



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-8064**

March 20, 2002

Gregg R. Overbeck, Senior Vice
President, Nuclear
Arizona Public Service Company
P.O. Box 52034
Phoenix, Arizona 85072-2034

**SUBJECT: PALO VERDE NUCLEAR GENERATING STATION, UNITS 1, 2, AND 3 - NRC
INSPECTION REPORT 50-528/02-05; 50-529/02-05; 50-530/02-05**

Dear Mr. Overbeck:

On February 1, 2002, the NRC completed an inspection at your Palo Verde Nuclear Generating Station, Units 1, 2, and 3. The enclosed report documents the inspection findings, which were discussed on February 1, 2002, with Mr. William Ide, Vice President, Nuclear Production, and other members of your staff and on March 19, 2002, with Mr. Michael Sontag.

This inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. Within these areas, the inspection consisted of selected examination of procedures and representative records, observations of activities, and interviews with personnel.

On the basis of the sample selected for review, there were no findings of significance identified during the inspection. The inspectors concluded that problems were properly identified, evaluated and resolved within the problem identification and resolution program.

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/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Anthony T. Gody, Chief,
Operations Branch
Division of Reactor Safety

Dockets: 50-528; 50-529; 50-530
Licenses: NPF-41; NPF-51; NPF-74

Enclosure:

NRC Inspection Report

50-528/02-05; 50-529/02-05; 50-530/02-05

cc w/enclosure:

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ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Dockets: 50-528; 50-529; 50-530
Licenses: NPF-41; NPF-51; NPF-74
Report No.: 50-528/02-05; 50-529/02-05; 50-530/02-05
Licensee: Arizona Public Service Company
Facility: Palo Verde Nuclear Generating Station, Units 1, 2, and 3
Location: 5951 S. Wintersburg Road
Tonopah, Arizona
Dates: January 21 through February 1, 2002
Inspectors: G. Johnston, Senior Operations Engineer, Operations Branch
M. Murphy, Senior Operations Engineer, Operations Branch
H. Bundy, Senior Operations Engineer, Operations Branch
G. Warnick, Resident Inspector, Projects Branch D
Approved By: A. Gody, Chief
Operations Branch
Division of Reactor Safety

SUMMARY OF FINDINGS

IR 05000528-02-05; 05000529-02-05; 05000530-02-05, on 1/21-2/1/2002, Arizona Public Service Company. Palo Verde Nuclear Generating Station, Units 1, 2, and 3; biennial inspection of identification and resolution of problems.

The inspection was conducted by three regional senior operations engineers, and a resident inspector. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using IMC 609, "Significance Determination Process." The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process website at <http://www/nrc.gov/NRR/Oversight/index.html>. Findings for which the Significance Determination Process does not apply are indicated by "No Color" or by the severity level of the applicable violation.

Identification and Resolution of Problems

The licensee was generally effective at identifying problems and placing them into the corrective action program. The licensee effectively used risk information in prioritizing the extent of evaluation of individual problems and the schedule for implementation of corrective actions. The licensee effectively prioritized and evaluated issues with few exceptions. One exception involved a final operability evaluation, which concluded that the main steam and feedwater isolation system actuation circuitry was operable, took approximately 5 months to complete. Another example involved a failure to fully determine the extent of a condition associated with Borg-Warner check valve failures, which resulted in additional failures. Corrective actions, when specified, were implemented in a timely manner. Based on interviews conducted during this inspection, workers at the site felt free to input safety issues into the problem identification and resolution program (Section 4OA2).

Report Details

4OA2 Identification and Resolution of Problems

a. Effectiveness of Problem Identification

(1) Inspection Scope

The team reviewed items selected across the seven safety cornerstones of safety to determine if problems were being properly identified, characterized, and entered into the corrective action program for evaluation and resolution. Specifically, the team selected approximately 70 condition reports/disposition requests, which had been issued between January 2001 and January 2002. The team also reviewed 2 licensee audits covering the corrective action program and 26 self-assessments of plant activities. One of the self assessments specifically addressed integrated issues resolution. The effectiveness of the audits and assessments were evaluated by comparing the audit and assessment results against self-revealing and NRC-identified issues.

The team evaluated the condition report/disposition requests to determine the licensee's threshold for identifying problems and entering them into the corrective action program. Also, the licensee's efforts in establishing the scope of problems were evaluated by reviewing pertinent control room logs, radiation protection logs, work orders, audit and self-assessment results, action plans, and results from surveillance tests and preventive maintenance tasks. The condition report/disposition requests and other documents listed in the attachment to this report were used to facilitate the review.

(2) Issues and Findings

The team determined that the licensee was generally effective at identifying problems and entering them into the corrective action program. In general this was evidenced by the relatively few deficiencies identified by external organizations (including the NRC) that had not been previously identified by the licensee during the review period. During this inspection most conditions adverse to quality were being handled within the corrective action program.

NRC Inspection Report 50-528/529/530-2001-003 documented an example where the licensee identified a failure to place a condition adverse to quality into the corrective action program during an investigation of Borg-Warner check valve failures. The issue involved failure to document a valve misalignment during a high pressure safety injection and check valve full flow test. Subsequent licensee actions adequately addressed this issue.

A number of operator error-related issues were identified during the period, which were appropriately placed into the corrective action program. A number of issues associated with control element assembly were identified during the period. The team found that the licensee effectively determined the scope and extent of the problem.

The team, observed that the licensee's self-assessments in the areas of radiation protection and emergency planning were narrowly focused. The team noted that the two self assessments conducted in 2001 for radiation protection covered annual radiation protection decommissioning records and radioactive material control. There was insufficient breadth to cover overall program implementation. Other self-assessment areas were thoroughly reviewed.

The team found that audits by the nuclear assurance organization were effective in identifying areas of needed improvement and noncompliance with station procedures. Findings and recommendations from those audits were placed in the corrective action program.

No findings of significance were identified.

b. Prioritization and Evaluation of Issues

(1) Inspection Scope

The team reviewed approximately 70 condition reports/disposition requests and supporting documentation, including an appropriate analysis of the cause of the problem, to ascertain whether the licensee's evaluation of the problems identified and considered the full extent of conditions, generic implications, common causes, and previous occurrences. In addition, the team reviewed the licensee's evaluation of selected industry experience information, including operating event reports and NRC and vendor generic notices, to assess if issues applicable to the Palo Verde Nuclear Generating Station were appropriately addressed. Specific items reviewed are listed in the attachment to this report.

(2) Issues and Findings

The team found that the licensee effectively prioritized and evaluated issues with few exceptions. The team noted that the licensee typically investigated issues with sufficient depth and breadth to determine both the scope and extent of condition. Most notable was the licensee's effective review of control element assembly degradation, which was clear and thorough.

One notable exception was documented as a licensee-identified noncited violation in NRC Inspection Report 50-528/529/530-2001-003. The issue involved a failure to determine the extent of condition for Borg-Warner check valve failures that occurred in 1997 and 1998, and a subsequent failure on October 23, 2000. The team reviewed subsequent corrective actions and determined that they adequately addressed the issues sufficiently to prevent recurrence and were appropriately scheduled in accordance with the risk significance of the check valves in question.

Another notable exception involved the team's review of Licensee Event Report 50-529/2001-002-00 for Unit 2. The team noted that the resolution of design issues and a final operability evaluation, which concluded that the main

steam and feedwater isolation system actuation circuitry was operable took approximately 5 months to complete. Licensee Event Report 50-529/2001-002-00 described a main steam and feedwater isolation system logic board failure that resulted in a Unit 2 reactor trip on July 13, 2001. This issue is discussed in Section 4OA3 of this report.

With regard to determination of causal factors and root cause analysis the team did not identify any instances where the underlying causes were not appropriately categorized.

No findings of significance were identified.

c. Effectiveness of Corrective Actions

(1) Inspection Scope

The team reviewed condition reports/disposition requests, audits and self-assessments to verify that corrective actions related to the issues were identified and implemented in a timely manner commensurate with safety, including corrective actions to address common cause or generic concerns. The team also interviewed plant personnel to independently verify and assess the effectiveness of corrective actions implemented by the licensee. A listing of specific documents reviewed during the inspection is included as the attachment to this report.

(2) Issues and Findings

The licensee identified one example of ineffective corrective actions involving Borg-Warner check valve failures, which is discussed in Section 4OA2b(2) above. Based on a review of the licensee's records, the team identified no further examples of ineffective licensee corrective actions.

No findings of significance were identified.

d. Assessment of Safety Conscious Work Environment

(1) Inspection Scope

The team interviewed 17 individuals from the licensee's staff, which represented a cross-section of functional organizations and supervisory and non-supervisory personnel. These interviews assessed whether conditions existed that would challenge the establishment of a safety conscious work environment.

(2) Issues and Findings

Based on interviews, the team identified no findings related to the safety conscious work environment. The team concluded, based on information from these interviews, that employees were willing to identify issues and accepted the responsibility to proactively identify and enter safety issues into the corrective action program.

No findings of significance were identified.

40A3 Event Follow-up (71153)

(Open) Licensee Event Report 50-529/2001-002-00: Logic Board and Pin Connector Failure Causes Three of Four Main Steam Isolation Valves to Close. On July 13, 2001, a logic board failure in the main steam and feedwater isolation system cabinet caused three main steam isolation valves (MSIVs) to shut resulting in a reactor trip from approximately 100 percent power. The MSIVs closed as a result of a fire in the main steam and feedwater isolation system cabinet. The fire damaged a logic module that contained both normal control and safety-related protection features. During the event, MSIV-180 inadvertently reopened and the operators were unable to remotely close the valve. The valve was later closed by local-manual operation.

Condition Reports/Disposition Request 2405660 documented this event. The associated equipment root cause failure analysis report, approved on January 17, 2002, concluded that the logic design allowed the fire damage to the logic module to re-open MSIV-180. In addition, the licensee determined that MSIV-180 may not have closed on a main steam isolation actuation signal. The licensee's report stated that the logic design did not meet the requirements of IEEE-279, Section 4.2, "Single Failure Criterion," Section 4.6, "Completion of a Protective Action Once it is Initiated," and Section 4.7, "Control and Protection System Interaction." The Final Safety Analysis Report commits the licensee to IEEE-279.

The licensee completed an immediate operability evaluation and on August 31, 2001, put temporary compensatory measures in place. A subsequent formal operability evaluation (Operability Determination 246) was completed January 29, 2002, and additional compensatory measures were instituted.

The team was concerned about the length of time between the event occurrence and completion of the root cause failure analysis report. This delay was potentially due to contradicting engineering views on the conformance of the main steam and feedwater isolation system to design requirements. The initial equipment root cause failure analysis report submitted for approval on August 17, 2001, determined that the logic design for the MSIV control circuitry did not comply with the requirements of IEEE-279. Approval of this report was delayed until January 13, 2002. On October 9, 2001, as documented in Condition Reports/Disposition 2418186, the licensee determined that this system conformed to design requirements. On January 25, 2002, the disparity in the two evaluations was resolved when the engineering director concurred with the position that the main steam and feedwater isolation system did not meet IEEE-279 requirements. The team noted that the formal operability determination was not completed until 6 months after the event.

The team concluded that sufficient compensatory actions were taken shortly after the event to ensure that safety functions of the main steam and feedwater isolation system would not be defeated following a fire. However, this licensee event report remains open pending NRC review of design controls associated with IEEE-279 requirements and potential modifications to the MSIV control circuitry.

(Closed) Licensee Event Report 50-530/2001-003-00: Leak in an Inconel Alloy 600 Instrument Nozzle in the Reactor Coolant System. The team reviewed Condition Reports/Disposition Request 2427919. Evidence of a leak was found on Reactor Coolant System Loop 1B hot-leg instrument nozzle during a routine inspection. The team reviewed Condition Reports/Disposition Request 2427919. The nozzle was repaired using a mechanical nozzle seal assembly. The leak was attributed to primary water stress corrosion cracking. The leakage was on the order of ounces per year and was anticipated. The licensee's analysis indicated that this type of leak will become evident through small cracks prior to significant degradation of the pressure boundary. The licensee intends to replace this nozzle and remaining Alloy 600 hot-leg instrument nozzles in all three units with nozzles fabricated from an alloy less susceptible to this type of degradation during Outages R8 to R10 for each unit, respectively. No findings of significance were identified. This licensee event report is closed.

(Closed) Licensee Event Report 50-528, 529, 530/2001-S001-00: Licensee Denied Access to an Individual who had Previously been Granted Unescorted Access Based on Pre-Employee Screening Records. The team reviewed Condition Reports/Disposition Request 2373714 and interviewed the Emergency Services Department Programs Department Leader. It was discovered that an employee had failed to disclose an arrest for possession of a controlled substance. This was discovered during review of the individual's FBI records and a subsequent investigation, which included an interview with the contractor employee when he returned after a several month absence in February 2001. Access had previously been terminated on October 30, 2000, after making eight entries in one month. Because the arrest was still active, the individual was denied access. The licensee checked his work assignments and found that he had performed no safety-related work. The licensee added additional information to PADS in the event the individual attempted to enter another licensed facility. No findings of significance were identified. This licensee event report is closed.

(Open) Licensee Event Report 50-528, 529, 530/2001-003-00: Technical Specifications Required Shutdown Due to Degraded Control Element Assemblies (CEAs). The degradation involved cracks in the fingers containing the boron carbide poison material and loss of boron carbide pellets into the reactor coolant system in some instances. The team reviewed Condition Reports/Disposition Requests 2427919, 2377444, 2412913, 2375404, and 2376822. The team also interviewed engineers and managers engaged in addressing the issues associated with the degraded CEAs. The team determined that the licensee understood the failure mechanism, the location of degraded material, and the reactivity effects of the CEA degradation. There was no safety system functional failure. The reactors maintained the shutdown reactivity assumed in the safety analysis report at all times. All loose material resulting from the failures had been appropriately recovered or accounted for.

As a part of the corrective action, the licensee had replaced all CEAs in all three units. They had inspected all the removed CEAs and had identified some cracking in the fingers of all assemblies. They had determined that the expected lifetime for CEAs was much shorter than the 12 cycles estimated by the vendor - probably on the order of 6 cycles - and had engaged the vendor in attempting to determine a new expected

lifetime. Because a foreign reactor was going into a refueling outage after 6 cycles of operation with similar CEAs, the licensee was working with the vendor to thoroughly inspect these CEAs as a part of the effort to establish a new CEA expected lifetime. Similar CEAs are not used in other domestic reactors. No findings of significance were identified. This licensee event report remains opening pending determination of a new expected lifetime for CEAs.

4OA6 Meetings, including Exit

Exit Meeting

An exit meeting was held on February 1, 2002, with W. Ide, Vice President, Nuclear Production, and other licensee staff members during which the team leader characterized the results of the inspection. The licensee's management acknowledged the findings presented. On March 19, 2002, Mr. Anthony T. Gody informed M. Sontag during a telephone conversation, that Licensee Event Report 2-2001-002-00 would remain open.

The team leader asked the licensee's management whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

ATTACHMENT

KEY POINTS OF CONTACT

Licensee

K. Atkinson, Operations Shift Manager
B. Bandera, Department Leader, Nuclear Fuel Analysis
S. Burns, System Engineering Department Leader
T. Cahill, Senior Engineer, Nuclear Analysis
D. Douglass, Senior Evaluator, Nuclear Assurance Department
E. Dutton, Nuclear Assurance Department, Section Leader
A. David Huttie, Programs Department Leader, Emergency Services Department
M. Hypse, System Engineering Section Leader
W. Ide, Vice President, Nuclear Production
D. Kanitz, Nuclear Regulatory Affairs, Senior Engineer
J. Levine, Executive Vice President, Generation
B. Lindenlaub, Engineer
D. Marks, Regulatory Affairs-Compliance Section Leader
G. Overbeck, Senior Vice President, Nuclear
N. Pappas, Operations Shift Manager
J. Roland, Senior Engineer., Nuclear Assurance Department
R. Quesinberry, Maintenance Senior Advisor
C. Seaman, Nuclear Regulatory Affairs, Director
E. Sonn, Significant Investigator
M. Sontag, Corrective Action Program, Department Leader
N. Thibodaux, Senior Consulting Engineer
D. Vogt, STA Section Leader

NRC

J. Moorman, Senior Resident Inspector

ITEMS CLOSED AND DISCUSSED

Closed

3-2001-003-00	LER	Leak in an Inconel Alloy 600 Instrument Nozzle in the Reactor Coolant System (Section 4OA3)
1,2,3-2001-S001-00	LER	Licensee Denied Access to an Individual who had Previously been Granted Unescorted Access Based on Pre-Employee Screening Records (Section 4OA3)

Discussed

1, 2, 3-2001-003-00 LER Technical Specifications Required Shutdown Due to Degraded Control Element Assemblies (Section 4OA3)

2-2001-002-00 LER Logic Board and Pin Connector Failure Causes Three of Four Main Steam Isolation Valves to Close (Section 4OA3)

DOCUMENTS REVIEWED

The following documents were selected and reviewed by the inspectors to accomplish the objectives and scope of the inspection and to support any findings:

PROCEDURES

40DP-9OP26, "Operability Determination," Revision 10
 30DP-9WP02, "Work Document Development and Control," Revision 29
 90DP-0IP10, "Condition Reporting," Revision 13
 30DP-0RA01, "Component Failure Trending," Revision 4
 81DP-0DC13, "Deficiency (DF) Work Order," Revision 13
 60DP-0QQ02, "Trend Analysis and Coding," Revision 11
 12DP-0MC29, "Warehouse Discrepancy Notice (WD)," Revision 11
 70DP-0EE01, "Equipment Root Cause of Failure Analysis," Revision 10
 40OP-9SG01, "Main Steam," Revision 23
 CRDR Processing Guideline, Revision 3
 40DP-9OP02, Rev. 17, Conduct of Shift Operations
 40DP-9OP22, Rev. 15, Operations Log Keeping
 72OP-9RX01, Rev. 7, Calculation of Estimated Critical Condition
 72OP-9RX02, Rev. 2, Determination of Anticipated Critical Position
 40OP-9ZZ03, Rev. 20, Reactor Startup

CONDITION REPORT AND DISPOSITION REQUESTS (CRDR'S)

0117562	2369601	2384489	2414063	2427901
0239183	2369999	2385849	2414747	2427901
117555	2370347	2388632	2414776	2427919
2305275	2372245	2391526	2414777	2430432
2331089	2373569	2392546	2414867	2430974
2332280	2373714	2393348	2417046	2432005
2333473	2374606	2394824	2418186	2432646
2339523	2374701	2400881	2419385	2436184
2347599	2375404	2405660	2421912	2436262
2350293	2376079	2406836	2424725	2436446
2352119	2376822	2412307	2425046	2436934
2360498	2377444	2412310	2425046	2437828
2365447	2383862	2412913	2425946	2442947
2368394	2384347	2413687	2426366	2444131

OPERABILITY DETERMINATIONS

2356074	2373313	2407828	2417545
2362235	2401544	2417365	

WORK ORDERS

211137	237640	227740	216241	218745
211142	216417	1080587	219358	218740
218988	1107803	219118	219359	219401
211071	951668	217121	211191	

LICENSEE EVENT REPORTS

1-2001-001, "Boric Acid on Unit 1 Reactor Coolant System Hot Leg Instrument Nozzle,"
May 24, 2001

2-2000-004, "Reactor Coolant System Pressure Boundary Leakage Due to Degraded Alloy 600
Pressurizer Heater Sleeve," November 1, 2000

1-2001-002, "LLRT Methodology may Not have Correctively Quantified Leakage for Inboard
Containment Isolation Valves," May 24, 2001

1-2000-004, "Technical Specification Violation Due to Deficient Test Procedure for Refueling
Purge Valves," December 28, 2000

1, 2, 3-2001-003, "Cracks found in Unit 3 CEA," December 4, 2001

1-2001-004, "Technical Specifications Violation for Inoperable RCS Leak Detection because of
Misaligned O-Ring," December 12, 2001

1- 2001-S01, "Licensee Denied Access to an Individual who had Previously been Granted
Unescorted Access Based on Pre-Employee Screening Records," April 18, 2001

2-2000-008, "Lift Values on Two of Four Pressurizer Safety Valves were Outside of Technical
Specifications Limits," January 10, 2001

2-2000-009, "Main Steam Safety Valve Lift Pressure outside of Technical Specifications Limits,"
February 16, 2001

2-2001-001, "Main Steam Safety Valve Lift Pressure outside of Technical Specifications Limits,"
May 24, 2001

2-2001-002, "Logic Board and Pin Connector Failure Causes Three of Four Main Steam
Isolation Valves to Close," August 31, 2001

3-01-001, "Reactor Tripped from 19 Percent Rated Thermal Power from Axial Shape Index Auxiliary Trip Signal from Core Protection Calculator," July 18, 2001

3-01-003, "Leak in an Inconel Alloy 600 Instrument Nozzle in the Reactor Coolant System," November 28, 2001

MISCELLANEOUS

"Palo Verde System Health Report - 3rd Quarter 2001"

"Equipment Root Cause Failure Analysis Program Assessment," August 17, 2000

Night Order, "MSFIS and FWIV Operation," February 1, 2002

Operability Determination #246, "MSIV and FWIV Operation," January 31, 2002

Audit Report 2001-008, "Corrective Action"

NONCITED VIOLATIONS

NCV 01-03-03, AFW Pump Made Inoperable when Steam Trap Removed from Service and NOT Operated per Procedure

Material Request for Palo Verde
Problem Identification and Resolution
Inspection

1. A summary list of all currently open/active items for:

CRDRs of significant conditions adverse to quality
operator work-arounds
engineering review requests
temporary modifications
procedure change requests
training needs request/evaluation
control room and safety system deficiencies
human performance issues
2. A summary list of all items completed/resolved/closed since January 1, 2001 for:

CRDRs of significant conditions adverse to quality
operator work-arounds
engineering review requests
temporary modifications
procedure change requests
training needs request/evaluation
control room and safety system deficiencies
human performance issues
3. Summary list of all CRDRs generated during the specified period and sorted by:

chronology
initiating organization
responsible organization
4. All quality assurance audits and surveillance of corrective action activities since January 1, 2001.
5. All corrective action activity resulting from functional area self-assessments and Non-NRC third party assessments since January 1, 2001.
6. Corrective action performance trending/tracking reports generated since January 1, 2001.
- g. Current revision of the procedures governing initiation and processing of CRDRs, potential conditions adverse to quality, and root cause analysis.
8. Any additional governing procedures/policies/guidelines for:

Condition Reporting
Corrective Action Program
Root Cause Evaluation/Determination

Operator Work-Arounds
 Work Requests
 Engineering Requests
 Temporary Modifications
 Procedure Change Requests
 Deficiency Reporting and Resolution
 Training Needs Request/Evaluation

h. For each of the items **applicable to Palo Verde** listed below please provide the following:

- Full text of the CRDRs (please indicate any findings that did not result in a CRDR or corrective actions)
- Any "Roll-up" or "Aggregating" CRDRs related to the generic communication or condition report.
- Root Cause analysis report (if applicable)
- Risk significance assessments
- Probable Cause evaluation (if applicable)
- Approved corrective actions
- Basis for extending originally approved due dates
- Evidence of corrective action completion for those items deemed to be closed (work packages, design change documentation, temporary modifications, training lesson plans/material, training attendance records, procedure revisions, etc.)

10. Part 21 Reports:

- 2001-01-0: 12/12/00 710DUOCL calibration unit
- 2001-02-0: 12/15/00 Unrecognized capacitor orientation
- 2001-03-0: 12/18/00 Seismic qualification of electrically operated AK-15/25 circuit breakers
- 2001-04-0: 01/04/01 weights found in removed SFP storage racks
- 2001-05-0: 12/07/00 Defective weld in HL near vessel
- 2001-06-0: 12/20/00 GTSTRUDL dynamic analysis command
- 2001-07-0: 01/10/01 Potential EDG inoperability for Agastat relays
- 2001-08-0: 01/15/01 medium voltage circuit breaker failures
- 2001-09-0: 01/18/01 segregation of ingredients in safety-related grout
- 2001-10-0: 01/31/01 broken cap screw in aux. feedwater pump
- 2001-11-0: 02/28/01 internal binding of terminal shaft in Woodward governors
- 2001-12-0: 02/28/01 relay label mismatch LER 50-293/2001-01
- 2001-13-0: 03/28/01 breaker cubicle mechanism out of spec.
- 2001-14-0: 03/29/01 inappropriate reference temperature used
- 2001-15-0: 04/16/01 replacement Foxboro differential pressure
- 2001-16-0: 04/10/01 broken bases in CV-7 relays
- 2001-17-0: 04/27/01 calculation of time to criticality
- 2001-18-0: 05/02/01 Failure of K-Line circuit breaker to close
- 2001-19-0: 05/11/01 R-11 radiation monitor spiking
- 2001-20-0: 05/23/01 low flow coefficients for ball check valves
- 2001-21-0: 06/19/01 electrolytic capacitors in Woodward 2301A control devices
- 2001-22-0: 06/21/01 leaking flow switch in containment gas analyzer

- 2001-24-0: 07/09/01 Woodward governor exhibits unstable oscillations
- 2001-25-0: 08/08/01 Nine Mile Point Unit 1 incompletely threaded screw on terminal block
- 2001-26-0: 08/13/01 Scientech temperature difference module yields current instead of voltage output Event Notification 38204
- 2001-26-1: 09/12/01 Scientech temperature difference module yields current instead of voltage output
- 2001-27-0: 08/23/01 Flowserve excessive disc angular movement in swing check valves
- 2001-28-0: 08/24/01 Rosemount non-qualified screws used for remote seals in pressure transmitter
- 2001-29-0: 08/31/01 David Brown Union Pumps potential loss of backup safety function of charging pump air lock tank

11. NRC Information Notices:

- 2001-001: 03/26/01 Importance of accurate inventory controls to prevent the unauthorized possession of radioactive material
 - 2001-002: 03/28/01 Summary of fitness-for-duty program performance reports for calendar years 1998 and 1999
 - 2001-004: 04/11/01 Neglected fire extinguisher maintenance causes fatality
 - 2001-005: 04/30/01 Thru-wall cracking of RPV head control rod drive mechanism penetration nozzles
 - 2001-006: 05/11/01 Centrifugal charging pump thrust bearing damage not detected
 - 2001-007: 05/11/01 Unescorted access granted on the basis of incomplete/inaccurate information
 - 2001-009: 06/12/01 Main FW system degradation in safety-related ASME code class 2 piping inside containment of a PWR
 - 2001-010: 06/28/01 Failure of Central Sprinkler Co. Model GB Series fire sprinkler heads
 - 2001-012: 07/13/01 Hydrogen fire at a Nuclear Power Station
 - 2001-13: 08/10/2001 NRC Information Notice Inadequate Standby Liquid Control System Relief Valve Margin
12. All NCVs and NOV's issued since January 1, 2001
13. Current System Health Reports or similar system information
14. Listing of plant safety issues generated through the employee concerns program since January 1, 2001
15. Listing of action items generated by the plant safety review committees since January 1, 2001
16. Current predictive performance summary reports
17. All LERs generated for the three units since January 1, 2001.