 8.6, "Systematic Assessment of Licensee Performance." Board members were Ellis W. Merschoff (Chairperson), Director, Division of Reactor Projects, Region II (RII); Albert F. Gibson, Director, Division of Reactor Safety, RII; Bruce S. Mallett, Director, Division of Radiation Safety and Safeguards, RII; and David B. Matthews, Director, Project Directorate II-1, Office of Nuclear Reactor Regulation.

The performance category ratings and the assessment functional areas used below are defined and described in NRC Management Directive 8.6, "Systematic Assessment of Licensee Performance (SALP)."

II. PERFORMANCE ANALYSIS - PLANT OPERATIONS

This functional area assesses the control and execution of activities directly related to operating the plant. It includes activities such as plant startup, power operation, plant shutdown, and response to transients. It also includes initial and requalification training programs for licensed operators.

The previous SALP noted a decline in performance in the area of operations, characterized by weaknesses in procedural controls, control room performance and professionalism, and management oversight. Efforts taken to convey and implement increased standards and expectations for operations have largely arrested the declining performance noted last SALP cycle with overall performance remaining good. The plant operated well this period, without automatic trips, significant operational transients, or major regulatory deficiencies. Good management involvement, conservative operational decisions, and improved control room discipline have been evident. Further, significant improvements have been made to improve the physical layout of the control room and the quality of the emergency and abnormal operating procedures.

Plant startup and shutdown activities were typically well-planned and controlled. Outage control has been effective, with appropriate attention given to mid-loop operations and outage planning. This period's refueling and forced outages were successfully completed with no significant events.

In contrast to the performance of the plant, operator performance especially in the areas of personnel errors, procedural compliance, and

configuration control has remained weak with a decline noted in the last six months of the assessment period. While operator performance has not resulted in a significant transient or event, the number and trend of these errors are of concern.

Performance in the area of self-assessment has been mixed during this period. Efforts by the Nuclear Assessment Department (NAD) have been well-focused, critical assessments with substantive findings. Additionally, the operating experience feedback program has been effective in assuring industry experience is appropriately applied at Robinson. The line organization, however, has lacked an aggressive, focused effort to identify and resolve problems prior to either becoming self-revealing or being identified by a third party organization.

The Plant Operations area is rated **Category 2**.

III. PERFORMANCE ANALYSIS - MAINTENANCE

This functional area assesses licensee activities in the areas of testing and maintaining plant structures, systems, and components. Activities assessed include preventive, predictive, and corrective maintenance, as well as surveillance, post modification, and post maintenance testing.

Effective management involvement produced noticeable improvement in overall performance in the areas of maintenance and testing. A Near-Term Improvement plan was developed and implemented early in the period which included changes in management and processes. Improvements were evident in most areas where challenges were apparent in the previous assessment period. These improvements indicate that recent corrective actions have been effective.

Effective maintenance was indicated by reliable plant equipment. Few trips or power reductions were caused by equipment failures or maintenance errors, and few repetitive equipment problems occurred.

Compliance with maintenance procedures improved significantly from the previous assessment period. Management expressed expectations clearly and held the staff accountable.

The condition of the plant was improved by a lower threshold for identifying items for corrective maintenance. The rate of accomplishment of corrective maintenance increased over the period to maintain the backlog at an acceptable level. Items in the backlog were prioritized based upon safety significance, with the highest priority assigned to items of greatest safety significance.

Management support for plant maintenance was demonstrated by new and improved maintenance facilities at the site. New maintenance shops and offices, a new craft training facility, and a new centralized material and test equipment lab were provided.

Selected problems identified in the previous assessment period continued into this period. Although progress was made reducing the backlog of maintenance procedure changes, inadequate procedures continued to contribute to performance problems. These problems were most prevalent in the area of surveillance testing. Deficiencies also continued in the control of contractor activities. Although increased management oversight was apparent, and the significance of problems was reduced, continued deficiencies were identified during the 1995 refueling outage.

Self-assessments of maintenance and testing activities were generally effective. Assessments by NAD identified significant issues which were appropriately addressed by plant management. Assessments by the maintenance organization were less effective. Several problems identified by NAD and by the NRC could have been identified earlier through effective self-assessments within the maintenance organization.

The Maintenance area is rated **Category 2**.

IV. PERFORMANCE ANALYSIS - ENGINEERING

This functional area assesses activities associated with the design of plant modifications and engineering support for operations, maintenance, surveillance and licensing activities.

Licensee performance has shown improvement. Progress resulted from initiatives to address interface weaknesses identified between site and corporate engineering staffs. Design engineering was relocated to the site, and the Engineering organization was integrated with Technical Support and Project Management, resulting in improved communication and more thorough reviews. Organizational and interface improvements have resulted in good interdisciplinary coordination.

The licensee conducted more self-assessments in engineering to address recognized problems in corrective programs. A newly implemented multi-disciplinary, rapid-response team has provided quicker disposition of problems, leading to improved timeliness in issue resolution.

Engineering backlog and temporary modifications were effectively reduced through aggressive prioritization, appropriate management attention, and efficient work processes. Additionally, a training program was implemented for design engineers to broaden systems experience. Effective management support has been demonstrated by increased performance monitoring by management through walkdowns to foster a sense of ownership and to emphasize accountability of system engineers.

Technical support and expertise in licensing was good and usually effective in contributing to comprehensive and conservative evaluations for most issues. Good management support was noted for licensing, and communication between the licensee and the NRC was effective. The licensee supported requests for meetings, took the initiative to establish meetings on special topics, worked constructively with the

staff, and apprised the staff of upcoming submittals. The timeliness and quality of information submitted to the NRC improved over the assessment period.

Although fewer in number, procedural compliance issues have persisted. Problems arising from inadequate design review and lack of configuration control remain a challenge, especially in issues associated with long-standing plant practices.

The Engineering area is rated **Category 2**.

V. PERFORMANCE ANALYSIS - PLANT SUPPORT

This section assesses activities related to the plant support function including radiological controls, radioactive effluent, chemistry, emergency preparedness, security, fire protection, and housekeeping controls.

Assessments by the nuclear assessment group and the line organization were good and led to improved performance. Radiological controls tracking and corrective action followup to identified issues improved from the previous assessment period. Emergency preparedness exercise and drill critiques were thorough and focused on key issues. Corrective actions for findings were generally prompt. Improvement was needed in tracking and closing less significant, refinement items in the emergency preparedness area.

Equipment and facilities were well-maintained in all areas. Environmental monitoring stations and equipment condition effectively supported the assessment programs.

Management continued to strengthen the program for controlling radiation dose to workers. The program was effective in reducing the radiation dose received for non-outage and high dose rate work during outages from that during previous assessment periods. Work was well-planned and executed with good radiological controls. Control of radioactive contamination inside the facilities was excellent, resulting in areas accessible to operations staff and little internal doses. Oversight of the day-to-day operations was effective in maintaining good health physics practices with few examples of individuals not adhering to procedures.

Chemistry parameters and the amount of radioactive materials released into the environment were maintained well within regulatory limits due to aggressive programs in these areas. The laboratory and radiochemical analysis programs exhibited an excellent level of performance.

Emergency response during exercises and actual events during the assessment period demonstrated good command and control, sensitivity to protection of workers and the public, and appropriate protective action recommendations. Weaknesses in the timely notification of emergency

status noted early in the assessment period were corrected during subsequent drills and exercises. The training program provided well-qualified and knowledgeable staff as evidenced by the performance during drills and actual events. Some deficiencies were noted with respect to attention to detail in some portions of the program.

The security program was strong in maintaining a low number of compensatory measures throughout the assessment period. An effective training program resulted in security staff knowledgeable of duties and with good response capabilities. Access control and other aspects of the routine security program met requirements. Security problems within the routine program resulted from inattention to detail by site personnel.

Direction and involvement in the fire protection program was generally good. Training programs and equipment maintenance assured appropriate response when the brigade responded to fires. Facility operations were affected negatively by inadequate controls over gas cylinders onsite.

The Plant Support area is rated **Category 2**.