November 8, 2001

Mr. Douglas E. Cooper
Site Vice President
Palisades Nuclear Plant
Nuclear Management Company, LLC
27780 Blue Star Memorial Highway
Covert, MI 49043-9530

SUBJECT: PALISADES NUCLEAR GENERATING PLANT
NRC INSPECTION REPORT 50-255/01-13(DRP)

Dear Mr. Cooper:

On October 12, 2001, the NRC completed the baseline problem identification and resolution inspection at your Palisades Nuclear Generating Plant. The inspection results were discussed on October 12, 2001, with you 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 the conditions of your operating license. Within these areas, the inspection involved selected examinations of procedures and representative records, observations of activities, and interviews with personnel.

On the basis of the sample selected for review the inspectors concluded that, in general, problems were properly identified, evaluated, and corrected through your corrective action program. However, the nature and number of issues identified during our inspection indicate the continuing challenges facing your facility, both in the implementation of your corrective action process and with recurring equipment issues. The inspectors identified four Green (very low safety significant) inspection findings, in accordance with the NRC's reactor oversight program significance determination process (SDP). One finding involved the failure to promptly identify and correct a continuing adverse trend in equipment configuration control issues. The second finding involved the failure to identify and correct the human performance aspects of conditions adverse to quality. A third finding dealt with the failure to promptly correct conditions adverse to quality associated with your instrument air system. The fourth finding involved the failure to take effective corrective actions to prevent recurrence of freezing in the sensing lines for the traveling screen system during cold weather conditions. These four findings were determined to be violations of NRC requirements. However, because they were of very low safety significance in accordance with the SDP and because they have been entered into your corrective action program, the NRC is treating these issues as Non-Cited Violations, in accordance with Section VI.A.1 of the NRC's Enforcement Policy. If you deny any of these Non-Cited Violations, you should provide a response with the basis for your denial, within 30 days of the date of this inspection report, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001; with copies to the Regional

Administrator, Region III; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector Office at the Palisades facility.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/NRC/ADAMS/index.html (the Public Electronic Reading Room).

We will gladly discuss any questions you have concerning this inspection.

Sincerely,

/RA/

Anton Vegel, Chief
Branch 6
Division of Reactor Projects

Docket No. 50-255
License No. DPR-20

Enclosure: Inspection Report 50-255/01-13(DRP)

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No:	50-255
License No:	DPR-20
Report No:	50-255/01-13(DRP)
Licensee:	Nuclear Management Company, LLC
Facility:	Palisades Nuclear Generating Plant
Location:	27780 Blue Star Memorial Highway Covert, MI 49043-9530
Dates:	September 24 through October 12, 2001
Inspectors:	David Passehl, Project Engineer Robert G. Krsek, Resident Inspector
Approved by:	Anton Vegel, Chief Branch 6 Division of Reactor Projects

SUMMARY OF FINDINGS

IR 05000255-01-13; on 09/24-10/05/01; Nuclear Management Company, LLC; Palisades Nuclear Generating Plant; annual baseline inspection of the identification and resolution of problems. Four violations were identified for issues involving equipment configuration control, human performance, the instrument air system, and recurrence of freezing in the sensing lines for the traveling screen system.

The inspection was conducted by a regional Project Engineer and a Resident Inspector. Four Green issues of very low safety significance were identified during this inspection which were classified as Non-Cited Violations. The issues were evaluated using the significance determination process.

Identification and Resolution of Problems

The inspectors identified that the licensee was generally effective at identifying problems and placing them into the corrective action program. The licensee's corrective action program processes have evolved throughout the past year and progress has been made since the last major revision to the program in March 2001. The program itself contained all the necessary attributes of an acceptable corrective action program and was generally successful in correcting identified issues. Also, based on the interviews conducted during this inspection, workers at the site felt free to input safety issues into the problem identification and resolution programs. However, the inspectors identified several weaknesses regarding the licensee's identification and resolution of problems, prioritization and evaluation of issues, and the effectiveness of corrective actions. Specifically, the inspectors identified issues involving the licensee's failure to promptly identify and correct conditions adverse to quality involving an adverse trend of equipment configuration control, human performance aspects of conditions adverse to quality, instrument air system deficiencies, and repetitive freezing of the traveling screen system sensing lines during cold weather.

Cornerstone: Mitigating Systems

- Green. The inspectors identified a failure to promptly identify and correct a continuing adverse trend of equipment configuration control deficiencies from January through September 2001, a condition adverse to quality and Non-Cited Violation (NCV) of 10 CFR 50, Appendix B, Criterion XVI. The licensee initiated a condition report in November 2000 identifying an adverse trend from January through October 2000. The evaluation and corrective actions were completed but did not include an effectiveness review to determine if the trend continued in the future. The inspectors determined that the continuing trend of equipment configuration control deficiencies could credibly affect the operability, availability, reliability, or function of a system or train in a mitigating system. The failure to identify and correct the continuing trend of equipment configuration control issues was determined to be of very low significance (Green) by the significance determination process because the equipment was still capable of performing the intended safety function. (Section .1.1)

- Green. The inspectors identified a failure to identify and correct the human performance aspects of conditions adverse to quality, an NCV of 10 CFR 50, Appendix B, Criterion XVI. The inspectors identified several examples where human performance deficiencies contributed to mitigating system unavailability. However, the licensee failed to identify through their problem, identification and resolution process these human performance problems. This condition was determined to be of very low safety significance because even though the issues may have resulted in decreased availability, reliability or function of mitigating system equipment, the equipment was still capable of performing the safety function. (Section .2.1)

Cornerstone: Initiating Events

- Green. The inspectors identified a failure to promptly correct conditions adverse to quality involving the instrument air system, an NCV of 10 CFR 50, Appendix B, Criterion XVI. The finding was determined to be of very low significance (Green) by the significance determination process because although the loss of instrument air is a transient initiator contributor, the issue does not contribute to the likelihood of a loss of coolant accident initiator, the likelihood that mitigation equipment or functions will not be available, or an increase in the likelihood of a fire or flood. (Section .3.1)

- Green. The inspectors identified that the licensee did not assure that the cause of the condition was determined and that corrective action was taken to preclude repetition of the traveling screen sensing lines freezing during cold weather conditions, an NCV of 10 CFR 50, Appendix B, Criterion XVI. Corrective actions taken in response to a 1997 event, where the sensing lines had froze causing a decrease in service water bay level, were not effective to prevent recurrence as evidenced by the recurring freezing of the sensing lines during cold weather in 2000 and 2001. This issue was determined to be of very low significance because warm water was available from the mixing basin which ensured that mitigation equipment and functions would be available. (Section .3.2)

Report Details

4. OTHER ACTIVITIES (OA)

4OA2 Problem Identification and Resolution

.1 Effectiveness of Problem Identification

a. Inspection Scope

The inspectors reviewed items selected across the seven cornerstones of safety to determine if problems were being properly identified, characterized and entered into the licensee's corrective action program for evaluation and resolution. The inspectors selected approximately 80 condition reports, most of which were initiated between August 2000 and September 2001. The inspectors also reviewed several self-assessments, including two quality assurance audits; several industry generic communications, work requests, and other miscellaneous documents. The effectiveness of the audits and assessments was evaluated by comparing the audit and assessment results against self-revealing and NRC-identified issues.

The inspectors conducted walkdowns and interviewed plant personnel to identify other processes that may exist where problems and issues could be identified. The inspectors attended the licensee's daily condition report review meeting to understand the interface between the corrective action program and the work control process.

A listing of the specific documents reviewed during the inspection is attached to the report.

b. Findings

The inspectors determined that overall, the licensee was effective at identifying problems and initiating condition reports at an adequate threshold. Identified problems were appropriately characterized and entered into the corrective action system. There were no instances identified by the inspectors where conditions adverse to quality were being handled outside the corrective action program.

Operating experience from other nuclear plants was appropriately identified for evaluation and entered into the licensee's corrective action system. The inspectors identified a minor documentation issue regarding the licensee's operating experience logs for 2000 and 2001, which contained hundreds of industry generic communications. The licensee evaluated the majority of the communications for applicability to Palisades in a timely manner. However, in several instances the inspectors could not initially determine whether a review had been completed because some line items in the logs had no entries. The inspectors followed up with plant personnel and determined that evaluations were completed and that the issues either did not apply to the plant or were of minor significance.

Findings and recommendations from the licensee's Nuclear Performance Assessment Department audits and Departmental self-assessments were entered into the licensee's corrective action system when appropriate. However, the inspectors noted that in some cases, audits were focused more on corrective action program implementation rather than the results.

The inspectors conducted walkdowns and reviewed work requests for the emergency diesel generators and service water systems and determined that conditions adverse to quality were entered into the corrective action process.

The inspectors identified some minor examples of weaknesses related to problem identification. Specific examples are discussed below.

- The inspectors reviewed condition report data and determined that a trend existed regarding vital area door closure alarms. Specifically, the inspectors noted that a small number of vital area doors accounted for approximately 65 percent of the alarms received from September 2000 through October 2001. The licensee initiated Condition Report CPAL0103242 to assess this trend.

- The inspectors questioned plant staff about several work requests regarding the safety related portion of the service water system. Specifically, it was unclear by the work request description whether condition reports should have been initiated for conditions adverse to quality. Except for one instance, condition reports were appropriately initiated. The licensee initiated Condition Report CPAL0103024 to assess the degradation of isolation capability of two non-safety related service water valves which supply cooling water to the emergency diesel generators and control room air conditioning units.

.1.1 Continuing Adverse Trend of Equipment Configuration Control Issues

The inspectors identified one Green Finding that is being treated as a Non-Cited Violation of 10 CFR 50 Appendix B Criterion XVI, "Corrective Action," for the failure to promptly identify and correct a continuing adverse trend of equipment configuration control deficiencies, a condition adverse to quality.

During the previous Problem Identification and Resolution Inspection, documented in NRC Inspection Report 50-255/2000012(DRP), the inspectors noted that the licensee's trending program was narrowly focused in the review of data and concluded that a vulnerability existed with the effectiveness of the trending program.

In November 2000, plant staff initiated Condition Report CPAL0003313, "The Frequency/Number of Plant Equipment Control/Mispositioning Incidents Requires Evaluation," to address an adverse trend in equipment configuration control from January though October 2000. This adverse trend was based on approximately 40 incidents of components/devices found out of position or misoperated which resulted in the components/devices being out of the expected position. The licensee's evaluation concluded that the corrective actions taken and proposed for the individual incidents were effective and that no further corrective actions were required.

The inspectors determined that no effectiveness review was initiated as a corrective action to evaluate if the adverse trend was alleviated, as required by the licensee's corrective action process. The inspectors also determined that no corrective actions were initiated for the trend discovered in the licensee's evaluation for equipment configuration control issues relevant to the maintenance organization. The licensee initiated Condition Reports CPAL0103196 and CPAL0103198 to address these NRC-identified issues.

The inspectors reviewed a sample of condition reports initiated between January 2001 and September 2001 and identified approximately 30 equipment configuration control incidents. While reviewing the incidents with licensee personnel, the inspectors noted that some incidents were not coded in the licensee's corrective action system as an equipment configuration control issue. The inspectors also determined that some of the incidents could credibly affect the operability, availability or function of a system or train in a mitigating system. Specific examples are discussed below.

- In January 2001, the licensee determined that plant personnel had opened the containment air cooler inlet and outlet doors during containment entries while the plant was operating in Mode 1 (Condition Report CPAL0100084). On each occasion, this action inadvertently rendered a containment air cooler inoperable for a short period of time.

- In May 2001, plant personnel discovered that a manual isolation valve in the minimum flow recirculation line for the high and low pressure safety injection pumps was not in the full open position as required (Condition Report CPAL0101999). The licensee subsequently determined that the safety injection pumps were operable for the 24 days while this valve was out of position.

- From January through May 2001, there were approximately four separate instances where various flood doors in rooms with safety-related equipment were discovered with latches out of position or doors inadvertently blocked open (Condition Reports CPAL0101745, CPAL0101466, CPAL0100506, and CPAL0101343).

Based on the number and frequency of incidents involving equipment configuration control incidents from January through September 2001, the inspectors determined that an adverse trend of equipment configuration control issues continued to exist at the plant. The continuing trend of equipment configuration control issues was considered more than minor, because if left uncorrected, under the same conditions the issue could become a more significant safety concern.

In addition, the inspectors determined that the continuing trend of equipment configuration control issues could credibly affect the operability, availability, reliability, or function of a system or train in a mitigating system. The failure to identify and correct the continuing trend of equipment configuration control issues was a condition adverse to quality and was determined to be of very low significance (Green) by the significance determination process because the equipment was still capable of performing the intended safety function.

10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," requires, in part, that measures be established to assure that conditions adverse to quality are promptly identified and corrected. Contrary to this, the licensee failed to identify and correct a continuing trend in equipment configuration control issues, a condition adverse to quality. This violation is associated with a NRC identified inspection finding that is characterized by the significance determination process as having very low risk significance (i.e., Green) and is being treated as a Non-Cited Violation of 10 CFR 50, Appendix B, Criterion XVI, consistent with Section VI.A.1 of the NRC Enforcement Policy **(NCV 50-255/01-13-01)**. This finding is in the licensee's corrective action program as Condition Report CPAL0103307.

.2 Prioritization and Evaluation of Issues

a. Inspection Scope

The inspectors reviewed whether the licensee appropriately prioritized and evaluated issues in the corrective action process. To accomplish this, the inspectors selected a sample of condition reports for review, focusing on issues identified since the last NRC problem identification and resolution inspection in July 2000. The condition reports were reviewed with a focus on equipment operability and reporting requirements; depth and scope of the root or apparent cause analyses; adequacy of the proposed corrective actions; and consideration of extent of condition, generic implications, common causes, and previous occurrences.

The sample was based on risk insights gained from the licensee's probabilistic risk assessment with emphasis on the most risk significant systems and components. The inspectors' review included condition reports initiated on the following structures, systems, and components:

- High Pressure Safety Injection
- Safety Injection Refueling Water Tank and Containment Sump Suction
- Emergency Diesel Generators
- 125-Volt DC Power
- Safety Related Service Water

The inspectors also reviewed operability and reportability evaluations and significance level determinations assigned to condition reports. The inspectors observed several of the licensee's Condition Review Group screening meetings and a Corrective Action Review Board meeting. The inspectors examined supporting documents such as completed work orders, surveillances and procedures, modification packages, and piping and instrument diagrams. The inspectors reviewed a sample of condition reports to determine whether the licensee classified and prioritized the issue resolution at a level commensurate with safety significance. The inspectors also reviewed the licensee's backlog of open condition reports.

A listing of the specific documents reviewed during the inspection is attached to the report.

b. Findings

The inspectors noted that, in general, issues were appropriately characterized and classified, appropriate evaluations were conducted, and the corrective action processes were followed for the prioritization, evaluation and close out of issues.

The inspectors identified minor examples of problems where the documented evaluation was narrowly focused, the corrective actions taken for an issue were not completely documented, or the closeout reviews for completed corrective actions did not identify that inadequate documentation was present to close out the issue. Some examples are discussed below.

- The inspectors identified that the documented evaluation of Condition Report CPAL0100764, "Performance of Containment Sump Check Valves During post-DBA Recirculation Mode May Not Be Acceptable," was narrow in scope and did not document the use of industry experience. The inspectors determined through interviews with plant personnel that significant work was performed in evaluating this issue and contacting other plants in the industry; however, this was not documented in the evaluation. The licensee initiated Condition Report CPAL0103181 to document this issue in the corrective action program.

- The inspectors identified that the corrective actions taken in response to Condition Report CPAL0002775, "Inadvertent Water Transfer from Safety Injection Refueling Water Tank to the Clean Waste Receiver Tank," were not completely documented. The inspectors determined through interviews with the condition report evaluator that the corrective actions taken were appropriate to the circumstances. The licensee initiated Condition Report CPAL0103157 to document this issue in the corrective action program.

- The inspectors noted that the closeout review for Condition Report CPAL0103177, "Pressurizer Vent Valve has a Body to Bonnet Leak," did not identify that inadequate documentation was present to close out the issue. Licensee personnel later produced adequate documentation which demonstrated that appropriate corrective action was taken. The licensee initiated Condition Report CPAL0103157 to document this issue in the corrective action program.

.2.1 Human Performance Aspect of Conditions Not Addressed

The inspectors identified one Green finding that is being treated as a Non-Cited Violation of 10 CFR 50 Appendix B, Criterion XVI, "Corrective Action," for the failure to promptly identify and correct the human performance issues associated with conditions adverse to quality.

During a supplemental inspection conducted in January 2001 (NRC Inspection Report 50-255/01-03(DRP)) regarding a White performance indicator for unplanned power changes, the inspectors concluded that human performance deficiencies were not adequately addressed. The inspectors determined that the level of detail of the licensee's root causes was not sufficient to evaluate the reasons why the human performance issues were occurring. In addition, the previous Problem Identification and

Resolution Inspection in July 2000, documented minor examples of narrowly focused evaluations and corrective actions related to human performance issues.

The inspectors identified several condition report evaluations which documented the cause of a condition was equipment-related but, after follow up with licensee personnel, the inspectors determined the cause was human performance related. Also, the inspectors identified that in some instances the cause of a condition was identified to be human-performance related but no corrective actions were taken to address the human performance aspect. Some examples where the inspectors determined that human performance impacted the availability, reliability or function of a mitigating system were:

- The inspectors reviewed the documented evaluation and corrective actions for Condition Report CPAL0100801, "Inadvertent Transfer of Spent Fuel Pool Water to Safety Injection and Refueling Water Storage Tank," which was a repeat event from January 2001. The cause of the condition was attributed to the degradation of the valve seating components; however, after review of the circumstances surrounding the event, the vendor manual, and interviews with plant personnel, the inspectors concluded the event was caused by the operators' failing to fully close the valve. The corrective actions; however, did not address the human performance issues. The licensee entered this into the corrective action system as Condition Report CPAL0103122.

- The inspectors reviewed the evaluation and corrective actions for Condition Report CPAL0002964, "Evidence of Safety Injection Tank Inleakage from the Safety Injection Refueling Water Tank During Technical Specification Test QO-19B." A cause of this condition was noted in the condition report as the method used by plant operators when closing these valves; however, the inspectors identified that no corrective actions were identified for the human performance aspect of this condition. The licensee entered this into the corrective action system as Condition Report CPAL0103148.

- The inspectors reviewed the evaluation and corrective actions for Condition Report CPAL0103216, "Engineered Safeguards System Pump Miniflow Check Valve CK-ES3332, Leaking," which was a repetitive condition. The inspectors determined from the reviews of work orders, engineering assistance requests, vendor manuals, and interviews with maintenance and engineering personnel that the valve was physically worked six times prior to stopping the leak. The cause of the condition was noted to be an equipment issue; however, the engineering assistance request described a different cause received from the valve vendor. In addition, the inspectors noted that the evaluation did not address the rework aspects of the condition and consequently no corrective actions were identified to address the human performance aspects of this condition adverse to quality. The licensee entered this into the corrective action system as Condition Report CPAL0103216.

- The inspectors reviewed the evaluation and corrective actions for Condition Report CPAL001378, "Post Maintenance Test on High Pressure Air System Inadequate." The cause of this condition was the failure to recognize the need to verify actuation of the low pressure alarm on an actual low air pressure signal.

No corrective action was identified to address the human performance aspects of this issue. The licensee entered this into the corrective action system as Condition Report CPAL0103216.

The failure to identify and correct the human performance aspects of conditions adverse to quality was considered more than minor, because if left uncorrected, under the same conditions, this issue could become a more significant safety concern and could credibly affect the operability, availability, reliability, or function of a system or train in a mitigating system. The failure to identify and correct the human performance aspects of conditions adverse to quality was determined to be of very low significance (Green) by the significance determination process because the equipment was still capable of performing its safety function.

10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," requires, in part, that measures be established to assure that conditions adverse to quality are promptly identified and corrected. Contrary to this, the inspectors identified that the licensee failed to identify and correct the human performance aspects of conditions adverse to quality. This violation is associated with an inspection finding that is characterized by the significance determination process as having very low risk significance (i.e., Green) and is being treated as a Non-Cited Violation of 10 CFR 50, Appendix B, Criterion XVI, consistent with Section VI.A.1 of the NRC Enforcement Policy. **(NCV 50-255/01-13-02**)

This finding is in the licensee's corrective action program as Condition Report CPAL0103308.

.2.2 Condition Report Backlog

The inspectors reviewed data for the number of open condition reports per month from January 1999 to July 2001. The data showed an overall increasing trend in the number of open condition reports which did not appear to be proportional to the increase in new condition reports. The data revealed the following approximate number of open condition reports:

- January 1999 - 425 condition reports
- July 1999 - 500 condition reports
- January 2000 - 700 condition reports
- July 2000 - 825 condition reports
- December 2000* - 825 condition reports
- July 2001 - 1000 condition reports

*no data available for January 2001

The July 2001 backlog of 1000 condition reports represented about 25 percent of the total number of condition reports initiated within the past year, which was consistent with the median industry average. However, the inspectors determined that the trend of open condition reports was increasing.

.2.3 Condition Review Group Screening Meetings

The inspectors attended several condition review group screening meetings and noted that, in general, condition reports were discussed in detail and were assigned proper significance levels. The meetings had representation from the different plant organizations. However, the inspectors noted minor instances when relevant facts, such as recurrence of an issue, were not discussed in adequate detail in order to support the review group making a correct, informed decision on the significance level of a condition report.

One example concerned Condition Report CPAL0103058, which involved errors and omissions on Emergency Notification Forms during the recent annual site-wide emergency exercise (PALEX2001). The review group members did not identify that there were previous problems regarding the quality of notification forms. The significance of the problems was also not discussed. The inspectors discussed these concerns with the licensee staff, and subsequently the condition review group determined the significance level of the condition report needed to be upgraded.

.2.4 Corrective Action Review Board

The inspectors attended a Corrective Action Review Board meeting and noted the requirements for a quorum were met, discussions were at an appropriate level, and interactions between the presenter and board members were sufficient. The inspectors also noted that a human performance manager had recently been added as a member of the Corrective Action Review Board.

.3 Effectiveness of Corrective Actions

a. Inspection Scope

The inspectors reviewed corrective action documents and interviewed plant personnel to verify that corrective actions were effective and implemented in a timely manner commensurate with the significance of the issues. The review also encompassed corrective actions developed to address common cause and generic concerns. The inspectors randomly sampled previously completed corrective actions to assure that the corrective actions remained in place as appropriate.

A listing of the specific documents reviewed during the inspection is attached to the report.

b. Findings

In general, the inspectors noted that completed corrective actions were effective and implemented in a timely manner commensurate with safety significance.

The inspectors identified minor examples of problems related to the effectiveness of corrective actions. Some examples are discussed below.

- The inspectors reviewed Condition Report CPAL0100142, "Some Flood Barriers Not Included in Procedure for Inspection of Watertight Barriers." The inspectors noted that the licensee's evaluation and corrective actions were adequate for the specific examples identified; however, no extent of condition review was performed for other areas of the plant where flood barriers were present. The licensee initiated Condition Report CPAL0103172 to document this issue in the corrective action program.

- The inspectors reviewed Condition Report CPAL0100560, "Potential for Debris to have reached the Safety Injection Refueling Water Tank." The licensee's evaluation documented that there was the potential for debris to also reach the shutdown cooling heat exchangers. However, the inspectors identified that no corrective action was initiated to further address the shutdown heat exchangers. The licensee initiated Condition Report CPAL0103176 to document this issue in the corrective action program.

- The inspectors reviewed Condition Report CPAL0001515, "Inclement Weather Procedures Not Provided at Palisades," which was written in May 2000 for a lack of a licensee procedure addressing adverse weather. An administrative procedure was revised to add a section on storm contingencies. However, the inspectors noted that the corrective actions did not fully address the condition, which was a lack of procedure guidance for operators during adverse weather conditions. The licensee initiated Condition Report CPAL 0102112 to document this issue in the corrective action program.

- The inspectors reviewed Condition Report CPAL0003300, "Excessive Time Out of Service Trend for High Risk Maintenance." The inspectors noted that an effectiveness review was completed in September 2001 which concluded the corrective actions were adequate to prevent recurrence. However, the inspectors determined that the effectiveness of corrective actions could not have been adequately assessed since the plant was in Cold Shutdown for the majority of the effectiveness review period; therefore, high risk maintenance as discussed in the original condition was not being performed. The licensee initiated Condition Report 0103248 to document this issue in the corrective action program.

The inspectors determined that there were no operability concerns associated with these issues.

.3.1 Conditions Adverse to Quality Involving The Instrument Air System

The inspectors identified one Green finding that is being treated as a Non-Cited Violation of 10 CFR 50 Appendix B, Criterion XVI, "Corrective Action," for the failure to promptly correct conditions adverse to quality involving the instrument air system.

The inspectors reviewed condition reports and system health assessment reports and discussed instrument air system problems with the system engineer. The Instrument Air Compressors C-2A and C-2C are presently on the licensee's Maintenance Rule Category (a)(1) list and have been on the list since April 1998.

- The latest system health assessment report described the instrument air system performance as “marginal” with a “declining” trend. The report described many failures of Compressors C-2A and C-2C and stated that milestones to fix problems were repetitively missed.

  The inspectors reviewed numerous condition reports which were written since 1998 related to sand in the compressors’ service water supply rendering the air compressors inoperable. Condition Report CPAL0002497 was initiated in August 2000 with a corrective action to install service water filtration to prevent sand buildup in the instrument air compressors. The inspectors noted that this same action was canceled in 1997 from Maintenance Rule Action Plan 05-CAS.

  The associated work order from Condition Report CPAL0002497 was to install sand filtration during the week of June 25, 2001. However, this work order was subsequently rescheduled for the week of October 8, 2001, as the work order did not meet its readiness milestone.

  Subsequently, Condition Report CPAL0003023, “Plant Air Compressors (C-2A/C-2C) Loading Problem after Preventative Maintenance on C-2C,” was written on October 6, 2000, for another failure of the instrument air compressors. The corrective actions documented in this condition report referenced as a corrective action the service water filtration modification. On October 1, 2001, licensee personnel determined that the work could not be done during the week of October 8, 2001, and rescheduled the work for November 5, 2001.

  The inspectors determined that the licensee failed to correct the long-standing equipment failures associated with the instrument air compressors.

- The inspectors also reviewed Condition Report CPAL0000876 which documented an inadequate post maintenance test for maintenance on Plant Air Dryer M-2.

  Work Instruction WI-CAS-M-04 was used to perform annual inspections of the instrument air dryer, which included disassembly and inspection of two solenoid valves that automatically blow down filters (12A/B) on the downstream side of the air receiver tanks.

  The condition report was written to document that the work instruction did not require post maintenance testing on both solenoid valves following the preventative maintenance in that only the solenoid valve in service was tested following the maintenance.

  The condition report was closed May 11, 2000, to Procedure Change Request (PCR) No. 13299 to add appropriate steps into the work instruction to functionally check both solenoid valves following the preventative maintenance. However, the PCR had not been incorporated and consequently the work instruction still was not revised.

The inspectors noted that the preventative maintenance activity was performed in May 2001 (Work Order 24014129) with designated post maintenance actions documented as being performed in accordance with the work instruction which was deficient.

Consequently, the inspectors identified and determined that the post maintenance test performed in May 2001 on the IA dryer was considered inadequate. No evidence could be found to indicate that both solenoid valves were functionally checked.

The inspectors concluded that the failure to promptly correct conditions adverse to quality involving the instrument air system was more than minor because if left uncorrected, the same issue under the same conditions could become a more significant safety concern. The inspectors also determined that the issue could cause or increase the frequency of a loss of instrument air initiating event. The instrument air system is designated as a high safety significant system in the licensee's maintenance rule program and loss of instrument air is an identified initiating event in the licensee's probabilistic safety assessment.

The failure to promptly correct conditions adverse to quality was determined to be of very low significance (Green) by the significance determination process because although the issue is a transient initiator contributor, the issue does not contribute to the likelihood of a primary or secondary system loss of coolant accident initiator, the likelihood that mitigation equipment or functions will not be available, or the increase in the likelihood of a fire or flood.

10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," requires, in part, that measures be established to assure that conditions adverse to quality are promptly identified and corrected. Contrary to this, the inspectors identified that the licensee failed to promptly correct the instrument air system conditions adverse to quality. This violation is associated with a NRC identified inspection finding that is characterized by the significance determination process as having very low risk significance (i.e., Green) and is being treated as a Non-Cited Violation of 10 CFR 50, Appendix B, Criterion XVI, consistent with Section VI.A.1 of the NRC Enforcement Policy **(NCV 50-255/01-13-03**). This violation is in the licensee's corrective action program as CPAL0102826 and CPAL0002497 and CPAL0103310.

.3.2 Recurring Freezing of the Traveling Screen System Sensing Lines

The inspectors identified one Green finding that is being treated as a Non-Cited Violation of 10 CFR 50 Appendix B, Criterion XVI, "Corrective Action," for the failure to take effective corrective actions to prevent recurrence of freezing in the sensing lines for the traveling screen system.

In February 1997, Condition Report CPAL9700210, "Service Water Pump Bay Levels Decreased Without an Alarm," identified that the traveling screen system differential pressure indicators were freezing. In this instance, the freezing of the sensing lines during cold weather resulted in the development of frazil ice on the traveling screens

and lowering of service water bay levels approximately two feet. The severity of this event was mitigated due to the availability of warm water from the plant discharge basin which was utilized to increase the service water bay temperature. The licensee determined the root cause was inadequate freeze protection for the traveling screen system and that repeat failures were occurring without effective corrective action. The corrective actions included evaluating the sensing line design for susceptibility to freezing and initiating a modification to the system design to eliminate the effects of cold weather on instrument operation.

The inspectors determined that during subsequent cold weather conditions from January through February 2000, five condition reports were written documenting the recurrence of freezing in the sensing lines for the traveling screen system (CPAL0000198, CPAL0000211, CPAL0000223, CPAL0000224, and CPAL0000232).

The inspectors also noted that on January 4, 2001, Condition Report CPAL0100025, "Traveling Screen High Differential Pressure Alarms," was written due to the frequent traveling screen alarms over the previous weeks as a result of freezing in the sensing lines. The corrective action to prevent recurrence in this instance was to redesign the system and install the modification in January 2002.

The inspectors also reviewed Condition Report CPAL0100545, "Intake Bay Ice Results in the Traveling Screen Failure and Entering of Off Normal Procedure 6.1,'Loss of Service Water'," initiated on February 17, 2001. The freezing of the traveling screens and lowering of service water bay occurred in this instance because of the failure of operators to recognize the need to take preventive actions to protect against frazil ice. However, the licensee's evaluation documented that a major contributing cause to this event was the traveling screen sensing lines freezing and the institutionalized work around of operators blowing down the sensing lines with the plant air system to prevent freezing. The licensee's evaluation documented that the work around desensitized the operators to the actual freezing which did occur in the intake bay.

The inspectors concluded that the failure to assure that measures taken to prevent recurrence of freezing in the sensing lines for the traveling screen system was more than minor. This issue could be reasonably viewed as a precursor to a significant event and if left uncorrected, the same issue under the same conditions could become a more significant safety concern. The inspectors also determined that the freezing of the sensing lines could cause or increase the frequency of a loss of service water initiating event.

The issue was determined to be of very low significance (Green) by the significance determination process because although the issue is a transient initiator contributor, the issue does not contribute to the likelihood of a primary or secondary system loss of coolant accident initiator, or the increase in likelihood of a fire or flood. In addition, the use of the warm water from the mixing basin provided increased temperatures in the service water bay which mitigated the event and ensured that mitigation equipment and functions would be available.

10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," requires, in part, that measures be established to assure that the cause of a condition is determined and that

corrective action is taken to preclude repetition. Contrary to this, the licensee failed to assure that the cause of the traveling screen sensing lines freezing was determined and that corrective action was taken to preclude repetition of the traveling screen sensing lines freezing. The inspectors determined that since February 1997, the sensing lines freezing was a repetitive condition as evidenced by the conditions identified during cold weather in 2000 and 2001. This violation is associated with a NRC identified inspection finding that is characterized by the significance determination process as having very low risk significance (i.e., Green) and is being treated as a Non-Cited Violation of 10 CFR 50, Appendix B, Criterion XVI, consistent with Section VI.A.1 of the NRC Enforcement Policy. **(NCV 50-255/01-13-04)**

This finding is in the licensee's corrective action program as CPAL0103309.

.4 Assessment of Safety Conscious Work Environment

a. Inspection Scope

The inspectors reviewed condition reports and interviewed licensee personnel to assess whether conditions existed that would challenge the establishment of a safety conscious work environment. The inspectors interviewed two auxiliary operators, a nuclear oversight assessor, a nuclear oversight assessor supervisor, an electrical maintenance supervisor, a mechanical maintenance technician, a health physics technician, a mechanical maintenance welder, a system engineer, and a radwaste handler.

The inspectors used the type of questions included in Appendix 1 to NRC Inspection Procedure 71152, "Suggested Questions For Use In Discussions With Licensee Individuals Concerning PI&R Issues," during the interviews.

A listing of the specific documents reviewed during the inspection is attached to the report.

b. Findings

There were no findings in this area during this inspection.

During the previous problem identification and resolution inspection, the inspectors identified that several interviewees lacked general information concerning the Employee Concerns Program. The inspectors determined during this current inspection that the licensee had successfully addressed this issue, primarily by raising the visibility of the employee concerns program. No interviewees lacked a general knowledge of the Employee Concerns Program.

Based on information collected from personnel interviews and review of issues in the corrective action program, the inspectors concluded that licensee management fostered an environment in which plant personnel felt free to identify and raise a safety issue via the processes of writing a condition report, raising the issue to a supervisor, utilizing the Employee Concerns Program, or discussing the issue with the NRC. In addition, plant management appeared to foster an environment free of harassment and intimidation.

Some personnel interviewed stated that it was difficult to obtain the status of problems raised through the condition reporting system. The inspectors noted that the licensee's corrective action process did not provide for a feedback mechanism to the initiator of the condition report upon closeout, which may be a deterrent for an individual to initiate a condition report. The inspectors noted that this issue was also documented in the previous problem identification and resolution inspection.

The inspectors identified instances in the maintenance organization when licensee personnel did not personally initiate condition reports, but instead preferred to verbally inform a supervisor, who then initiated a condition report. This was revealed during interviews and by reviewing condition report data covering the period January 2001 to July 2001. The inspectors determined that while this practice was acceptable, the licensee may be potentially losing the opportunity to accurately document the detail of concerns since the discoverer did not initiate the condition report.

The inspectors noted that the licensee initiated a "Safety Culture Survey" in September 2001 and had received a high response rate to the questionnaires. The licensee expected to have the survey results completed in December 2001.

4OA6 Management Meetings

Exit Meeting Summary

The inspectors presented the results to Mr. D. E. Cooper, Site Vice President, and other members of licensee management at the conclusion of the inspection on October 12, 2001. The licensee acknowledged the findings presented.

The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

Mary Banks, CAP Lead
Terry Brown, C&RS Manager
Mike Carlson, Engineering Programs Manager
Doug Cooper, Site Vice President
Dave Crabtree, Systems Engineering Manager
Greg Freeman, Planning and Scheduling Manager (Interim)
Ed Garrison, Maintenance Training Supervisor
Paul Harden, Director, Engineering
Howard Heavin, Controller
Laurie Lahti, Manager, Licensing
Dan G. Malone, Regulatory Compliance Supervisor
Dan J. Malone, Plant General Manager
Ken Marbaugh, Nuclear Oversight
Guy Packard, Operations Superintendent
Carolyn Ritt, Director, Plant Support
Len Ross, Maintenance Manager (acting)
Jim Warner, Security Consultant
Steve Wawro, Consumers Energy, Asset Manager

NRC

Hipolito Gonzalez, Reactor Engineer
Rob Krsek, Resident Inspector
Dave Passehl, Project Engineer
Dwight Rivera, Reactor Engineer
Tony Vegel, Branch Chief

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

50-255/01-13-01	NCV	Green finding, 10 CFR 50 Appendix B, Criterion XVI, failure to identify and correct a continuing trend in equipment configuration control issues, a condition adverse to quality.
50-255/01-13-02	NCV	Green finding, 10 CFR 50 Appendix B, Criterion XVI, failure to identify and correct the human performance aspects of conditions adverse to quality.
50-255/01-13-03	NCV	Green finding, 10 CFR 50 Appendix B, Criterion XVI, failure to promptly correct conditions adverse to quality involving the instrument air system.
50-255/01-13-04	NCV	Green finding, 10 CFR 50 Appendix B, Criterion XVI, failure to take effective corrective actions to prevent recurrence of freezing in the sensing lines for the traveling screen system.

Closed

50-255/01-13-01	NCV	Green finding, 10 CFR 50 Appendix B, Criterion XVI, failure to identify and correct a continuing trend in equipment configuration control issues, a condition adverse to quality.
50-255/01-13-02	NCV	Green finding, 10 CFR 50 Appendix B, Criterion XVI, failure to identify and correct the human performance aspects of conditions adverse to quality.
50-255/01-13-03	NCV	Green finding, 10 CFR 50 Appendix B, Criterion XVI, failure to promptly correct conditions adverse to quality involving the instrument air system.
50-255/01-13-04	NCV	Green finding, 10 CFR 50 Appendix B, Criterion XVI, failure to take effective corrective actions to prevent recurrence of freezing in the sensing lines for the traveling screen system.

Discussed

None

LIST OF ACRONYMS USED

CE	Combustion Engineering
CL	Checklist
CR	Condition Report
ECCS	Emergency Core Cooling System
EOP	Emergency Operating Procedure
ESF	Engineered Safety Features
HPSI	High Pressure Safety Injection
IRPI	Individual Rod Position Indication
MSLB	Main Steamline Break
NPSH	Net Positive Suction Head
OE	Operating Experience
PCR	Procedure Change Request

LIST OF DOCUMENTS REVIEWED

The following is a list of licensee documents reviewed during the inspection. Inclusion of a document on this list does not imply that NRC inspectors reviewed the entire document, but, rather that selected sections or portions of the document were evaluated as part of the overall inspection effort. In addition, inclusion of a document on this list does not imply NRC acceptance of the document, unless specifically stated in the body of the inspection report.

Palisades Nuclear Plant Procedures

Procedure No. 1.09	Self-Assessment Program	Revision 9
Procedure No. 3.03	Corrective Action Process	Revisions 24, 25, 26 and 27
Procedure No. 3.16	Industry Experience Review Program	Revision 9
NPAP-03	Nuclear Performance Assessment Procedure	Revision 22
Procedure No. 4.12	Operator Work-Around Program	Revision 0
MSM-M-16	Inspection of Watertight Barriers	Revision 8

Condition Reports (CPAL) and Related Corrective Action Program Documentation

		Significance Level
CPAL9501730	Unexplained Rise in T82C (SIT TANK) Following Sampling	3
CPAL9601082	Unexpected “In-Leakage” Safety Injection Tank (T-82C)	3
CPAL9700210	Service Water Pump Bay Level Decrease Without Alarm	2
CPAL9801408	Adequacy of ECCS Pump NPSH Under Increased Screen Blockage	3
CPAL9900947	Safety Injection Tank Level Rise while P-66A HPSI Pump Operating	3
CPAL9902953	Exceeding Action Level 3 Limits for Steam Generator Cation Conductivity Resulting in Plant Shutdown	1
CPAL0000019	Unexpected Trends During QO-198B Test Performance	3

CPAL0000198	North Service Water Bay Level Indicator Failed High	4
CPAL0000211	Received EK-1124 Traveling Screen HI Differential Pressure	4
CPAL0000223	South Service Water Bay Level Indicator Failed Low	4
CPAL0000224	North Service Water Bay Level Indicator Failed Low	4
CPAL0000448	Failure to Recognize Significance of Leaking Valve on Flash Tank	3
CPAL0000831	Removed Feedwater Pump 1A from Service Due to Degraded Inboard Seal	2
CPAL0000965	Main Feedwater Pump Low Suction Pressure Alarm (EK-0160) Received When Troubleshooting T-5 High Level Dump	3
CPAL0001025	Caution Tag In Place Greater Than One Year w/o Clear Resolution of Issue	4
CPAL0001032	Adverse Trend in Human Performance Indicators for Chemistry	2
CPAL0001050	Inadvertent Manual Closure of 1-1 EDG Output Breaker Causes Motorization of EDG	1
CPAL0001378	Post Maintenance PMT	3
CPAL0001486	Notifications to Van Buren County and the State of Michigan During the May 9 Practice Exercise	4
CPAL0001509	Actions Directed by EOP for MSLB Result in Greater Vessel Cooldown Compared to Other CE Plants	4
CPAL0001515	Inclement Weather Procedures Not Provided at Palisades	4
CPAL0001516	Offsite Communications Concerns During the May 9 Practice Exercise	4
CPAL0001544	Outlet End Bell of Condenser Corroded on Driver WED, (Service Water Side)	4
CPAL0001803	On-Shift Operations Human Performance Errors	2
CPAL0001890	Elevated Pump Seal Leakage on Main Feedwater Pump 1A	2

CPAL0002048	Improvements Needed in the Areas of Identification, Classification, and Prioritization of Condition Reports	3
CPAL0002049	Root Cause Evaluations Not Always Effectively Performed	2
CPAL0002050	Corrective Actions Not Always Effectively Defined	2
CPAL0002051	Condition Report Corrective Actions Are Not Always Completed Timely and Justifications for Extensions Are Not Well Documented	2
CPAL0002052	Corrective Action Program Programmatic Processes	3
CPAL0002053	PCS Unidentified Leakage Raised from 0.025 gpm to 0.084 gpm	2
CPAL0002103	Diver Inspection of the Intake Structure Exhibit Large Zebra Mussel Accumulation Near Traveling Screens	4
CPAL0002250	Subdocuments (CR Actions) Overdue Without Appearing on Coming Due or Overdue Lists	3
CPAL0002277	Inconsistent Requirements to Perform Effectiveness Reviews in Admin Procedure 3.03 “Corrective Action Process”	4
CPAL0002378	Instrument Air Leaking Through N2 Station Check Valves May Potentially over Pressurize N2 System Piping	3
CPAL0002382	Failure to Utilize the Corrective Action System in Documenting Equipment Deficiencies	3
CPAL0002387	Less than Adequate Site Awareness of the Employee Concerns Program	3
CPAL0002480	Containment Spray Pump, P-54B, LCO for Planned Maintenance Exceeds Forecasted Duration	2
CPAL0002494	Adverse Trend in Radiation Worker Performance/ Minor RWP Violations	3
CPAL0002607	Contaminant Found in Bottom of Auxiliary Feedwater Pump P-8A Inboard and Outboard Pump Bearing Oilers	3

CPAL0002664	Evaluate for Potential Trend - Search of Resin Barrrels	3
CPAL0002714	Radiography Shows Check Valve, CK-ES3332 Internals Separated From Hinge Pin	3
CPAL0002775	Inadvertent Water Transfer From Safety Injection Refueling Water to Clean Waste Receiver Tank T-64	3
CPAL0002778	MV-PC1045A (Pressurizer Vent) has a Body to Bonnet Leak	2
CPAL0002815	Security Door Found Unlocked	3
CPAL0002830	Inadequate PPAC Inspection of Traveling Screens F-4B&Cl	3
CPAL0002843	Service Water Intake Bay Level Instrumentation Does Not Provide Indication over Range Required in Procedures	4
CPAL0002857	Large Accumulation of Sand and Debris Discovered at Bottom of Cooling Tower Screens by Diver	3
CPAL0002879	Padlocks Removed from Component Cooling Water Escape Hatch	3
CPAL0002912	Employee Exceeded Administrative Procedure 1.00 Overtime Limitation	2
CPAL0002942	Individual Exiting a Contamination Area Failed to Frisk at the Nearest Frisking Station	3
CPAL0002964	Evidence of Safety Injection Tank Inleakage from Safety Injection Refueling Water Tank During QO-19B, High Pressure Safety Injection Pump P-66B	3
CPAL0002982	Escort/Visitor Procedure Responsibilities Not Incorporated into Plant Access Training	3
CPAL0003000	NRC Performance Indicator for Unplanned Power Changes per 7000 Hours Is Changing from Green to White Due to September 5 Shutdown	2
CPAL0003023	Plant Air Compressors (C-2A/C-2C) Loading Problem after Preventative Maintenance on C-2C	3
CPAL0003074	Sand Found in CCW HX Endbells	3

CPAL0003076	Cavitation/Corrosion on Flange Face Between MV-SW135 and CV-0821	3
CPAL0003300	Excessive Time Out of Service Trend for High Risk Maintenance	2
CPAL0003313	The Frequency/Number of Plant Equipment Control/Mispositioning Incidents Requires Evaluation	2
CPAL0003358	Checklist CL 3.9 Does Not Contain Adequate Administrative Control of Eight ECCS Valves (CV-3224, CV-3223, CV-3213, CV-3212, CV-3030, CV-3031, CV-3057, CV-3029)	3
CPAL0003525	Evidence of Leakage at Safeguards Pump Miniflow Check Valve CK-ES3332	3
CPAL0010507	Quality of Notification Forms Generated During the May 9 Practice Exercise	4
CPAL0100025	Traveling Screen Hi DP Alarms	2
CPAL0100119	Adverse Trend Indicated by Maintenance Condition Reports	2
CPAL0100142	Some Flood Barriers Not Included in Procedure for Inspection of Watertight Barriers	3
CPAL0100243	Unexpected Transfer of Spent Fuel Pool Inventory to Safety Injection Refueling Water Tank	3
CPAL0100338	Degradation of MV-SW282, SW Outlet From CRHVAC VC-10	4
CPAL0100414	SFP HX (E-53A) Tubes Plugged/Restricted by RTV (Silicon Material)	3
CPAL0100435	Personnel Contaminations for RWP-2001-0203 Replace Endbells and Gaskets on E-53B Spent Fuel Pool	3
CPAL0100442	Frisker Alarm During Transfer of Radioactive Trash	3
CPAL0100454	Security Force-On-Force Drill Program Weakness	3
CPAL0100537	Gate Padlock Discovered Unsecure	3
CPAL0100545	Intake Bay Ice Results in Traveling Screen F-4C Failure and Entering of ONP 6.1 “Loss of Service Water	2

CPAL0100560	Potential for Debris (RTV) to have Reached SIRW Tank	3
CPAL0100584	Byron Station Reported Radioactive Material on a Vendor's EQ [Equipment] That Previously Worked at Palisades	2
CPAL0100610	Relief Valves RV-3266, RV-3267, and RV-3165 Setpoint Criteria 1600 psi, valves received with setpoint of 160 psi	3
CPAL0100764	Performance of Containment Sump Check Valves During Post-Design Basis Accident Recirculation Mode May Not be Acceptable	3
CPAL0100782	Rework on E-18C, Aftercooler for Compressor 2C	3
CPAL0100801	Additional Water Transfer from the Spent Fuel Pool System to the Safety Injection Refuleing Water Tank	3
CPAL0100818	Drip Catches Not Installed Prior to Spent Fuel Pool Heat Exchanger E-53A System Breach	3
CPAL0100956	Gate and Vehicle Barrier Found Unlocked	3
CPAL0100992	Loss of Security Access Control System Communication	3
CPAL0101088	Seal Oil Cooler Tubes Plugged with Mud	3
CPAL0101104	Unexpected Quantity of Sand Found During Inspection of Intake Structure	3
CPAL0101208	High Radiation Area Swing Gate Left in Open Position	2
CPAL0101217	Personnel Contamination Incidents During Primary Coolant Pump Seal Destacking Activities	3
CPAL0101349	Required Test Pressure Not Maintained During RT-71L "Technical Specification Admin. 5.5.2. Pressure Test of ESS Pump Suction Piping"	3
CPAL0101363	Inadvertent Transfer of Water from Safety Injection Refueling Water to Primary Coolant System Due to Loss of Power to DC Bus D11-1	2
CPAL0101449	Sulfate Reducing Bacteria Test Yielded Positive Results (MIC) for Component Cooling Water Heat Exchanger, E-54A, Endbells	4

CPAL0101459	Technical Specification Surveillance Test RO-65 Data Indicates HPSI Train 2 Cold Leg Flow Splits Difference than Assumed in Small Break LOCA Analysis	3
CPAL0101646	ESS Pump Miniflow Check Valve, CK-ES3332, Leaking	3
CPAL0101761	ESS Pumps Suction Line Potentially Pressurized to Greater Than Design Pressure	3
CPAL0101761	ESS Pumps Suction Line Potentially Pressurized to Greater than Design Pressure	4
CPAL0101839	Post Maintenance Test Performed in the Purification Filter Room After Dose Rates had Increased Significantly	3
CPAL0101999	MV-ES104, Flow Measurement FE-0404 Outlet Isolation Found Not Full Open	2
CPAL0102068	Administrative Control of HPSI Hot Leg Letdown Valves Not Tied to Proper Mode	3
CPAL0102112	Inadequate Corrective Action	3
CPAL0102119	Incorrect Technical Specification Reference in SS Logbook, Technical Specification Surveillance and Work Order	4
CPAL0102227	Possible Negative Trend in Condition Reports Coded to the Security Hot Button During 2001 Refueling Outage	3
CPAL0102287	Compressor C-2C Water Jacket Found Full of Sand	3
CPAL0102597	Undocumented Hose Found Through Equipment Hatch MZ-51	3
CPAL0102676	Job Stopped Due to Safety Violations	2
CPAL0102815	Untimely and Inadequate Resolution of SOER 98-02, "Circuit Breaker Reliability"	3
CPAL0102871	Active Vehicle Barrier Arm Discovered Unlocked	3
CPAL0102948	Condition Reports Not Generated for Self-Assessment Areas for Improvement	3
CPAL0103058	Errors/Omissions on Notification Forms During PALEX2001	4

CPAL0103120	Two Lines Run Through Equipment Hatch Without Authorization From Control Room/Shift Supervisor	3

Condition Reports Initiated as a Result of NRC Inspection

		Significance Level
CPAL0102826	Weaknesses in Condition Report Evaluations and Corrective Actions	3
CPAL0103122	Human Performance Issues Not Reflected in Apparent Cause Evaluation and Corrective Actions for Level 3 Condition Report CPAL0100801	3
CPAL0103148	Human Performance Issues Not Addressed in Corrective Actions for Level 3 Condition Report	3
CPAL0103157	Corrective Action Not Completely Described in Apparent Cause Evaluation	3
CPAL0103171	Apparent Cause Evaluation Does Not Address Human Performance Issues	3
CPAL0103172	Failure to Adequately Address the Extent of Problem Aspects of Condition Report	3
CPAL0103176	Insufficient Corrective Action Extent for Condition Report Evaluation	3
CPAL0103177	Inadequate Closeout Review of Corrective Action for Condition Report	3
CPAL0103181	Condition Report Evaluation was Too Narrow in Scope	3
CPAL0103181	Condition Report Evaluation was Too Narrow in Scope	3
CPAL0103190	Condition Report was Closed without All Appropriate Corrective Actions Having Been Completed	3
CPAL0103196	Failure to Include Effectiveness Review Action in a Root Cause Evaluation	3
CPAL0103198	Failure to Consider Human Performance Trend for One Department in a Site-Wide Trend Evaluation	3

CPAL0103212	Information in Condition Report Problem Description Resulted in Lower Significance Level than Appropriate	3
CPAL0103212	Information in Condition Report Problem Description Resulted in Lower Significance Level than Appropriate	3
CPAL0103216	Failure to Identify Rework Event	3
CPAL0103248	Question of Effectiveness Review Validity Due to Forced Outage	3
CPAL0103259	Corrective Action Not Tracked for Recurring Implementation	3
CPAL0103307	Potential Green Finding From Problem Identification and Resolution Inspection	3
CPAL0103308	Potential Green Finding From Problem Identification and Resolution Inspection	3
CPAL0103309	Potential Green Finding From Problem Identification and Resolution Inspection	3
CPAL0103310	Potential Green Finding From Problem Identification and Resolution Inspection	3

Licensee Self Assessment Reports

Assessment No. 2000-12	Operating Experience Program Self-Assessment	October 2000
Assessment No. 2000-55	Assessment of the Effectiveness of Level 1 and Level 2 Condition Report Corrective Actions (Operations)	December 2000
Assessment No. 2001-01	Corrective Action Self-Assessment Report	June-July 2001
Assessment No. 2001-01M	Assess the Effectiveness of the Human Behavior Observation Program as it Pertains to Floor Leadership, Craft Ownership, and Attention to Detail in the Maintenance Organization (Maintenance)	December 2000-February 2001
Assessment No. 2001-02	Assess Work Package Quality (Planning and Scheduling Section)	June 2001
Assessment No. 2001-05	Evaluation of Operability Determination Process Improvement	July 2001

Assessment No. 2001-05 (C&RS)	Evaluate Palisades' Programs and Practices for the Unrestricted Release of Material from the Radiologically Controlled Area	February 2001

Licensee Audits

A-01-06	Palisades Maintenance and Special Process Audit	March - May 2001
A-01-12	Palisades Corrective Action, Self-Assessment, and Performance Indicators	June - August 2001

Operating Experience Condition Reports (CIED)

		Significance Level
CIED 0003454	Leakage from Reactor Vessel Nozzle to Hot Leg Weld	3
CIED 0002943	Information Notice 2000-13: Review of Refueling Outage Risk	3
CIED 0000985	Information Notice 2000-06: Offsite Power Voltage	3
CIED 0000859	OE 10796 - Grease on Bendix Drive Shafts Can Impact EDG Operation	3
CIED 0102870	Equipment Out-Of-Service Software Error Caused Underestimation of Risk	3
CIED 0102316	(Fort Calhoun) Unexpected Condenser Tube Failure	3
CIED 0100081	(Fermi 2) Inoperability of EDG Due to Low Viscosity Oil	3

Miscellaneous Documents

OE 12125	IRPI Voltage Had Not Been Updated to Honeywell PPCS	
NMC Policy CP 0021	Employee Concerns Program	Revision 0
NOP-28	Employee Concerns Program - Palisades	Revision 0
	Operating Experience Logs	2000 and 2001
	Palisades Coding and Trending Handbook	Revision 0

List of Work Orders and Condition Reports on the Emergency Diesel Generators

System Health Assessment - 1st/2nd Quarter 2001 Instrument Air System & Associated Nitrogen Stations