

SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE

September 22, 1980

JERSEY CENTRAL POWER AND LIGHT COMPANY
OYSTER CREEK NUCLEAR GENERATING STATION

REGION I

PERFORMANCE EVALUATION

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PDR ADOCK 05000219
P PDR

REGION I SALP BOARD ASSESSMENT CRITERIA1. BACKGROUND

As part of the effort to develop NRC Manual Chapter 0516, "Systematic Assessment of Licensee Performance" (SALP), NRC:HQ finalized and provided to the regional offices new "Evaluation Guidance" for classification of licensee performance within SALP functional areas.

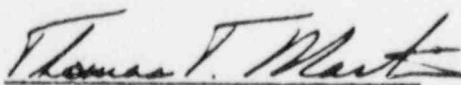
2. MEETING

The Region I SALP Board convened on June 19, 1981 for the purpose of comparing the new evaluation guidance to the assessment criteria used by the Board during the Cycle I Assessment Period. It was determined that the previous "Unsatisfactory" category was directly translatable into the new "Below Average" category. Further, it was determined that a previous rating of "Satisfactory" was convertible to a new rating of "Average." The Region I SALP Board members adopted the new "Evaluation Guidance."

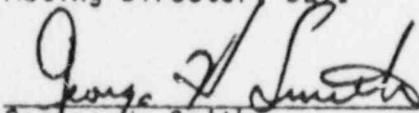
3. ACTION

The Board directed DRPI to modify Cycle 1 Assessment Period records to reflect the new rating categories by:

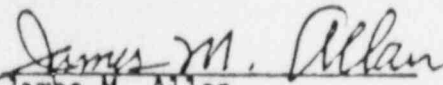
- a. Striking through the previous ratings, ensuring they remain legible;
- b. Typing in the corresponding new rating title;
- c. Attaching a copy of this decision to each docket's package; and,
- d. Providing copies of the revised package to DRPI files, IE:HQ and the Resident Inspector.



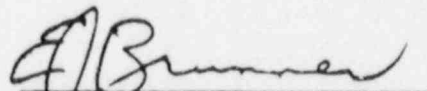
Thomas T. Martin
Acting Director, DETI



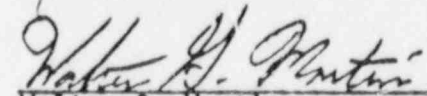
George H. Smith
Director, DEPOS



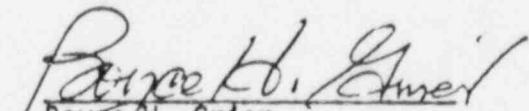
James M. Allan
Deputy Director



Eldon J. Brunner
Acting Director, DRPI



Walter G. Martin
Asst. to Director



Boyce H. Grier
Director

OYSTER CREEK NUCLEAR GENERATING STATION
PERFORMANCE EVALUATION AND ACTION PLAN

September 22, 1980

Region I

Licensee Performance Evaluation (Operations)

Facility: Oyster Creek Nuclear Generating Station

Licensee: Jersey Central Power and Light Company

Unit Identification:

<u>Docket No.</u>	<u>License No./Date of Issuance</u>	<u>Unit No.</u>
50-219	DPR-16 April 9, 1969	I

Reactor Information:

NSSS	General Electric
MWt	1930

Appraisal Period: August 1, 1979 to July 31, 1980

Appraisal Completion Date: September 22, 1980

Review Board Members:

- B. H. Grier, Director, Region I
- J. M. Allan, Deputy Director, Region I
- E. J. Brunner, Chief, Reactor Operations and Nuclear Support Branch, Region I
- G. H. Smith, Chief, Fuel Facilities and Materials Safety Branch, Region I
- R. T. Carlson, Chief, Reactor Construction and Engineering Support Branch
- J. W. Devlin, Acting Chief, Safeguards Branch

Other Attendees:

- R. R. Keimig, Chief, Reactor Projects Section No. 1, Region I
- W. Paulson, Oyster Creek Licensing Project Manager, NRR
- L. E. Briggs, Oyster Creek, Senior Resident Inspector
- J. A. Thomas, Oyster Creek, Resident Inspector
- R. Nimitz, Radiation Specialist, FF&MS, Region I
- D. Neely, Radiation Specialist, FF&MS, Region I

A. Number and Nature of Noncompliance Items

Noncompliance Category:

Violations	1
Infractions	32
Deficiencies	7

Areas of Noncompliance:

	<u>VIO/INF/DEF</u>
Plant Operations	0/2/0
Refueling Operations	0/2/0
Radiation Protection	1/12/1
Radwaste Operations	0/2/1
Radwaste Shipment	0/1/0
Security and Safeguards	0/0/1
Surveillance and Post Refuel Testing	0/2/1
Design Changes and Modifications	0/3/0
Training	0/1/0
Management Controls	0/2/1
Fire Protection	0/2/0
QA/QC	0/1/1
Review and Audit	0/2/0
Reporting	0/0/1

B. Number and Nature of Licensee Event Reports

Cause of Event:

Component Failure	26
Design/Fabrication/Analysis Error	8
Defective Procedures	3
Personnel Error	14
External	0
Other	11
Total	<u>62</u>

Causally-Linked Events: 9 Events in 4 Groups

Licensee Event Reports Reviewed (Report Nos.)

79-26 to 79-44, 80-01 to 34, ETS 79-04 to 79-08, and ETS 80-01 to 80-04

C. Escalated Enforcement Actions

Civil Penalties

A civil penalty (\$21,000) was issued on July 8, 1980 based on the results of health physics inspection 80-11 and the total number (22) of health physics items of noncompliance issued since the January 1979 civil penalty.

Orders

Confirmatory Order of April 4, 1980, to confirm licensee commitments relative to IAL 79-27, "Loss of Nonclass 1-E Instrumentation and Control Power Bus During Operation."

Confirmatory Order of January 2, 1980 to confirm licensee commitments to implement all "Category A" lessons learned requirements (excluding 2.1.7.a) by January 1, 1980.

Order of July 8, 1980, which modified license DPR-16 to require health physics technician qualifications to meet or exceed the requirements of ANSI N18.1-1971.

Immediate Action Letters

IAL 79-21 of December 26, 1979, to confirm licensee commitments relative to gaseous effluent releases from the New Radwaste Facility.

IAL 80-13 of May 16, 1980, to confirm licensee commitments relative to the emergency readiness posture of the Oyster Creek Nuclear Generating Station.

Other Correspondence

Licensee letter of April 2, 1980 stating the licensee's intent to take immediate corrective action in the Radiation Protection Department as a result of the Health Physics Appraisal Inspection.

D. Management Conferences Held During Past Twelve Months

Management meeting, at the licensee's request, at the Region I office on August 30, 1979, to discuss health physics program status and commitments resulting from the January 1979 civil penalty.

Management meeting at the Region I office on April 29, 1980, to discuss NRC concerns and licensee corrective actions relative to the NRC's Performance Appraisal Branch inspection findings and radiation protection concerns resulting from recent Region I inspection.

Management meeting, at the licensee's request, at the Region I office on June 13, 1980, to discuss program improvements and additional staffing of the Health Physics Department as a result of the Health Physics Appraisal inspection findings.

Oyster Creek Nuclear Generating Station

INSPECTION TIME AND/OR SCOPE
Change from Prescribed Inspection Program

FUNCTIONAL AREA	Increase	No Change	Decrease
Plant Operations		X	
Refueling Operations		X	
Radiation Protection	X		
Radwaste Management	X		
Transportation	X		
Maintenance		X	
Security and Safeguards		X	
Surveillance and Post Refuel Testing	ISI & IST PROGRAM X		
Design Changes and Modifications		X	
Emergency Planning		X	
Environmental		X	
Training	X HP		
Management Controls	X		
Fire Protection		X	
QA/QC		X	
Committee Activities/Audits	HP Audits X		
Reporting		X	
Procurement		X	



George H. Peters
Regional Director
Date 9/22/80

3. Radiation Protection

Increased inspection effort is warranted in this area due to the high number of items of noncompliance. Although improvements have reportedly occurred during and since the end of the evaluation period (July 31, 1980), in depth inspection is necessary to determine the effectiveness of the licensee's corrective actions.

4. Radwaste Management

Increased inspection effort is warranted in this area due to the number of items of noncompliance and the licensee's history of problems in this area. Reported improvements have taken place during and after this evaluation period. In depth inspection is necessary to determine the effectiveness of the licensee's corrective actions.

5. Transportation

Increased inspection effort is recommended in this area due to licensee history of problems relating to management and shipment of radioactive waste. Improvements have reportedly taken place during and subsequent to this evaluation period; however, detailed inspection of the licensee's program is necessary to determine the effectiveness of program improvements.

8. Surveillance and Post Refuel Testing

Increased inspection effort is recommended in the areas of Inservice Inspection (ISI) and Inservice Testing (IST) of Pumps and Valves due to the licensee's failure to implement the IST program as required and the detailed inspection necessary to verify satisfactory completion of the licensee's first ten (10) year ISI program.

12. Training

Increased inspection is warranted in the area of health physics technician training due to the item of noncompliance identified by the PAB inspection and recurrent problems relating to use of inadequately trained health physics technicians.

13. Management Controls

Increased inspection frequency of the licensee's management controls in the Health Physics and Radwaste areas is warranted. This is due to the large number of open inspection items and recurrent slippage of commitment dates in these areas. In addition, the effectiveness of the new management/staff organization must be closely monitored.

2. Committee Activities and Audits

Increased inspection effort is warranted in the area of health physics audits due to a recurrent inspection finding involving failure to complete an annual audit of the entire facility staff training and qualifications, specifically, the health physics program was not addressed during this audit.

OYSTER CREEK NUCLEAR GENERATING STATION

PERFORMANCE ANALYSIS

1. PLANT OPERATIONS

Analysis

This area is under continuous review by the RRI's. During the evaluation period there have been two items of noncompliance in the operations area involving procedural inadequacies and inadequate mechanism for the issuance of management instructions. There have been nine LER's in the operations area, four involving component failure, and five involving personnel error. There are presently eight unresolved items in the operations area. The licensee has responded in a positive manner to expeditiously correct operational inadequacies identified by the inspectors.

Conclusion

Average
Satisfactory Performance

Board Comments

Board is in agreement with the analysis and conclusion.

2. REFUELING OPERATIONS

Analysis

The plant underwent a refueling outage during the evaluation period. Based on the results of five inspections there were two items of non-compliance involving procedural inadequacies or lack of adherence to procedures, and three unresolved items. There were two refueling activity-related LER's during the evaluation period. Both involved personnel error.

Of particular note in this area was an incident involving failure to remove control rod interlock bypass jumpers prior to completion of control cell fuel reload. The incident resulted from a breakdown of administrative controls and procedural inadequacies. The incident received attention from the licensee's General Office Review Board, the Plant Operations Review Committee, and the Operations Experience Assessment Committee. The licensee's proposed corrective actions on this matter were satisfactory.

Conclusion

Average
~~Satisfactory~~ Performance

Board Comments

Board is in agreement with the analysis and conclusion.

3. RADIATION PROTECTION

Analysis

There have been six inspections, including PAB and the Health Physics Appraisal, during this evaluation period which resulted in fourteen items of noncompliance and a civil penalty. Major areas of concern were the use of personnel not meeting ANSI N18.1 - 1971 requirements and the use of procedures inconsistent with Technical Specification requirements. In addition to the civil penalty issued as a result of inspection 80-11, an order modifying the licensee's license was issued that requires all health physics (HP) technicians to meet or exceed the requirements of ANSI N18.1 - 1971. Increased inspection effort, due to the licensee's continuing HP program problems, was initiated by Region I for an eight week period (May 28 to August 1, 1980) by assigning a resident Radiation Specialist at the site. The licensee has taken action to improve the radiation protection program including retraining of HP technicians and foremen, supplementing the site HP staff, and actively seeking additional personnel.

Conclusion

Below Average
Performance ~~Unsatisfactory~~.

BOARD COMMENTS

Board recommends increased inspection effort by Region I to confirm that corrective actions already initiated are effective.

4. RADWASTE OPERATIONS

Analysis

There have been two inspections during the evaluation period, one by the FF&MS Branch and one by the PAB. Three items of noncompliance were identified by the FF&MS Branch: 1) Failure to survey to determine the amount of free standing liquid in a shipment of dewatered resin, 2) Failure to submit a Technical Specification change request for new radwaste effluent releases, and 3) Failure to maintain radwaste shipping records required by 10 CFR 71.62. The Health Physics Appraisal Team also noted that radiation protection personnel had little knowledge of the new radwaste facility which was placed into operation in late 1978. In addition, the Performance Appraisal Branch identified one item of noncompliance in this area which involved failure to properly survey effluents released by new radwaste ventilation.

The last confirmatory measurements inspection was conducted in May 1980. No items of noncompliance were identified.

Conclusion

Performance ^{Below Average} ~~Unsatisfactory~~ based on present information. However in the second half of the evaluation period the licensee commenced a training program in this area. In addition, the licensee has begun the implementation of organizational change which is intended to improve the management controls in this area.

BOARD COMMENTS

Board recommends increased inspection effort in this area to confirm corrective actions already initiated are effective.

5. RADWASTE SHIPMENT

Analysis

In two inspections in the area of radwaste shipments, one item of noncompliance was identified. It involved delivery of licensed materials in excess of Type A quantity to a carrier for transport without a general or specific license. In particular, the licensee did not have copies of the vendors' cask drawing referred to in the certificate of compliance. This incident occurred in December 1979. Since that time, the licensee has appointed a radwaste shipping supervisor and conducted additional training in this area. The licensee has committed to prepare procedures for each type of shipping cask handled to preclude recurrences. A recent licensee shipment inspected by Region II (80-15) at the Barnwell, South Carolina disposal facility identified no items of noncompliance.

Conclusion

Average
~~Satisfactory~~ performance based on present information.

BOARD COMMENTS

Board recommends inspection of licensee's radwaste shipment operations within the next six month evaluation period.

6. MAINTENANCE

Analysis

Two inspections have been conducted in the maintenance area during the evaluation period. No items of noncompliance were identified. There were four maintenance related LER's, two involving personnel error, and one involving improper setting of safety relief valves on the core spray system. The licensee has developed a viable maintenance force and has committed to strengthen it even further by developing a maintenance crew devoted solely to the performance of preventive maintenance.

Conclusion

Average
Satisfactory Performance

Board Comments

Board is in agreement with the analysis and conclusion.

7. SECURITY AND SAFEGUARDS

Analysis

There have been two inspections conducted by the Safeguards Branch Security Section and one inspection by the Performance Appraisal Branch (PAB) during the evaluation period. No items of noncompliance were identified. During inspection 80-08, the inspector reviewed allegations by a former guard at the plant that were published in the Asbury Park Press. The allegations could not be substantiated.

The licensee has a strong security management program with apparent corporate management backing providing for responsiveness to security occurrences.

Conclusion

Average
~~Satisfactory~~ Performance

BOARD COMMENTS

Board is in agreement with the analysis and conclusion.

8. SURVEILLANCE AND POST REFUEL TESTING

Analysis

Three items of noncompliance have been identified by six inspections in the area of surveillance testing. Two involved inadequate actions following unsatisfactory surveillance test results. There were 31 LER's concerning surveillance testing, three of which involved failure to perform required surveillances. One of these, failure to perform methyl iodide removal efficiency on charcoal adsorbers, resulted in the third item of noncompliance in the surveillance area. This was caused by failure to incorporate the requirements of a Technical Specification amendment into the master surveillance schedule. The licensee has committed to conduct a review of all past Technical Specification amendments to verify that revised surveillance requirements are incorporated into the master surveillance schedule. This review has not yet been completed.

Additionally, one item of noncompliance (management controls) was identified for failure to implement the IST program for pumps and valves as required by ASME, Section XI. The PAB inspection (79-18) identified no items of noncompliance in the In-Service Inspection (ISI) area but indicated a weakness in the coordination of the licensee's program. Licensee action was in progress at that time to accumulate all available data to establish the remaining ISI to be completed to fulfill the requirements of their first ten (10) year ISI program. A preliminary Region I Data review subsequent to the PAB inspection, indicated that requirements were being met.

One additional item presently being evaluated by NRC:HQ is the licensee's failure to perform SBGTS HEPA filter flow distribution. This surveillance was not conducted due to HEPA filter design which has no provision for flow distribution measurements. A Technical Specification change request must be submitted by the licensee to correct this item.

Conclusion

Average
Satisfactory Performance.

BOARD COMMENTS

Board recommends inspection of licensee's ISI and IST Programs within the next six month evaluation period.

9. DESIGN CHANGES AND MODIFICATIONS

Analysis

This area has been inspected by the RO&NS Branch Nuclear Support Section, the RC&ES Branch Engineering Support Section and the PAB during this evaluation period. Three items of noncompliance were identified by PAB concerning fire protection system installation.

Conclusion

Average
~~Satisfactory~~ Performance

BOARD COMMENTS

Board is in agreement with the analysis and conclusion.

10. EMERGENCY PLANNING

Analysis

Two inspections were conducted during this evaluation period, one by the PAB and one during the Health Physics Appraisal. No items of noncompliance were identified; however, as a result of the Health Physics Appraisal an Immediate Action Letter was issued to require the licensee to upgrade the licensee's emergency plan to comply with NUREG 0654 requirements. This item was subsequently reviewed and closed by Region I.

Conclusion

Average

~~Satisfactory~~ Performance

BOARD COMMENTS

Board is in agreement with the analysis and conclusion.

11. ENVIRONMENTAL PROTECTION

Analysis

One inspection has been conducted during this evaluation period by PAB. No items of noncompliance were identified.

Conclusion

Average
~~Satisfactory~~ Performance with available information.

BOARD COMMENTS

Board is in agreement with the analysis and conclusion.

12. TRAINING

Analysis

Two training inspections have been conducted (PAB and Health Physics Appraisal) during this evaluation period. One item of noncompliance was identified concerning the establishment and implementation of a non licensed personnel training program. The licensee committed to major training program revisions, including the appointment of a Manager of Training (T.S. change request submitted on May 2, 1980). Training for health physics technicians was conducted during 1979 (140 hours) as a result of the January, 1979 civil penalty. A revised training program was begun during July, 1980. Training of mechanical maintenance personnel was started prior to the refueling outage but temporarily suspended due to the refueling work load.

Conclusion

~~Score~~ ^{Average} Factory Performance with the exception of Health Physics Technician training

BOARD COMMENTS

Board recommends increased inspection effort in the area of Health Physics Technician Training.

13. MANAGEMENT CONTROLS

Analysis

Based on the results of three inspections during the evaluation period there have been three items of noncompliance in the area of management controls. In addition, numerous other items of noncompliance during this period are indicative of apparent weaknesses in the area of management controls. These items have involved inadequacies in operational procedures and lack of adherence to established procedures. The licensee has established a system for administrative and management controls. However, lack of adherence to these procedures at the lower management and supervisory levels has led to several incidents of noncompliance. In addition, lack of attention to detail and failure to recognize potential problem areas during periodic review and update of procedures has led to items of noncompliance related to procedural inadequacies. An additional area of management weakness is the licensee's failure to meet NRC commitment dates without notifying Region I of date slippage. (i.e. IST program implementation and HP commitment failures) This matter was specifically addressed at the April 29, 1980, enforcement conference and recent performance has shown improvement in this area. The station management is aware of the deficiencies in these areas and is taking steps to strengthen the overall system of management controls. Included in the corrective action is an increase in the number of personnel assigned to the plant staff and a reorganization that will place more direct management attention to the problem areas.

Conclusion

Average

Satisfactory Performance except in the Health Physics and Radwaste area.

BOARD COMMENTS

Board recommends increased inspection effort by Region I personnel and RRI in this area.

14. FIRE PROTECTION

Analysis

There have been three fire protection inspections by the RC&ES Branch Engineering Support Section and one by the PAB during this evaluation period. In addition the RRI routinely performs fire protection inspections during plant tours. Two items of non-compliance have been identified, both relating to combustible materials storage on the 119 foot elevation of the reactor building. The licensee has attempted to obtain letters of agreement from fuel suppliers to provide only fire retardant fuel containers. The fuel suppliers have not complied with that request. The licensee is investigating the feasibility of performing a fire loading analysis to establish acceptable quantities of non-fire retardant materials that can be safely stored in vital areas.

Conclusion

Average
Satisfactory performance.

BOARD COMMENTS

Board is in agreement with the analysis and conclusion.

15. QA/QC

Analysis

One QA inspection was conducted by the RO&NS Branch Nuclear Support Section and one inspection by PAB during the evaluation period. Two items of noncompliance were identified concerning weld rod restorage and failure to maintain a duplicate file system when two modification packages could not be located on site.

Two unresolved items in the modifications area were identified and 9 of 11 previously identified items were closed. Additionally one item of noncompliance (weld rod storage) and one unresolved item identified by PAB were closed.

Conclusion

Average
Satisfactory Performance

BOARD COMMENTS

Board is in agreement with the analysis and conclusion.

16. REVIEW AND AUDITS

Analysis

Inspections conducted by the RRIs have addressed the activities of the Site Safety Committees. There are no outstanding issues in this area. One inspection has been conducted of activities of the Off-Site Committee by PAB during this evaluation period. There were no items of noncompliance identified. A QA inspection (80-13) conducted by the Reactor Operations and Nuclear Support Branch, Nuclear Support Section during the evaluation period addressed Licensee QA Audits. No items of noncompliance were identified and a PAB identified item of noncompliance concerning audits and an unresolved item were closed.

A recent Health Physics Appraisal inspection (80-17, not yet issued) identified a recurrent audit finding that was previously identified by the PAB inspection (79-18). This item involved failure to complete an annual audit of the entire facility staff training and qualifications.

Conclusion

Average
~~Satisfactory~~-Performance with the exception of health physics audits.

BOARD COMMENTS

Board recommends increased inspection effort in the area of health physics audits.

17. REPORTING

Analysis

This area is under continuous review by the RRI's, in addition, one inspection was conducted by PAB during this evaluation period. One item of noncompliance was identified concerning the licensee's failure to report a minor change in the security organization. Two environmental reports were not submitted within the required time frame. These were identified by the licensee and one report was subsequently submitted. The second report was prepared; however, it was misplaced while in the licensee's administrative review process. This was identified by the licensee and submittal made approximately six (6) months after the event. Immediate telephone notification was made in each of the above incidents when discovered by the licensee.

Conclusion

Average

~~-Satisfactory-~~ performance.

BOARD COMMENTS

Board is in agreement with the analysis and conclusion.

18. PROCUREMENT

Analysis

This area was inspected by PAB during this evaluation period. No items of noncompliance were identified. The last RO&NS Branch Nuclear Support Section inspection in this area was in February - March, 1979.

Conclusion

^{Average}
~~Satisfactory~~-Performance with present information.

BOARD COMMENTS

Board is in agreement with the analysis and conclusion.

OYSTER CREEK NUCLEAR GENERATING STATION

S.A.L.P. BOARD

SUPPLEMENTAL INFORMATION

OYSTER CREEK NUCLEAR GENERATING STATION

ENFORCEMENT HISTORY FROM AUGUST 1, 1979 TO JULY 31, 1980

<u>Inspection Number</u>	<u>Severity</u>	<u>Functional Area</u>	<u>Subject</u>
79-16	Deficiency	Surveillance Testing	Failure to document retest results following unsatisfactory surveillance test.
	Infraction	Surveillance Testing	Failure to consider SBGTS inoperable following failed surveillance test.
79-18	Infraction	Operations	Procedure No. 108 did not provide for independent verification of lifted leads and jumpers.
	Infraction	Fire Protection	Fire doors open and combustible material on 119 foot level of the reactor building.
	Infraction	Design Changes	Drawing lacking detail of pipe supports.
	Infraction	Design Changes	Inadequate instruction for anchor bolt installation and grouting.
	Infraction	Design Changes	Procedures and drawings not revised after completion of modification No. 213.
	Infraction	QA/QC	Duplicate file system not complete.
	Infraction	Training	Training plan not implemented. HP training program not established.
	Infraction	Management Control	Response to and closeout of nonconformance/corrective action required reports not timely.
	Infraction	Audits	Annual audit of staff training and qualification not conducted.
	Deficiency	QA/QC	Returned weld rod not reidentified and tagged for storage per procedure 3005.
	Infraction	Radiation Protection	Written procedures not established for calibration of various radiation, effluent, and gaseous monitors.
Infraction	Radiation Protection	Effluents released by new radwaste not properly surveyed.	

OYSTER CREEK NUCLEAR GENERATING STATION
ENFORCEMENT HISTORY FROM AUGUST 1, 1979 TO JULY 31, 1980

<u>Inspection Number</u>	<u>Severity</u>	<u>Functional Area</u>	<u>Subject</u>
79-18	Infraction	Surveillance	Analysis of samples from SBGTS charcoal adsorbers not performed.
	Deficiency	Reporting	Regional office not notified of minor change to security plan.
79-23	Infraction	Radwaste Operations	Failure to submit Technical Specification change request for new radwaste effluent releases.
	Deficiency	Radwaste Operations	Failure to maintain records pursuant to 10 CFR 71.62.
	Infraction	Radwaste Shipment	Failure to meet 10 CFR 71.3 prior to shipping radwaste.
	Infraction	Radwaste Operations	Failure to survey to meet 10 CFR 20.301.
79-24	Infraction	Fire Protection	Non fire retardant wood crates on 119 foot elevation of the reactor building.
80-03	Infraction	Radiation Protection	Failure to evaluate Beta monitoring as required by 10 CFR 20.201B.
	Infraction	Radiation Protection	Failure to use respiratory protection equipment in accordance with 10 CFR 20.103C.
	Deficiency	Radiation Protection	Failure to follow procedures required by Technical Specification 6.11.
80-10	Deficiency	Management Control	Failure to label containers of radioactive material.
	Infraction	Management Control	LLRT procedure changed without proper documentation or approval.
80-11	Infraction	Management Control	Failure to implement IST program for pumps and valves in accordance with ASME, Section XI.
	Infraction	Radiation Protection	Failure to meet 10 CFR 20.103 (A)(3)(Air sampling)
	Infraction	Radiation Protection	Failure to use process, engineering controls or other precautionary procedures.

OYSTER CREEK NUCL GENERATING STATION

ENFORCEMENT HISTORY FROM AUGUST 1, 1979 TO JULY 31, 1980

<u>Inspection Number</u>	<u>Severity</u>	<u>Functional Area</u>	<u>Subject</u>
80-11	Infraction	Radiation Protection	Failure to provide personnel monitoring as required by procedure.
	Infraction	Radiation Protection	Failure to instruct workers pursuant to 10 CFR 19.12.
	Violation	Radiation Protection	Failure to prepare procedures consistent with Technical Specification 6.8.1
80-12	Deficiency	Safeguards	Physical inventory failed to list 2 PuBe sources and listed a spent fuel pin by the wrong serial No.
80-17*	Infraction	Radiation Protection	No procedure prepared or tabulated list maintained to account for MPC hours.
	Infraction	Radiation Protection	Monthly ALARA meetings not conducted from November 11, 1979 to May 19, 1980.
	Infraction	Radiation Protection	Failure to perform voltage plateau on counter No. 172 between November 17, 1979 and May 19, 1980.
	Infraction	Review and Audit	Failure to conduct annual audit of facility staff training and qualifications between October 1978 and May 21, 1980.
80-19	Infraction	Refueling Operations	Failure to follow procedure No. 501 resulting in spent fuel pool overflow.
	Infraction	Refueling Operations	Failure to remove control rod interlock bypass jumpers.
80-23	Infraction	Operations	No adequate mechanism provided for issuance of management instructions of short term applicability.

* Inspection Report not issued.

OYSTER CREEK NUCLEAR GENERATING STATION
 ENFORCEMENT SUMMARY FROM AUGUST 1, 1979 to JULY 31, 1980

Functional Area of Noncompliance	PERIOD 8/1/79 to 1/31/80		PERIOD 2/1/80 to 7/31/80		TOTALS VIOL/INF/DEF
	INSPT'd	(INC) VIOL/INF/DEF	INSPT'd	(INC) VIOL/INF/DEF	
Plant Operations	2	(1) 0/1/0	1	(1) 0/1/0	0/2/0
Refueling Operations	3	0/0/0	2	(1) 0/2/0	0/2/0
Radiation Protection	3	(2) 0/5/1	3	(2) 1/7/0	1/12/1
Radwaste Operations	2	(1) 0/2/1	NONE	0/0/0	0/2/1
Radwaste Shipment	1	(1) 0/1/0	1	0/0/0	0/1/0
Maintenance	2	0/0/0	NONE	0/0/0	0/0/0
Security and Safeguards	2	0/0/0	2	(1) 0/0/1	0/0/1
Surveillance and Post Refuel Testing	2	(2) 0/2/1	4	0/0/0	0/2/1
Design Changes and Modifications	2	(1) 0/3/0	1	0/0/0	0/3/0
Emergency Planning	1	0/0/0	1	0/0/0	0/0/0
Environmental	1	0/0/0	1	0/0/0	0/0/0
Training	1	(1) 0/1/0	NONE	0/0/0	0/1/0
Management Controls	1	(1) 0/1/0	2	(2) 0/1/1	0/2/1
Fire Protection	2	(2) 0/2/0	1	0/0/0	0/2/0
QA/QC	1	(1) 0/1/1	1	0/0/0	0/1/1
Review and Audit	2	(1) 0/1/0	1	0/1/0	0/2/0
Reporting	1	(1) 0/0/1	1	0/0/0	0/0/1
Procurement	1	0/0/0	NONE	0/0/0	0/0/0

Notes: 1. INSPT'd - Number of times that area was inspected during the period of interest
 2. No Deviations were issued during the period of interest.
 3. (INC) - Number of inspections a noncompliance was found

OYSTER CREEK NUCLEAR GEN 3 STATION
 LICENSEE EVENT REPORT, AOPSSIS
 August 1, 1979 to July 31, 1980

<u>LER Number</u>	<u>Type</u>	<u>Cause Code</u>	<u>Description</u>
79-25	30 Day	D	Primary Containment degraded when torus sample valve was left open.
79-26	30 Day	A	Laundry drain tank discharge pipe failure resulting in release of radioactive material.
79-27 (*10)	24 Hour	B	Discovery of six seismic restraints for the six inch core spray test line which were either in positions other than required by original design criteria or had failed.
79-28	30 Day	E	Core Spray isolation valve V-20-15 inoperable in the open position due to inadvertant initiation of close signal while the valve was stroking open.
79-29	30 Day	C	Source range monitor rod block setpoint lower (94 CPS) than Technical Specification limit of 100 CPS.
79-30	30 Day	D	'A' CRD hydraulic pump out of service for ten hours due to vent piping leak.
79-31	30 Day	D	'B' CRD hydraulic pump out of service due to outboard seal water pipe nipple leak.
79-32 (*20)	30 Day	A	Three small leaks on service water side of 1-3 containment spray heat exchanger caused by galvanic action between 90/10 Cu-Ni and carbon steel.
79-33	30 Day	A	One of five electromatic relief valve setpoints found above Technical Specification value due to a failed switch.
79-34	24 Hour	D	Secondary containment violation - both reactor building doors open.
79-35	30 Day	E	One main steam line high radiation monitor setpoint found two percent above Technical Specification limit.
79-36 (*30)	30 Day	D	Containment spray compartment door found open. Door was closed and dogged. Containment spray system I was considered inoperable while doors were open.
79-37	30 Day	A	Failure of core spray booster pump to start during routine surveillance due to defective control power fuse holder.

OYSTER CREEK NUCLEAR GENERATING STATION
 LICENSEE EVENT REPORT SYNOPSIS
 August 1, 1979 to July 31, 1980

<u>LER Number</u>	<u>Type</u>	<u>Cause Code</u>	<u>Description</u>
79-38	30 Day	A	Failure of D.G. No. 1 to start due to position switch adjustment.
79-39	30 Day	A	APRM Channel No. 1 rod block setpoint found one percent above Technical Specification limit.
79-40	30 Day	C	Failure to perform Methyl Iodide removal efficiency of SBGTS charcoal filters. Tested satisfactorily.
79-41	30 Day	B	Radioactive releases (low level) from new radwaste building not accurately monitored.
79-42	30 Day	A	Inadvertent lifting of one electromatic relief valve due to setpoint drift of new pressure switch.
79-43	30 Day	A	Failure of one reactor building to torus vacuum breaker to open during surveillance testing.
79-44	30 Day	D	Reactor building to torus vacuum breaker blocked from opening more than 50 percent due to contractor scaffolding.
ETS 79-04 (*40)	10 Day	A	Second dilution pump not run for 40 minutes due to equipment problems.
ETS 79-05 (*41)	10 Day	E	Fish kill of 50 to 100 fish.
ETS 79-06	10 Day	B	Only one dilution pump in service for a period of 26 minutes when two were required.
ETS 79-07	10 Day	D	Loss of one dilution pump for 92 minutes when two pumps were required.
ETS 79-08	10 Day	B	One dilution pump off (tripped) for 20 minutes when two pumps were required.
80-01	24 Hour	A	Failure of one of five ADS valves to operate during functional testing.
80-02	30 Day	D	One fuel bundle found misoriented 180 degrees. Subsequent evaluation indicated no damage to the bundle.
80-03	24 Hour	A	Discovery of two crack indications in core spray sparger (System II).

OYSTER CREEK NUCLEAR GENERATING STATION
 LICENSEE EVENT REPORT SYNOPSIS
 August 1, 1979 to July 31, 1980

<u>LER Number</u>	<u>Type</u>	<u>Cause Code</u>	<u>Description</u>
80-04	30 Day	A	Several leaks found in underground aluminum condensate lines. Leakage was due to galvanic corrosion.
80-05	30 Day	D	Reactor building ventilation monitor trip setpoints found above Technical Specification limits.
80-06	30 Day	E	Recirculation flow sensors (zero percent) found out of tolerance on six of eight channels. Reactor scram setpoints on three of eight channels above limit due to zero setpoint drift.
80-07	30 Day	A	Low flow on SBGTS No. 1 due to slipping belts on fan.
80-08 (*11)	24 Hour	B	Nine pipe clamps which connect snubbers to isolation condenser piping were found not installed per design. (IEB 79-14)
80-09 (*21)	30 Day	B	Tube leakage on all containment spray heat exchangers. Tubes being replaced during refueling outage.
80-10 (*12)	24 Hour	B	Three pipe hangers in the liquid poison system not installed per design. One restraint in RMCU system not installed per design.
80-11	30 Day	A	SBGTS tripped when flow indication indicated zero due to a leaking instrument sensing line.
80-12	30 Day	D	Weekly surveillance of diesel and station battery not conducted.
80-13	24 Hour	A	Fire System taken out of service to repair a leaking valve in the supply header.
80-14	24 Hour	A	Diesel generator No. 1 failed to synchronize and tripped during surveillance testing. Plant was in cold shutdown.
80-15	30 Day	A	Reactor building automatic isolation valve inoperative (one of two in series) due to broken piston rod eye stud.
80-16	24 Hour	A	Defective main generator load reject sensor pressure switch.

100 STATION
 LICENSEE EVENT REPORT SYNOPSIS
 August 1, 1979 to July 31, 1980

<u>LER Number</u>	<u>Type</u>	<u>Cause Code</u>	<u>Description</u>
80-17	24 Hour	D	Rod block bypass jumpers (two) were left in place. Administrative control checks prevented movement of more than 1 control rod during refueling.
80-18	30 Day	E	Reactor high pressure scram sensor (RE03D) less conservative than Technical Specification limit. Plant was in cold shutdown.
80-19	30 Day	E	Lift pressure of core spray system relief valves (V-20-25 and V-20-24) improperly set.
80-20	24 Hour	A	Identification of degraded fire barriers and failure to establish required fire watch.
80-21	NA	NA	LER No. erroneously assigned - issued as 80-24
80-22	30 Day	E	Trip points of three of four isolation condenser initiation pressure switches were less conservative than Technical Specification limits. Plant was in cold shutdown.
80-23	30 Day	E	Electromatic relief valve high pressure sensors (1A83B and 1A83E) trip points exceeded Technical Specification limits by 1.5 and 2.8 PSIG respectively.
80-24	30 Day	D	One rod free travel surveillance not conducted as required.
80-25	24 Hour	A	Fire suppression system removed from service for replacement of PIY valves V-19-12 and V-19-8.
80-26	30 Day	A	Failure of one hydraulic snubber to lock-up in compression. Plant was in cold shutdown.
80-27	24 Hour	D	Reactor building to suppression chamber vacuum breaker system inlet pipe found blocked by plastic cover.
80-28	30 Day	E	Two of four reactor high pressure scram sensor (RE03C and RE03D) setpoints found above Technical Specification limits.

OYSTER CREEK NUCLEAR GENERATING STATION
 LICENSEE EVENT SYNOPSIS
 August 1, 1979 to July 31, 1980

<u>LER Number</u>	<u>Type</u>	<u>Cause Code</u>	<u>Description</u>
80-29	30 Day	A	Failure of drywell high pressure switch and subsequent initiation of core spray (no injection). Resulted in manual defeat of both core spray systems and plant shutdown.
80-30	30 Day	A	Failure of one electromatic relief valve to operate during operability testing.
80-31	30 Day	A	Failure of one hydraulic snubber to lock up in tension.
80-32 (*31)	24 Hour	D	Both watertight doors to containment spray pump rooms found open.
80-33	30 Day	E	Torus oxygen concentration above five percent. Reactor shutdown was commenced then terminated when the concentration was reduced to less than five percent.
80-34	30 Day	A	SBGTS No. 1 tripped due to overload during routine surveillance.
ETS 80-01	10 Day	E	Fish kill during plant shutdown for refueling on January 5, 1980.
ETS 80-02	10 Day	C	Less than two dilution pumps in operation when water temperature was less than 60 F.
ETS 80-03	10 Day	A	Failure to run second dilution pump when Route 9 bridge temperature was above 87 F.
ETS 80-04	10 Day	B	Loss of dilution pumps, seven times over a three day period, due to high lube oil temperature trips.

Notes: Cause Codes: A - Component Failure
 B - Design/Fabrication/Analysis Error
 C - Defective Procedures
 D - Personnel Error
 E - Other

* Causally linked event element:

{xo} Initial group element
 {xy} Subsequent group element(s)

SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE

September 22, 1980

JERSEY CENTRAL POWER AND LIGHT COMPANY
OYSTER CREEK NUCLEAR GENERATING STATION

REGION I
PERFORMANCE EVALUATION

REGION I SALP BOARD ASSESSMENT CRITERIA1. BACKGROUND

As part of the effort to develop NRC Manual Chapter 0516, "Systematic Assessment of Licensee Performance" (SALP), NRC:HQ finalized and provided to the regional offices new "Evaluation Guidance" for classification of licensee performance within SALP functional areas.

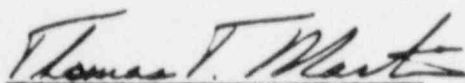
2. MEETING

The Region I SALP Board convened on June 19, 1981 for the purpose of comparing the new evaluation guidance to the assessment criteria used by the Board during the Cycle I Assessment Period. It was determined that the previous "Unsatisfactory" category was directly translatable into the new "Below Average" category. Further, it was determined that a previous rating of "Satisfactory" was convertible to a new rating of "Average." The Region I SALP Board members adopted the new "Evaluation Guidance."

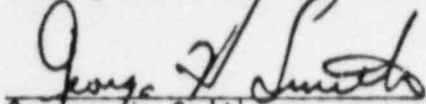
3. ACTION

The Board directed DRPI to modify Cycle 1 Assessment Period records to reflect the new rating categories by:

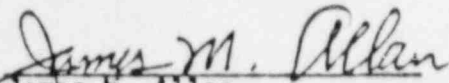
- a. Striking through the previous ratings, ensuring they remain legible;
- b. Typing in the corresponding new rating title;
- c. Attaching a copy of this decision to each docket's package; and,
- d. Providing copies of the revised package to DRPI files, IE:HQ and the Resident Inspector.



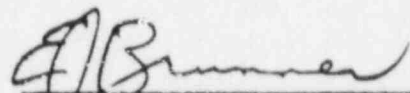
Thomas T. Martin
Acting Director, DETI



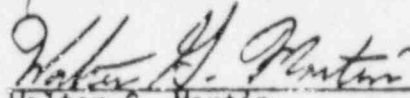
George H. Smith
Director, DEPOS



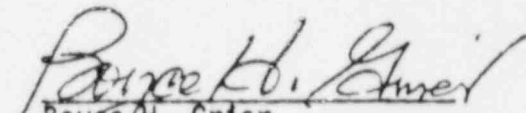
James F. Allan
Deputy Director



Eldon J. Brunner
Acting Director, DRPI



Walter G. Martin
Asst. to Director



Boyce H. Grier
Director

OYSTER CREEK NUCLEAR GENERATING STATION
PERFORMANCE EVALUATION AND ACTION PLAN

September 22, 1980

Region I

Licensee Performance Evaluation (Operations)

Facility: Oyster Creek Nuclear Generating Station

Licensee: Jersey Central Power and Light Company

Unit Identification:

<u>Docket No.</u>	<u>License No./Date of Issuance</u>	<u>Unit No.</u>
50-219	DPR-16 April 9, 1969	I

Reactor Information:

NSSS	General Electric
MWt	1930

Appraisal Period: August 1, 1979 to July 31, 1980

Appraisal Completion Date: September 22, 1980

Review Board Members:

- B. H. Grier, Director, Region I
- J. M. Allan, Deputy Director, Region I
- E. J. Brunner, Chief, Reactor Operations and Nuclear Support Branch, Region I
- G. H. Smith, Chief, Fuel Facilities and Materials Safety Branch, Region I
- R. T. Carlson, Chief, Reactor Construction and Engineering Support Branch
- J. W. Devlin, Acting Chief, Safeguards Branch

Other Attendees:

- R. R. Keimig, Chief, Reactor Projects Section No. 1, Region I
- W. Paulson, Oyster Creek Licensing Project Manager, NRR
- L. E. Briggs, Oyster Creek, Senior Resident Inspector
- J. A. Thomas, Oyster Creek, Resident Inspector
- R. Nimitz, Radiation Specialist, FF&MS, Region I
- D. Neely, Radiation Specialist, FF&MS, Region I

A. Number and Nature of Noncompliance Items

Noncompliance Category:

Violations	1
Infractions	32
Deficiencies	7

Areas of Noncompliance:

	<u>VIO/INF/DEF</u>
Plant Operations	0/2/0
Refueling Operations	0/2/0
Radiation Protection	1/12/1
Radwaste Operations	0/2/1
Radwaste Shipment	0/1/0
Security and Safeguards	0/0/1
Surveillance and Post Refuel Testing	0/2/1
Design Changes and Modifications	0/3/0
Training	0/1/0
Management Controls	0/2/1
Fire Protection	0/2/0
QA/QC	0/1/1
Review and Audit	0/2/0
Reporting	0/0/1

B. Number and Nature of Licensee Event Reports

Cause of Event:

Component Failure	26
Design/Fabrication/Analysis Error	8
Defective Procedures	3
Personnel Error	14
External	0
Other	11
Total	<u>62</u>

Causally-Linked Events: 9 Events in 4 Groups

Licensee Event Reports Reviewed (Report Nos.)

79-26 to 79-44, 80-01 to 34, ETS 79-04 to 79-08, and ETS 80-01 to 80-04

C. Escalated Enforcement Actions

Civil Penalties

A civil penalty (\$21,000) was issued on July 8, 1980 based on the results of health physics inspection 80-11 and the total number (22) of health physics items of noncompliance issued since the January 1979 civil penalty.

Orders

Confirmatory Order of April 4, 1980, to confirm licensee commitments relative to IEB 79-27, "Loss of Nonclass 1-E Instrumentation and Control Power Bus During Operation."

Confirmatory Order of January 2, 1980 to confirm licensee commitments to implement all "Category A" lessons learned requirements (excluding 2.1.7.a) by January 1, 1980.

Order of July 8, 1980, which modified license DPR-16 to require health physics technician qualifications to meet or exceed the requirements of ANSI N18.1-1971.

Immediate Action Letters

IAL 79-21 of December 26, 1979, to confirm licensee commitments relative to gaseous effluent releases from the New Radwaste Facility.

IAL 80-13 of May 16, 1980, to confirm licensee commitments relative to the emergency readiness posture of the Oyster Creek Nuclear Generating Station.

Other Correspondence

Licensee letter of April 2, 1980 stating the licensee's intent to take immediate corrective action in the Radiation Protection Department as a result of the Health Physics Appraisal Inspection.

D. Management Conferences Held During Past Twelve Months

Management meeting, at the licensee's request, at the Region I office on August 30, 1979, to discuss health physics program status and commitments resulting from the January 1979 civil penalty.

Management meeting at the Region I office on April 29, 1980, to discuss NRC concerns and licensee corrective actions relative to the NRC's Performance Appraisal Branch inspection findings and radiation protection concerns resulting from recent Region I inspection.

Management meeting, at the licensee's request, at the Region I office on June 13, 1980, to discuss program improvements and additional staffing of the Health Physics Department as a result of the Health Physics Appraisal inspection findings.

OYSTER CREEK NUCLEAR GENERATING STATION

INSPECTION TIME AND/OR SCOPE
Change from Prescribed Inspection Program

FUNCTIONAL AREA	Increase	No Change	Decrease
Plant Operations		X	
Refueling Operations		X	
Radiation Protection	X		
Radwaste Management	X		
Transportation	X		
Maintenance		X	
Security and Safeguards		X	
Surveillance and Post Refuel Testing	ISI & IST PROGRAM X		
Design Changes and Modifications		X	
Emergency Planning		X	
Environmental		X	
Training	X		HP
Management Controls	X		
Fire Protection		X	
QA/QC		X	
Committee Activities/Audits	HP Audits X		
Reporting		X	
Procurement		X	

Bernice H. Arnold
Regional Director
Date 9/22/80

3. Radiation Protection

Increased inspection effort is warranted in this area due to the high number of items of noncompliance. Although improvements have reportedly occurred during and since the end of the evaluation period (July 31, 1980), in depth inspection is necessary to determine the effectiveness of the licensee's corrective actions.

4. Radwaste Management

Increased inspection effort is warranted in this area due to the number of items of noncompliance and the licensee's history of problems in this area. Reported improvements have taken place during and after this evaluation period. In depth inspection is necessary to determine the effectiveness of the licensee's corrective actions.

5. Transportation

Increased inspection effort is recommended in this area due to licensee history of problems relating to management and shipment of radioactive waste. Improvements have reportedly taken place during and subsequent to this evaluation period; however, detailed inspection of the licensee's program is necessary to determine the effectiveness of program improvements.

8. Surveillance and Post Refuel Testing

Increased inspection effort is recommended in the areas of Inservice Inspection (ISI) and Inservice Testing (IST) of Pumps and Valves due to the licensee's failure to implement the IST program as required and the detailed inspection necessary to verify satisfactory completion of the licensee's first ten (10) year ISI program.

12. Training

Increased inspection is warranted in the area of health physics technician training due to the item of noncompliance identified by the PAB inspection and recurrent problems relating to use of inadequately trained health physics technicians.

13. Management Controls

Increased inspection frequency of the licensee's management controls in the Health Physics and Radwaste areas is warranted. This is due to the large number of open inspection items and recurrent slippage of commitment dates in these areas. In addition, the effectiveness of the new management/staff organization must be closely monitored.

1.
2. Committee Activities and Audits

Increased inspection effort is warranted in the area of health physics audits due to a recurrent inspection finding involving failure to complete an annual audit of the entire facility staff training and qualifications, specifically, the health physics program was not addressed during this audit.

OYSTER CREEK NUCLEAR GENERATING STATION

PERFORMANCE ANALYSIS

1. PLANT OPERATIONS

Analysis

This area is under continuous review by the RRI's. During the evaluation period there have been two items of noncompliance in the operations area involving procedural inadequacies and inadequate mechanism for the issuance of management instructions. There have been nine LER's in the operations area, four involving component failure, and five involving personnel error. There are presently eight unresolved items in the operations area. The licensee has responded in a positive manner to expeditiously correct operational inadequacies identified by the inspectors.

Conclusion

Average
Satisfactory Performance

Board Comments

Board is in agreement with the analysis and conclusion.

2. REFUELING OPERATIONS

Analysis

The plant underwent a refueling outage during the evaluation period. Based on the results of five inspections there were two items of non-compliance involving procedural inadequacies or lack of adherence to procedures, and three unresolved items. There were two refueling activity-related LER's during the evaluation period. Both involved personnel error.

Of particular note in this area was an incident involving failure to remove control rod interlock bypass jumpers prior to completion of control cell fuel reload. The incident resulted from a breakdown of administrative controls and procedural inadequacies. The incident received attention from the licensee's General Office Review Board, the Plant Operations Review Committee, and the Operations Experience Assessment Committee. The licensee's proposed corrective actions on this matter were satisfactory.

Conclusion

Average
~~Satisfactory~~ Performance

Board Comments

Board is in agreement with the analysis and conclusion.

3. RADIATION PROTECTION

Analysis

There have been six inspections, including PAB and the Health Physics Appraisal, during this evaluation period which resulted in fourteen items of noncompliance and a civil penalty. Major areas of concern were the use of personnel not meeting ANSI N18.1 - 1971 requirements and the use of procedures inconsistent with Technical Specification requirements. In addition to the civil penalty issued as a result of inspection 80-11, an order modifying the licensee's license was issued that requires all health physics (HP) technicians to meet or exceed the requirements of ANSI N18.1 - 1971. Increased inspection effort, due to the licensee's continuing HP program problems, was initiated by Region I for an eight week period (May 28 to August 1, 1980) by assigning a resident Radiation Specialist at the site. The licensee has taken action to improve the radiation protection program including retraining of HP technicians and foremen, supplementing the site HP staff, and actively seeking additional personnel.

Conclusion

Below Average
Performance ~~Unsatisfactory~~.

BOARD COMMENTS

Board recommends increased inspection effort by Region I to confirm that corrective actions already initiated are effective.

4. RADWASTE OPERATIONS

Analysis

There have been two inspections during the evaluation period, one by the FF&MS Branch and one by the PAB. Three items of noncompliance were identified by the FF&MS Branch: 1) Failure to survey to determine the amount of free standing liquid in a shipment of dewatered resin, 2) Failure to submit a Technical Specification change request for new radwaste effluent releases, and 3) Failure to maintain radwaste shipping records required by 10 CFR 71.62. The Health Physics Appraisal Team also noted that radiation protection personnel had little knowledge of the new radwaste facility which was placed into operation in late 1978. In addition, the Performance Appraisal Branch identified one item of noncompliance in this area which involved failure to properly survey effluents released by new radwaste ventilation.

The last confirmatory measurements inspection was conducted in May 1980. No items of noncompliance were identified.

Conclusion

Performance ^{Below Average} ~~Unsatisfactory~~ based on present information. However in the second half of the evaluation period the licensee commenced a training program in this area. In addition, the licensee has begun the implementation of organizational change which is intended to improve the management controls in this area.

BOARD COMMENTS

Board recommends increased inspection effort in this area to confirm corrective actions already initiated are effective.

5. RADWASTE SHIPMENT

Analysis

In two inspections in the area of radwaste shipments, one item of noncompliance was identified. It involved delivery of licensed materials in excess of Type A quantity to a carrier for transport without a general or specific license. In particular, the licensee did not have copies of the vendors' cask drawing referred to in the certificate of compliance. This incident occurred in December 1979. Since that time, the licensee has appointed a radwaste shipping supervisor and conducted additional training in this area. The licensee has committed to prepare procedures for each type of shipping cask handled to preclude recurrences. A recent licensee shipment inspected by Region II (80-15) at the Barnwell, South Carolina disposal facility identified no items of noncompliance.

Conclusion

^{Average}
~~Satisfactory~~ performance based on present information.

BOARD COMMENTS

Board recommends inspection of licensee's radwaste shipment operations within the next six month evaluation period.

6. MAINTENANCE

Analysis

Two inspections have been conducted in the maintenance area during the evaluation period. No items of noncompliance were identified. There were four maintenance related LER's, two involving personnel error, and one involving improper setting of safety relief valves on the core spray system. The licensee has developed a viable maintenance force and has committed to strengthen it even further by developing a maintenance crew devoted solely to the performance of preventive maintenance.

Conclusion

Average
~~Satisfactory~~ Performance

Board Comments

Board is in agreement with the analysis and conclusion.

7. SECURITY AND SAFEGUARDS

Analysis

There have been two inspections conducted by the Safeguards Branch Security Section and one inspection by the Performance Appraisal Branch (PAB) during the evaluation period. No items of noncompliance were identified. During inspection 80-08, the inspector reviewed allegations by a former guard at the plant that were published in the Asbury Park Press. The allegations could not be substantiated.

The licensee has a strong security management program with apparent corporate management backing providing for responsiveness to security occurrences.

Conclusion

Average
~~Satisfactory~~ Performance

BOARD COMMENTS

Board is in agreement with the analysis and conclusion.

8. SURVEILLANCE AND POST REFUEL TESTING

Analysis

Three items of noncompliance have been identified by six inspections in the area of surveillance testing. Two involved inadequate actions following unsatisfactory surveillance test results. There were 31 LER's concerning surveillance testing, three of which involved failure to perform required surveillances. One of these, failure to perform methyl iodide removal efficiency on charcoal adsorbers, resulted in the third item of noncompliance in the surveillance area. This was caused by failure to incorporate the requirements of a Technical Specification amendment into the master surveillance schedule. The licensee has committed to conduct a review of all past Technical Specification amendments to verify that revised surveillance requirements are incorporated into the master surveillance schedule. This review has not yet been completed.

Additionally, one item of noncompliance (management controls) was identified for failure to implement the IST program for pumps and valves as required by ASME, Section XI. The PAB inspection (79-18) identified no items of noncompliance in the In-Service Inspection (ISI) area but indicated a weakness in the coordination of the licensee's program. Licensee action was in progress at that time to accumulate all available data to establish the remaining ISI to be completed to fulfill the requirements of their first ten (10) year ISI program. A preliminary Region I Data review subsequent to the PAB inspection, indicated that requirements were being met.

One additional item presently being evaluated by NRC:HQ is the licensee's failure to perform SBGTS HEPA filter flow distribution. This surveillance was not conducted due to HEPA filter design which has no provision for flow distribution measurements. A Technical Specification change request must be submitted by the licensee to correct this item.

Conclusion

Average
Satisfactory Performance.

BOARD COMMENTS

Board recommends inspection of licensee's ISI and IST Programs within the next six month evaluation period.

9. DESIGN CHANGES AND MODIFICATIONS

Analysis

This area has been inspected by the RO&NS Branch Nuclear Support Section, the RC&ES Branch Engineering Support Section and the PAB during this evaluation period. Three items of noncompliance were identified by PAB concerning fire protection system installation.

Conclusion

Average
~~Satisfactory~~ Performance

BOARD COMMENTS

Board is in agreement with the analysis and conclusion.

10. EMERGENCY PLANNING

Analysis

Two inspections were conducted during this evaluation period, one by the PAB and one during the Health Physics Appraisal. No items of noncompliance were identified; however, as a result of the Health Physics Appraisal an Immediate Action Letter was issued to require the licensee to upgrade the licensee's emergency plan to comply with NUREG 0654 requirements. This item was subsequently reviewed and closed by Region I.

Conclusion

Average

~~Satisfactory~~ Performance

BOARD COMMENTS

Board is in agreement with the analysis and conclusion.

11. ENVIRONMENTAL PROTECTION

Analysis

One inspection has been conducted during this evaluation period by PAB. No items of noncompliance were identified.

Conclusion

Average
~~Satisfactory~~ Performance with available information.

BOARD COMMENTS

Board is in agreement with the analysis and conclusion.

12. TRAINING

Analysis

Two training inspections have been conducted (PAB and Health Physics Appraisal) during this evaluation period. One item of noncompliance was identified concerning the establishment and implementation of a non licensed personnel training program. The licensee committed to major training program revisions, including the appointment of a Manager of Training (T.S. change request submitted on May 2, 1980). Training for health physics technicians was conducted during 1979 (140 hours) as a result of the January, 1979 civil penalty. A revised training program was begun during July, 1980. Training of mechanical maintenance personnel was started prior to the refueling outage but temporarily suspended due to the refueling work load.

Conclusion

~~Satisfactory~~ Average Performance with the exception of Health Physics Technician training

BOARD COMMENTS

Board recommends increased inspection effort in the area of Health Physics Technician Training.

13. MANAGEMENT CONTROLS

Analysis

Based on the results of three inspections during the evaluation period there have been three items of noncompliance in the area of management controls. In addition, numerous other items of noncompliance during this period are indicative of apparent weaknesses in the area of management controls. These items have involved inadequacies in operational procedures and lack of adherence to established procedures. The licensee has established a system for administrative and management controls. However, lack of adherence to these procedures at the lower management and supervisory levels has led to several incidents of noncompliance. In addition, lack of attention to detail and failure to recognize potential problem areas during periodic review and update of procedures has led to items of noncompliance related to procedural inadequacies. An additional area of management weakness is the licensee's failure to meet NRC commitment dates without notifying Region I of date slippage. (i.e. IST program implementation and HP commitment failures) This matter was specifically addressed at the April 29, 1980, enforcement conference and recent performance has shown improvement in this area. The station management is aware of the deficiencies in these areas and is taking steps to strengthen the overall system of management controls. Included in the corrective action is an increase in the number of personnel assigned to the plant staff and a reorganization that will place more direct management attention to the problem areas.

Conclusion

Average

~~Satisfactory~~ Performance except in the Health Physics and Radwaste area.

BOARD COMMENTS

Board recommends increased inspection effort by Region I personnel and RRI in this area.

14. FIRE PROTECTION

Analysis

There have been three fire protection inspections by the RC&ES Branch Engineering Support Section and one by the PAB during this evaluation period. In addition the RRI routinely performs fire protection inspections during plant tours. Two items of non-compliance have been identified, both relating to combustible materials storage on the 119 foot elevation of the reactor building. The licensee has attempted to obtain letters of agreement from fuel suppliers to provide only fire retardant fuel containers. The fuel suppliers have not complied with that request. The licensee is investigating the feasibility of performing a fire loading analysis to establish acceptable quantities of non-fire retardant materials that can be safely stored in vital areas.

Conclusion

Average
Satisfactory performance.

BOARD COMMENTS

Board is in agreement with the analysis and conclusion.

15. QA/QC

Analysis

One QA inspection was conducted by the RO&NS Branch Nuclear Support Section and one inspection by PAB during the evaluation period. Two items of noncompliance were identified concerning weld rod restorage and failure to maintain a duplicate file system when two modification packages could not be located on site.

Two unresolved items in the modifications area were identified and 9 of 11 previously identified items were closed. Additionally one item of noncompliance (weld rod storage) and one unresolved item identified by PAB were closed.

Conclusion

Average
Satisfactory Performance

BOARD COMMENTS

Board is in agreement with the analysis and conclusion.

16. REVIEW AND AUDITS

Analysis

Inspections conducted by the RRIs have addressed the activities of the Site Safety Committees. There are no outstanding issues in this area. One inspection has been conducted of activities of the Off-Site Committee by PAB during this evaluation period. There were no items of noncompliance identified. A QA inspection (80-13) conducted by the Reactor Operations and Nuclear Support Branch, Nuclear Support Section during the evaluation period addressed Licensee QA Audits. No items of noncompliance were identified and a PAB identified item of noncompliance concerning audits and an unresolved item were closed.

A recent Health Physics Appraisal inspection (80-17, not yet issued) identified a recurrent audit finding that was previously identified by the PAB inspection (79-18). This item involved failure to complete an annual audit of the entire facility staff training and qualifications.

Conclusion

Average
Satisfactory Performance with the exception of health physics audits.

BOARD COMMENTS

Board recommends increased inspection effort in the area of health physics audits.

17. REPORTING

Analysis

This area is under continuous review by the RRI's, in addition, one inspection was conducted by PAB during this evaluation period. One item of noncompliance was identified concerning the licensee's failure to report a minor change in the security organization. Two environmental reports were not submitted within the required time frame. These were identified by the licensee and one report was subsequently submitted. The second report was prepared; however, it was misplaced while in the licensee's administrative review process. This was identified by the licensee and submittal made approximately six (6) months after the event. Immediate telephone notification was made in each of the above incidents when discovered by the licensee.

Conclusion

Average

~~-Satisfactory-~~ performance.

BOARD COMMENTS

Board is in agreement with the analysis and conclusion.

18. PROCUREMENT

Analysis

This area was inspected by PAB during this evaluation period. No items of noncompliance were identified. The last RO&NS Branch Nuclear Support Section inspection in this area was in February - March, 1979.

Conclusion

Average
~~Satisfactory~~-Performance with present information.

BOARD COMMENTS

Board is in agreement with the analysis and conclusion.

OYSTER CREEK NUCLEAR GENERATING STATION

S.A.L.P. BOARD

SUPPLEMENTAL INFORMATION

OYSTER CREEK NUCLEAR GENERATING STATION

ENFORCEMENT HISTORY FROM AUGUST 1, 1979 TO JULY 31, 1980

<u>Id.</u>	<u>Severity</u>	<u>Functional Area</u>	<u>Subject</u>
79-1.	Deficiency	Surveillance Testing	Failure to document retest results following unsatisfactory surveillance test.
	Infraction	Surveillance Testing	Failure to consider SBGTS inoperable following failed surveillance test.
79-18	Infraction	Operations	Procedure No. 108 did not provide for independent verification of lifted leads and jumpers.
	Infraction	Fire Protection	Fire doors open and combustible material on 119 foot level of the reactor building.
	Infraction	Design Changes	Drawing lacking detail of pipe supports.
	Infraction	Design Changes	Inadequate instruction for anchor bolt installation and grouting.
	Infraction	Design Changes	Procedures and drawings not revised after completion of modification No. 213.
	Infraction	QA/QC	Duplicate file system not complete.
	Infraction	Training	Training plan not implemented. HP training program not established.
	Infraction	Management Control	Response to and closeout of nonconformance/corrective action required reports not timely.
	Infraction	Audits	Annual audit of staff training and qualification not conducted.
	Deficiency	QA/QC	Returned weld rod not reidentified and tagged for storage per procedure 3005.
	Infraction	Radiation Protection	Written procedures not established for calibration of various radiation, effluent, and gaseous monitors.
Infraction	Radiation Protection	Effluents released by new radwaste not properly surveyed.	

OYSTER CREEK NUCLEAR GENERATING STATION
ENFORCEMENT HISTORY FROM AUGUST 1, 1979 TO JULY 31, 1980

<u>Inspection Number</u>	<u>Severity</u>	<u>Functional Area</u>	<u>Subject</u>
79-18	Infraction	Surveillance	Analysis of samples from SBGTS charcoal adsorbers not performed.
	Deficiency	Reporting	Regional office not notified of minor change to security plan.
79-23	Infraction	Radwaste Operations	Failure to submit Technical Specification change request for new radwaste effluent releases.
	Deficiency	Radwaste Operations	Failure to maintain records pursuant to 10 CFR 71.62.
	Infraction	Radwaste Shipment	Failure to meet 10 CFR 71.3 prior to shipping radwaste.
	Infraction	Radwaste Operations	Failure to survey to meet 10 CFR 20.301.
79-24	Infraction	Fire Protection	Non fire retardant wood crates on 119 foot elevation of the reactor building.
80-03	Infraction	Radiation Protection	Failure to evaluate Beta monitoring as required by 10 CFR 20.201B.
	Infraction	Radiation Protection	Failure to use respiratory protection equipment in accordance with 10 CFR 20.103C.
	Infraction	Radiation Protection	Failure to follow procedures required by Technical Specification 6.11.
	Deficiency	Radiation Protection	Failure to label containers of radioactive material.
80-10	Deficiency	Management Control	LLRT procedure changed without proper documentation or approval.
	Infraction	Management Control	Failure to implement IST program for pumps and valves in accordance with ASME, Section XI.
80-11	Infraction	Radiation Protection	Failure to meet 10 CFR 20.103 (A)(3)(Air sampling)
	Infraction	Radiation Protection	Failure to use process, engineering controls or other precautionary procedures.

OYSTER CREEK NUCL GENERATING STATION
ENFORCEMENT HISTORY FROM AUGUST 1, 1979 TO JULY 31, 1980

<u>Inspection Number</u>	<u>Severity</u>	<u>Functional Area</u>	<u>Subject</u>
80-11	Infraction	Radiation Protection	Failure to provide personnel monitoring as required by procedure.
	Infraction	Radiation Protection	Failure to instruct workers pursuant to 10 CFR 19.12.
	Violation	Radiation Protection	Failure to prepare procedures consistent with Technical Specification 6.8.1
80-12	Deficiency	Safeguards	Physical inventory failed to list 2 PuBe sources and listed a spent fuel pin by the wrong serial No.
80-17*	Infraction	Radiation Protection	No procedure prepared or tabulated list maintained to account for MPC hours.
	Infraction	Radiation Protection	Monthly ALARA meetings not conducted from November 11, 1979 to May 19, 1980.
	Infraction	Radiation Protection	Failure to perform voltage plateau on counter No. 172 between November 17, 1979 and May 19, 1980.
	Infraction	Review and Audit	Failure to conduct annual audit of facility staff training and qualifications between October 1978 and May 21, 1980.
80-19	Infraction	Refueling Operations	Failure to follow procedure No. 501 resulting in spent fuel pool overflow.
	Infraction	Refueling Operations	Failure to remove control rod interlock bypass jumpers.
80-23	Infraction	Operations	No adequate mechanism provided for issuance of management instructions of short term applicability.

* Inspection Report not issued.

OYSTER CREEK NUCLEAR GENERATING STATION
 ENFORCEMENT SUMMARY FROM AUGUST 1, 1979 to JULY 31, 1980

Functional Area of Noncompliance	PERIOD 8/1/79 to 1/31/80		PERIOD 2/1/80 to 7/31/80		TOTALS	
	INSPT'd	(INC) VIOL/INF/DEF	INSPT'd	(INC) VIOL/INF/DEF	VIOL/INF/DEF	VIOL/INF/DEF
Plant Operations	2	(1)	1	(1)	0/1/0	0/2/0
Refueling Operations	3	0/0/0	2	(1)	0/2/0	0/2/0
Radiation Protection	3	(2)	3	(2)	1/7/0	1/12/1
Radwaste Operations	2	(1)	NONE		0/0/0	0/2/1
Radwaste Shipment	1	(1)	1		0/0/0	0/1/0
Maintenance	2	0/0/0	NONE		0/0/0	0/0/0
Security and Safeguards	2	0/0/0	2	(1)	0/0/1	0/0/1
Surveillance and Post Refuel Testing	2	(2)	4		0/0/0	0/2/1
Design Changes and Modifications	2	(1)	1		0/0/0	0/3/0
Emergency Planning	1	0/0/0	1		0/0/0	0/0/0
Environmental	1	0/0/0	1		0/0/0	0/0/0
Training	1	(1)	NONE		0/0/0	0/1/0
Management Controls	1	(1)	2	(2)	0/1/1	0/2/1
Fire Protection	2	(2)	1		0/0/0	0/2/0
QA/QC	1	(1)	1		0/0/0	0/1/1
Review and Audit	2	(1)	1		0/1/0	0/2/0
Reporting	1	(1)	1		0/0/1	0/0/1
Procurement	1	0/0/0	NONE		0/0/0	0/0/0

Notes: 1. INSPT'd - Number of times that area was inspected during the period of interest
 2. No Deviations were issued during the period of interest.
 3. (INC) - Number of inspections a noncompliance was found

OYSTER CREEK NUCLEAR GEN 3 STATION
 LICENSEE EVENT REPOR. .NOPSIS
 August 1, 1979 to July 31, 1980

<u>LER Number</u>	<u>Type</u>	<u>Cause Code</u>	<u>Description</u>
79-25	30 Day	D	Primary Containment degraded when torus sample valve was left open.
79-26	30 Day	A	Laundry drain tank discharge pipe failure resulting in release of radioactive material.
79-27 (*10)	24 Hour	B	Discovery of six seismic restraints for the six inch core spray test line which were either in positions other than required by original design criteria or had failed.
79-28	30 Day	E	Core Spray isolation valve V-20-15 inoperable in the open position due to inadvertant initiation of closr signal while the valve was stroking open.
79-29	30 Day	C	Source range monitor rod block setpoint lower (94 CPS) than Technical Specification limit of 100 CPS.
79-30	30 Day	D	'A' CRD hydraulic pump out of service for ten hours due to vent piping leak.
79-31	30 Day	D	'B' CRD hydraulic pump out of service due to outboard seal water pipe nipple leak.
79-32 (*20)	30 Day	A	Three small leaks on service water side of 1-3 containment spray heat exchanger caused by galvanic action between 90/10 Cu-Ni and carbon steel.
79-33	30 Day	A	One of five electromatic relief valve setpoints found above Technical Specification value due to a failed switch.
79-34	24 Hour	D	Secondary containment violation - both reactor building doors open.
79-35	30 Day	E	One main steam line high radiation monitor setpoint found two percent above Technical Specification limit.
79-36 (*30)	30 Day	D	Containment spray compartment door found open. Door was closed and dogged. Containment spray system I was considered inoperable while doors were open.
79-37	30 Day	A	Failure of core spray booster pump to start during routine surveillance due to defective control power fuse holder.

OYSTER CREEK NUCLEAR GENERATING STATION
 LICENSEE EVENT REPORT SYNOPSIS
 August 1, 1979 to July 31, 1980

<u>LER Number</u>	<u>Type</u>	<u>Cause Code</u>	<u>Description</u>
79-38	30 Day	A	Failure of D.G. No. 1 to start due to position switch adjustment.
79-39	30 Day	A	APRM Channel No. 1 rod block setpoint found one percent above Technical Specification limit.
79-40	30 Day	C	Failure to perform Methyl Iodide removal efficiency of SBGTS charcoal filters. Tested satisfactorily.
79-41	30 Day	B	Radioactive releases (low level) from new radwaste building not accurately monitored.
79-42	30 Day	A	Inadvertent lifting of one electromatic relief valve due to setpoint drift of new pressure switch.
79-43	30 Day	A	Failure of one reactor building to torus vacuum breaker to open during surveillance testing.
79-44	30 Day	D	Reactor building to torus vacuum breaker blocked from opening more than 50 percent due to contractor scaffolding.
ETS 79-04 (*20)	10 Day	A	Second dilution pump not run for 40 minutes due to equipment problems.
ETS 79-05 (*41)	10 Day	E	Fish kill of 50 to 100 fish.
ETS 79-06	10 Day	B	Only one dilution pump in service for a period of 26 minutes when two were required.
ETS 79-07	10 Day	D	Loss of one dilution pump for 92 minutes when two pumps were required.
ETS 79-08	10 Day	B	One dilution pump off (tripped) for 20 minutes when two pumps were required.
80-01	24 Hour	A	Failure of one of five ADS valves to operate during functional testing.
80-02	30 Day	D	One fuel bundle found misoriented 180 degrees. Subsequent evaluation indicated no damage to the bundle.
80-03	24 Hour	A	Discovery of two crack indications in core spray sparger (System II).

OYSTER CREEK NUCLEAR GE. 2G STATION
 LICENSEE EVENT REPORT SYNOPSIS
 August 1, 1979 to July 31, 1980

<u>LER Number</u>	<u>Type</u>	<u>Cause Code</u>	<u>Description</u>
80-04	30 Day	A	Several leaks found in underground aluminum condensate lines. Leakage was due to galvanic corrosion.
80-05	30 Day	D	Reactor building ventilation monitor trip setpoints found above Technical Specification limits.
80-06	30 Day	E	Recirculation flow sensors (zero percent) found out of tolerance on six of eight channels. Reactor scram setpoints on three of eight channels above limit due to zero setpoint drift.
80-07	30 Day	A	Low flow on SBGTS No. 1 due to slipping belts on fan.
80-08 (*11)	24 Hour	B	Nine pipe clamps which connect snubbers to isolation condenser piping were found not installed per design. (IEB 79-14)
80-09 (*21)	30 Day	B	Tube leakage on all containment spray heat exchangers. Tubes being replaced during refueling outage.
80-10 (*12)	24 Hour	B	Three pipe hangers in the liquid poison system not installed per design. One restraint in RMCU system not installed per design.
80-11	30 Day	A	SBGTS tripped when flow indication indicated zero due to a leaking instrument sensing line.
80-12	30 Day	D	Weekly surveillance of diesel and station battery not conducted.
80-13	24 Hour	A	Fire System taken out of service to repair a leaking valve in the supply header.
80-14	24 Hour	A	Diesel generator No. 1 failed to synchronize and tripped during surveillance testing. Plant was in cold shutdown.
80-15	30 Day	A	Reactor building automatic isolation valve inoperative (one of two in series) due to broken piston rod eye stud.
80-16	24 Hour	A	Defective main generator load reject sensor pressure switch.

OYSTER CREEK NUCLEAR GENERATING STATION
 LICENSEE EVENT REPORT SYNOPSIS
 August 1, 1979 to July 31, 1980

<u>LER Number</u>	<u>Type</u>	<u>Cause Code</u>	<u>Description</u>
80-17	24 Hour	D	Rod block bypass jumpers (two) were left in place. Administrative control checks prevented movement of more than 1 control rod during refueling.
80-18	30 Day	E	Reactor high pressure scram sensor (RE03D) less conservative than Technical Specification limit. Plant was in cold shutdown.
80-19	30 Day	E	Lift pressure of core spray system relief valves (V-20-25 and V-20-24) improperly set.
80-20	24 Hour	A	Identification of degraded fire barriers and failure to establish required fire watch.
80-21	NA	NA	LER No. erroneously assigned - issued as 80-24
80-22	30 Day	E	Trip points of three of four isolation condenser initiation pressure switches were less conservative than Technical Specification limits. Plant was in cold shutdown.
80-23	30 Day	E	Electronic relief valve high pressure sensors (IA83B and IA83E) trip points exceeded Technical Specification limits by 1.5 and 2.8 PSIG respectively.
80-24	30 Day	D	One rod free travel surveillance not conducted as required.
80-25	24 Hour	A	Fire suppression system removed from service for replacement of PIV valves V-19-12 and V-19-8.
80-26	30 Day	A	Failure of one hydraulic snubber to lock-up in compression. Plant was in cold shutdown.
80-27	24 Hour	D	Reactor building to suppression chamber vacuum breaker system inlet pipe found blocked by plastic cover.
80-28	30 Day	E	Two of four reactor high pressure scram sensor (RE03C and RE03D) setpoints found above Technical Specification limits.

OYSTER CREEK NUCLEAR GENERATING STATION
 LICENSEE EVENT SYNOPSIS
 August 1, 1979 to July 31, 1980

<u>LER Number</u>	<u>Type</u>	<u>Cause Code</u>	<u>Description</u>
80-29	30 Day	A	Failure of drywell high pressure switch and subsequent initiation of core spray (no injection). Resulted in manual defeat of both core spray systems and plant shutdown.
80-30	30 Day	A	Failure of one electromatic relief valve to operate during operability testing.
80-31	30 Day	A	Failure of one hydraulic snubber to lock up in tension.
80-32 (*31)	24 Hour	D	Both watertight doors to containment spray pump rooms found open.
80-33	30 Day	E	Torus oxygen concentration above five percent. Reactor shutdown was commenced then terminated when the concentration was reduced to less than five percent.
80-34	30 Day	A	SBGTS No. 1 tripped due to overload during routine surveillance.
ETS 80-01	10 Day	E	Fish kill during plant shutdown for refueling on January 5, 1980.
ETS 80-02	10 Day	C	Less than two dilution pumps in operation when water temperature was less than 60 F.
ETS 80-03	10 Day	A	Failure to run second dilution pump when Route 9 bridge temperature was above 87 F.
ETS 80-04	10 Day	B	Loss of dilution pumps, seven times over a three day period, due to high lube oil temperature trips.

Notes: Cause Codes: A - Component Failure
 B - Design/Fabrication/Analysis Error
 C - Defective Procedures
 D - Personnel Error
 E - Other

* Causally linked event element:

{xo} Initial group element
 {xy} Subsequent group element(s)