

SALP BOARD REPORT

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE

50-266/84-09; 50-301/84-07
Inspection Report No.

Wisconsin Electric Power
Name of Licensee

Point Beach Units 1 and 2
Name of Facility

April 1, 1983 through September 30, 1984
Assessment Period

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I. INTRODUCTION

The Systematic Assessment of Licensee Performance (SALP) program is an integrated NRC staff effort to collect available observations and data on a periodic basis and to evaluate licensee performance based upon this information. SALP is supplemental to normal regulatory processes used to ensure compliance to NRC rules and regulations. SALP is intended to be sufficiently diagnostic to provide a rational basis for allocating NRC resources and to provide meaningful guidance to the licensee's management to promote quality and safety of plant construction and operation.

A NRC SALP Board, composed of staff members listed below, met on November 16, 1984, to review the collection of performance observations and data to assess the licensee performance in accordance with the guidance in NRC Manual Chapter 0516, "Systematic Assessment of Licensee Performance." A summary of the guidance and evaluation criteria is provided in Section II of this report.

This report is the SALP Board's assessment of the licensee's safety performance at Point Beach for the period April 1, 1983 through September 30, 1984.

SALP Board for Point Beach:

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II. CRITERIA

The licensee performance is assessed in selected functional areas depending whether the facility is in a construction, pre-operational or operating phase. Each functional area normally represents areas significant to nuclear safety and the environment, and are normal programmatic areas. Some functional areas may not be assessed because of little or no licensee activities or lack of meaningful observations. Special areas may be added to highlight significant observations.

One or more of the following evaluation criteria were used to assess each functional area.

1. Management involvement in assuring quality.
2. Approach to resolution of technical issues from a 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.

However, the SALP Board is not limited to these criteria and others may have been used where appropriate.

Based upon the SALP Board assessment each functional area evaluated is classified into one of three performance categories. The definition 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 so 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 so that minimally satisfactory performance with respect to operational safety or construction is being achieved.

Trend: The performance gradient over the course of the SALP assessment period.

III. SUMMARY OF RESULTS

Overall, the licensee's performance has improved from the last SALP period. Ratings increased from a Category 2 to Category 1 in two functional areas, the areas of Plant Operations and Surveillance remained a Category 1, and five areas remained a Category 2. The only decline was the Maintenance area where the performance level was reduced from a Category 1 to a Category 2 primarily due to the increase in number and significance of noncompliances. The increase in major construction and plant modification activities by the licensee and the increased NRC inspection effort have contributed to the noncompliance numbers in this area.

<u>Functional Area</u>	<u>Rating Last Period</u>	<u>Rating This Period</u>	<u>Trend</u>
A. Plant Operations	1	1	Same
B. Radiological Controls	2	2	Same
C. Maintenance	1	2	Same
D. Surveillance	1	1	Same
E. Fire Protection	2	2	Same
F. Emergency Preparedness	2	2	Same
G. Security	2	1	Improved
H. Refueling	2	2	Same
I. Quality Programs and Administrative Controls	Not Rated	2	Improved
J. Licensing Activities	2	1	Mixed

IV. PERFORMANCE ANALYSIS

A. Plant Operations

1. Analysis

Evaluation of this functional area is based on the results of routine inspections conducted by the resident inspectors. The inspections included direct observation of activities, review of logs and records, verification of selected equipment lineup and operability, follow up of significant operating events, and verification that facility operations were in conformance with the Technical Specifications, administrative procedures, and commitments. Two items of noncompliance were identified as follows:

- a. Severity Level V - Failure to follow procedures for logging a bomb threat (266/83-15; 301/83-15).
- b. Severity Level V - Failure to follow procedures for removing source range instrument fuses (301/84-15).

Noncompliance a. resulted when the shift superintendent failed to log a bomb threat in his station log. The threat was received and logged by security personnel. The shift superintendent felt that this documentation was adequate, and did not recognize an administrative requirement to log bomb threats in the station log. This item of noncompliance was representative of other log keeping deficiencies which had been identified by the resident inspectors. Noncompliance b. resulted from an operator's misconception that deenergizing the malfunctioning source range detector would prevent further equipment damage and this action was taken without consulting the appropriate procedure which was available in the control room. The number and significance of noncompliances for this area remains about the same as the previous assessment period.

During the evaluation period, there were six reactor trips, two on Unit 1 and four on Unit 2. Of the six trips, two were from full power and were caused by equipment failures, one was during startup and was caused by low steam generator level while shifting feedwater control from manual to automatic. The remaining three occurred with reactor power in the source range. Two of these three were caused either directly or indirectly by malfunctioning source range detectors and the third resulted, during a maintenance procedure, from inadequately addressing maintenance prerequisites.

Three LER's were assigned to this area, (301/84-02) withdrawn position of control rods in violation of Technical Specifications, (301/84-03) inadvertent actuation of emergency

safeguards, and (301/84-04) reactor trip caused by improperly deenergizing source range instrumentation. All of these events were of minor safety significance and do not represent any deterioration in the level of performance of the operations staff from the last assessment period.

During the assessment period one reactor operator (RO) and four senior reactor operator (SRO) examinations were administered. The RO and three of the four SRO candidates passed the initial examination. The remaining SRO candidate subsequently passed a reexamination.

A concern relative to sufficient difficulty and scope in licensee written requalification examinations was identified during the SALP period. This concern was communicated to the licensee and as a result, NRC licensing examiner participation was scheduled for a subsequent examination. Review of the subsequent written examinations indicated that the above weaknesses had been corrected. NRC licensing examiners will continue to monitor the licensee requalification program.

The advantages of a six shift operations crew rotation which was initiated near the end of the last SALP period was evidenced in the increased training time allotted for the crews. This SALP period each crew received over twice the classroom time than was previously possible with a five shift rotation. Shift superintendents were utilized as instructors and provided inputs for examinations to help make them more operations oriented. Consultants have been hired to provide systems descriptions which will be utilized in future training programs. Overall, operations training and retraining programs have continued to be upgraded during the SALP period.

Point Beach Units 1 and 2 continue to maintain an excellent reliability record. As of the end of the assessment period Unit 1's availability factor was 79.2% with a capacity factor of 69.4% and Unit 2's availability factor was 87.7% with a capacity factor of 80.3%. This assessment period included a six month outage on Unit 1 to replace steam generators. Two forced outages occurred during the period. Both outages were on Unit 2 and lasted a total of 36.2 hours, one to replace a valve in the RTD bypass manifold and the other caused by a capacitor failure in inverter 2DY01.

Site and corporate management involvement in plant operations continues to be maintained at a high level. A corporate reorganization during the SALP period now provides for the Vice President - Nuclear Power to report directly to the President and Chief Operating Officer. Management's response to NRC concerns has been timely and effective.

2. Conclusion

The licensee continues to be rated Category 1 in this area. The performance trend during this period remained the same.

3. Board Recommendations

This area should be considered for reduced inspection frequency.

B. Radiological Controls

1. Analysis

Six inspections were performed during the assessment period by regional specialists. The inspections included outage radiation protection, operational radiation protection, steam generator replacement, spent fuel shipments, confirmatory measurements, and environmental protection. The resident inspectors also inspected in this area. Seven violations and one deviation from a commitment were identified as follows:

- a. Severity Level IV - Failure to take suitable air samples during reactor vessel head removal and cavity flooding (50-266/83-08; 50-301/83-08).
- b. Severity Level IV - Failure to adhere to an NRC Order confirming a licensee commitment for installation and operations of steam line monitors per NUREG-0737 (50-266/83-08; 50-301/83-08).
- c. Severity Level IV - Failure to conduct a timely contamination survey of a spent fuel cask before shipment (266/83-17; 301/83-16).
- d. Severity Level V - Failure, for two exclusive shipments, to provide written exclusive use instructions to the carrier (266/83-11; 301/83-19).
- e. Severity Level IV - Failure to notify the control room of a high airborne concentration per procedures (301/83-19).
- f. Severity Level V - Failure to maintain in situ calibration records for the containment high range radiation monitor (266/84-02; 301/84-01).
- g. Severity Level IV - Failure to adhere to an NRC order confirming a licensee commitment for installation of control room and C-59 panel shielding per NUREG-0737 (266/84-02; 301/84-01).

- h. Deviation - Special operating instructions for the steam generator replacement project were not reviewed by licensee personnel as stated in a letter to NRR from the licensee dated February 22, 1983 (266/83-11; 301/83-19).

Although these multiple minor violations, some repetitive and some indicative of a minor programmatic breakdown, represent a significant increase from the last SALP assessment period, they do not appear indicative of a significantly weakened radiation protection program. Increased work activity (e.g., steam generator replacement and spent fuel shipping) and increased NRC inspections contributed to the increased number of violations.

The number of violations do, however, indicate a need for improved management involvement, including increased plant and corporate quality assurance audits, which were notably lacking during this assessment period. Self-audits by the plant health physics staff were generally of good quality. The licensee has an acceptable analytical laboratory quality control program; however, licensee audits of analytical laboratory activities should be improved. Corporate involvement in the steam generator replacement project appears to have contributed to the success of the project. Overall, management involvement and control are adequate; however, improvements should be made in the audit program.

Staffing in this functional area was adequate. Key positions within the radiation protection and chemistry groups were identified, authorities and responsibilities were defined, and positions were usually filled in a reasonable time. The radiation protection program has been strengthened during the assessment period by addition of two health physics supervisors who meet Regulatory Guide 1.8 Radiation Protection Manager selection criteria and provisions for health physics technician coverage on a second shift. However, the Chemistry and Health Physics Superintendent's position has been vacant since February 9, 1984.

The current Radiation Control Operators (RCOs) training program was marginal. A more comprehensive training curriculum is needed, especially given the relative inexperience of the staff. An improved training program for the RCOs was developed and is scheduled for implementation during the next SALP assessment period. The new program appears adequate and should upgrade the technical level of the RCOs and other members of the staff. A chemistry training program, involving formal lectures, on-the-job supervisory training, and demonstration of laboratory proficiency was being developed for new RCOs.

A conservative approach to radiological safety and controls was generally exhibited. Overall radiological controls associated with the steam generator replacements and sleeving were very good. Personnel radiation exposures during 1983 were about 15 percent above the average for U.S. pressurized water reactors and about 150 percent above the licensee's average annual exposures over the preceding five years. The increase was due primarily to special projects during this assessment period, including the Unit 1 steam generator replacement project, the Unit 2 steam generator sleeving project, and phase 2 of the Unit 1 steam generator tube specimen removal task. These projects were all completed at relatively low personal radiation doses due primarily to good pre-planning, work practices, worker attitudes, and exposure and management controls. Total dose for the Unit 1 steam generator replacement project was about 300 person-rems per steam generator which represents a significant reduction from the doses for previous steam generator replacement projects. These low doses are apparently attributable to effective oversight of the project by licensee personnel, combined with good project management by Westinghouse.

During this assessment period, liquid effluent releases and solid waste production were about average for U.S. pressurized water reactors and gaseous effluent releases remained lower than average.

No unplanned liquid or gaseous releases were reported. One hundred and ninety-three spent fuel shipments from two storage facilities were received by the licensee. Frequent departure and arrival inspections of the shipments performed by NRC inspectors identified two violations concerning an inadequate cask survey and inadequate shipping documentation.

The licensee continued to demonstrate good performance in his capability to accurately measure radioactivity in effluents. The licensee achieved all (26) agreements in comparison with results from the Region III mobile laboratory. Two additional agreements were obtained for beta analysis of a liquid sample collected in a previous inspection. A hood air flow discrepancy identified during an inspection was corrected in a timely manner.

Radiological environmental monitoring, sample collection by plant personnel and analyses performed by the contractor (Teledyne Isotopes, Inc.), appear satisfactory. This radiological environmental monitoring program contractor also performed an adequate internal QC and EPA interlaboratory cross-check program.

2. Conclusion

The licensee is rated Category 2 in this area. This is the same rating as the last SALP period. No significant change in performance was evident.

3. Board Recommendation

None.

C. Maintenance

1. Analysis

Safety-related maintenance performed during the period included sleeving of Unit 2 steam generator tubes, modification of Unit 1 and 2 containment air particulate and gaseous monitors, seal and shaft key replacement on safety injection pump 2P15A, annual inspection and governor replacement on 3D diesel generator, annual inspection on 4D diesel generator, changeout of Nbfd relays, reinforcement of pressurizer safety valve discharge header piping, replacement of source range detection channel 32, modification of auxiliary feed system to provide automatic initiation and back-up cooling from the fire main, installation of the auxiliary safety instrumentation panels in the control room and replacement of Unit 1 steam generators.

Evaluation of this area is based on the results of routine inspections by the resident inspectors and three inspections by Regional Office Inspectors. The inspections included such activities as the observation of maintenance; compliance with procedures, and plant technical specifications; the use of properly certified parts and materials; and adherence to radiological and fire protection controls. Six items of noncompliance were identified as follows:

- a. Severity Level V - Use of incorrect procedure revision for steam generator closeout inspection (301/83-13-02).
- b. Severity Level IV - Failure to perform adequate 10 CFR 50.59 review for snubber removal (301/84-03-01).
- c. Severity Level IV - Failure to comply with ANSI N45.2.1 1973, resulting in a significant amount of debris in the reactor coolant system (266/84-06-01).
- d. Severity Level IV - Failure to maintain operable radiation monitors which initiate containment isolation during fuel motion (301/83-11).
- e. Severity Level V - Failure to accomplish activities in accordance with procedures and drawings (266/83-20).
- f. Severity Level V - Failure to establish an adequate hydrostatic test program (266/84-01).

Noncompliance a. was of minor safety significance and did not affect the operation of the plant. Noncompliance b. was of minor safety significance but was repetitive in nature. Noncompliance c. could have caused a safety concern if the licensee had not identified the debris problem during the normal rod latching procedure and removed the debris prior to startup. This event resulted in a fifteen day delay in recovering from the steam generator replacement outage. Noncompliance d. involved an LCO violation of minimal safety significance. However, among the many causal factors which lead to this noncompliance was a possible inadequacy in the licensee's 10 CFR 50.59 review process. Noncompliances e. and f. were identified during the steam generator replacement outage and do not appear to have generic or programmatic implications.

Management involvement in maintenance activities was extensive during this SALP period. Although management resources were somewhat strained during the steam generator replacement, the overall handling of this activity was commendable. All major critical path evolutions were completed on or ahead of schedule until the debris problem was identified at the end of the outage.

During the previous SALP, quality assurance activities were a part of this functional area. In this SALP period, they are treated as a separately assessed area. A major team inspection of the quality assurance area at both the site and corporate levels was held during this evaluation period. The licensee has corrected or is in the process of correcting the findings from that inspection, many of which impact the maintenance area. Examples of significant changes were the licensee's revised 10 CFR 50.59 review process and development of more comprehensive maintenance procedures.

Training has been upgraded by the addition of classroom instruction on basic plant systems and their operation along with the normal specific discipline training. This will help maintenance personnel to get an overall picture of what effect their actions can have on the operation of the plant.

Five LER's were assigned to this area: (266/84-04), reactor trip caused by placing turbine first stage pressure in test while at 700 PSIG primary system pressure, the cause of the reactor protection actuation was an inadequately prepared maintenance request; (266/83-03) critical control power failure, caused by contractors pulling wires in the control boards; (266/83-10) loss of fire detection in auxiliary feedpump room, vital switchgear room, and cable spreading room, caused by a contractor wiring error during a modification; (301/83-08) loss of R-11 and R-12 during fuel movement, caused by inadequate system turnover during modification; and

(301/84-01) removal of a safety-related snubber contrary to technical specifications during modification, caused by an inadequate 10 CFR 50.59 review. These last two LER's are also carried as noncompliances b. and d. above.

During the previous SALP period no items of noncompliance and one LER were assigned to this area. The Board recommended that increased NRC inspection should be implemented during the steam generator replacement outage. The increase in major construction and plant modification activities by the licensee and the increased NRC inspection effort in this area have contributed to the LER and noncompliance numbers identified in this SALP period. Although the numbers of noncompliances and LER's have increased significantly over the previous SALP period, there does not appear to be a major breakdown in management control or maintenance personnel performance as evidenced by the continued lack of significant plant problems identified as related to maintenance and the continued reliability of safety-related equipment.

2. Conclusion

The licensee is rated Category 2 in this area. The licensee was rated a Category 1 during the last assessment period. The performance trend during this SALP period remained the same.

3. Board Recommendations

None.

D. Surveillance

1. Analysis

Evaluation of this functional area is based on results of routine inspections conducted by the Resident Inspectors and five inspections by regional personnel. The resident inspections included such activities as the observation of testing; verification that testing was performed in accordance with adequate procedures; that limiting conditions for operation were met; that test results conformed with technical specifications and procedure requirements and were reviewed by personnel other than the individual directing the test; and that any deficiencies identified during the testing were properly reviewed and resolved by appropriate management personnel. Four of the regional based inspections were in the area of inservice inspections. These included inspections of (1) inservice examination of piping systems, (2) the results of inspections and documentation review for crack indications and failure of control rod guide tube split pins, (3) a review of the results of ultrasonic testing that identified indications in the reactor pressure vessel outlet nozzle to shell weld,

and (4) followup on valve shaft inspections required to be performed on main steam line isolation swing check and swing stop valves. The fifth regional inspection covered the integrated leak rate test on the Unit 1 containment.

No items of noncompliance or deviations were identified. One LER attributed to personnel error was submitted during the assessment period, (266/83-06) boric acid storage tank and refueling water storage tank sampling frequency exceeded. The cause of this event was the failure of a chemistry technician to note a scheduling change for the required samples. The samples were taken as soon as the error was recognized and the results were within specifications.

Licensee surveillance testing continues to be performed by well qualified personnel using comprehensive procedures and, with the one noted exception, in a timely manner. Management involvement remains evident. Procedure revisions are developed with inputs from operations and testing personnel and are given timely reviews. On-the-job training for technicians includes explanations of what effect each step in a procedure has on the system being tested. Operations personnel are constantly kept informed as to the status of testing and what effects they should expect to see on instrumentation or annunciators. The licensee continues to maintain the performance level and attributes described in the previous SALP.

2. Conclusions

The licensee continues to be rated Category 1 and performance in this area has remained the same.

3. Board Recommendations

This area should be considered for reduced inspection frequency.

E. Fire Protection and Housekeeping

1. Analysis

Throughout the assessment period, while performing the resident inspection program, observations were made of the control of combustible materials, control of fire barriers, implementation of ignition control permit requirements and housekeeping requirements. One inspection was performed by regional inspectors to followup on previously identified findings. Two items of noncompliance were identified as follows:

- a. Severity Level IV - Failure to follow procedures:
Acetylene bottle and wood stored in containment during steam generator replacement outage (266/83-26).

- b. Severity Level V - Failure to follow procedures:
Transient combustibles not controlled in diesel generator room (266/84-06; 301/84-04).

Noncompliance a. resulted in a small fire in containment when acetylene and the acetylene hose were ignited by grinding sparks. The fire was quickly extinguished and unnecessary combustibles removed from containment. Noncompliance b. resulted from a misinterpretation of the transient combustibles procedure. All necessary personnel were retrained on the proper use of the procedure.

Licensee performance in the area of fire protection has shown marked improvement since the last SALP assessment based on the following:

- a. During the current SALP period only two items of noncompliance were identified, one Severity Level IV and one Severity Level V. The Severity Level IV items resulted from a self-disclosing event. During the previous evaluation period, three Severity Level IV items of noncompliance were identified along with six unresolved items, indicating basic programmatic weaknesses.
- b. All of the items identified as weaknesses during the previous SALP period were reinspected and determined to be adequately resolved.
- c. The licensee has established a full time Fire Protection Engineer position, removing these duties from operations personnel and giving them to a fully qualified individual.
- d. The licensee has actively involved their corporate Fire Protection Engineer in site fire protection/prevention activities.

During this evaluation period the licensee has satisfactorily completed an operational test of the new Halon suppression system which serves the cable spreading room, the auxiliary feedpump room, and the vital switchgear room. Housekeeping continues to be well above average with a recent renewed effort at auxiliary building cleanliness.

2. Conclusion

The licensee continues to be rated Category 2 in this area. The performance trend remained the same.

3. Board Recommendations

None.

F. Emergency Preparedness

1. Analysis

During the assessment period, four inspections were conducted, two emergency preparedness exercises were observed, a Safety Evaluation Report was written and a management meeting was held to evaluate compliance with 10 CFR Part 50, Technical Specifications and procedures. Three items of noncompliance and one deviation from a commitment were identified during this assessment period in contrast to the previous assessment period during which only one noncompliance was identified. Of the three items of noncompliance and the deviation discussed below, only a. was of greater significance to the emergency program than the previous period's noncompliance.

- a. Severity Level IV - Shift Supervisors, initially the Emergency Support Manager, were incapable of determining when and what type of protective measures should be considered outside the site boundary to protect public health and safety (266/84-13; 301/84-11).
- b. Severity Level IV - An evaluation for the adequacy of interfaces with the State and local governments was not included in the 1984 annual audit (266/84-13; 301/84-11).
- c. Severity Level V - Emergency action levels for the Point Beach Nuclear Plant had not been reviewed by the State of Wisconsin on an annual basis (266/84-13; 301/84-11).
- d. Deviation - Failure to update or obtain letters of agreement with offsite organizations (266/83-75; 301/83-23(DRSS)).

Each of the items of noncompliance and the deviation from a commitment appeared to be the result of a failure to adequately maintain portions of the emergency preparedness program. The licensee had shown that it was responsive to NRC concerns as demonstrated by the fact that a total of 50 outstanding items were closed out during the assessment period. However, it was also evident that not all NRC concerns were being addressed. First, the July 1983, routine inspection identified problems with Shift Supervisors being able to make a protective action recommendation due to inadequacies in the procedures and training. Walkthroughs with the Shift Supervisors a year later, during the July 1984 routine inspection, showed that their ability to make a protective action recommendation had deteriorated, which resulted in the issuance of noncompliance a. Second, a management meeting in September 1983 addressed NRC concerns pertaining to letters of agreement with offsite organizations.

Four months later these concerns had still not been addressed which resulted in issuing a deviation from commitment. Based on the above and the fact that noncompliances b. and c. were the result of a failure to carry out annually scheduled tasks, it appeared that not enough manpower was allocated to resolving emergency preparedness issues, and still continue to maintain the program on an ongoing basis.

The licensee's performance during their 1984 annual exercise was an improvement over their 1983 annual exercise. However, a major weakness was identified in the ability to determine appropriate protective actions. Weaknesses identified in the area of command and control during the 1983 exercise were corrected during the 1984 exercise.

The licensee had adequately responded to the previous SALP Board recommendation that increased management attention is needed to address NRC concerns in a more timely and responsive manner. With the exception of the two items discussed above that resulted in noncompliance a. and the deviation from a commitment, the licensee responded to all other NRC concerns in a timely and thorough manner.

The licensee continued to carry out their training program for site and corporate personnel involved in the emergency preparedness program which included drills as well as classroom training. Improvements in the training program were evident in that improved performance by the licensee was noted in each successive annual emergency preparedness exercise over the last three years. However, additional emphasis was necessary in the area of protective action recommendations based on the 1984 exercise and shift supervisor walkthroughs as previously discussed.

2. Conclusion

The licensee is rated Category 2 in this area. This is the same rating as the last SALP period. Licensee performance in this area remained the same overall.

3. Board Recommendations

None.

G. Security

1. Analysis

Three physical security inspections and one material control and accountability inspection were conducted during this assessment period. During August and September 1983, inspections of security protection for shipments of irradiated fuel

assemblies were also conducted. Additionally, the resident inspectors conducted periodic observations of security activities. The scope of the security inspections included normal security operations, transportation security measures, and security measures for a major outage. Two violations were noted during the inspection effort.

- a. Severity Level IV - Adequate searches of hand-carried packages were not conducted (266/83-22; 301/83-21).
- b. Severity Level IV - A security computer capability, required by the security plan, could be circumvented (266/84-08; 301/84-06).

Violations a. and b. represent a significant decrease in number and nature of violations identified in the previous SALP period. The SALP 3 report identified seven violations and noted that the violations pertained primarily to equipment problems. This trend has been reversed by the licensee's management.

A concern pertaining to the contract security organization's written guidance for reporting possible violations to the NRC was noted in Inspection Report K. 50-265/84-08; 50-301/84-06. The guidance required, rather than encouraged, security contractor personnel to contact both the security contractor management and licensee management before contacting the NRC about possible violations. The guidance was published in February 1984 and the licensee was required to respond to the concern since it appeared to conflict with the intent of 10 CFR 19.15. The guidance was superseded in July 1984 and the conflict was clearly eliminated.

The previous SALP report noted that corrective actions lacked depth. During this assessment period, security issues were consistently resolved at the Security Supervisor level and concerns appeared to receive the same level of management attention as violations. Corrective actions for violations and concerns have been timely and effective in resolving the issues and preventing recurrence. The licensee is consistently responsive to NRC concerns.

Several actions to improve the existing security program have been initiated during this assessment period. These actions include upgrading of the security computer system, installation of several new closed circuit television (CCTV) cameras, improvements in the licensee's firearms range, acquisition of equipment for maintenance support for high elevation security equipment (lighting and CCTV cameras), and development of the Security Force Training and Qualification Program in concert with an area certified educational institution. Proposals to improve portable radio equipment, lighting, and modification of the central alarm

station console based upon human factor analysis have also been recommended. Senior management has been supportive of efforts to improve security effectiveness.

Corporate level support for the security program appears aggressive and supportive of site activities. Communications between the site Security Supervisor and corporate System Security Officer was effective. Corporate audits of the security program were in-depth and included all major segments of the program. Inspection findings are closely monitored by the corporate security office. Frequent meetings are held with the principal law enforcement agency and drills have included participation of the local sheriff's department.

A significant revision to the security program was necessary during the major outage for the steam generator replacement. Some existing facilities had to be modified, additional personnel had to be hired and trained, and a separate appendix to the security plan had to be prepared and submitted for NRC approval. All of these major tasks were completed in a timely and professional manner.

Aggressive management of security operations is provided by the two licensee security supervisors. Both have demonstrated a high level of management and technical competence. Effective liaison with the contract security force manager was also evident. Staffing of the contract security force appears adequate and strong supervision of day-to-day operations was noted during security inspections. Personnel appeared well trained and motivated.

Procedural guidance is adequate to assure that provisions of the security plan are fulfilled. Required security plan submittals are completed in a timely manner and are technically correct. Physical security event reports required by 10 CFR 73.71(c) are submitted in a timely manner and contain adequate details.

The major task facing the licensee is complete implementation of the Security Force Training and Qualification Plan (SFT&Q). Implementation progress was determined to be adequate during the June 1984 inspection. The SFT&Q Plan becomes effective on November 12, 1984.

Security equipment observed during inspections was functional and well maintained. Contingency equipment was also serviceable. Maintenance support for security equipment and systems appeared adequate and was monitored by the Security Supervisor on a weekly basis.

2. Conclusion

The licensee is rated Category 1 in this area. This is an improvement from the previous rating of Category 2 and is based primarily on the improved enforcement history, effectiveness and depth of corrective actions to resolve security issues and the licensee's actions to upgrade the existing security program. Licensee performance over the course of this SALP period has improved. Deficiencies noted in the SALP 3 evaluation have been addressed and corrected by the licensee.

3. Board Recommendations

This area should be considered for reduced inspection frequency.

H. Refueling Activities

1. Analysis

Evaluation of this functional area is based on the results of inspections conducted by the resident inspectors. The inspection activities included observation of fuel movements; verification that surveillance for refueling activities had been performed; that refueling containment integrity requirements were met; and observation of outage controls and activities. One item of noncompliance was identified:

Severity Level IV - Failure to follow procedures during core loading activities (301/83-13-01).

The above noncompliance resulted from a personnel error that involved a failure to verify manipulator crane mast elevation prior to releasing an irradiated fuel assembly in the reactor and resulted in the fuel assembly leaning over approximately 30 degrees. This assembly was subsequently removed from the core and not used in the reload. This noncompliance had potential safety implications since the fuel rodlets could have ruptured.

Three LER's were assigned to this area: (266/84-01) split pin cracks and missing fasteners, (301/83-02) steam generator tubes requiring plugging, and (301/83-07) abnormal degradation in fuel cladding.

The noncompliance above occurred during the Spring of 1983, Unit 2 refueling. The last Unit 1 refueling displayed evidence of management involvement in that prior planning and assignment of priorities were completed for utilization of the spent fuel pool. Coordination had to be maintained between spent fuel shipments arriving at the site and the core offload and reload.

On-the-job training on the manipulator and spent fuel bridge is preceded by classroom training for those operators handling fuel. Staffing was adequate and responsibilities were defined.

2. Conclusion

The licensee continues to be rated Category 2 in this area. The performance trend remained the same.

3. Board Recommendations

None.

I. Quality Programs and Administrative Controls

1. Analysis

This functional area was examined by regional inspection specialists in three inspections conducted during the SALP period. The first inspection included a review of the licensee's programs and their implementation for non-licensed personnel training and licensed personnel requalification training. The second inspection was a special inspection of the licensee's quality assurance program activities and included a review of QA Program administration; maintenance program and implementation; design change and modification program and implementation; procurement; Offsite Review Committee; document control; calibration and control of measuring the test equipment; surveillance and inservice testing; cleanliness control; audit program and implementation; and the steam generator replacement program. The third inspection which occurred at the end of the SALP period, was conducted to determine the status and adequacy of the licensee's corrective action in response to the findings of the special QA inspection.

No items of noncompliance or deviations were identified during the first and third inspections. However, during the second inspection nine items of noncompliance with a total of 22 separate examples were identified as follows (266/83-21; 310/83-20):

- a. Severity Level IV - Five examples of failure to control documents.
- b. Severity Level IV - Six examples of failure to have or follow appropriate procedures.
- c. Severity Level IV - Failure to prepare the written safety evaluations required to 10 CFR 50.59 for changes to the facility as described in the FSAR.

- d. Severity Level IV - Failure to provide training to personnel performing inspections.
- e. Severity Level V - Two examples of the failure to perform audits under the cognizance of the Offsite Review Committee as required by the Technical Specifications.
- f. Severity Level V - Four examples of failure to conduct audits in accordance with the ANSI standards as committed in the FSAR.
- g. Severity Level V - Failure to provide a program to prevent the use of material from "Ready Stores" that had exceeded its shelf life.
- h. Severity Level V - Failure to properly store quality records.
- i. Severity Level V - Failure to maintain suitable cleanliness in areas where activities affecting quality were performed.

In addition to the noncompliances listed above, seven other examples of noncompliance were identified which were not cited, but were classified as unresolved items in accordance with the enforcement policy (self-identification by the licensee and formulation of corrective actions). Eleven open items addressing other inspector concerns were also identified.

Noncompliance a. had potential safety significance due to the possible use of outdated procedures or drawings for safety-related activities. Noncompliance b. represented a failure to use approved procedures in the repair of a safety injection pump and the failure to independently verify system configuration. Noncompliance c. resulted from a misunderstanding on the part of the licensee of the requirements of 10 CFR 50.59 relative to a change of non-safety related equipment which modified the plant description in the FSAR. Noncompliance d. had safety significance, in that, personnel performing QC inspections were not trained in the significance of these activities and their attendant responsibilities. Noncompliances e. - i. were of minor safety significance and represent primarily programmatic problems. While the findings of the special quality assurance inspection indicated fairly extensive program deficiencies, they had not yet manifested themselves in identifiable equipment or operational problems.

These findings and the licensee's planned corrective actions were reviewed during a management meeting in the Region III Office and during a subsequent inspection as previously discussed. The licensee implemented an extensive and

aggressive corrective action program. Of the 22 examples of noncompliance, 15 were closed. Three of the seven unresolved items and five of the eleven open items were also closed. Corrective actions were in progress for the remaining items. The licensee was making major changes in the maintenance and modifications programs and revising the structure of its QA Program. The magnitude of these changes delayed the implementation of final corrective action on many of the noncompliances and unresolved items. However, temporary corrective actions were taken where appropriate.

During SALP 3, the Board recommended that the licensee pursue improvements in the formalization and documentation of the Quality Assurance Program. The licensee had initiated actions on the Board's recommendation; however, the special QA inspection identified numerous areas where improvements would be required to bring the licensee's program up to present industry standards. As noted above, the licensee has implemented an extensive corrective action program in response to the identified deficiencies.

There was evidence of prior planning and assignment of priorities in licensee activities. Corporate management was usually involved in site activities. Audits were generally complete, timely and thorough. Committees were usually properly staffed and functioning. Records were generally complete, well maintained, and available. Corrective action systems generally recognized and address nonreportable concerns. There were occasional instances of procedural breakdowns of minor significance in design control, drawing control, maintenance and auditing. Response to NRC initiatives were generally timely, viable, sound and thorough. Acceptable resolutions were proposed initially in most cases.

2. Conclusion

The licensee is rated a Category 2 in this area. Licensee performance in this area at the beginning of the SALP period was minimally acceptable with evident weaknesses. However, the extensive corrective action program implemented during this period to correct these weaknesses has significantly improved performance in this area.

3. Board Recommendations

None.

J. Licensing Activities

1. Analysis

During the present rating period, the licensee's management demonstrated active participation in licensing activities and

kept abreast of current and anticipated licensing actions. The licensee's management actively participated in an effort to work closely with the NRC staff to establish realistic integrated schedules for all modifications of the Point Beach facility. The licensee's management consistently exercised good control over its internal activities and its contractors, and maintained effective communication with the NRC staff. This was specially evident during the steam generator replacement and tube sleeving activities which occurred during the reporting period. One notable difficulty encountered by the licensee was the inability to keep NUREG-0737 and other items on schedule. This resulted in a fairly large number of requests by the licensee for schedule slips, Order modifications, scheduler exemptions, equipment qualification deadline extensions, etc. While management appeared to play an active role in trying to minimize and recoup time lost during various delays, they were unsuccessful in preventing these delays. This may have been due to a combination of factors including an originally overoptimistic or unrealistic schedule, timing imposed by various NRC regulations and an integrated schedule approach to installation. In the latter case, it has been seen that a delay in one system may not immediately demonstrate its impact on related systems.

Management's active participation in issues of high potential safety impact is clearly demonstrated. Examples are the management involvement with shift staffing, CRDM support pin cracking, equipment qualification and steam generator replacement and tube sleeving licensing actions.

The licensee's management and its staff have demonstrated sound technical understanding of issues involving licensing actions. Its approach to resolution of technical issues has demonstrated extensive technical expertise in almost all technical areas involving licensing actions. The decisions related to licensing issues have routinely exhibited conservatism in relation to significant safety matters. The licensee's frequent visits to NRC and sound communications during the rating period assured sound technical discussions regarding resolution of safety issues. During the reporting period, the licensee effectively resolved complex technical issues concerning steam generator replacement and tube sleeving, CRDM support pin cracking, and environmental qualification of safety related electrical equipment.

On occasions when the licensee deviated from the staff guidance, the licensee has consistently provided good technical justification for such deviations. Examples of this are shown in the licensee's inservice inspection program relief requests, CRDM support pin cracking issues and control of heavy loads over spent fuel pool reviews. The licensee has consistently monitored itself to assure that the safety systems function

as designed and the plant's Technical Specifications are well maintained. Recent examples of self-monitoring include frequent administrative technical specification change requests to improve the clarity and consistency of the technical specifications and identification and resolution of conflicting requirements and/or commitments, such as, fuel pool poison surveillance technical specification change requests.

The licensee has always come well prepared to meetings with the staff involving resolution of safety issues. Included as topics for these meetings were steam generator replacement, equipment qualification, CRDM support pin cracking, shift staffing and fire protection. As a result, these meetings have progressed efficiently and effectively and resulted in prompt resolution of all safety concerns.

The licensee has been consistently responsive to NRC initiatives. However, some weaknesses were noted. Mainly, items involving schedular relief were not always submitted with adequate lead time for staff review. This included, notably, requests for equipment qualification deadline extensions, NUREG-0737 Order modifications, component cooling water heat exchanger technical specification change requests and shift staffing exemption requests. Further, several requests for licensing actions did not contain complete packages (i.e., all supporting technical justification). This was true of both initial submittals, such as, Optimized Fuel Assembly technical specifications and some responses to requests for additional information. However, in both cases, improvement has been seen since the previous reporting period.

One item of concern was the licensee's schedule of reactor vessel internal components inspections during the steam generator replacement outage. Earlier scheduling of inspections which were critical path, such as, reactor vessel nozzle welds and CRDM support pins would have provided a greater time period for resolution of safety concerns resulting from these inspections. While these problem areas could not have been predicted or anticipated with absolute confidence, there was adequate prior evidence of their potential existence. As a result, hurried, intense efforts were required by both the staff and licensee to resolve the safety issues which ultimately resulted in a delayed startup.

The licensee experienced mixed trends in performance during this reporting period. While their overall performance of routine licensing actions has improved, several non-routine licensing action areas have showed declining performance or have otherwise shown that additional effort is still needed. Notably, in the area of 10 CFR 50.59 reviews, the licensee has had difficulty in performing the reviews in a correct and timely fashion including completion and documentation of the

required safety reviews. For example, if safety reviews are completed during the preparation stage of an outage, any needed technical resolution could be reached prior to the outage rather than as a last minute item just prior to startup. The licensee has had difficulty in meeting scheduled dates for several licensing actions. This has resulted in a large number of schedular reliefs, extensions, exemptions, etc., which have required resolution on a short turn around time basis and have created significant burden for the NRC licensing staff. Often, once relief was granted, additional stepped-up tracking efforts were either perceived as not needed and therefore not enacted by the licensee or were ineffective, which resulted in several repeat relief requests for the same licensing actions. The end result is an inefficient use of both licensee and NRC staff licensing resources.

Overall, with the exception of the items noted above, the licensee has been very responsive to staff requests for information. This is particularly true of voluntary requests, such as, the staff's site visit request related to USI A-45 "Decay Heat Removal Capability".

2. Conclusion

The licensee is rated a Category 1 in this area. Licensee performance has been mixed during the evaluation period.

3. Board Recommendations

None.

V. SUPPORTING DATA AND SUMMARIES

A. Licensee Activities

During the evaluation period, Point Beach Unit 1 operated for a total of 357.1 out of 549 days. Of the 191.9 days Unit 1 was not in operation, .9 days were attributable to unanticipated equipment problems with the loose parts monitoring system and the remaining 191 days were attributable to the scheduled refueling and steam generator replacement outage. This outage would have been 15 days shorter if it would not have been necessary to remove several hundred pieces of debris from the reactor vessel upper internals package control rod guide tubes.

Unit 1 generator was taken off line on October 1, 1983 and placed back on line April 9, 1984, at the completion of the steam generator replacement outage. Other activities during the outage included: installation of a loose parts monitoring system; inspection of the reactor vessel outlet nozzle to shell welds; an ultrasonic examination of the guide tube split pins, which revealed crack indications in the shank to collar region of 67 of the 74 pins; replacement of the Nbfd relays in the reactor protection and safeguards relay racks; replacement of the R-11/R-12 monitors; and a containment integrated leak rate test.

During the evaluation period, Point Beach Unit 2 operated for a total of 444.8 out of 549 days. On the 104.2 days Unit 2 was not in operation, 1.5 days were attributable to two forced outages caused by equipment failure, 3.7 days were attributable to a scheduled inspection and repair of the moisture separator reheaters, and the remaining 99 days were attributable to scheduled refueling outages.

Unit 2 was shut down at the beginning of the evaluation period for a scheduled refueling and steam generator sleeving outage. The unit was returned to service on July 6, 1983. During this outage, the licensee: sleeved 1501 tubes in the "A" steam generator and 1500 tubes in the "B" steam generator; replaced Nbfd reactor protection system relays; replaced R-11/R-12 monitors; and inspected fuel assemblies, during which one of four optimized fuel assemblies was found to have through-wall defects in at least 9 rodlets.

Unit 2 was shut down at the end of the evaluation period going off line September 28, 1984. Scheduled work for this outage include SPEC 200 system startup and calibrations, reactor coolant loose parts monitoring system installations, replacement of 36 incore flux monitoring thimbles, and steam generator eddy current examinations.

B. Inspection Activities

The inspection program at Point Beach during the evaluation period consisted of routine resident and region-based inspections. One special Quality Assurance team inspection was conducted during this SALP period.

Noncompliance Data

Facility Name: Point Beach, Units 1 and 2, Docket Nos. 50-266, 50-301

Inspection Reports No. 83-07 through 83-28
No. 84-01 through 84-17

Inspection Activity and Enforcement

<u>FUNCTIONAL AREA</u>	NO. OF VIOLATIONS IN EACH SEVERITY LEVEL ¹					<u>DEV.</u>
	<u>I</u>	<u>II</u>	<u>III</u>	<u>IV</u>	<u>V</u>	
Plant Operations					2	
Radiological Controls				5	2	1
Maintenance				3	3	
Surveillance						
Fire Protection				1	1	
Emergency Preparedness				2	1	1
Security				2		
Refueling				1		
Quality Programs and Administrative Controls				4	5	
Licensing Activities						
Totals				<u>18</u>	<u>14</u>	<u>2</u>

¹ Noncompliances reflect total noncompliances for site rather than noncompliances associated with each unit as was reflected in SALP 3.

C. Investigations and Allegations Review

None

D. Escalated Enforcement Actions

None

E. Management Conferences Held During Appraisal Period

1. On August 22, 1983, a management meeting was held at the Point Beach site to discuss NRC concerns over the casual factors which lead to a limiting condition for operation being exceeded for the R-11/R-12 radiation monitors.
2. On September 28, 1983, a management meeting was held at the licensee's corporate offices in Milwaukee to discuss NRC concerns pertaining to the inspection findings of the July 18-22, 1983, emergency preparedness inspection 266/83-14; 301/83-14(DRSS).
3. On January 4, 1984, a management conference was held at the licensee's request in the Region III Office to discuss the findings of the special QA inspection 266/83-21; 301/83-20(DRS).

F. Review of Licensee Event Report and 10 CFR 21 Reports

1. Licensee Event Reports (LER's)

On August 29, 1983, the NRC published an amendment clarifying its regulations regarding Licensee Event Reports required by 10 CFR 50.73. Details of the new reporting system were published as NUREG-1022 "Licensee Event Report System". The effective date of this amendment was January 1, 1984. The new rule deleted reporting requirements for several types of licensee events which had been found, through experience, to be of little value to the Commission.

<u>PROXIMATE CAUSE**</u>	<u>Unit 1</u>		<u>Unit 2</u>	
	<u>SALP III*</u>	<u>SALP IV*</u>	<u>SALP III*</u>	<u>SALP IV*</u>
Personnel Error	3(.25)***	4(.22)	1(.08)	5(.28)
Design Mfg. Const/Install	5(.42)	2(.11)	3(.25)	1(.06)
External	0(.00)	0(.00)	0(.00)	0(.00)
Defective Procedure	3(.25)	0(.00)	1(.08)	0(.00)
Component Failure	11(.92)	4(.22)	4(.33)	6(.33)
Other	2(.17)	4(.22)	2(.17)	1(.06)
TOTALS	24(2.00)	14(.78)	11(.92)	13(.72)

* SALP 3 (12 months), SALP 4 (18 months)

** Proximate Cause is the cause assigned by the licensee according to NUREG-0161, "Instructions for Preparation of Data Entry Sheets for Licensee Event Report (LER) File", or NUREG-1022, "Licensee Event Report System"

*** Numbers in parentheses indicate LER's/Month

26 LERS were reviewed for clarity and adequacy of the provided descriptions during the assessment period and were found reasonably detailed to permit understanding of the events. An increase was noted in the numbers of LERs attributed to personnel errors; however, reductions of licensee events were noted in Design Manufacturing, Construction/Installation and Component Failure categories.

G. Licensing Actions

1. NRR/Licensee Meetings

June 23, 1983	Steam Generator Replacement
July 22, 1983	Appendix R Fire Protection Exemptions
October 13, 1983	Environmental Qualification of Safety-Related Electrical Equipment
January 10, 1984	Shift Staffing Rule Exemption Request
March 28, 1984	Control Rod Guide Tube Support Pin Cracking

2. NRR Site Visits

August 22, 1983	Steam Generator Replacement Outage Schedule
October 31, 1983	Inservice Inspection Program Evaluation
July 16, 1984	USE A-45 Decay Heat Removal Evaluation

3. Commission Briefings

None.

4. Schedular Extensions Granted

10 CFR 50.49 Environmental Qualification Deadline Extension	7/22/83
10 CFR 50.49 Environmental Qualification Deadline Extension	1/3/84
NUREG-0737 Order Modification	7/12/83
10 CFR 50.54 Shift Staffing Extension	3/26/84

5. Reliefs Granted

10 CFR 50.49a Additional Inservice Inspection Relief	6/1/83
10 CFR 50.55a 2nd Ten Year Interval ISI Relief	3/29/84

6. Exemptions Granted

10 CFR 50.44 Reactor Coolant System Vents Schedular Exemption	5/9/83
10 CFR 50.44 Reactor Coolant System Vents Schedular Exemption	12/30/83

7. Emergency Technical Specification Issued

None.

8. Orders Issued

Units 1 and 2 - Order confirming Licensee commitments on
Emergency Response Capability as required by Supplement 1
to NUREG-0737, July 3, 1984