July 20, 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 50-255/01-09(DRP)

Dear Mr. Cooper:

On June 30, 2001 the NRC completed an inspection at your Palisades Nuclear Generating Plant. The enclosed report documents the inspection findings which were discussed on June 29, 2001, with members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commissioner's rules and regulations and with the conditions of your license. The inspector reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the results of this inspection, no findings of significance were identified.

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).

Sincerely,

/RA/

Anton Vegel, Chief
Branch 6
Division of Reactor Projects

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

Enclosure: Inspection Report 50-255/01-09(DRP)

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No:	50-255
License No:	DPR-20
Report No:	50-255/01-09(DRP)
Licensee:	Nuclear Management Company, LLC
Facility:	Palisades Nuclear Generating Plant
Location:	27780 Blue Star Memorial Highway Covert, MI 49043-9530
Dates:	May 20 through June 30, 2001
Inspectors:	J. Lennartz, Senior Resident Inspector R. Krsek, Resident Inspector D. Nelson, Radiation Specialist, RIII R. Jickling, Emergency Preparedness Analyst, RIII
Approved by:	Anton Vegel, Chief Branch 6 Division of Reactor Projects

SUMMARY OF FINDINGS

IR 05000255-01-09 on 05/20 - 06/30/2001, Consumers Energy Company, Palisades Nuclear Generating Plant.

This report covers a 6-week routine inspection, a baseline emergency preparedness program inspection, and a baseline radiation protection program inspection. The inspections were conducted by resident and specialist inspectors.

A. Inspector Identified Findings

None.

B. Licensee Identified Violations

None.

Report Details

A list of documents reviewed within each inspection area is included at the end of the report.

Summary of Plant Status

The plant was at full power when the inspection period began. On June 20, 2001, the plant was shut down for a forced maintenance outage, due to an increase in unidentified primary coolant system leakage to 0.3 gallons per minute. While in Hot Standby (Mode 3) on June 21, 2001, during a primary coolant system walkdown to investigate the increased leakage by licensee personnel and the inspectors, primary coolant system boundary leakage was identified from a control rod drive pressure housing. The plant was taken to cold shutdown on June 22, 2001, where it remained when the inspection period ended.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity and Emergency Preparedness

1R01 Adverse Weather Protection (71111.01)

a. Inspection Scope

The inspectors assessed plant procedures to protect mitigating systems from high winds, tornado and hot weather condition risks for the site. The inspectors queried operations personnel regarding the actions that would be taken in response to notification of high wind conditions and reviewed the licensees procedures utilized to mitigate weather induced risks.

The inspectors also reviewed the Final Safety Analysis Report and Design Basis Documents for the Engineered Safeguards System and the Emergency Diesel Generators to verify that the components would remain functional during adverse weather. Finally, the inspectors verified that licensee personnel had completed the necessary actions in preparation for the onset of warm weather.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment (71111.04)

.1 Quarterly Equipment Alignment Walkdowns

a. Inspection Scope

The inspectors performed partial walkdowns of Emergency Diesel Generator 1-2, High Pressure Air Compressor C-6A, and Train “A” of the Control Room Heating Ventilation and Air Conditioning System. The inspectors performed the walkdowns to verify proper system lineup while redundant plant equipment was out of service. The inspectors

verified that power was available, that accessible equipment and components were appropriately aligned, and that no discrepancies existed which would impact the systems' function. Portions of the system alignment inspection included discussions and system walkdowns with operations and engineering personnel.

b. Findings

No findings of significance were identified.

.2 Semiannual Equipment Alignment Walkdown

a. Inspection Scope

The inspectors performed walkdowns of the High Pressure Safety Injection System, a risk-significant mitigating system. The inspectors verified that accessible system components were aligned correctly by reviewing system operating procedures, emergency operating procedures, Technical Specifications (TSs), the Final Safety Analysis Report, and by conducting component walkdowns. In addition, the inspectors reviewed active maintenance work requests to verify that any deficiencies would not impact the ability of the system to perform the intended safety function.

The inspectors also reviewed active design and engineering issues, including active operator workarounds and temporary modifications, to verify that the safety function of the system was not impacted.

In addition, the inspectors reviewed corrective action program documentation to verify that any conditions adverse to quality associated with the High Pressure Safety Injection System were appropriately evaluated and corrected.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05Q)

a. Inspection Scope

The inspectors toured the following areas in which a fire could affect safety related equipment:

- Cable Spreading Room (Fire Area 2);
- 1-C Switchgear Room (Fire Area 4);
- Battery Room No. 2 (Fire Area 11); and
- Safety Injection Refueling Water Tank/Component Cooling Water Room Roof (Fire Area 32).

The inspectors verified that transient combustibles and ignition sources were appropriately controlled, and assessed the material condition of the passive fire protection features. Also, the inspectors reviewed documentation for randomly selected

completed fire protection surveillances to verify the availability of the sprinkler fire suppression system, smoke detection system, and manual fire fighting equipment for these areas. The applicable portions of the Final Safety Analysis Report, Section 9.6, "Fire Protection," were also reviewed during this inspection.

In addition, for the fire areas toured, the inspectors reviewed licensee procedures for the emergency post-fire repair of Appendix R equipment and verified that the equipment required was available onsite for use.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification Program (71111.11Q)

a. Inspection Scope

The inspectors observed licensed operator training during an evaluated simulator scenario that required the operators to respond to and mitigate a steam generator tube rupture event. The training scenario also required the licensed operators to implement the emergency plan. The inspectors verified that the training was effective and assessed the operator's ability to mitigate the event and to implement the emergency plan. The inspectors observed the post-scenario critique of operator performance to assess the licensee evaluators' ability to identify and assess operator performance deficiencies.

In addition, the inspectors reviewed a condition report involving evaluation of a simulator failure to verify that the problem was appropriately characterized and evaluated.

b. Findings

No findings of significance were identified.

1R12 Maintenance Rule Implementation (71111.12Q)

a. Inspection Scope

The inspectors reviewed the licensee's Maintenance Rule Scoping Document for High Pressure Safety Injection System Check Valves and the Ultimate Heat Sink System. The High Pressure Safety Injection System Check Valves and the Ultimate Heat Sink System are designated as having high safety significance. The inspectors reviewed the licensee's maintenance rule performance indicators associated with each systems' Maintenance Rule Category a(2) status. In addition, the inspectors discussed various technical issues with the cognizant system engineer. The inspectors reviewed the licensee's corrective actions for selected condition reports (CRs) that were written since June 2000 to verify that they were appropriately dispositioned in accordance with the licensee's maintenance rule program and corrective action program.

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Evaluation (71111.13Q)

a. Inspection Scope

The inspectors reviewed equipment out-of-service risk assessments for planned and emergent maintenance activities and reviewed the licensees procedures for control of equipment and assessment of plant risk. The inspectors discussed the risk evaluations and plant configuration control for the maintenance activities with operations, maintenance, and work control center personnel to evaluate whether the necessary steps were taken to control the work activities. The inspectors reviewed risk assessments and emergent work evaluations for the following time periods during the inspection period:

- May 29 through May 31, during scheduled maintenance on High Pressure Air Compressor C-6B;
- May 28 through June 1, during scheduled surveillance testing on Emergency Diesel Generator 1-1; and
- June 11 through June 15, during scheduled maintenance on Instrument Air Compressors C-2A and C-2C.

The inspectors reviewed CR to verify that identified problems were appropriately characterized and evaluated with respect to maintenance risk assessments and emergent work evaluations.

b. Findings

No findings of significance were identified.

1R14 Personnel Performance During Nonroutine Plant Evolutions (71111.14Q)

a. Inspection Scope

The inspectors observed portions of the plant shutdown and cooldown at the start of the forced maintenance outage on June 20, 2001. Operations management initiated the plant shutdown in response to an increase in the unidentified primary coolant system leakrate to 0.3 gallons per minute. Control room operators shut down the plant and entered Hot Standby (Mode 3) to allow licensee personnel to investigate the cause for the increased unidentified leakage.

On June 21, 2001, while the plant was in Mode 3, licensee personnel identified primary coolant system pressure boundary leakage during a walkdown to investigate the increased leakage. Operations personnel entered TS 3.4.13.B.2, which required the plant to be in Cold Shutdown (Mode 5) within 36 hours. Control room operators subsequently cooled down and depressurized the plant to Cold Shutdown on June 22, 2001. Licensee personnel appropriately made an event report regarding the pressure boundary leakage which is discussed in Section 4OA3 of this report.

Following the plant shutdown and cooldown, the inspectors interviewed operations personnel and reviewed plant process computer data, control room logs and the operators' response to alarms. The inspectors verified that the TS plant cooldown limits were adhered to and that the plant was operated within the limits prescribed in the licensee's procedures.

In addition, the inspectors reviewed CRs generated during the shutdown to verify that identified problems were being entered into the corrective action program with the appropriate characterization and significance.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15Q)

a. Inspection Scope

The inspectors reviewed an operability evaluation for Safety Injection Refueling Water Tank Flow Measurement FE-0404 Outlet Isolation Valve MV-ES104 not being full open as required. The inspectors interviewed the cognizant engineers and reviewed the supporting documents to assess the adequacy of the operability evaluation. The inspectors' review included the applicable sections of the TSs, Final Safety Analysis Report, and Design Basis Documents. The inspectors verified that the operability evaluation was technically adequate and that the components remained available such that no unrecognized increase in plant risk had occurred.

In addition, the inspectors reviewed a CR regarding the operability evaluation not being a "stand alone" document to verify that the issue was appropriately characterized and entered into the licensee's corrective action program.

b. Findings

No findings of significance were identified.

1R19 Post-maintenance Testing (71111.19Q)

a. Inspection Scope

The inspectors observed portions of post-maintenance testing and reviewed documented testing activities following scheduled maintenance to determine whether the tests were performed as written. The inspectors also verified that applicable testing prerequisites were met prior to the start of the tests and that the effect of testing on plant conditions was adequately addressed by control room personnel. Post-maintenance test activities were reviewed for the following components:

- "B" Train of the Control Room Heating, Ventilation and Air Conditioning System;
- High Pressure Safety Injection Pump P-66A; and
- High Pressure Air Compressor C-6B.

The inspectors reviewed post-maintenance testing criteria specified in the applicable preventive and corrective maintenance work orders to verify that the test criteria was appropriate with respect to the scope of work performed and that the acceptance criterion were clear.

The inspectors reviewed the completed tests and procedures to verify that the tests adequately verified system operability. Documented test data was reviewed to verify that the data was complete, and that the equipment met the procedure acceptance criteria which demonstrated that the equipment was able to perform the intended safety functions.

In addition, the inspectors reviewed CRs regarding post-maintenance testing activities to verify that identified problems were appropriately characterized.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors observed portions of surveillance testing activities conducted on containment isolation system check valves to verify that the testing was conducted in accordance with prescribed procedures. The inspectors reviewed the test data for the TS surveillance test procedures and the associated basis documents to verify that test acceptance criterion were satisfied. The inspectors reviewed applicable portions of TSs, the Final Safety Analysis Report, and Design Basis Documents to verify that the surveillance tests adequately demonstrated that system components could perform designated safety functions.

In addition, the inspectors reviewed CRs regarding surveillance testing activities to verify that identified problems were appropriately characterized.

b. Findings

No findings of significance were identified.

1EP2 Alert and Notification System (ANS) Testing (71114.02)

a. Inspection Scope

The inspectors discussed with the Emergency Preparedness (EP) staff the design, equipment, and periodic testing of the public ANS for the Palisades reactor facility emergency planning zone to verify that the system was properly tested and maintained. The inspectors also reviewed procedures and records for a 14 month period ending March 2001, related to ANS testing, annual preventive maintenance, and non-scheduled maintenance. The inspectors reviewed the licensee's criteria for determining whether each model of siren installed in the emergency planning zone would perform as expected

if fully activated. Records used to document and trend component failures for each model of installed siren were also reviewed to ensure that corrective actions were taken for test failures or system anomalies.

b. Findings

No findings of significance were identified.

1EP3 Emergency Response Organization (ERO) Augmentation Testing (71114.03)

a. Inspection Scope

The inspectors reviewed the licensee's ERO augmentation testing to verify that the licensee maintained and tested its ability to staff the ERO during an emergency in a timely manner. Specifically, the inspectors reviewed semi-annual, off-hours staff augmentation drill procedures, related year 2000 and 2001 drill records, primary and backup provisions for off-hours notification of the Palisades emergency responders, and the current ERO rosters for Palisades. The inspectors also reviewed and discussed the facility EP staff's provisions for maintaining ERO call out lists.

b. Findings

No findings of significance were identified.

1EP5 Correction of Emergency Preparedness Weaknesses and Deficiencies (71114.05)

a. Inspection Scope

The inspectors reviewed and discussed the Nuclear Performance Assessment Department staff's 2000 and 2001 audits and the facility emergency preparedness staff's year 2000 and 2001 self-assessment reports to ensure that these audits complied with the requirements of 10 CFR 50.54(t) and that the licensee adequately identified and corrected deficiencies. The inspectors also reviewed a sample of emergency preparedness "punch list" items and CRs related to the facility's emergency preparedness program to determine whether corrective actions were acceptably completed.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety

2OS1 Access Control to Radiologically Significant Areas (71121.01)

.1 Plant Walkdowns and Radiological Boundary Verifications

a. Inspection Scope

The inspectors conducted walkdowns of the radiologically controlled area (RCA) to verify the adequacy of radiological boundaries and postings. Specifically, the inspectors walked down several radiologically significant work area boundaries (high and locked high radiation areas) in the Auxiliary Building.

b. Findings

No findings of significance were identified.

Cornerstone: Public Radiation Safety

2PS2 Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems (71122.01)

.1 Offsite Dose Calculation Manual (ODCM)

a. Inspection Scope

The inspectors reviewed the 2000 Annual Radioactive Effluent Release and Waste Disposal Report to verify that the effluent program was implemented as described in the Final Safety Analysis Report (FSAR) and the Offsite Dose Calculation Manual (ODCM). The inspectors reviewed the report for significant changes to the ODCM and to the design and operation of the radioactive waste system.

b. Findings

No findings of significance were identified.

.2 Gaseous and Liquid Release Systems Walkdowns

a. Inspection Scope

The inspectors performed walkdowns of the major components of the gaseous and liquid release systems (e.g., radiation and flow monitors, demineralizers and filters, tanks, and vessels) to verify that the current system configuration was as described in the FSAR and the ODCM, and to observe ongoing activities and equipment material condition.

b. Findings

No findings of significance were identified.

.3 Gaseous and Liquid Release Permits

a. Inspection Scope

Since there were no gaseous or liquid releases during the week of June 25, 2001, when the radioactive effluents program was evaluated, the inspectors reviewed several prior radioactive gaseous and liquid waste release permits, including the projected doses to members of the public. The release permits were reviewed to verify that appropriate treatment equipment was used and that the radioactive gaseous and liquid effluents were processed and released in accordance with the ODCM.

b. Findings

No findings of significance were identified.

.4 Changes to the ODCM

a. Inspection Scope

The inspectors reviewed changes made by the licensee to the ODCM as well as to the liquid or gaseous radioactive waste system design, procedures, or operation since the last inspection. For each ODCM revision that impacted effluent monitoring or release controls, the inspectors reviewed the licensee's technical justifications for the changes to verify if the changes were made in accordance with TSs.

b. Findings

No findings of significance were identified.

.5 Dose Calculations

a. Inspection Scope

The inspectors reviewed a selection of quarterly and annual dose calculations to ensure that the licensee has properly calculated the offsite dose from radiological effluent releases and to determine if any annual TS or ODCM (i.e., Appendix I to 10 CFR Part 50 values) limits were exceeded.

b. Findings

No findings of significance were identified.

.6 Air Cleaning Systems

a. Inspection Scope

The inspectors reviewed the most recent air cleaning system surveillance test results to ensure that test results were within the licensee's acceptance criteria. The

inspectors reviewed surveillance test results for the stack and vent flow rates to verify that the flow rates were consistent with TS values.

b. Findings

No findings of significance were identified.

.7 Effluent Monitor Calibrations

a. Inspection Scope

The inspectors reviewed records of instrument calibrations performed since the last inspection for each point of discharge effluent radiation monitor and flow measurement device. The inspectors reviewed any completed system modifications and the current effluent radiation monitor alarm setpoint value for agreement with ODCM requirements.

b. Findings

No findings of significance were identified.

.8 Interlaboratory Comparison Program

a. Inspection Scope

The inspectors reviewed the results of the year 2000 interlaboratory comparison program as reported in the 2000 Annual Radioactive Effluent Release and Waste Disposal Report to verify the quality of radioactive effluent sample analyses performed by the licensee. The inspectors reviewed the licensee's quality control evaluation of the interlaboratory comparison test and associated corrective actions for any deficiencies identified.

b. Findings

No findings of significance were identified.

.9 Counting Room Instrumentation

a. Inspection Scope

The inspectors reviewed the calibration and quality control records for radiation measurement instrumentation associated with effluent monitoring and release activities. The review was conducted to identify indications of degraded instrument performance and to verify that the calibrations and quality control checks were performed in compliance with station procedures.

b. Findings

No findings of significance were identified.

.10 Identification and Resolution of Problems

a. Inspection Scope

To evaluate the effectiveness of the licensee's self assessment process, the inspectors reviewed the 2001 Chemistry and Radiological Services self-assessment of the Gaseous and Liquid Effluent Treatment and Monitoring Systems, and the 2000 and 2001 Nuclear Performance Assessment Department audits of the Palisades Radiological Effluent TS program and Radiological Environmental Monitoring Program. The evaluation concentrated on the ability of the self-assessment process to identify, characterize, and prioritize problems. The inspectors also verified that previous radiological instrumentation related issues were adequately addressed. Additionally, the inspectors reviewed all CRs generated in 2000 and 2001 through June 28th that addressed radioactive treatment and monitoring program deficiencies, to verify that the licensee had effectively identified problems and implemented its corrective action program.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES (OA)

4OA1 Performance Indicator Verification (71151)

a. Inspection Scope

The inspectors verified that the data submitted by the licensee was accurate and complete for the scrams with a loss of normal heat removal performance indicator. The inspectors reviewed control room logs, licensee monthly operating reports and the licensee's Incident Analysis System logs for the periods of April 2000 through December 2000 to verify that the licensee had accurately reported this performance indicator for these quarters. In addition, the inspectors discussed the data with the licensee staff responsible for gathering and reporting the information related to this performance indicator.

Also, the inspectors verified that the licensee had accurately reported the following emergency preparedness performance indicators: Alert Notification System (ANS), Emergency Response Organization (ERO) Drill Participation, and Drill and Exercise Performance (DEP), for the Emergency Preparedness cornerstone. Specifically, the inspectors reviewed the licensee's PI records, data reported to the NRC, and CR for the 2000 and 2001 calendar years, to identify any occurrences that were not identified by the licensee. Records of relevant Control Room Simulator training sessions, periodic ANS tests, and excerpts of drill and exercise evaluations were also reviewed.

b. Findings

No findings of significance were identified.

4OA3 Event Follow-up (71153)

a. Inspection Scope

The inspectors reviewed and verified the accuracy of Event Notification No. 38083 that licensee personnel reported to the NRC on June 21, 2001. The event notification was an 8-hour Non-Emergency report for a degraded condition per 10 CFR 50.72(b)(3), that licensee personnel identified when the plant was shutdown. Specifically, on June 21, 2001, while investigating an increase in unidentified primary coolant system leakage, licensee personnel identified primary coolant system pressure boundary leakage from the Control Rod Drive Mechanism No. 21 pressure housing. Leakage from this area was unexpected and the licensee began an investigation into the cause.

The inspectors also reviewed and verified the accuracy of Event Notification No. 38103 that licensee personnel reported to the NRC on June 28, 2001, for the discovery of a crack indication on the pressure housing for Control Rod Drive Mechanism No. 25. The indication was discovered during the licensee's extent of condition evaluation for Control Rod Drive Mechanism No. 21 pressure housing leak. The event notification was an 8-hour Non-Emergency report for the degraded condition per 10 CFR 50.72(b)(3).

The NRC initiated a special inspection to review the circumstances surrounding these events, which will be documented in NRC Inspection Report 50-255/01-11.

b. Findings

No findings of significance were identified.

4OA6 Meeting

Exit Meetings

The inspectors presented the inspection results to Mr. Cooper and other members of licensee management at the conclusion of the inspection on June 29, 2001. The licensee acknowledged the findings presented. Additionally, the inspection results regarding the Emergency Preparedness and the Radiation Safety baseline inspections were presented to members of licensee management on June 22, 2001, and June 28, 2001, respectively. No proprietary information was identified at any of the exit meetings.

KEY POINTS OF CONTACT

Licensee

T. Brown, Manager, Chemical and Radiological Services
D. E. Cooper, Site Vice President
J. P. Cowan, Senior Vice President Nuclear Operations, Nuclear Management Company
J. K. Ford, Manager, Engineering Programs
T. H. Fouty, Engineering Programs
N. L. Haskell, Director, Licensing and Performance Assessment
D. W. Rogers, Licensing
D. J. Malone, Engineering Director
H. E. Nixon, Component Engineering Supervisor
G. C. Packard, Operations Superintendent
K. Smith, Operations Manager

NRC

D. Hood, Project Manager, NRR

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Closed

None

Discussed

None

LIST OF ACRONYMS USED

ANS	Alert and Notification System
CFR	Code of Federal Regulations
CR	Condition Report
DEP	Drill and Exercise Performance
DRS	Division of Reactor Safety
EP	Emergency Preparedness
ERO	Emergency Response Organization
FSAR	Final Safety Analysis Report
JPIC	Joint Public Information Center
NEI	Nuclear Energy Institute
NMC	Nuclear Management Corporation
NRC	Nuclear Regulatory Commission
OA	Other Activities
ODCM	Offsite Dose Calculation Manual
PI	Performance Indicator
RCA	Radiologically Controlled Area
TS	Technical Specifications

LIST OF DOCUMENTS REVIEWED

1R01	Adverse Weather Protection	
SOP-23	Attachment 10, "Warm Weather Checklist," completed May 15, 2001	Revision 15
Procedure - 4	Administrative Procedure - Operations Organization, Responsibilities and Conduct	Revision 23
NUREG -0820	Integrated Plant Safety Assessment - Systematic Evaluation Program, Section 4.6, "Topic III-2, Wind and Tornado Loadings"	October 1982
ONP-12	Off Normal Procedure - Acts of Nature	Revision 0
EOP-9.0	Functional Recovery Procedure, Success Path IC-1	Revision 13
SOP-2A	System Operating Procedure - Chemical and Volume Control System	Revision 45
ARP-4	Alarm Response Procedure - Primary System Volume Level Pressure Control Scheme EK-07 (C-12)	Revision 54
CPAL001515	Condition Report - Inclement Weather Procedures Not Provided at Palisades	

Condition Reports Reviewed for Problem Identification Characterization

CPAL0102112	Inadequate Corrective Action	

1R04	Equipment Alignment	
6CL 3.1	Engineered Safeguards System Checklist	Revision 46
SOP-20	System Operating Procedure - High Pressure Control Air System	Revision 18
16252	Procedure Change Request	
SOP-24	System Operating Procedure - Ventilation and Air Conditioning System	Revision 32
DBD 1.06	Design Basis Document - Control Room HVAC System	Revision 5
SOP-3	System Operating Procedure - Safety Injection and Shutdown Cooling System	Revision 46
SOP-3	Attachment 13, Checklist 3.4 - Plant Flood Door System Checklist	Revision 46

SOP-3	Attachment 14, Checklist 3.5 - Engineered Safeguards System Checklist (Shutdown/Cooldown)	Revision 46
SOP-3	Attachment 17, Checklist 3.8 - Engineered Safeguards System Checklist (Heatup)	Revision 46
SOP-3	Attachment 18, Checklist 3.9 - Engineered Safeguards Administrative Control Verification	Revision 46
EOP Supplement - 4	Emergency Operating Procedure - High Pressure Safety Injection and Low Pressure Safety Injection Flow Curves	Revision 5
DBD-2.02	Design Basis Document - High Pressure Safety Injection System	Revision 6
SOP-22	System Operating Procedure - Emergency Diesel Generators	Revision 31
DBD-5.01	Design Basis Document - Diesel Generator and Auxiliary System	Revision 4
DBD-5.02	Design Basis Document - Emergency Generator and Generator Protective System	Revision 4
DBD-5.03	Emergency Diesel Generator Performance Criteria	Revision 5
	Final Safety Analysis Report, Section 6.1-Safety Injection System	Revision 22
	Final Safety Analysis Report, Section 8.4-Emergency Power Sources	Revision 22
	Final Safety Analysis Report, Section 9.8 - Heating, Ventilation and Air-Conditioning System	Revision 22

Condition Reports Reviewed for Problem Identification Characterization

CPAL0101806	Operations Check List CL 3.1 Did Not Reflect Drain Valves Removed Due To System Modification
CPAL0102048	Diesel Generator Room 1-2 Watertight Door-141 Had Four Dogs That Were Not Fully Tightened
CPAL0102059	Broken Heat Shroud Brackets on Emergency Diesel Generator 1-1
CPAL0102105	Power Supply Failing For EK-20, Emergency Diesel Generator 1-1 Local Alarm Panel

CPAL0102068	Administrative Control of High Pressure Safety Injection Hot Leg Letdown Valves Not Tied To Proper Mode	
1R05	Fire Protection	
ONP-25.1, Attachment 2	Off Normal Procedure - Fire Area 2 - Cable Spreading Room	Revision 11
ONP-25.1, Attachment 4	Off Normal Procedure - Fire Area 4 - 1C Switchgear Room	Revision 11
ONP-25.1, Attachment 11	Off Normal Procedure - Fire Area 11 - Battery Room No. 2	Revision 11
ONP-25.1, Attachment 32	Off Normal Procedure - Fire Area 32 - Safety Injection Refueling Water Tank/Component Cooling Water Roof Area	Revision 11
EA-PSSA-00-001	Palisades Plant Post Fire Safe Shutdown Summary Report, for Fire Areas 2, 4,11 and 32	Revision 1
	Palisades Nuclear Plant Fire Hazzards Analysis for Fire Areas 2, 4,11 and 32	Revision 4
EA-APR-98-004	Analysis of Problems Concerning Fire Doors	Revision 0
	Final Safety Analysis Report, Section 9.6, Fire Protection and Table 9-10, Fire Detection Instrumentation	Revision 22
FPIP-4	Fire Protection Implementing Procedure, Fire Protection Systems and Fire Protection Equipment	Revision 15
PFM-E-1	Permanent Maintenance Procedure, Emergency Post-Fire Repair For Appendix R Equipment	Revision 4
PPAC X-NECO/FP009	Periodic and Predetermined Activity Control - Inventory of Appendix R Emergency Parts; including the completed documentation for the past 2 occurrences	
	Fire Protection Surveillance Procedures	
FPSP-QO-2, Attachment 2	Fire Protection Sprinkler System Water Flow Switch Alarm Check Sheet, documented results for 1C Switchgear and Cable Spreading Room dated January 28, 2001	Revision 1

FPSP-RP-12, Attachment 2	Fire Rated Assembly/Fire Protection Assembly Checkoff/Comment Sheet, documented results for 1C Switchgear Room dated April, 24, 2001	Revision 2
FPSP-SI-1, Attachment 2	Data Sheet For Alarm Bells and Ionization Smoke Detectors, documented results for 1C Switchgear Room dated January 18, 2001	Revision 2
FPSP-SO-2, Attachment 2	Safety-Related Fire Door Data Sheet, documented results for doors in 1C Switchgear Room dated March 23, 2001	Revision 0
FPSP-RO-9, Attachment 4	1C Switchgear Room #116A Sprinkler Head Locations, documented results dated December 9, 2001	Revision 0

Condition Report Reviewed For Significance Characterization

CPAL0102201	Appendix R Engineering Analyses Inconsistencies Describing The Correct PORV and Block Valve Train

1R11 Licensed Operator Requalification

PNT 7.0, Attachment 5 A	Palisades Nuclear Training Procedure, Simulator Performance Evaluation, Evaluation for Crew 1 completed June 15, 2001	Revision 6
SPE-22	Simulator Performance Examination, Response To Steam Generator Tube Rupture	Revision 7e
Table 14.15-3	Final Safety Analysis Report, Sequence Of Events For The Steam Generator Tube Rupture With A Loss Of Offsite Power	Revision 21

Condition Report Reviewed For Significance Characterization

CPAL0102145	Simulator Evaluation Failure

1R12 Maintenance Rule Implementation

EM - 25	Maintenance Rule Program	Revision 3
EGAD-EP-10, Attachment 2	Maintenance Rule Scoping Document - High Pressure Safety Injection	Revision 2
	Maintenance Rule Performance Indicators for the High Pressure Safety Injection System	

	System Health Assessment - 3rd/4th Quarter 2000 - Engineered Safeguards Systems	
	Final Safety Analysis Report, Section 6.1 - Safety Injection System	Revision 22
EGAD-EP-10, Attachment 2	Maintenance Rule Scoping Document - Ultimate Heat Sink	Revision 2
	Maintenance Rule Performance Indicators and Performance Monitoring Results for the Ultimate Heat Sink System	
	System Health Assessment - 3rd/4th Quarter 2000 - Ultimate Heat Sink System	

Condition Reports

CPAL0001922	High Pressure Safety Injection Pump P-66A Could not Meet Required Flow Rate During Performance of Inservice Testing
CPAL0002714	Radiography Shows Check Valve, CK-ES3332 Internals Separated from Hinge Pin
CPAL0001659	P-5 Will Not Rotate-Trouble Shoot
CPAL0001560	P-5 Warm Water Recirculation Pump Failed To Start
CPAL0001946	P-5 Warm Water Recirculation Pump Out of Alignment
CPAL0100545	Intake Bay Ice Results In Traveling Screen F-4C Failure and Entering Of ONP6.1

1R13 Maintenance Risk Assessments and Emergent Work Evaluation

Procedure 4.02	Administrative Procedure - Control of Equipment	Revision 17
	Operator's Risk Reports and Shift Supervisor Log Entries for May 28 through June 1 during scheduled surveillance testing on Emergency Diesel Generator 1-1	
	Operator's Risk Reports and Shift Supervisor Log Entries for June 11 through June 15, during scheduled maintenance on Instrument Air Compressors C-2A and C-2C	

	Operator's Risk Reports and Shift Supervisor Log Entries for May 29 through May 31, during scheduled maintenance on High Pressure Air Compressor C-6B	

1R14 Personnel Performance During Non-Routine Evolutions

PO-2	Technical Specification Surveillance Test - Primary Coolant System Heatup/Cooldown Operations	Revision 0
SOP-3	System Operating Procedure - Safety Injection and Shutdown Cooling System	Revision 45
SOP-1	System Operating Procedure - Primary Coolant System	Revision 49
Figure 3.4.3	Technical Specification Pressure - Temperature Limits for Cooldown	Amendment 189
GOP-8	Power Reduction and Plant Shutdown to Mode 2 or Mode 3	Revision 18
GOP-9	General Operating Procedure - Mode 3 To Mode 4 or Mode 5	Revision 21
GOP-13	General Operating Procedure - Primary System Leak Calculation	Revision 16
	Plant Computer Primary Coolant System Cooldown Rate Data, June 20 to June 22, 2001	

Condition Reports Reviewed For Problem Identification Characterization

CPAL0102185	High Voltage Telltale Light Illuminated on NI-7, Power Range Nuclear Instrumentation
CPAL0102186	Primary Coolant System Pressure Boundary Leakage CRD-21 Support Tube
CPAL0102188	Control Rod 43 Would Not Drive Down Electrically
CPAL0102192	Control Valve CV-0501 (E-50B Steam Generator Main Steam Isolation Valve) Failed to Fully Close When Preparing to Cooldown
CPAL0102196	Annunciator Alarm Received at Lower than Expected Pressure

1R15	Operability Evaluations	
CPAL0101999	Manual Valve MV-ES104 Flow Measurement FE-0404 Outlet Isolation Found Not Full Open As Required	
SOP-3	System Operating Procedure - Safety Injection and Shutdown Cooling System	Revision 45
EA-AOVT/T-ESS-02	Evaluation of Stem Thrust Requirements for Palisades Air Operated Valves CV-3027 and CV-3056	Revision 0
	Final Safety Analysis Report, Section 6.1 - Safety Injection System	Revision 22

Condition Reports Reviewed For Problem Identification Characterization

CPAL0102066	Operability Recommendation for C-PAL-01-1999 Was Not Written Clearly Enough to Stand Alone	

1R19 Post-maintenance Testing

Work Orders

24014575	C-6B, Aftercooler / Air Dryer / Valves Preventive Maintenance	
PPAC X-OPS503	Periodic and Predetermined Activity Control - Engineered Safeguards System / High Pressure Safety Injection Manual Valve Preventive Maintenance	

Other Documents

	Final Safety Analysis Report Table 9-9, Effect of Loss of Air To Air-Operated Valves	Revision 22
MO-33	Technical Specification Surveillance and Special Test Procedure and Associated Bases Document - Control Room Ventilation Emergency Operation, Completed June 20, 2001	Revision 8
QO-19	Technical Specification Surveillance and Special Test Procedure and Associated Bases Document - Inservice Test Procedure - High Pressure Safety Injection Pumps and Engineered Safeguards System Check Valve Operability Test, Completed June 19, 2001	Revision 22

Condition Reports Reviewed For Problem Identification Characterization

CPAL0102083	Inadequate Procedural Guidance For The Correction Of Inappropriate Technical Specification Reference On Work Order On High Pressure Air Compressor C-6B	
CPAL0102055	Error In FSAR Table 9-9 For Safety Injection Refueling Water Tank Outlet Valve CV-3057	

1R22 Surveillance Testing

QO-11	Technical Specification Surveillance and Special Test Procedure and Associated Bases Document - Containment Isolation Check Valve Test, Completed June 12, 2001	Revision 17

Condition Reports Reviewed For Problem Identification Characterization

CPAL0102215	Labeling on Panel EC-40 Not In Accordance With Administrative Procedure Requirements	

1EP2 Alert and Notification System (ANS) Testing

PAL PWS	Palisades Public Warning System Operating Procedures	Revision 12

Condition Reports

CPAL0000532	Palisades Public Warning System Siren Failure During Scheduled January 2000 Test	
CPAL0001384	Malfunction in Electronic Control Box #89	
CPAL0001914	Failure to Activate Palisades Public Warning System From Van Buren County Control Point	

1EP3 Emergency Response Organization (ERO) Augmentation Testing

EI-2.2	Emergency Staff Augmentation	Revision 7
PPAC-SEP008	Staff Augmentation Update Emergency Augmentation System Instructions Manual Call Out List Instructions	
SEP	Palisades Nuclear Plant Site Emergency Plan, Section 5	Revision 4

TRRCMS RPT-410	Requirement Status For Individual By Job Title/Role	June 21, 2001
	Manual Call Out List, Third Quarter Drill September 25, 2000, Palisades Emergency Preparedness Drill Summary Report Augmentation Test March 20, 2001, Summary Report	
	Monthly Pager Test Report Criteria	October 19, 2000
	Monthly Pager Test Results July 2000 - May 2001	

Condition Reports

CPAL0002927	Problem With Activation Of The ERO Group Page	
CPAL0002941	ERO Beeper Carriers Did Not Receive Group Page	
CPAL0100509	TSC Lead Communicator Position For Team B Not Formally Covered During On-Call Week	

1EP5 Correction of Emergency Preparedness Weaknesses and Deficiencies

Pro. No. 3.03	Palisades Nuclear Plant Administrative Procedure - Corrective Action Process	Revision 26
A-00-007	Palisades Emergency Preparedness and Meteorological Monitoring Project Audit June 19 - July 14, 2000	January 30, 2001
S-00-22	State and Local Government Emergency Preparedness Interfaces	January 30, 2001
A-00-14	Palisades Licensing and Plant Review Committee Activities September 25 - October 6, 2000	October 17, 2000
A-01-008	Palisades Emergency Preparedness Audit April 9-27, 2001	June 15, 2001
	Independent Assessment of Palisades Emergency Preparedness Program	
PNT 2000-22	Focused Self-Assessment Report	December 20, 2000

Condition Reports

CPAL0002490	Individual Not Qualified To Participate In PALEX 2000 JPIC and Recorded On TRRCMS As Qualified For JPIC Participation
CPAL0002822	EI Plan For Primary Coolant System Integrity Directs Overly Conservative Implementation For Declaring Unusual Event Relative To Tech Spec Action
CPAL0002920	Untimely Declaration Of Unusual Event
CPAL0003617	Data Reporting Errors For NRC Performance Indicator EP-3, Alert and Notification System Reliability
CPAL0100743	Emergency Preparedness Performance Indicator Data Reported To NRC In Error
CPAL0102092	Incorrect Interpretation Of NEI 99-02 Regulatory Assessment Performance Indicator Guideline
CPAL0102141	Emergency Planning TRRCMS Matrix Almost Lost In Transition To NMC

2PS2 Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems

Condition Reports

CR00-2516	RIA-5211 Check Source Reading Above High Alarm Setpoint did not Initiate CR Alarm	August 15, 2000
CR00-2571	Incorrect Limit in ODCM Formula	August 22, 2000
CR00-2928	Alert Alarm Setpoint on Turbine Sump Process Monitor (RIA-5211) Found Lower Than Specs	September 27, 2000
CR00-3052	Several Procedure Deficiencies Noted During Annual Audit of REMP/RETS	October 6, 2000
CR01-0424	Condenser Off Gas Monitor RIA-0631 Readings are Higher than Expected	February 5, 2001

Station Procedures

CH 1.3	Laboratory Quality Control Program	Revision 7
CH 4.39	Gamma Ray Spectroscopy System	Revision 13
HP 9.66	Ludlum Scalers	Revision 5
RR-9B	Radwaste Discharge Monitor (RIA-1049) Calibration	Revision 5
RR-9D	Condenser Off Gas Monitor (RIA-0631) Calibration	Revision 5

Calibration Records

RIA-0631	Condenser Off Gas Monitor	December 6, 2000
RIA -1049	Radwaste Discharge Monitor	September 29, 2000

Effluent Release Permits

01-005-R	Tank T-91 (Water)	March 17, 2001
01-014-R	Tank T-91 (Water)	May 5, 2001
01-013-G	Tank T-101-B (Gas)	April 26, 2001
01-019-G	Tank T-101-A (Gas)	May 8, 2001

Nuclear Performance Assessment Department Audits and Chemistry and Radiological Services Self-Assessment

A-00-015	Palisades Radiological Effluent Technical Specification (RETS) and Radiological Environmental Monitoring Program (REMP) Audit	October 13, 2000
A-01-04	Palisades Radiological Effluent Technical Specification (RETS) and Radiological Environmental Monitoring Program (REMP) Audit	April 25, 2001
C&RS 2001-01	Self-Assessment - Liquid and Gaseous Radiological Effluents, REMP and Unconditional Release	June 8, 2001

Other Documents

SDR-98-1226	10 CFR 50.59 Safety Review	November 10, 1998
	Offsite Dose Calculation Manual	Revision 16

	2000 Annual Radioactive Effluent Release and Waste Disposal Report	March 29, 2001

4OA1 Performance Indicator Verification

NEI 99-02	Nuclear Energy Institute - Regulatory Assessment Performance Indicator Guideline	
	Various Shift Supervisors Logs from the time period of April 2000 to June 2001	
	Incident Analysis System Logs from the time period of April 2000 to June 2001	
	Licensee Monthly Operating Reports from the time period of April 2000 to June 2001	
Proc. No. 3.09	Palisades Nuclear Plant Administrative Procedure-Data Collection, Review and Reporting For NRC Performance Indicator Program	Revision 2
	Emergency Preparedness - Regulatory Assessment Performance Indicator Guidelines	June 14, 2001
	Summary Of Public Warning System Test May 12, 2001	May 21, 2001
	Emergency Performance Indicators for ERO Participation Second Quarter 1999 Through First Quarter 2001	April 4, 2001
	Emergency Performance Indicators for Drill/Exercise Performance Second Quarter 1999 Through First Quarter 2001	April 4, 2001

Condition Reports

CPAL0001879	Incorrect Data In Performance Indicator For Drill/Exercise Performance	
CPAL0100941	In Error Third Quarter 2000 Emergency Preparedness Performance Indicator (EP-1) Reported To NRC	

4OA3 Event Follow-up

EN 38083	Event Notification for the Discovery of Pressure Boundary Leakage	June 21, 2001

EN 38103	Event Notification for the Discovery of a Crack Indication on Control Rod Drive No. 25 Pressure Housing	June 28, 2001