July 6, 2000

Mr. Robert M. Bellamy
Site Vice President
Entergy Nuclear Generation Company
Pilgrim Nuclear Power Station
600 Rocky Hill Road
Plymouth, Massachusetts 02360-5599

SUBJECT: PILGRIM NUCLEAR POWER STATION
INSPECTION REPORT NO. 05000293/2000-005

Dear Mr. Bellamy:

On June 9, 2000, the NRC completed a team inspection of the Pilgrim Nuclear Power Station. The enclosed report presents the results of that inspection. The results were discussed on June 9, 2000 with Mr. Ted Sullivan, and other members of your staff.

This inspection was an examination of activities conducted under your license as they relate to the identification and resolution of problems, and compliance with the Commission's rules and regulations, and with the conditions of your operating license. Within this area, the inspection involved selected examination of procedures and representative records, observations of activities, and interviews with personnel.

Based upon the sample reviewed during this inspection, no findings were identified. The resulting evaluations or root cause analyses were of good quality and appropriate corrective actions were prescribed.

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Sincerely,

/RA by Brian E. Holian for/

Wayne D. Lanning, Director
Division of Reactor Safety

Docket Nos. 05000293
License Nos. DPR-35

Enclosure: Inspection Report 05000293/2000-005

cc w/encl:
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The Honorable Therese Murray
The Honorable Vincent DiMacedo
Chairman, Plymouth Board of Selectmen
Chairman, Duxbury Board of Selectmen
Chairman, Nuclear Matters Committee
Plymouth Civil Defense Director
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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No:	05000293
License No:	DPR-35
Report No:	05000293/2000-005
Licensee:	Entergy Nuclear Generation Company
Facility:	Pilgrim Nuclear Power Station
Location:	600 Rocky Hill Road Plymouth, Massachusetts 02360-5599
Dates:	May 22 - June 9, 2000
Inspectors:	E. H. Gray, Division of Reactor Safety (DRS), Team leader T. Burns, DRS, Reactor inspector P. Frechette, DRS, Security Inspector R. Laura, Senior Resident Inspector, Division of Reactor Projects
Approved by:	Lawrence T. Doerflein, Chief Systems Branch Division of Reactor Safety

SUMMARY OF FINDINGS

Pilgrim Nuclear Power Station
NRC Inspection Report 05000293/2000-005

This report includes the results of a region-based team inspection of the effectiveness of problem identification and resolution at the Pilgrim Nuclear Power Station. The inspection covered all seven cornerstones of safety and was accomplished in accordance with NRC Inspection Procedure 71152, "Identification and Resolution of Problems" (refer to Attachment 1).

Based on the results of the inspection, there were no findings identified. The team determined that the licensee was effective at identifying problems. In general, problems were properly captured and characterized in the corrective action program (CAP). Based upon the sample reviewed, items entered into the CAP were properly classified and prioritized for resolution. Evaluations and root cause analyses were of good depth and quality. The licensee's resolution of problems was adequate. The prescribed corrective actions appeared appropriate to correct the problems and were generally completed in a timely manner. However, there were a few instances of minimal safety significance where the prescribed corrective actions were overdue. In the safety conscious work environment area, plant personnel were familiar with, and did not feel reluctant to use, the existing processes to raise safety concerns.

One negative observation of the inspection team was that the problem report (PR) process was not effectively using the Repeat Occurrence portion of the PR database. The identification of repeat problems was dependant on the memories of individuals involved in the PR process, rather than being retrievable from the PR database. In addition, the definition of a repeat issue was not fully inclusive. The lack of a clear definition of what was a repeat issue and the reliance on staff recollection for repeat issues presented a limitation on the ability to establish the effectiveness of corrective actions over an extended time period.

The team noted that the PR program was well-integrated on-site, and included a daily multi-departmental panel review of newly issued PRs to assess the significance of each PR and assign responsibility for resolution through the action tracking process. The PR Panel screened out those PRs that had no or low safety significance. Closeout of low significance items early with no actions except for tracking was an important favorable factor in effective PR management. Keeping the PR process active while dropping low level issues and providing feedback to PR originators were key factors in the program.

During the first week of the inspection, the site was faced with a degrading recirculating pump motor-generator set electrical commutator brush that was arcing and wearing at an abnormally high rate. The corrective actions, including risk considerations, were established and evaluated using input from a wide cross-section of plant staff. This identified problem, which resulted in a plant power reduction, was properly evaluated and corrected.

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Report Details

4. OTHER ACTIVITIES (OA)

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, Emergency Preparedness, Occupational Radiation Safety, Public Radiation Safety, and Physical Protection

4OA2 Problem Identification and Resolution (IP 71152)

.1 Problem Identification

a. Inspection Scope

The team conducted an evaluation of licensee problem identification and resolution performance by a review of licensee procedures, documentation and interviews with licensee staff. The evaluation focused on the identification of problems and corrective actions for risk significant issues.

The team reviewed items selected from problem reports (PR), non-conformance reports (NCR), recommendation reporting, and operating experience documentation to determine if problems, when identified, were being appropriately characterized and entered into the corrective action process for resolution. Individual issues were evaluated for completeness, accuracy, and prompt evaluation and disposition of operability and reportability concerns. In addition, selected non-cited violations (NCV's) issued during the period from September 1997 to the present were reviewed to determine if the violations were entered into the problem reporting program for evaluation and resolution. The team reviewed a selection of Corrective Actions and Assessments Department (CAAD) self assessments of the problem identification and corrective action program performed during the period 1997 thru 1999. The review was conducted to determine if the self assessment of performance in the problem identification and resolution area reflected the identification and understanding of any weaknesses in the program, and if the corrective actions were comparable to NRC inspection results. Similarly, an Engineering Department self-assessment report, dated December 12, 1999, was reviewed. It identified problem areas for improvement in the Engineering function, which were being addressed.

In addition, the team reviewed the implementation of performance monitoring of selected risk significant systems to verify the evaluation of performance on the functionality, availability and condition of equipment tracked by the performance indicators and the maintenance rule. The team interviewed system engineers and the maintenance rule coordinator to determine the level of responsibility and effectiveness of performance monitoring and identification of corrective action when necessary.

b. Observations and Findings

There were no findings identified during this inspection.

Problem identification was generally complete and accurate with appropriate information provided regarding the original issue to enable a clear understanding of the problem. Problem evaluation and resolution considered operability and reportability needs as well as the extent of condition, generic implications and common cause. Classification and prioritization of the problem reflected the safety significance of the event. The problem dispositions provided instruction to resolve the immediate problem, and formal root cause analyses were initiated for problems deemed to be significant conditions adverse to quality (SCAQs).

No instances where the licensee failed to identify generic concerns were identified. The site has a functional Operating Experience Program that processes information from sources outside the plant to identify problems and issues applicable to the Pilgrim plant. An issue identified by the team with the processing of Operating Experience information was that the guidelines for screening incoming information were not documented.

The team concluded that the licensee had implemented an effective program for problem identification.

.2 Problem Cause Analysis

a. Inspection Scope

The team reviewed items selected from the licensee's problem reporting and corrective action process that were generated within the last two year period to determine the appropriateness of the detail and broadness of the root cause analysis, apparent cause and direct cause evaluation.

b. Observations and Findings

There were no findings identified during this inspection.

Problem cause determination included three basic categories. These were root cause evaluation for significant conditions adverse to quality, apparent cause determination for those issues correlated to human performance, and direct cause determination for issues regarding equipment or hardware failures. The problem cause evaluation processes used a logical, written program, and industry accepted method for cause analysis and review. The problem reports sampled had adequate root cause, apparent cause, or direct cause determinations.

.3 Effectiveness of Corrective Actions

a. Inspection Scope

The inspectors reviewed the effectiveness of corrective actions developed and implemented to correct both hardware and human performance problems at the site.

Several significant conditions adverse to quality (SCAQ) problem reports (PR) were selected for review based partly on risk importance. SCAQ PRs reviewed included the following: 97.9785, B Recirculation Set Trip Event; 98.9108, EPA-3 Outstanding Part 21; 99.1954, Significant Contamination in the Tip Room; 99.0119, Power Oscillations During Three Steam Line Operation; 99.9479, Feed Water Regulating Valve Internals Issue; 99.9392, Feed Water System Waterhammer Event; 00.0649, Abnormal Noise Coming From the B Isophase Duct; and 00.9163, Potential Entry into a High Radiation Area Due to Changing Work Scope.

Quarterly trend reports were also reviewed for the previous two year period. The inspectors verified whether or not adverse trends were identified and if problem reports were initiated to obtain evaluation and corrective action. Lastly, the inspectors attended the daily PR screening meetings during the inspection period which reviewed all SCAQ and non-SCAQ PRs generated during each previous day.

b. Observations and Findings

There were no risk significant findings in this area.

In general, the corrective actions developed and implemented appeared reasonable to correct the various problems. The inspectors independently confirmed that the corrective actions were completed or planned to be done as scheduled. The evaluations in SCAQ PRs were generally detailed and thorough. A problem area identified earlier this year regarding the quality of Operations apparent and root causes has shown improvement. However, one exception was PR 99.1954, TIP Room Contamination, which had a poorly documented evaluation.

Quality assurance audits reviewed the effectiveness of corrective actions for issues identified by QA. Additionally, the licensee had recently revised the site self assessment document to have each department review a sample of the effectiveness of corrective actions.

A concentrated licensee effort over the past year had substantially reduced the problem report action item backlog. There were several isolated instances identified by the inspectors where PR action items went past the scheduled due date without management approval of an extension. Most of these overdue items were in the training department. The licensee generated PR 00.1307 to document, evaluate and correct the extension process.

Of approximately 100 PRs processed by the PR screening committee during this inspection period, the inspectors identified 10 PRs, as listed below, that were repetitive. In these cases, the corrective actions were not fully effective.

- PR 00.9208: Loose Bed Plate Nuts on the "A" EDG (NRC Identified issue)
- PR 00.1362: Main Stack Radiation Monitor Spiking
- PR 00.1374: I&C Technicians Failed to Notify Quality Control
- PR 00.0247: Condensate Demineralizer Vent Header Gasket Blew Out
- PR 00.1364: Hypochlorite System Deficiencies
- PR 00.1337: Product Shelf Life Recurring Problems
- PR 00.1391: Organic Intrusion Into Radwaste Processing
- PR 99.9224: Welding Certification Problems
- PR 00.1298: Post Treat Radiation Monitor Spiking High
- PR 00.1299: Post Treat Radiation Monitor Spiking High

Currently, the licensee's corrective action process has an entry block on the PR form to identify repeat issues, but there was no direct sorting capability for repeat items. The inspectors determined this was a weakness since the repeat data serves to highlight effectiveness of past corrective actions. Additionally, the inspectors identified that the close-out write-up for PR 99.2755, E.P. Equipment Procurement Designation, was inadequate. This PR originally referencing safety-related components was closed out without addressing the original problem or any meaningful cause analysis. While the issue was determined to be not on safety-related components and was corrected, the PR was closed without noting the facts and was approved in the closeout process. Neither the documentation or closeout process were adequate.

Quarterly trend reports were reviewed and found to be adequate. There were several examples in the last two years where adverse performance trends were identified by an individual department and a PR initiated to do a common cause review. For example, during this inspection the health physics (HP) department identified an adverse trend where workers exceeded their allowable dose. The HP staff initiated a PR to document and evaluate this trend. The inspectors noted that the maintenance/work control groups experienced several problems recently during online maintenance (OLM) outages. The licensee was aware of these issues and had assessed each system outage individually, but was slow to review for common causes and to document the OLM issue in the PR process.

While there was an extensive trending process, some topics were not retrievable by trending; for example, repeat issues and online maintenance (LCO work) problems. There were items or topics for which trend information may be useful that was not available.

In the security area, four Significant Conditions Adverse to Quality, four Direct Cause, and seven Apparent Cause Problem Reports were reviewed and discussed with the staff. Identification of problems, through the PR system was found to be effective in the area of security. Evaluation of the cause of the problem; either root cause, apparent cause or equipment issues, demonstrated a reasonable approach resulting in a concise determination of the cause of the problem. None of the security-related PR's generated

were the result of a repeat issue, which was an indication that the corrective actions taken were effective.

The team concluded that the licensee's resolution of problems was adequate. Based on the sample reviewed, items entered into the CAP were properly classified and prioritized for resolution. The evaluations and root cause analyses reviewed were of good depth and quality. The prescribed corrective actions appeared appropriate to correct the problems and the corrective actions were generally completed in a timely manner. However, there were a few instances where the prescribed corrective actions were overdue or where the corrective actions were not fully effective in that similar issues recurred.

.4 Risk Significance Inputs

a. Inspection Scope

The inspectors reviewed how the licensee evaluated the risk significance of individual problems, as well as combinations of individual problems, contained in the corrective action backlog.

b. Observations and Findings

Risk significance was not explicitly listed in Attachment 6 of the PR Procedure No. 1.3.121 as a factor in deciding if a PR should be classified as a SCAQ. Nonetheless, risk significance was considered for PRs that required an operability evaluation. Operability evaluations were reviewed and prioritized into a color coded scheme based on risk significance. Once per quarter the licensee reviewed all open operability evaluations to identify any combination of issues that may have adverse risk effect on the plant. The inspectors were unable to review the results of the recent quarterly reviews due to the lack of meeting minutes. The inspectors independently reviewed the open operability evaluations and identified no problems.

The licensee uses a daily risk evaluation process for planned maintenance and surveillance testing. Also, the licensee recently instituted new risk management controls (i.e., signs, access restrictions, and compensatory measures) to apply the protected train concept during online plant operations. Previously, these risk management controls were used only during refueling outages. The inspectors noted two PRs where these new practices were not communicated and understood by all station workers. For example, PR 00.1284 documented an event on May 25, 2000 when there were three occurrences of failure to contact the control room prior to entering the area, as required by the station blackout diesel protected area signs. A second problem occurred on May 31, 2000, when the licensee performed an intrusive inspection on the "A" emergency diesel generator (EDG) ventilation shaft gearbox, while the "B" EDG was inoperable. This problem was identified by the licensee and documented in PRs 00.1331 and 00.1332. No protective train signs were in place at the time of this second event. The inspectors determined that these two events revealed that the new practice of risk management controls during online operations was not fully understood and used by all plant workers. The licensee informed the inspectors that a site-wide notification and further training were planned on the new risk management controls.

.5 Safety Conscious Work Environment

a. Inspection Scope

The inspector reviewed the licensee's Safety Conscious Work Environment program implementation (Employee Concern Program) and conducted interviews with plant personnel to determine if conditions existed that would challenge the establishment of a safety conscious work environment at Pilgrim.

b. Observations and Findings

There were no findings identified during this part of the inspection.

Plant personnel were familiar with and not reluctant to use the processes that existed for raising safety issues. The site management had encouraged the identification of problems through the PR program. The PR program was extensively used. Alternate means to identify problems or possible improvements were the Recommendation Program, the Non-Conformance Process, participation in meetings and the Nuclear Safety Concerns Program.

4OA5 Followup and Closure of Open Items

(Closed) IFI 293/98-203-17: RBCCW Heat Exchanger Pressure Relief

The ASME Code requires that pressure vessels be provided with pressure relief or overpressure protection devices. The RBCCW heat exchanger is protected from overpressure in its normal lineup by the limitation of the system pump pressure head being less that the pressure rating of the heat exchanger. There was a potential for the heat exchanger to experience thermal pressurization if isolated from the system for maintenance. Procedure 1.4.5, Revision 50, on page 20 of 80 requires that if the RBCCW heat exchanger is isolated from its system on either the shell or tube side, a vent path shall be provided. This action would prevent RBCCW heat exchanger overpressure if it is isolated from its system. This item is closed.

4OA6 Management Meetings

.1 Exit Meeting Summary

The team presented the inspection results to Mr. Ted Sullivan and other members of the Pilgrim staff during an exit meeting on June 9, 2000. The licensee acknowledged the findings presented. No information examined or reviewed during the inspection was considered to be proprietary.

PARTIAL LIST OF PERSONNEL CONTACTED

J. Alexander	Director, Nuclear Assessment
E. Almeida	Manager, Engineering Design
J. Bernardo	Senior Q.A. Engineer
S. Bethay	Superintendent Station Services
K. Burke	Engineer/Corrective Action Program
S. Burke	Fire Protection Engineer
L. Chan	Mechanical Engineer
W. Dicroce	Director of Operations and Plant Manager
D. Ellis	Senior Engineer/Regulatory Affairs
F. Famulari	Welding Program Engineer
J. Gaedtke	Systems Engineer/Service Water
J. Gerety	Director of Plant Services
W. Grieves	Assessment Team Manager
S. Hudson	Maintenance Rule Coordinator
J. Keyes	Corrective Action Program Manager
W. Lobo	Regulatory Affairs Engineer
R. Mattos	Systems Engineer/ HPCI, RCIC, RHR
T. McElhinney	System Engineering Manager
F. Mogolesko	Engineering Project Manager
V. Oheim	Director, Design Engineering
R. Pace	Mech/Civil Supervisor
J. Pallai	Engineer/Corrective Action Program
W. Riggs	Director of Engineering
T. Sullivan	V.P. and Station Director
J. Walker	Senior Engineer/Corrective Action Program

ITEMS OPENED, CLOSED, AND DISCUSSED/UPDATED

Closed

IFI 293/203-98-17 RBCCW Heat Exchanger Pressure Relief

INSPECTION PROCEDURE USED

71152 Identification and Resolution of Problems

LIST OF ACRONYMS USED

CAAD	Corrective Actions and Assessments Department
CAP	Corrective Action Program
EDG	Emergency Diesel Generator
HPCI	High Pressure Coolant Injection
HP	Health Physics
IFI	Inspector Followup Item
NCR	Nonconformance Report
NRC	Nuclear Regulatory Commission
OLM	Online Maintenance
PR	Problem Report
RBCCW	Reactor Building Closed Cooling Water
RCIC	Reactor Core Isolation Cooling
SCAQ	Significant Conditions Adverse to Quality
TBCCW	Turbine Building Closed Cooling Water
TS	Technical Specifications

Pilgrim Documents Reviewed List for Inspection 50- 293/00-005

Background Information

May 2000	Organizational Charts	Charts
5/8/00	Weekly PR status	Report
5/1/00	Monthly Corrective Action Program HI	Report
5/9/00	Quarterly PR Trend Report	Report
5/9/00	PR Sources by Dept.	Report
5/9/00	PR Data List - Direct Cause Type	Report
5/9/00	PR Data List -All for April '00	Report
5/9/00	PR Data List - Apparent Cause Type	Report
5/9/00	PR Data List - Significant Type Since 10/1/97	Report
NOP 93A2	Nuclear Safety Concerns Program	Procedure
List	NCV's since 9/17/97	List
List	Top 10 - Plant Manager items - 3/2/00	List and report
Proc 1.3.110	Plant Manager's List	Procedure
Proc 1.5.22	Risk Assessment Process	Procedure
Self Assessments	CAAD on the Corrective Action Performance and Engineering	Reports
NOP 83A14	Nonconformance Report Process	Procedure
NOP 83A16	10 CFR 21	Procedure
NOP 88A3	Processing Recommendations	Procedure
NOP 90A4	Self-Assessment Program	Procedure
NE 5.03	NESG Work Control	Procedure
NE 16.04	Eng Evaluation Prep	Procedure
Proc 1.3.121	Problem Report Program	Procedure
Proc 1.5.21	Integrated Scheduling	Procedure

Proc 1.5.20	Work Control Process	Procedure
QA 15.01	Control of Nonconforming Material	Procedure
NOP 83A3	Regulatory Correspondence Control	Procedure
Proc 1.3.121.2	Operating Experience Program	Procedure
AR 99-06	QA Audit on Corrective Action Program	Audit 8/10/99
AR 98-04	QA Audit on Corrective Action Program	Audit 6/11/98

Problem Reports (PR)

PR 00.9031	Low pressure alarm for B loop of RBCCW
PR 00.9051	Abnormal B phase Isophase system noise
PR 00.0147	RWCU OLM handled poorly
PR 00.0303	Unexplained torus water level increase
PR 00.0622	RBCCW pump P-202P shaft scored
PR 00.0691	SSW from A loop with sediment and debris
PR 00.0952	EDG ”A” starting air solenoid did not close
PR 00.1367	Cond Demin line vent
PR 00.1396	QA Audit
PR 00.9084	Smoke from K104B Motor vent
PR 00.9166	DC charger low voltage alarm
PR 00.9182	SSW low flow in loop on test
PR 00.9184	B RBCCW HX low flow
PR 99.9166	TS HPCI and RCIC pump pressure vs accident and transient analysis values
PR 99.9168	HPCI Turbine Steam Supply Snubber binding
PR 99.9208	EDG holddown nut tightness
PR 99.9427	Feed reg valve performance
PR 99.9448	Turbine Trip due to high moisture separator level
PR 99.9539	HPCI and RCIC reset pressures
PR 99.9639	On CRD withdrawal, spring in control switch broke
PR 99.9988	Engineering Self Assessment - reviews of Engineering Products
PR 99.2755	Emergency Preparedness - Q issue
PR 99.2991	Discharge pressure of stator water cooler pump was low
PR 00-1369	Welders Not Qualified to Appropriate Fabrication Code
PR 99-9224	Welders Not Certified for Welding Performed
99-1391	Unqualified Welder (NCR 99-087)
99-1429	Unqualified Welder
99-1174	Welder Not Qualified
98-2200	Weld Program Deficiencies
98-2171	Incorrect Weld Filler Metal Issued
98-2170	Incorrect Weld Filler Metal Issued
98-2169	Incorrect Weld Filler Metal Issued
98-0919	NRC Maintenance Rule Inspection 98-4
98-0921	NRC Maintenance Rule Inspection 98-4
98-0922	NRC Maintenance Rule Inspection 98-4
98-1053	QAPR Audit 98-04, Corrective Action Program
98-1162	QAPR Audit 98-04, Corrective Action Program
98-9433	MOV Stem Lube Issue for MO 2301-33 and 34
98-9432	Lube Oil Sample for RHR pump P203A
98-9462	Tech Spec Requirement for EDG Fuel Oil Total Volume Requirement

98-9097	Evaluation Results for RBCCW and TBCCW
98-9363	Ruler Readability Issue
97-9023	Feedwater Temperature Reduction
97-9520	Fire Induced Shorts During Control Room Fires

Recommendation Reports

99-0148	Calculation Issues M663
99-0149	Calculation Issues M664
99-0150	Calculation Issues M710
99-0151	Calculation Issues M734
99-0156	Calculation Issues M737
99-0146	Calculation Issues M630
99-0147	Calculation Issues M662
99-0144	Calculation Issues M553
99-0152	Thermal Grinding MO 1001-50
99-0104	Altran Report 98126-TR-01
99-0082	ETS System Computer Degrading
99-0016	OPS Review Standardized Logs
99-0078	PR 99-0614 Material Verification
99-0132	Protection for Diesel Oil Piping
99-0132	Reference NFPA Code Review
99-0004	Install Smoke Detection
99-0200	SV Relay Reset Values

Non-Cited Violations

98-06-10	RHR/SDC Suction Valves Vulnerable to Damage	PR 97-9520
98-10-07	RBCCW and TBCCW Heat Exchangers	PR 98-9097
99-03-03	Inadequate EDG Fuel Supply	PR 98-9462
00-01-01	HPCI Testing	PR 98-9363

Operating Experience Program

99-0078-01	HPCI and RCIC System Peak Pump Discharge
99-0067-01	CRD High Operating Temperature
99-0071-02	Recurring Event - BWR Operation
99-0021-01	GE SIL 624 Core Shroud Corrosion
99-0055-03	Intake Structure Blockage
99-0044-03	Feedwater Heater Shell Rupture
00-0007-02	Reactor Coolant System Leak

Nonconformance Reports

Twenty-three nonconformance reports screened - NCR 067 and 087 selected for in depth review. Refer to PR 99-1369 and 99-1391.

Self Assessments

Engineering Department Self Assessment	12/22/99
CAT (Corrective Action Team)	1998 and later
Extent of Possible Cause - Inadequate PR Closeout	8/7/98
PR Closure Document Review	5/8/99
Audit of PR “Homework” Issues	6/8/99
Apparent Root Cause-Individual Qualifications	7/21/99
PR Closure	6/29/99
PR Trend Review	5/17/99
PR Processing Review	5/19/99
Unsat. Evaluations/Corrective Action Responses	4/5/99
Eleven Additional Document Review Assessments	1998/1999

ATTACHMENT 1

NRC's REVISED REACTOR OVERSIGHT PROCESS

The federal Nuclear Regulatory Commission (NRC) revamped its inspection, assessment, and enforcement programs for commercial nuclear power plants. The new process takes into account improvements in the performance of the nuclear industry over the past 25 years and improved approaches of inspecting safety performance at NRC licensed plants.

The new process monitors licensee performance in three broad areas (called strategic performance areas): reactor safety (avoiding accidents and reducing the consequences of accidents if they occur), radiation safety (protecting plant employees and the public during routine operations), and safeguards (protecting the plant against sabotage or other security threats). The process focuses on licensee performance within each of seven cornerstones of safety in the three areas:

Reactor Safety	**Radiation Safety**	**Safeguards**
● Initiating Events	● Occupational	● Physical Protection
● Mitigating Systems	● Public	
● Barrier Integrity		
● Emergency Preparedness		

To monitor these seven cornerstones of safety, the NRC uses two processes that generate information about the safety significance of plant operations: inspections and performance indicators. Inspection findings will be evaluated according to their potential significance for safety, using the Significance Determination Process, and assigned colors of GREEN, WHITE, YELLOW or RED. GREEN findings are indicative of issues that, while they may not be desirable, represent very low safety significance. WHITE findings indicate issues with low to moderate safety significance, which may require additional NRC inspections. YELLOW findings are more serious issues with substantial safety significance and would require the NRC to take additional actions. RED findings represent issues of high safety significance with an unacceptable loss of safety margin and would result in the NRC taking significant actions that could include ordering the plant shut down.

Performance indicator data will be compared to established criteria for measuring licensee performance in terms of potential safety. Based on prescribed thresholds, the indicators will be classified by color representing incremental degradation in safety: GREEN, WHITE, YELLOW, and RED. The color for an indicator corresponds to levels of performance that may result in increased NRC oversight (WHITE), performance that results in definitive, required action by the NRC (YELLOW), and performance that is unacceptable but still provides adequate protection to public health and safety (RED). GREEN indicators represent performance at a level requiring no additional NRC oversight beyond the baseline inspections.

The assessment process integrates performance indicators and inspection so the agency can reach objective conclusions regarding overall plant performance. The agency will use an Action Matrix to determine in a systematic, predictable manner which regulatory actions should be taken based on a licensee's performance. As a licensee's safety performance degrades, the NRC will take more and increasingly significant action, as described in the matrix. The NRC's actions in response to the significance (as represented by the color) of issues will be the same for performance indicators as for inspection findings.