

July 13, 1982

Mr. J. A. Hind, Director
Division of Emergency Preparedness
and Operational Support
U. S. NUCLEAR REGULATORY COMMISSION
Region III
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Dear Mr. Hind:

PRINCIPAL STAFF
DIR LAMERIS
D/D PAO
A/D CLO
DREPT
DESTI
DESTI
DESTI

COMMENTS IN RESPONSE TO THE
SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE
REPORT OF POINT BEACH NUCLEAR PLANT

Your letter of June 18, 1982 forwarded the NRC Systematic Assessment of Licensee Performance (SALP) Report for the Point Beach Nuclear Plant covering the period November 1, 1980 to April 1, 1983. As you know, we discussed this report during a meeting at Glen Ellyn on June 23, 1982; however, we wish to make the following comments for the record.

The report compares the SALP 1 evaluation with the present SALP 2 report. This can be misleading because SALP 1 was undertaken as a comparative study of all power reactor licensees within a given region while SALP 2 is a performance review of an individual licensee against past performance. Thus, while the criteria may have remained similar for each evaluation, this difference in purpose is sufficient to bring into question comparative comments between SALP 1 and SALP 2. The concept of the historical nature of these reviews also is in need of further refinement. It may be misleading to compare one year or period to the next; this can lead to unwarranted conclusions when viewed in the overall historical context of licensee performance. For example, at Point Beach the total number of events reportable to the NRC via the Licensee Event Report (LER) format has remained relatively constant since 1976, actually decreasing in 1981 to the lowest level since 1973 (see attached graphs). This type of broad historical perspective is more valid in determining licensee performance than is a year-toyear evaluation.

July 13, 1982

Specific comments on the body of the report are as follows:

ENCLOSURE 1

1. In the general observations section it is stated that there was a significant increase in the number of items of noncompliance with the primary cause laid to a lack of management attention. We believe that the third sentence in this first paragraph would more appropriately read as follows: "The increase is attributable to the increased regulatory requirements (principally TMI backfitting), more extensive maintenance and frequent shutdowns for steam generator testing and repair, and the losses of experienced personnel." Although management attention and involvement to counter these causes has been extensive, the causes are not solvable on a short term schedule and they have strained the licensee's human resources.

Additionally, in this section it is noted that two management positions were left unfilled for a period of time. The selection of personnel for employment at Point Beach is a careful process which utilizes extensive testing and interviews to provide a high level of quality. This selection of quality personnel in an environment of an industry-wide shortfall of personnel does require a significant period of time to accomplish. To do otherwise would not be in the best interests of the licensee or the NRC.

- 2. In the plant operations area the problem of a substantial reduction of the Operations staff experienced by termination or transfer in concert with the increased burden of additional backfitting activities and the known problems with the steam generators all combined to increase the number of items of noncompliances. The comment that the root causes of these problems remains unaddressed is not correct as several actions have been taken to address these concerns, including a special investigation of certain incidents by corporate headquarters personnel. Substantial attention has been given to the recruiting and training of personnel and the establishment of a nuclear shift worker "boot camp" basic school at Point Beach. However, the problems in this area are not subject to overnight solutions.
- 3. In the maintenance and modifications area, great emphasis is placed by the NRC in the statistical increase in personnel-related events. In the majority of the events

cited the cause was traceable to the increased number of on-site contractor personnel. Without appropriate consideration by the NRC in setting deadlines, a significant burden falls upon the licensee. With the current industry shortfall of qualified individuals to serve in plant management positions, it is desirable that the schedules and requirements for these modifications be reviewed by the NRC. This type of review would be in satisfaction of the second goal of the SALP program, i.e., the improvement of the NRC regulatory program.

4. The comment under emergency preparedness that "the licensee needs to increase management attention in this area" is somewhat confusing since we are presently awaiting a response to our proposals as alluded to in the preceding sentence of this paragraph.

ENCLOSURE 2

1. In the performance analysis section concerning plant operations, the comment is made that "... management's desire to maintain minimum staffing levels have apparently led to the increased number and variety of noncompliances". This utilization of the word "minimum" may be misleading. The manning levels at Point Beach are carefully set to assure an efficient, closely coupled staff. This staff is selected using the best available techniques to find quality personnel. We strongly believe that lesser numbers of quality people can do more, and do it better, particularly at nuclear power plants. Since quality people are in short supply, our personnel have been recruited by others facing this same shortfall. We do not wish to lower our selection standards and intend to remain with the current staffing levels, which are adequate when filled with qualified individuals. To do otherwise would not enhance safety or increase total organizational performance.

The conclusions reached regarding plant operations in the performance analysis section should be reflected in the general observations section. The performance analysis section states that we limit and control allowed activities which could impact unit operation; yet in the general observations section a lack of this control is cited. Further, the performance analysis conclusion section states that the noncompliances were isolated and not indicative of programmatic breakdown; yet in the general observations section it is stated that we did not address the root causes. It would seem from these widely differing observations that some subjectivity is present in this SALP review which counteracts the efforts and potential benefits of this evaluation.

July 13, 1982

We appreciate the recognition in the radiological and environmental controls area that despite the considerable amount of steam generator maintenance performed personnel exposures remain lower than average for pressurized water reactors in Region III.

-4-

Regarding maintenance and modifications, Point Beach has the lowest forced outage rate in the United States and one of the highest availability factors. However, in concluding that one of the two factors contributing to excellent reliability is excellent component performance, it should be noted that the apparent good component performance is the result of good personnel performance in maintaining components.

The report properly points out that during the period when several events occurred there was considerable on-site contractor labor force performing backfit work. The report further states that "failure to provide adequate monitoring" is indicative of a lack of adequate planning. It must be remembered that the backfitting was mandated by the NRC and generally in accordance with deadlines established by the NRC. Any lack of planning may be attributable to the fact that the licensee did not have the freedom to select the items and schedules involved in backfitting.

- It should be recognized in the surveillance and inservice inspection area that three of the five noncompliances identified were the result of first-time procedure use. While this explanation cannot excuse these noncompliances, it should be noted that the experience gained in the use of these new procedures resulted in revisions which allowed performance of these inspections with no noncompliances during the next use of these procedures.
- 5. On the issue of housekeeping, Point Beach has in its records the findings of many inspecting groups, including NRC inspections (other than the residents), that the plant housekeeping stands at the top of the United States nuclear plants.

On the issue of fire protection (which happens to be packaged with housekeeping as a category), Point Beach has had more problems than we would like, and most problems have relationship to NRC-imposed backfitting and the resulting large number of contractor personnel on the job site with their standard work practices. Therefore, with SALP 2 using SALP 1 as a comparison base, it can be found that normal plant performance has slipped.

July 13, 1982

- 6. As noted earlier, we are awaiting the NRC response to our proposals for an alternative method to meet the intent of Table B-1. It continues to be our understanding that NUREG-0654 is not a regulation and, as such, reasonable alternatives are acceptable.
- 7. We object (as we have in the past) to the NRC's characterizing site mangement's security attitude as "outspoken resistance". A review of the record will show that Point Beach management had the secure operation of the work place as an objective even before any security requirements were imposed by the NRC. Point Beach was probably the first plant to have vital areas with an automatic locked door system, and Point Beach was one of the first nuclear plants to require armed guards. Therefore, rather than "outspoken resistance" Point Beach should be characterized as a place of outspoken support for real security measures. However, we are pleased to note that the NRC is moving slowly to change requirements which have proven to be unnecessary and irritating to plant employees.
- 8. Refueling: no comments.
- 9. In the area of licensing, we will continue to attempt to ensure that the licensee and the NRC staff agree on prioritizing of issues. There will be times, of course, where schedules unilaterally set by the NRC staff will impose significant problems. We appreciate the comment as to the generally excellent response to NRC requests.

We agree that the Wisconsin Electric staff, as well as all other nuclear utilities and the NRC itself, are strained in responding to requests for information or action. We have expanded the staff at both Point Beach Nuclear Plant and corporate headquarters as the need is proven; however, filling open positions with qualified individuals is a difficult job under today's conditions.

SUPPORTING DATA

The utilization of statistical data in the supporting data and summaries section is probably inappropriate due to the limited number of events. The use of percentages to assess licensee performance where few events are involved yields misleading data and indicates large changes for minor real changes. Also, the section on categories of violation, infraction, deficiency, and deviation has not been used and should be removed from the report format to avoid confusion.

In conclusion, we welcome the opportunity to comment on this review. While it is recognized that the SALP program remains under development and change, there are several areas in the SALP evaluation which are in need of specific attention as noted in this reply. The subjectivity of the criteria utilized and the proper historical basis for review are in need of improvement; with further refinement, the SALP process should be of value to both the licensee and the NRC.

Very truly yours,

Assistant Vice President

C. W. Fay

Attachment

Copy to NRC Resident Inspector

SUBJECT REPORTABLE EVENTS

SHEET

__OF___

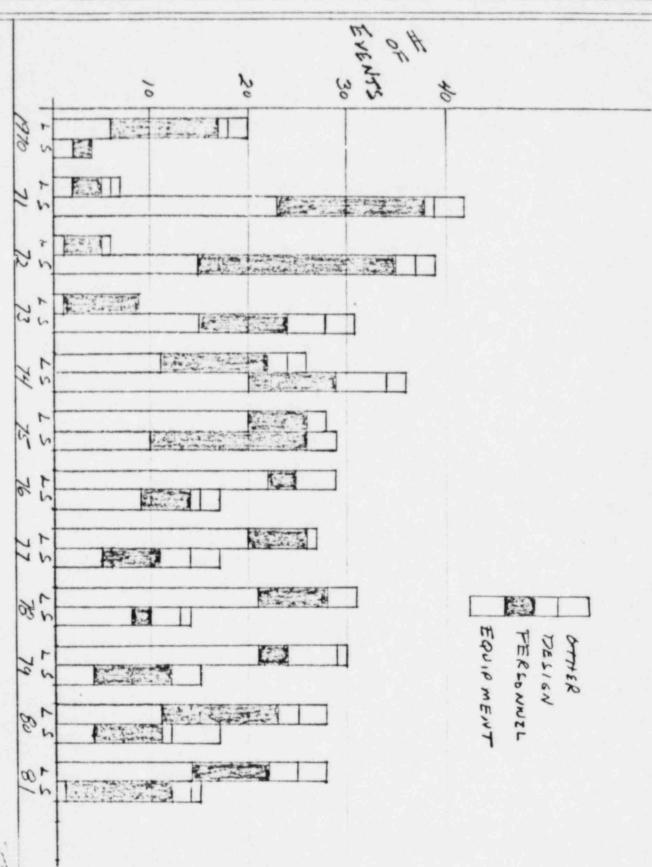
FILE No

MADE BY REL

DATE 2/16/82

_CHKD. BY.

DATE



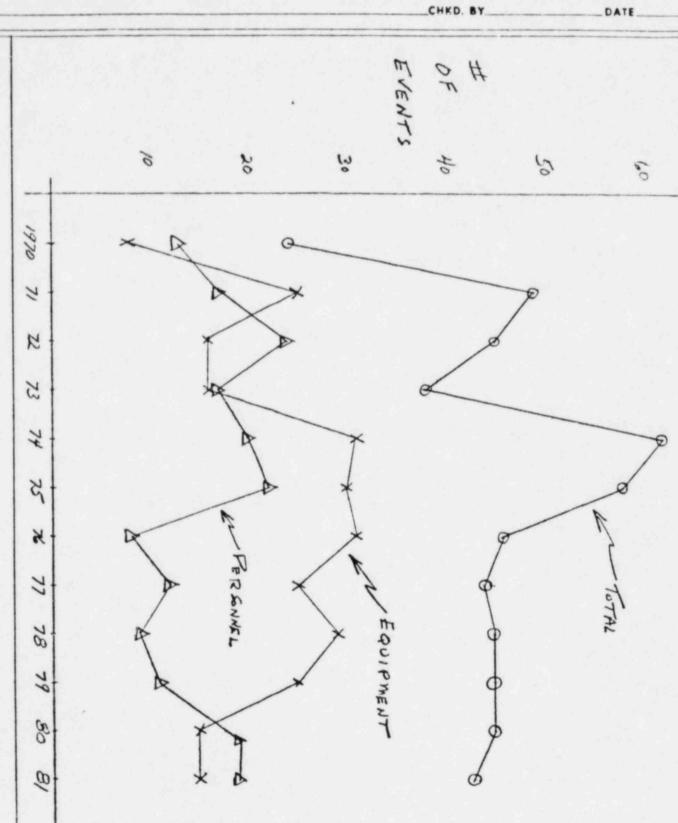
227

CALCULATION SHEET

SHEET.

MADE BY REG DATE 3/16/12

CHKD. BY.



2/22

SUMMARY OF LICENSEE EVENT REPORTS POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

NUMBER OF REPORTS

	1982 As of 6/82	1981	1980	1979	1978	1977	1976
Point Beach 1	11	20	16	22	19	14	10
Point Beach 2	4	_8	12	_8	11	13	13
Total	15	28	28	30	30	27	23

LER CAUSE CODES ASSIGNED

	1982	1981	1980	1979	1978	1977	1976
Personnel Error	4	8	12	4	8	5	3
Procedural Deficiency	2	0	0	0	0	1	1

I. INTRODUCTION

The NRC has established a program for the Systematic Assessment of Licensee Performance (SALP). The SALP is an integrated NRC Staff effort to collect available observations and data on a periodic basis and evaluate licensee performance based upon those observations. SALP is supplemental to normal regulatory processes used to insure compliance to the rules and regulations. SALP is intended from a historical point to be sufficiently diagnostic to provide a rational basis: (1) for allocating future NRC regulatory resources, and (2) to provide meaningful guidance to licensees management to promote quality and safety of plant construction and operation.

A NRC SALP Board composed of managers and inspectors who are know-ledgeable of the licensee activities, met on June 4, 1982, to review the collection of performance observations and data to assess the licensee performance in selected functional areas.

This report is the SALP Board's assessment of the licensee safety performance at Wisconsin Electric Power Company's, Point Beach Nuclear Plant for the seventeen month period November 1, 1980 to April 1, 1982.

The results of the SALP Board assessments in the selected functional areas were presented to the licensee at a meeting held June 23, 1982.

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 observation.

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 safety standpoint.
- 3. Responsiveness to NRC initiatives.
- 4. Enforcement history.
- 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 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

Fun	ctional Area Assessment	Category 1	Category 2	Category 3
1.	Plant Operations		х	
2.	Radiological and Environmental Controls	x		
3.	Maintenance/Modifications		х	
4.	Surveillance and Inservice Testing		x	
5.	Fire Protection and Housekeeping			x
6.	Emergency Preparedness		х	
7.	Security and Safeguards		х	
8.	Refueling		х	
9.	Licensing Activities		x	

IV. PERFORMANCE ANALYSES

1. Plant Operations

a. Analysis

Sixteen inspection reports during this evaluation period documented the inspection efforts in this area by the resident inspectors. Ten noncompliances were identified as follows:

- (1) Severity Level V Failure to set the high neutron flux setpoint to 55% of rated power following a power reduction to reestablish the axial flux difference within its target band (50-301/80-20) Licensee Event Report (LER 80-13).
- (2) Severity Level V Failure to assure and document that all operators had been trained concerning a modification required by a special NRC Order (50-266/81-10).
- (3) Severity Level VI Failure to notify the NRC Operations Center of the activation of the Reactor Protection System (50-301/81-11).
- (4) Severity Level IV The Sodium Hydroxide Addition Tank manual outlet valve, 1-831A, was found locked shut during operation (50-266/81-11) (LER 81-06).
- (5) Severity Level V Failure to identify out-of-specification data in the Auxiliary and Turbine Building Operating Logbooks (50-266/81-11(13)).1
- (6) Severity Level V Failure to provide changed procedures to the Control Room in Reactor Engineering Instruction, REI-19 (50-266/81-13).
- (7) Severity Level IV The Unit 2 Train A High Head Safety Injection Pump was inadvertantly isolated during full power operations (50-301/81-21) (LER 81-08).
- (8) Severity Level V Failure to sample and analyze boron content during the Ten-year Pressure Test, IT-1010 of the Boric Acid Storage Tank (50-266/81-19(21)).
- (9) Severity Level VI Failure to properly maintain tagout clearance authorizations and failure to document tag clearance (50-266/81-13(15)).

Where an inspection for both units is documented in the same report, the report numbers for Unit 2, Docket No. 50-301, will follow in parenthesis.

(10) Severity Level V - Failure to follow the tagout clearance procedure and valve lineup on the primary coolant system (50-301/82-01).

Five of the above noncompliances were reported as "personnel error" LER's and these were the only LER's assigned to this area during this evaluation period.

Four of the noncompliances identified in this area occurred in the last half of the evaluation period and there has been only one noncompliance identified in this area since October 1981. Eight of the noncompliances have been attributed to failure to follow procedures or lack of procedures, one was due to operator inattentiveness and one to misinterpretation of regulations.

The last two noncompliances (9 and 10) were caused by failure to follow the tagout procedures and item 10 resulted in an improper valve lineup with 78 gallons of reactor coolant spilling onto the sample room floor, contaminating eight people.

In the case of the isolated safety injection pump, item 7, two problems came to light. First, clear cut responsibility for monitoring the operating equipment on the safeguards panel had not been established. Second, there were no requirements to ensure that the safeguards panel or any other part of the control boards were surveilled periodically by the operators at any time except at shift turnover.

During the evaluation period there were nine reactor trips at Unit 1. There were two at Unit 2 and both were attributed to personnel error. One of the two trips at Unit 1 caused by personnel error is assigned to this area. The other is assigned to maintenance/modification (Section 3).

The large increase and variation in noncompliances during this period as compared to SALP 1, where only one was identified, may be attributed to the loss of experienced personnel and the dilution of management overview. During this evaluation period eight experienced people terminated including the Maintenance Superintendant, Superintendent of Chemistry and Health Physics, the Health Physicist, an Operations Supervisor, a Shift Supervior, and three experienced operators. In the prior evaluation period, eleven experienced management people or engineers had left; thus, the only management position not to be recently vacated is that of the Plant Manager. The personnel lost were replaced by promotion, depleting the overall experience level. This loss of experience combined with increased regulatory measures, increased maintenance activity caused by steam generator corrosion problems, and management's desire to maintain minimum staffing levels have apparently led to the increased number and variety of noncompliances.

Recognizing the impact of increasing requirements and excessive terminations on operating performance, the licensee instituted an accelerated recruitment program and, in August 1981, implemented an onsite organizational change designed to separate purely operational activities from licensing and administrative activities. Additionally, in March 1982, the licensee created a basic nuclear technology school for new employees as part of an effort to provide qualified personnel for the operations organization. However, the licensee has attempted to retain the philosophy of a small, closely knit organization.

Despite the licensee's activities to maintain adequate staffing levels, the position of Superintendent of Technical Services remains vacant. The Superintendents of Chemistry and Health Physics, Reactor Engineering, and Instrument and Control report to the Superintendent of Technical Services. Additionally, the shortage of licensed personnel has necessitated that the Operations Superintendent and his Assistant stand watches in the plant on rotating shifts.

Despite these obvious problems, Point Beach, Units 1 and 2, maintained an excellent reliability record. Unit 1 was off-line only 0.75% of the time for unscheduled reasons and Unit 2 0.6% of the time. This record is attributed to two factors. First is the excellent component reliability at Point Beach. Second is the limited number of allowed activities which could affect unit operation and the careful control over these activities.

b. Conclusion

The licensee is rated Category 2 in this area. The non-compliances were isolated and not indicative of programmatic breakdown. Corrective actions were generally timely and effective.

c. Board Recommendations

The Board recommends normal inspection activity in this area.

2. Radiological and Environmental Controls

a. Analysis

Radiation Protection and Waste Management

Two inspections (one operational radiation protection and one refueling radiation protection) and one investigation were conducted during the evaluation period by regional personnel. The resident inspectors also inspected in this area and assisted in the investigation. Two minor items of noncompliance were identified as follows:

- (1) Severity Level V Failure to adhere to radiation protection procedures (50-266/81-19).
- (2) Severity Level VI Two individuals entered a high radiation area not delineated on an RWP (50-301/81-24).

These items were promptly and effectively corrected and were not indicative of a programmatic weakness. There were no significant problems in this area.

As noted in Section 1, the Health Physicist and the Superintendent of Chemistry and Health Physics terminated in 1981. These positions were filled from within the organization. To date, this has not resulted in any apparent deterioration in performance. Licensee resources are still judged adequate and effectively used to achieve a high level of performance.

There is consistent evidence of management's support of the radiation protection program and commitment to ALARA principles. Although a considerable amount of steam generator work was performed, personal exposures remain lower than average for pressurized water reactors in Region III.

Solid radioactive waste volume and activity, liquid effluents, and airborne effluents were lower than average for similar pressurized water reactors during this period. No significant unplanned releases occurred.

The licensee's management involvement and resolution of technical issues remained very good in this area during this SALP period. These program characteristics are credited with the licensee's good radioactive effluent and personal exposure statistics.

Confirmatory Measurements and Environmental Protection

Two routine inspections of confirmatory measurements and one of environmental monitoring were conducted during this appraisal period.

Confirmatory measurements inspections verified the licensee's capability of measuring radioactivity in effluents. Twenty-nine agreements, four possible agreements and no disagreements were recorded in thirty-three comparisons, an above average performance compared with other Region III PWR's. The licensee exercises acceptable quality control of analytical measurements by means of written procedures, instrument calibration and maintenance, personnel training, and supervisory review. Facilities and equipment are adequate.

The routine environmental monitoring program is conducted jointly by the plant staff and a contractor, Hazleton

Environmental Services Corporation. Plant staff collect the samples which are analyzed by the contractor in his Northbrook, Illinois laboratory. Program review and audit appear adequate.

No items of noncompliance were identified in this area during the appraisal period.

b. Conclusion

The licensee is rated Category 1 in this area. During this period, the licensee has demonstrated continued management commitment to performance improvement.

c. Board Recommendations

Although a reduced inspection program would normally be considered based on the licensee's performance in the Radiation Protection and Waste Management area, a potential significant event which occurred shortly after this evaluation period is being reviewed and may affect the regional inspection program. The current inspection frequency should be maintained in the Confirmatory Measurements and Environmental Protection area.

3. Maintenance/Modifications

a. Analysis

The resident inspectors monitored maintenance/modification activities throughout the evaluation period. The overall ability of the maintenance staff is reflected in the small amount of unscheduled plant down time attributable to equipment failures. However, three areas of concern were identified that, if not properly addressed, could lead to significant problems in these areas. These areas of concern, discussed below, are control of contractor activities, design and installation of modifications, and system cleanliness during maintenance.

Three separate reportable significant safety-related events occurred due to contractor activities during the evaluation period:

(1) The first event involved a trip of the Unit 2 steam driven auxiliary feedwater pump trip valve. The valve was tripped by contractor personnel performing beckfitting work in the auxiliary feedwater pump room. This event occurred shortly after a similar trip for which no cause could be substantiated (LER 80-05).

- (2) The second event involved a Unit 1 reactor trip. A contractor employee working in the cable spreading room accidently opened the disconnect switch on the red instrument bus inverter and interrupted the instrument bus power supply (LER 81-07).
- (3) The third event involved a loss of power to the A Lockout Relay which, upon safety injection, strips nonessential loads from one of the 480 volt safeguards busses. The breakers supplying the power were accidentally opened by contractor personnel installing fire barriers in the Unit 1 control board (LER 81-12).

During the time frame in which these events occurred, there was a considerable onsite contractor labor force performing backfitting work. There was only minimal licensee field monitoring of the work being performed. This failure to provide adequate monitoring, particularly in view of the volume and sensitive nature of the work, is indicative of a lack of adequate planning uncharacteristic of past Point Beach performance.

Since that time, the licensee has assigned a full-time engineer to organize and cover contractor activities. Preliminary observations indicate that this has been effective in monitoring contractor activity.

Failure to control design and installation of two modifications at Point Beach resulted in the issuance of four LER's and two items of noncompliance.

The first modification involved changes in the routing and supports of Unit 1 steam line pressure sensing lines and transmitters. The sensing lines were routed to the unheated containment facade. Shortly after the modification was completed, ice plugs began forming in the sensing lines. The problem was ultimately traced to a combination of inoperable heat tracing and improperly designed insulation. However, before this was identified and corrected three separate events occurred:

(1) The first event involved an unauthorized modification to the steam pressure sensing system. In an effort to prevent a Unit 1 trip and safety injection due to ice plug formation in the normal sensing lines, the licensee connected one transmitter to a temporary sensing line routed to the radwaste steam. By so doing, the transmitter was sensing pressure in both Unit 1 steam generators. This temporary modification was performed without the required 10 CFR 50.59 review and resulted in a Severity Level IV noncompliance (50-266/82-01) (LER 81-19).

- (2) The second event was a Unit 1 reactor trip and safety injection caused when ice plugs actually formed in the steam pressure sensing lines. This resulted in the generation of a spurious low steam pressure signal resulting in a trip and SI. This event represented an unwarranted safety system challenge (LER 82-01).
- (3) Various temporary modifications employed to prevent or mitigate the freezing problem resulted in the third event. These modifications involved several cases of connecting and disconnecting transmitters from their sensing lines. As a result, a leak developed on one of the transmitters. In an effort to stop the leak, maintenance personnel isolated the transmitter without receiving permission from the control room and before the various safety system bistables associated with the transmitter could be placed in the tripped condition (LER 82-02).

The second modification made with inadequate design controls was the high density spent fuel racks. The modification required that test poison plates in the racks be irradiated by recently discharged fuel elements to assure that the poison in the plates would not be excessively degraded by radiation. The design of the high density racks located the test poison plates immediately adjacent to the northsouth divider wall making it necessary to place spent fuel with less than one year cooling time adjacent to the divider wall. Technical Specifications prohibit placing fuel with less than one year of decay within one foot of a structural member. A licensee employee identified the problem to a staff manager who incorrectly determined that the Technical Specification requirement did not apply to the divider wall and authorized the fuel storage. It was subsequently determined by another staff manager that since the divider wall was a structural member the Technical Specification prohibiting storage was applicable. This resulted in a Severity Level IV noncompliance (50-266/ 82-01(01)) (LER 82-06).

Following these events and the noncompliances discussed in Section 4, a management meeting was held at the Point Beach site on February 25, 1982, to discuss NRC's concerns over the apparent deterioration in regulatory performance. (See Section G.3)

Formal requirements for establishing and maintaining the cleanliness of a system or component opened for maintenance were found inadequate. This was first identified to the licensee based upon resident inspector observations made during maintenance on the electric fire pump and the 4D diesel generator and an observed inadequacy in cleanliness and loose parts control around open reactor vessels during refuelings. The licensee relied upon individual workers

to ensure that foreign material did not enter open systems/
components and took the position that their present controls
were sufficient. This policy resulted in a roll of duct
tape being dropped into the Unit 1 reactor coolant system
through an open reactor coolant pump volute. No cleanliness
covers had been installed. Considerable personnel exposure
resulted from retrieving the roll of tape.

Failure to properly administer the maintenance and tagout systems resulted in three other items of noncompliance. The two noncompliances regarding the tagout system have been reported in Section 1. In July 1981 the inspectors audited the maintenance request files and tagout systems and discovered numerous errors. With respect to maintenance requests, the most significant errors were lack of supervisory review and failure to designate special conditions required to perform the work.

During the December 1981, Unit 1 refueling outage, the inspector discovered that baseline data in a reactor coolant pump Maintenance Request was obtained under other than specified conditions and with no deviation authorization. This resulted in a Severity Level VI noncompliance (50-266/81-23).

Although there were a significant number of items of non-compliance in this functional area, most of them are related to modifications and backfitting. The routine maintenance program continues to be implemented in an exemplary manner. The technical competence and ability of the maintenance staff is considered more than adequate. This is reflected by the rapidity with which complex tasks are completed, the low incidences of rework required, and the minimal amount of plant down time attributable to material problems.

b. Conclusion

The licensee is rated Category 2 in this area. While a number of weaknesses are evident in modification and contractor control because of the number of significant events, overall performance has not been adversely affected.

c. Board Recommendations

The Board recommends additional licensee emphasis be placed in the areas of design control and reviews and in the control of contractor activities.

4. Surveillance and Inservice Inspection

a. Analysis

The resident inspectors monitored surveillance testing and inservice testing throughout the evaluation period. In addition ten inspections were conducted by regional inspectors. Five items of noncompliance were identified as follows:

- Severity Level VI Failure to maintain documentation of reviews and evaluations of eleven instrument calibations that were outside the test acceptance criteria (50-266/81-08(07)).
- (2) Severity Level V Failure, in three cases, to obtain group head approval of temporary changes to calibration procedures before use (50-301/81-13).
- (3) Severity Level V Failure to close MOV-4020 and 4022, cross-connect valves which isolate the Unit 2 steam generators, during the ten year pressure test of the Unit 1 main steam and main feed system, IT-1002 (50-266/81-19).
- (4) Severity Level V The ten year pressure test of the main steam and main feedwater system was conducted at a pressure not in accordance with Procedure IT-1002 and without processing a procedure change (50-266/81-19).
- (5) Severity Level V Failure to follow procedures during testing of safety injection check valves (50-266/81-19).

The failure to properly restore systems to service following testing was responsible for three reportable events and one of the above items of noncompliance.

The first instance of failure to return systems to normal following testing occurred in SALP 1 in January 1980, when transmitters for two auxiliary feedwater pumps were left isolated following calibration. The licensee placed the valves involved under administrative control but failed to resolve the issue generically. The three events during SALP 2 were as follows:

- (1) Failure to conduct a return-to-normal valve lineup on boric acid transfer pumps following testing (LER 50-266/80-13).
- (2) Failure to return the containment spray additive isolation valve to normal after testing (LER 50-266/81-06).

(3) Failure to properly return an auxiliary feedwater pump differential pressure instrument to service after testing (LER 50-266/82-04).

The last event occurred at the end of SALP 2 and attests to the inadequacy of previous corrective actions.

The licensee has historically placed reliance on the individuals conducting the testing activities to restore systems to service without a formal and documented means of doing so. In response to events of the type described above, corrective actions have been limited to the individual event and the failure to take broad corrective actions to prevent surveillance test lineup errors is indicative of managerial weakness in this area.

Four of the inspections conducted by regional inspectors reviewed the nondestructive examination (NDE) portion of the inservice inspection (ISI) program during this period. The licensee's contractors provide adequate management controls in this program. The qualification and training of ISI personnel are in accordance with SNT-TC-1A, 1975 Edition and adequate control of records is maintained. The overall effectiveness and attitudes of the licensee and ISI personnel are good. Auditing of ISI activities included calibration, preparation of welds, performance of examinations, and documentation. There were no significant strengths or weaknesses in this program.

The items of noncompliance dealing with the 10 year ISI program reflected in this section and under plant operations were indicative of a breakdown in managements development of sound procedures on a timely basis. This program was corrected during the SALP-2 period as evidenced by the successful use of the revised procedures during the recent Unit 2 refueling outage.

To the licensee's credit, the concern expressed in SALP 1 over the continuing problem of taking redundant safety systems out of service during testing appears to have been resolved.

b. Conclusion

The licensee is rated Category 2 in this area. The non-compliances and events are of concern because most were caused by personnel errors. Management's corrective actions appear appropriate for individual events and in updating the 10 year ISI procedures, but the basic cause of personnel inattention particularly in making and checking lineups before and after testing has not been resolved.

c. Board Recommendations

The Board recommends that the licensee place greater emphasis on enforcing the adherence to testing procedures.

5. Fire Protection and Housekeeping

a. Analysis

Inspections in this area were conducted by the resident inspectors. Technical Specifications and internal procedures were the basis for these inspections. Four noncompliances were identified as follows:

- Severity Level IV Failure to maintain a fire barrier door operational, 3D-4D Diesel Rooms (50-266/81-11(13)).
- (2) Severity Level V Failure to properly control flammable agents in the Auxiliary Building (50-266/81-13(15)).
- (3) Severity Level V Failure to provide a fire watch during a welding operation, a repeat from SALP-1 (50-266/81-22).
- (4) Severity Level VI Eleven instances where expired ignition control permits were left posted (50-266/81-22).

One reportable event, a wiring error on the wet flow detection system caused system supply fuse to blow (LER 50-266/81-18).

Taken individually, only one of the noncompliances represented an immediate concern; leaving the fire door between the two diesel generator rooms blocked open and unattended at times while one diesel generator was out of service for maintenance. However, taken in aggregate, they reflect a lack of management attention to and personnel awareness of basic fire prevention practices. Each of the noncompliances was an item that could and should have been identified and corrected by the licensee.

On numerous occasions the resident inspectors met with licensee management to express concern about the apparent lack of attention to fire prevention practices and the fact that the individual responsible for fire protection at the site appeared to have too many collateral duties which detracted from his overview of the fire protection program. The licensee did not appear to make any attempt to correct the individual situations until noncompliances were identified.

b. Conclusion

The licensee is rated Category 3 in this area. Although overall licensee attention and involvement is considered acceptable, weaknesses were evident. Minor breakdowns in the implementation and awareness of fire prevention requirements were identified. Site resources were strained and not effective in identifying the many minor violations of requirements. The licensee's corrective action for identified concerns and noncompliances was not timely and was ineffective in preventing recurrence.

c. Board Recommendations

The Board recommends increased inspection activity in this area to assure compliance with 10 CFR 50, Appendix R. Licensee management needs to give increased attention to this area.

Emergency Preparedness

a. Analysis

Inspections in this area were conducted by regional teams assisted by the resident inspectors. Emergency Preparedness activities at the Point Beach site were observed during the licensee's drill and exercise, and during the Emergency Preparedness Implementation Appraisal (EPIA). Based on the EPIA findings, there were four significant deficiencies which were transmitted to the licensee by Confirmation of Action Letter (CAL). One of these items, minimum shift staffing and augmentation, remains unresolved and continues to be an item of NRC concern because the licensee has stated they would not meet the guidance in NUREG-0564, (Table B-1). This issue is currently being examined by Region III and NRR. The other items; training and retraining, emergency action levels and the meteorological program have been resolved in that the licensee has made acceptable commitments to correct these items.

Twelve deficiencies were identified as a result of the fullscale exercise. Some of the deficiencies were: the Emergency Operations Facility was understaffed; there was a lack of trend analyses; and there was poor logkeeping, poor communication capability, and faltering of categorization of the emergency action levels provided in the scenario. However, the licensee plant management team was able to diagnose and solve problems of the exercise scenario as they arose.

b. Conclusion

The licensee is rated Category 2 in this area. The licensee's program is generally adequate but there are significant problems relevant to staffing and training.

c. Board Recommendations

The licensee needs to increase management attention in this area. The Board recommends close monitoring of licensee actions to resolve the many deficiencies identified in the EPIA.

7. Security and Safeguards

a. Analysis

Two physical security inspections have been conducted by region based inspectors during the evaluation period. The resident inspectors also made periodic inspections of accessible protected and vital areas. Nine noncompliances were identified during this evaluation period as follows:

- (1) Severity Level VI Failure to follow gatehouse security procedure (50-266/80-20(20)).
- (2) Severity Level V A vehicle within the protected area was not adequately controlled (50-266/81-03(03)).
- (3) Severity Level V Failure to control proper egress from vital area barrier (50-266/81-03(03)).
- (4) Severity Level V Failure to change locks (50-266/81-03(03)).
- (5) Severity Level V Failure to maintain one vital area barrier, (50-266/81-03(03)).
- (6) Severity Level IV Failure to adequately control access to a vital area (50-266/81-12(14)).
- (7) Severity Level V Failure to conduct proper searches (50-266/81-12(14)).
- (8) Severity Level V Failure to adequately illuminate locations within the protected area (50-266/81-12(14)).
- (9) Severity Level V Failure to control a vehicle within the protected area (Repeat item) (50-266/81-12(14)).

These items represent a significant increase in number over the previous evaluation period where four noncompliances were identified. The licensee took adequate and prompt corrective action for each identified item. The basic causes of the noncompliance were related to inadequate procedures, failure to follow procedures, computer/electronic deficiencies and hardware inadequacies. With one exception, the actions taken had prevented recurrence of the specific item.

A special management meeting was held on August 26, 1981, with corporate and site management to discuss:

- (1) Compliance history and trends.
- (2) Recent security inspection findings.
- (3) The operability of certain security systems.

The licensee was informed of the concerns held by Region III regarding trends noted in the licensee's vital area access control. The licensee agreed to give further consideration to the concerns expressed by Region III.

Site management's attitude and outspoken resistance toward some security requirements was covered in the previous evaluation. Although these same trends were noted at the beginning of the evaluation period, a change towards better cooperation and understanding has been noted. Recently, management's efforts and positions have been directed toward understanding trends, requirements and concepts such that positive steps may be taken to reverse the noncompliance trend.

The licensee appears to have a corporate security management that is supportive of the site program.

The staffing of the onsite security management and guard force is adequate.

The major safeguards tasks facing the licensee are the implementation of the Security Force Training and Qualification Plan, and the information protection program to comply with 10 CFR 73.21.

b. Conclusion

The licensee is rated Category 2 in this area. Observations of the resident inspectors have indicated an improved performance and management attention since the management conference.

c. Board Recommendations

Normal inspection effort is recommended in this area. The licensee should continue to give attention to this area to reduce the number of noncompliances.

8. Refueling

a. · Analysis

Seven inspections or portions of inspections were conducted during this evaluation period by both the resident and regional inspectors. One item of noncompliance was identified, Severity Level VI - Failure to obtain new source range baseline data following an interruption in refueling (50-266/80-22).

Two events lead to a concern over procedural inadequacy. The first occurred when a Unit 2 fuel assembly was inadvertently engaged and transported by the leaf springs. This was caused by failure to use a visual verification of proper engagement of the gripper using the z-z axis tape. The tape was routinely used for gripper engagement verification by the operators, but its use was not required by procedure. The procedure was subsequently altered to include dual verification.

The second event concerned control rod worth measurements using the rod-swap method. The procedure left the boron dilution rate to the discretion of the reactor engineer. The dilution rate used was slightly in excess of the Westinghouse recommended maximum. This, combined with errors attributable to the reactivity computer, caused the bank worth measurements to exceed design values by as much as 20% in the conservative direction so that adequate shutdown margin was available in this case.

Fuel handling and other refueling related activities were found to be conducted in accordance with the Technical Specifications and the licensee's procedures. Licensee management attention and involvement were observed to be satisfactory and oriented toward nuclear safety.

b. Conclusion

The licensee is rated Category 2 in this area. Although there was only one minor noncompliance in this area, the other events indicate procedural inadequacies in this area and inadequate management reviews.

c. Board Recommendations

The Board recommends additional licensee attention in reviewing procedures for improvements that might prevent events of the type that occurred in this area.

9. Licensing Activities

a. Analysis

The evaluation was based primarily upon a review of the following licensing activities:

- Response to NUREG-0737 Items
- Fire Protection Responses
- Degraded Grid Voltage
- Adequacy of Station Electric System Voltages

- Auxiliary Feedwater System Evaluations
- Steam Generator Tube Sleeving
- Shift Staffing
- Masonry Walls
- Appendix R
- Operator Licensing

Management Involvement in Assuring Quality

There is much evidence of planning and assignment of priorities and decision making seems to be at a level that ensures management review. Typical areas where management involvement was evident are in meeting the requirements of Appendix R, responses to NUREG-0737, masonry wall evaluations, and shift staffing. Weakness in this area occurred relating to degraded grid voltage, station distribution voltages, and some responses for steam generator tube sleeving.

Some response to staff requests are delayed due to licensee's management prioritization being different than the NRC staff's. This is especially true on items the licensee considers of peripheral importance. Some upgrading of the management response tracking system would also be appropriate to insure completion of management review and timely feedback to the NRC Staff. Additionally there is a need to improve communications between the corporate management and plant management.

Approach to Resolution of Technical Issues from a Safety Standpoint

The licensee's overall performance in this area is excellent. Reviews are technically sound in most cases; however, in the technical area related to degraded grid voltage the licensee's previous submittals contained erroneous assumptions and information which has necessitated reopening the review.

Responsiveness

For most licensing actions the licensee's responsiveness has been excellent. The licensee's performance on a small number of the actions examined were inadequate. Examples include responses to adequacy of station electric system distribution voltages. The staff requested additional information in March 1981, which has not yet been received. Information supporting steam generator tube sleeving was not in all cases timely or complete and required multiple iterations of questions to obtain the desired information. Information supporting most NUREG-0737 items, masonry wall reviews, and input for NUREG-0909 on steam generator operating history were excellent. Overall, the licensee appears cooperative and responsive but licensee staff manpower may be stretched to its limits in responding to our requests.

Staffing

As noted previously, the licensee's staff appears to be strained in responding to NRC staff information requests. This is particularly evident during overhauls, refuelings, and routine inspections where both corporate and plant staff are actively involved. Additional NRC staff information requests often have a ripple effect in delaying the responses for other issues. This is in spite of significant effort on the part of the project manager to review the question sets for completeness, clarity and conciseness and to try and establish reasonable response times. It appears that the unplanned loss of a few key personnel through attrition or illness might significantly affect the licensee's ability to respond.

The licensee has also resisted NRC attempts to fully implement shift staffing and emergency preparedness staffing criteria. It is their approach that personnel quality is much more important than numbers of people. They stand on a long record of safe operation as proof of this. The NRC staff's conclusion is that the licensee could use some increase in their engineering staff especially if NRC requirements appear to be increasing or beyond the licensee's present capability to respond. Shift staffing should be upgraded to meet the NUREG-0737 guidelines. This is being addressed in a recent licensee submittal.

Training

The licensee appears to have a well established and competent training staff. With some minor deficiencies, they have met the NUREG-0737 training requirements. Management seems dedicated to the concept that a well trained shift staff is necessary for safe operation. Significant care appears to be taken in ensuring new hires have adequate technical backgrounds and and trainable. Five RO license candidates took the exam. Two candidates passed initially, two of three that failed the initial test passed the retest. Three SRO candidates took the exam. Two candidates passed initially. The third individual passed the retest exam.

b. Conclusion

The licensee is rated Category 2 in this area. Management attention and involvement with matters of nuclear safety is evident. Licensee resources are adequate although staffing in certain areas should be improved. Satisfactory performance with respect to operational safety is being achieved. The licensee's responses are usually, but not always timely. The proposed resolutions to licensing issues are reasonably responsive, although occasionally repeated attempts by the NRC staff are necessary to gain resolution to technical problems.

c. Board Recommendations

The Board notes that the licensee has committed to increase shift staffing subsequent to this reporting period. Therefore, pending the NRC staff review of the licensee's submittal, no Board recommendations will be made.

V. SUPPORTING DATA AND SUMMARIES

A. Noncompliance Data

Facility Name: Point Beach Unit 1 Docket No. 50-266
Inspection Reports No. 80-19 through No. 80-23
No. 81-01 through No. 81-24
No. 82-01 through No. 82-09

Fur	nctional Areas I	Noncompliances Severity Levels II III IV V VI	and Deviations ² Categories Viol. Infr. Def. Dev.
1.	Plant Operations	1 2(2)(1)	
2.	Radiological and Environmental Controls	1	
3.	Maintenance/ Modifications	1(1) 1	
4.	Surveillance and Inservice Testing	3 (1)	
5.	Fire Protection and Housekeeping	(1) 1(1)1	
6.	Emergency Preparedness		
7.	Security and Safeguards	(1)(7) (1)	
8.	Refueling	1	
9.	Licensing Activities TOTALS	2(3)7(10)3(3)	

Because of the increased number of noncompliances in the SALP 2 assessment period, the following evaluation was carried out to account for the lengthened assessment period for SALP 2 (17 versus 12 months) and the increased NRC inspection effort due to the assignment of resident inspectors. In the SALP 1 evalution period (12 months) there were eight Infractions and three Deficiencies for a noncompliance to inspector-hour ratio of 0.0133 while in the present period (17 months) there were five Severity Level IV's, seventeen Severity Level V's and six Severity Level VI's for a noncompliance to inspector-hour ratio of 0.01423. Sixteen of these

Numbers in parenthesis indicate noncompliance common to both units.
Inspector-hours onsite for the Emergency Preparedness Implementation Appraisal were not included.

noncompliances were assigned to both units. This indicates a seven percent increase compared to the first evaluation period but does not consider Severity Levels. Comparing by length of evaluation period only, there would be an increase in noncompliances of 80 percent.

Noncompliance Data

Facility Name: Point Beach Unit 2 Docket No. 50-301

Inspection Reports No. 80-19 through No. 80-23

No. 81-01 through No. 81-25 No. 82-01 through No. 82-08

,,			Severi	ty L	evel	s	C	eviation ategorie	es	
rur	ctional Areas	I II	III	IV	V	VI	Viol.	Infr.	Def.	Dev.
1.	Plant Operations			1	2(2)	1(1)				
2.	Radiological and Environmental Controls					1				
3.	Maintenance/									
	Modifications			(1)						
4.	Surveillance and Inservice Testing				1	(1)				
5.	Fire Protection and Housekeeping			(1)	(1)					
6.	Emergency Prepared ess	S								
7.	Security and Safeguard	ds		(1)	(7)	(1)				
8.	Refueling									
9.	Licensing Activities									

TOTALS 1(3)3(10)2(3)

Because of the increased number of noncompliances in the SALP 2 assessment period, the following evaluation was carried out to account for the lengthened assessment period for SALP 2 (17 versus 12 months) and the increased NRC inspection effort due to the assignment of the resident inspectors. In the SALP 1 evaluation period (12 months) there were nine Infractions and three Deficiencies for a noncompliance to inspector-hour ratio of 0.0143 while in the present period (17 months) there were four Severity Level IV's, thirteen Severity Level V's and five Severity Level VI's for a noncompliance to inspector-hour ratio of 0.0095. Sixteen of these noncompliances were assigned to both units. This indicates a 27 percent decrease compared to the first evaluation period but does not consider Severity Levels. Comparing by length of evaluation period only, there would be an increase in noncompliances of 29 percent.

B. Licensee Report Data

1. Licensee Event Reports (LER's)

Licensee Proximate Cause Code Assignment

		nit 1 r of LER's	Unit 2 Number of LER's			
Cause Type	SALP 1	* SALP 2**	SALP 1	SALP 2		
Personnel Error	7	10	5	3		
Design, Mfg., Const./Install.	3	4	1	0		
Defective Procedure	0	1	0	0		
Component Failure	7	14	4	10		
Other	_0	_3	_0	_0		
Total Number	17	32	10	13		

*SALP 1 - 12 months **SALP 2 - 17 months

In comparing the LER data from the two evaluation periods the length of the periods must be taken into account. It is noted that overall 17% more LER's were reported in SALP 2; however, the greatest increase was in equipment failures, 55% and those due to personnel errors decreased 30% from the previous evaluation period. It is also noted that about 11 LER's, could be considered common to both units and were reported under Unit 1; therefore comparison between Units is not made. Distribution of LER's throughout the evaluation indicated a large increase in total numbers in the last half at Unit 1 (59%) and particularly the last quarter (31%) while at Unit 2 the LER's reported decreased in the second half (31%) and in the last quarter (8%). There was no significant distribution of personnel error LERs noted.

2. Part 21 Reports

One Part 21 report concerning installation defects in containment pressure transmitters was submitted by the licensee and it was also submitted as an LER.

C. Licensee Activities

During the evaluation period, Point Beach Unit 1 operated for a total of 396 out of 516 days. For the period November 1980 through

July 1981, operation was at a voluntarily reduced hot leg temperature of 557°F, which restricted power output to approximately 80% of nominal. The temperature reduction was effected in an effort to reduce the corrosion rate of steam generator tubes. Based on the results of the steam generator inspection conducted in July 1981, the licensee raised hot leg temperature to 575°F (25°F below design) allowing operation up to 92% power.

Of the 120 days Unit 1 was not in operation, 2.6 days were attributable to reactor trip/trip recovery evolutions, 1.25 days were attributable to unanticipated equipment problems, and the remaining 116.15 days were attributable to scheduled refueling and inspection outages.

Nine trips occurred during the evaluation period. Seven of these were precipitated by equipment failure/malfunction. The remaining two trips were the result of personnel errors, one the result of contractor backfitting work, the other, operator error. No safety limits were exceeded before or after the trips. All safety equipment performed normally during the trips.

During the scheduled October 1981, refueling outage of Unit 1, the following additional items were accomplished. A containment integrated leak rate test was satisfactorily completed, the first 10-year inspection program was completed, and twelve steam generator tubes were "sleeved" as part of a sleeving demonstration program.

As a result of steam generator inspection activities, 31 tubes were plugged during the evaluation period. In addition, six tubes not containing defects were sleeved, one defective tube was sleeved, and five tubes previously plugged were unplugged and sleeved as part of the sleeving demonstration program.

During the evaluation period, Point Beach Unit 2 operated without restrictions for a total of 474 out of 516 days. Outage and plant trip information are presented in Tables 1 and 2. Of the 42 days Unit 2 was not in operation, 35 days were attributable to refueling operations, three days were attributable to unanticipated equipment problems, and four days were attributable to license examinations. Only a few hours were attributable to reactor trip/trip recovery evolutions.

Two reactor trips occurred during the evaluation period. Both were due to operator error in controlling steam generator levels during physics testing.

In addition to normal activities during the refueling outage, the licensee installed four optimized fuel test assemblies and conducted steam generator inspections. As a result of these inspections, 41 tubes were plugged.

Throughout the evaluation period the licensee pursued IE Bulletin work, fire protection modifications, and TMI Action Item completion. Additionally, the licensee completed installation of high density spent fuel racks and continued an investigation on causes for elevated tritium levels in ground water samples taken around the plant.

D. Inspection Activities

During the evaluation period, the resident inspectors performed fifteen routine safety inspections and one special inspection on the status of TMI action items. Additionally, the resident inspectors participated in one reactive investigation performed in response to allegations of improper health physics practices, one Emergency Preparedness Appraisal team inspection (661 inspection-hours), and one Emergency Excercise team inspection (126 inspection-hours).

E. Investigations and Allegations Review

An investigation to determine the validity of allegations of wrongful dismissal of two craftsmen by a licensee contractor was conducted on June 8 and 9, 1981. As a result of the investigation, it was determined that a radiation work procedure had been violated. However, it was also determined that the allegers complaints did not play a role in their dismissal. An item of noncompliance was issued for the procedure violation (50-301/81-24).

F. Escalated Enforcement Actions

1. Civil Penalty

None.

2. Orders

None.

3. Immediate Action Letters

A Confirmatory Action Letter (CAL) was issued January 21, 1982, following the Emergency Preparedness Appraisal (50-266/82-02(02)) to confirm actions to be taken to correct significant deficiencies in the licensee's Emergency Preparedness.

G. Management Conferences

During the evaluation period three management meetings were held as follows:

 November 7, 1980, held to review the initial SALP Program findings (50-266/80-21(21)). discuss recent security systems

discuss recent security systems

on of certain security systems

NRC concerns over point, and the six weaknesses item

neld to discuss NRC concerns over point, and the six weaknesses item

neld to regulatory by to weaknesses item

in regulatory by to weaknesses item

cion in ly prompted able iance from system

cion in ly pattribut complians afecty system

cion in ly procedural result as safety

cober and procedural, result as safety

cober and procedural result as safety

cober as safety

cober and procedural result as safety

cober and procedural result as safety

cober as sa