UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
SAM NUNN ATLANTA FEDERAL CENTER
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ATLANTA, GEORGIA 30303-8931

July 17, 2002

Mr. Dale E. Young, Vice President
Crystal River Nuclear Plant (NA1B)
ATTN: Supervisor, Licensing &
Regulatory Programs
15760 West Power Line Street
Crystal River, FL 34428-6708

SUBJECT: CRYSTAL RIVER UNIT 3 - NRC INSPECTION REPORT 50-302/02-06

Dear Mr. Young:

On June 21, 2002, the NRC completed an inspection at your Crystal River Unit 3. The enclosed report documents the inspection findings which were discussed on June 21, 2002, with Mr. J. Franke and other members of your staff.

This inspection was an examination of activities conducted under your license as they relate to the identification and resolution of problems, and compliance with the Commission's rules and regulations and with the conditions of your operating license. Within these areas, the inspection involved a selected examination of procedures and representative records, observations of plant equipment and 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 resolved within the problem identification and resolution programs. The inspectors identified one Green finding. Corrective actions were not implemented to address a feedwater transient that occurred on December 15, 2001. In addition, several examples of minor problems were identified where conditions adverse to quality were not entered into the corrective action program; condition reporting evaluations lacked thoroughness or were too narrowly focused; and corrective actions were not comprehensive or were not implemented as intended.

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/

Leonard D. Wert, Chief
Reactor Projects Branch 3
Division of Reactor Projects

Docket No. 50-302
License No. DPR-72

Enclosure: Inspection Report 50-302/02-06
w/Attachment

cc w/encl: (See page 3)

cc w/encl:
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U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No:	50-302
License No:	DPR-72
Report No:	50-302/02-06
Licensee:	Florida Power Corporation (FPC)
Facility:	Crystal River Unit 3
Location:	15760 West Power Line Street Crystal River, FL 34428-6708
Dates:	June 3 - 21, 2002
Inspectors:	J. Zeiler, Senior Resident Inspector, Vogtle Electric Generating Plant D. Lanyi, Resident Inspector, St. Lucie Nuclear Power Plant S. Sanchez, Resident Inspector
Approved by:	Leonard D. Wert, Chief Reactor Projects Branch 3 Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

IR 05000302-02-06, on 06/03/2002 - 06/21/2002, Florida Power Corporation, Crystal River Unit 3. Biennial baseline inspection of the identification and resolution of problems. One Green finding in Initiating Events.

The inspection was conducted by three resident inspectors. One Green finding was identified. The significance of issues is indicated by their color (Green, White, Yellow, Red) and was determined by the Significance Determination Process in the NRC Inspection Manual Chapter 0609. 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/ASSESS/index.html.

Identification and Resolution of Problems

Based on the results of the inspection, one finding and several negative observations were identified. The licensee was effective at identifying problems at a low threshold and putting them into the corrective action program. Although two issues were identified that the licensee had not entered into the corrective action program, these were considered isolated instances and not indicative of a weakness in this area. Generally, the licensee properly evaluated issues and implemented effective and timely corrective action. Formal root causes for issues classified as significant conditions adverse to quality were especially thorough and detailed. The inspectors identified several examples in which condition reporting evaluations lacked thoroughness or were too narrowly focused, and some corrective actions were not comprehensive or were not implemented as intended. One finding of very low safety significance was identified. The inspectors identified that corrective actions to address a feedwater transient had not been implemented. Licensee audits and self-assessments were effective in identifying deficiencies in the corrective action programs. In addition, audit and assessment findings were consistent with the inspectors' observations. Based on interviews of plant personnel from various departments, personnel indicated that they felt free to input safety issues and conditions adverse to quality into the corrective action and employee concerns programs. A safety conscious work environment was evident at Crystal River.

Cornerstone: Initiating Events

- Green. The inspectors identified that corrective actions to address a feedwater transient which occurred on December 15, 2001, had not been implemented.

  This issue was more than minor because the feedwater transient required operator intervention in order to stabilize the plant and resulted in cavitation of a feedwater booster pump, which if it had tripped or become damaged, could have resulted in more severe consequences. Therefore, it was important that corrective actions should have been implemented. This finding was determined to be of very low safety significance (Green) by the significance determination process because the impact was limited to a slightly increased likelihood of a plant transient. (Section 4OA2.c)

Report Details

4. OTHER ACTIVITIES (OA)

4OA2 Problem Identification and Resolution

a. Effectiveness of Problem Identification

(1) Inspection Scope

The inspectors reviewed 151 Nuclear Condition Reports (NCRs) and Precursor Cards (PCs) (pre-June 2001 condition reporting program nomenclature) which documented issues identified by the licensee as being significant conditions adverse to quality, conditions adverse to quality, or improvement items to determine if problems were being properly identified, characterized, and entered into the corrective action program (CAP). The review primarily focused on six risk significant systems: D.C. Control (DP), Auxiliary Electrical Power (MT), Decay Heat Closed Cycle Cooling (DC), Decay Heat Removal (DH), Nuclear Services and Decay Heat Sea Water (RW), and Nuclear Services Closed Cycle Cooling (SW). The inspectors also reviewed selected NCRs and PCs (included in the 151) that were identified and evaluated by the major plant departments including operations, maintenance, engineering, security, chemistry, health physics, and emergency preparedness. The reviews included a selection of reports entered into the CAP since September 2000 which coincided with the last NRC baseline identification and resolution of problems inspection.

The inspectors reviewed Superintendent Shift Operations' logs from January through April 2002 and selected 46 maintenance work requests (WRs) associated with the aforementioned six risk significant systems to determine if deficiencies were being entered into the CAP in accordance with licensee procedure CAP-NGGC-0200, Corrective Action Program. The inspectors also conducted walkdowns of these six systems with the assigned system engineers to determine if deficiencies existed that had not been entered into the CAP.

The inspectors reviewed the licensee's evaluation of 14 selected industry experience items including event reports and NRC generic communications to assess if issues applicable to Crystal River Unit 3 were appropriately addressed.

Documents requested to support the inspection and documents reviewed are listed in the Attachment.

(2) Findings

The inspectors determined that the licensee was generally effective at identifying problems and placing them into the corrective action program. However, the inspectors identified two issues that the licensee had not entered into the CAP:

- WR 368321 identified an as-found test failure of a 480 volt non-safety-related breaker that was being refurbished. The inspectors determined that similar model breakers were used in safety-related applications. The inspectors determined that this represented a condition adverse to quality as defined in the

licensee's procedures and should have been entered into the CAP to investigate the cause of the failure and address any corrective action that may have been prudent for common cause considerations and for trending purposes. The licensee was unable to find that this issue had been entered into the CAP. The licensee subsequently initiated NCR 64561 to address the failure to enter this issue into the CAP.

- Superintendent Shift Operations' Log, dated February 20, 2002, stated that during scheduled maintenance on Fire Service Control Panel #1, a loose wire had been found in the circuit that affected the smoke detection systems in two Cable Spreading Room fire zones. While fire watches were implemented until the wiring was corrected, the licensee had not entered this issue into the CAP. The licensee subsequently initiated NCR 63197 to address the failure to enter this issue into the CAP.

The inspectors concluded that these negative observations were isolated occurrences and not indicative of a programmatic problem with identifying and documenting issues in the CAP. In general, the threshold for documenting problems was at a very low level, commensurate with the issue's risk significance and ease of discovery, and it was evident that management encouraged employees to enter problems into the CAP.

b. Prioritization and Evaluation of Issues

(1) Inspection Scope

The inspectors reviewed the aforementioned 151 NCRs, PCs, and 14 operating experience items to determine if the licensee appropriately prioritized and evaluated problems in accordance with licensee procedure CAP-NGGC-0200, Corrective Action Program, and CP-111, Processing of Precursor Cards for Corrective Action Program. The licensee's problem prioritization methodology since June 2001 involved three categories as described in CAP-NGGC-0200. Priority 1 NCRs are defined as significant conditions adverse to quality and require formal root cause evaluations. Priority 2 NCRs are defined as conditions adverse to quality and Priority 5 NCRs are defined as improvement items. The majority of the items initiated by the licensee and reviewed by the inspectors involved Priority 2 NCRs. The inspectors evaluated whether root or apparent cause(s) were adequately identified and technically adequate. The inspectors verified that proper consideration was given to plant risk, Maintenance Rule impact, operability and reportability requirements. The inspectors evaluated whether appropriate corrective actions were identified commensurate with the safety significance of the issues.

The inspectors also attended a daily management meeting and a NCR Unit Evaluator Meeting to determine if plant problems were being properly characterized, prioritized, assigned, and if appropriate management attention was applied to significant plant issues.

(2) Findings

Overall, the inspectors determined that when conditions adverse to quality were identified, the licensee entered those conditions into the CAP, prioritized them appropriately, and normally performed adequate evaluations. Formal root cause evaluation for significant conditions adverse to quality were especially thorough and detailed. The inspectors identified several negative observations involving investigations that lacked thoroughness or were too narrowly focused. These issues included the following:

- NCR 40364 discussed the failure of safety relief valve RWV-61 to lift during testing due to seawater attack and shell growth on the valve internals. The investigation incorrectly stated that RWV-61 was the shell side decay heat closed cycle cooling heat exchanger safety-relief valve versus the tube side relief. Also, the NCR did not address the extent of condition regarding the potential vulnerabilities of similar reliefs that were subjected to the same environment. The inspectors discussed this concern with the system engineer who reviewed similar relief valve performance data, at which time, it was noted that similar failures due to seawater attack and shell growth had occurred. The licensee initiated NCR 62079 to address this issue. In that the function of the relief valves in question was to protect the DC heat exchangers when they are out service and isolated for maintenance, the inspectors determined that this issue had no potential to impact the capability of the heat exchangers to perform their designed safety function.

- NCR 50188 documented lower than acceptable cooling water flow rate to containment cooling fans (AHF-1A) during routine testing. The investigation assumed that this was an equipment problem associated with a drifting cooling water throttle control valve. However, no evidence was provided to support this conclusion, nor the conclusion that there was no operabilty concern, and no corrective actions to address the assumed drift problem were developed. Based on review of design flow data, the inspectors determined that the flow had not reduced below design basis assumptions for minimum cooling water supply to the cooling fan, and past or current operability was not a concern. The licensee initiated NCR 63336 to address this item.

- NCR 52809 documented a feedwater transient that resulted in cavitation of a feedwater booster pump due to excessive flow conditions. The NCR did not address whether an assessment to determine if the pump had sustained damage due to the cavitation was performed. The licensee initiated NCR 63230 to address this item (This issue is also addressed in Section c below).

c. Effectiveness of Corrective Actions

(1) Inspection Scope

The inspectors reviewed the 151 NCRs and PCs to determine if appropriate corrective actions for issues were identified and implemented in a timely manner. The inspectors verified that common causes and generic concerns were addressed when appropriate.

The inspectors reviewed eight condition reports initiated by the licensee associated with NRC Non-Cited Violations (NCVs) and licensee event reports to verify that the licensee had appropriately addressed corrective actions for the associated issues.

The inspectors also reviewed a sample of licensee audits and assessments, trending reports, system health reports, maintenance rule implementation documents, and various other documents related to problem identification and resolution. The inspectors compared the audit and assessment results with self-revealing and NRC issues, such as those in licensee event reports and NRC integrated reports, to verify that deficiencies had been corrected and to assess the effectiveness of the licensee's corrective actions.

(2) Findings

Overall, corrective actions developed and implemented for issues were effective in correcting the problems. The inspectors generally found that the scope and depth of corrective actions implemented by the licensee were appropriate for the severity and risk significance of the problem identified. One Green finding and several negative observations were identified in which corrective actions were not comprehensive or were not fully implemented as intended.

The inspectors identified a Green finding associated with corrective actions to address a feedwater transient that occurred on December 15, 2001. The planned corrective actions or other appropriate measures had not been implemented.

NCR 52809 described a feedwater transient that occurred on December 15, 2001. The transient occurred while placing the second main feedwater pump in service at 50% rated thermal power in accordance with power ascension procedure OP-204, Power Operations. When the second main feedwater pump was placed in service, the only running feedwater booster pump experienced cavitation due to excessive flow conditions. In response to the resulting feedwater transient, operators took feedwater and reactor instrument control systems to manual and stabilized the plant at 48% power. The licensee's investigation determined that starting a second main feedwater pump with its recirculation valve open with only one booster pump in service results in too much flow through the booster pump at 50% power. The licensee determined that flow through the booster pump possibly reached 14,000 gpm when the design capacity of the booster pump is 12,760 gpm.

The planned corrective actions documented in this NCR was to revise OP-204 to ensure that the second feedwater booster pump was started prior to placing the second main feedwater pump in service. The inspectors reviewed the current revision of OP-204 and identified that the licensee had not implemented the procedure change. While an

assignment task was identified in the NCR investigation section for opening a tracking item (CAPR) to revise OP-204 by March 15, 2002, no tracking item was apparently generated. The NCR was closed on May 5, 2002, with neither the department supervisor nor the unit evaluator, identifying the failure to initiate the tracking item.

The inspectors noted that this transient required operator intervention in mitigating its consequences and resulted in cavitation of a feedwater booster pump which if it had failed or become damaged, could have resulted in more severe consequences. As such, this issue was considered to be more than minor. The finding was determined to be of very low safety significance (Green) by the Significance Determination Process because the impact was limited to a slightly increased likelihood of a plant transient. The inspectors determined that this issue did not involve a violation of NRC requirements, since it did not directly involve safety-related activities. This issue is addressed in the licensee's corrective action program as NCR 63230.

The negative observations included:

- Operating Experience (OPEX) item 40090 was initiated to review NRC Information Notice 2000-14 involving a non-vital bus fault at another nuclear facility that led to a fire and subsequent loss of offsite power event. The recommended actions of the OPEX item included further evaluation into the potential for a similar fire in the plant's startup transformer. However, the inspectors noticed that no followup action to perform the evaluation was assigned, and as a result, the evaluation was not performed. Upon notification of this deficiency, the licensee reopened the OPEX item to perform the previously intended evaluation and initiated NCR 63299 to address this negative observation item.

- NCR 47566 identified a station air valve that was found mispositioned. The investigation concluded that the most likely cause was due to either of two scenario's, both of which involved operator human errors in the use of the same controlling alignment procedure. The NCR did not identify any corrective actions necessary for this mispositioning incident, even though misuse of an alignment procedure was identified as the most likely source of the problem. The licensee initiated NCR 64187 to address this item.

- NCR 50397 identified a failure to enter Technical Specification action conditions for an out of service main steam valve during a Mode change. One of the three planned corrective actions stated in the problem description section of the NCR indicated that this and other compliance issues would be communicated to the operations shifts by means of an Operations Study Book entry. The inspectors noted that this particular corrective action item was not identified in the investigation section due to an apparent oversight, therefore, a tracking assignment was not created to implement this intended action. The licensee initiated NCR 64188 to address this item.

- NCR 58704 identified a reverse current trip of an emergency diesel during routine testing due to excessive unloading rate of the engine by the operator. While the investigation was very thorough and identified training and

communication weaknesses that contributed to the incident, all the corrective actions focused on the two individuals involved and did not address the potential need for similar training and communications lessons learned for other operators. A recent operations self-assessment indicated that these types of human errors would be shared with other operators via communications through the Operations Study Book program. The licensee initiated NCR 64188 to address this item.

Overall, Nuclear Assessment Section (NAS) audits and departmental self-assessments were effective in identifying issues and directing attention to areas that needed improvement. For example, as a result of weaknesses identified by NAS during a 2001 audit, increased management attention had been focused on improving the effectiveness and quality of self-assessment and benchmarking programs. The creation of the Self-Evaluation Unit in 2001 was also indicative of management's commitment toward continual improvement in these and other general areas of the site's CAP.

d. Assessment of Safety-Conscious Work Environment

(1) Inspection Scope

The inspectors interviewed licensee operations, maintenance, engineering, health physics, chemistry, emergency preparedness, and security personnel to develop a general view of the safety-conscious work environment at Crystal River and to determine whether any conditions existed that would cause workers to be reluctant to raise safety concerns. The inspectors questioned licensee staff to determine whether any conditions existed that were not placed in the corrective action program.

The inspectors also checked the licensee's employee concerns program designated by the licensee as an alternate means for employees to identify deficiencies and to raise safety concerns while remaining anonymous. The inspectors reviewed the employee concerns database of items submitted from September 2000 to the present and selected several concerns to evaluate in detail to verify that issues were being adequately assessed and resolved.

(2) Findings

The inspectors found that licensee management emphasized the need for all employees to identify and report conditions adverse to quality using the methods established within their administrative programs. The inspectors did not identify any reluctance on the part of licensee staff to report safety concerns.

4OA6 Exit Meeting

The team discussed these findings with Mr. J. Franke and other members of the licensee's staff on June 21, 2002. Licensee management did not identify any materials examined during the inspection as proprietary.

PARTIAL LIST OF PERSONS CONTACTED

Florida Power Corporation

M. Annacone, Manager, Operations
S. Bernhoft, Manager, Regulatory Affairs
R. Davis, Manager, Training
J. Franke, Plant General Manager
C. Gurganus, Manager, Maintenance
S. Johnson, Supervisor, Corrective Action Program
M. Folding, Superintendent, Security
S. Powell, Supervisor, Licensing
D. Roderick, Director Site Operations
J. Stephenson, Supervisor, Emergency Preparedness
J. Terry, Manager, Engineering
R. Warden, Manager, Nuclear Assessment
D. Young, Vice President, Crystal River Nuclear Plant

NRC

S. Stewart, NRC Senior Resident Inspector

ITEMS OPENED AND CLOSED

None

ATTACHMENT

DOCUMENTS REQUESTED FOR INSPECTION

1. A copy of all corporate and site level procedures associated with the corrective action process, operating experience program, risk assessment programs, maintenance rule program, employee concerns program, self-assessment programs, NRC reportability, and operability determination process

2. A list of all condition reports initiated since September, 2000 (corresponding to performance of last PI&R inspection) by individual plant departments

3. A list of all condition reports initiated since September 2000 for the following risk significant systems: DH, DC, RW, SW, DP, and MT

3. A listing of all condition report documents issued since September 2000 associated with licensee event reports, Cited and Non-Cited NRC violations, and NRC inspection report findings

4. A list of documents entered into the industry operating experience program since September 2000

5. A copy of audits and self-assessments of the corrective action processes since September 2000

6. A list of all Employee Concern Program items received since September 2000

7. Provide current risk related information for plant systems, including dominant sequences, system importance rankings, system and component risk achievement worths, etc.

8. A copy of System Health Reports issued since September 2000.

9. A list of systems which are or have been classified as (a) (1) in accordance with the Maintenance Rule since September 2000

10. A list of all maintenance work orders generated on the systems discussed in Item #2 since September 2000

LIST OF DOCUMENTS REVIEWED

Procedures and Drawings

CAP-NGGC-0200, Corrective Action Program
CP-111, Processing of Precursor Cards for Corrective Action Program
AI-302, Self Evaluation Programs
CAP-NGGC-0203, Benchmarking Program
AI-1850, Human Performance Improvement Program
CP-150, Identifying and Processing Operability Concerns
CP-151, External Reporting Requirements

ADM-NGGC-0101, Maintenance Rule Program
CP-153B, Monitoring the Performance of Systems Structures and Components Under the Maintenance Rule
ADM-NGGC-0003, Conduct of Probabilistic Safety Assessment Unit Operations, Rev. 4
CAP-NGGC-0202, Operating Experience Program
NGGD-1400, Corrective Action, Operating Experience, Self Assessment, and 10CFR21
REG-NGGC-001, Employee Concerns Program
Drawings FD-302-601, Sheets 1-5, Nuclear Services Closed Cycle Cooling
Drawings FD-302-611, Sheets 1-4, Nuclear Services and Decay Heat Sea Water

Nuclear Condition Reports

41296 MUV-544 Failed to Open For SP-370
40994 DLP-5 Tripped Following EGDG-1A Surveillance
40738 A 15 VDC Power Supply Was Replaced in ES Channel 3
40388 SP-349A Aborted Run of EFP-1
40144 Discovered ARV-117 Stuck Open
50247 Fuel Oil Assessment Weakness #5
56666 MUV-452 Failed Its PMT After PM-178A
51353 DCV-10-FR Found Out of Tolerance
42167 MUP-1A Discovered to be Leaking at 3.39 GPM
54700 B DH Train Pressure Reached 310 psi During Performance of SP-412
40798 The New Negative Sequence Relay For EGDG-1A Has Failed
52300 AHF-14C Failed to Start
50477 Unexpected Entry onto ITS 3.1.7 Condition B
41654 SP-190A Operability Requirements are Wrong
42012 Fuel Handling Hoist Moves on Its Own
42240 RPS Channel D Trip Indicator Lamp is Dim
43229 Use of Bulk Grease Guns
44194 Battery Procedure Inconsistency
45207 Breaker Not Refurbished as Planned
45905 Replacement of Wooded Scaffolding
46670 Inadvertent Transfer of Water From RCBT to MUT
48518 MSSV Testing Lessons Learned
49045 Lost Security Badge
49784 CFV-5 Inadvertently Opened by MOVATS Personnel
50147 Missed Performance of Section 4.7 in SP-175
51286 EGDG-1A Cylinder Inspection Cap Found Off
54447 ES Relay Slow to React
54895 Maintenance Work Cannot Occur Around CWP 1A through 1D
55638 Repeat Work on Piping Downstream of RWV-131
57473 WS-11-CR is Out of Tolerance
58469 RM-A12 Failure
60016 Damaged Motor
52293 For Cause FFD Test Criteria
60742 Repeated Failures of PAB-4 Air Conditioner
53256 VBIT-1D In Sync Light is Out
48648 MSV-33 Failed

41092 EXV-4 Failed
41359 Channel D RPS Channel Tripped
41765 Recurring Failure on HT-007-TR
42304 Inadvertent Fire Service Deluge Actuation
51940 Personnel Injury Due to Fire Hose Failure
49526 Employee Shocked
47620 IAP-4 Would Not Load and Then Tripped
47549 Apparent Seal Ring Leakage on DHV-4
57368 DH-19-LS Found Out of Tolerance
45834 DHV-91 Stroke Failure
42511 Inappropriate Removal of Restraint Rigging on DHV-3
42459 Rejected QC Holdpoint on DHV-3 Canopy Seal
61543 DHV-111 Standby Light Not Functioning
42306 FWP-2 Discharge Pressure Too High
61411 IWCC Generated to Correct Zero Shift Criteria
43024 RM-L3 is in Warning After Startup
42012 Second Occurrence of Fuel Hoist Moving By Itself
42447 FWV-46 Failed
54893 NRC Identified a Potential for a Loss of 4160 V Bus
50280 Missed EGDG Maximum Load Test fo Last Cycle
61764 Fire Detection Surveillance Was Deleted From Work Week Plan
54537 SP-162 Incorrectly Evaluated and Transmitted
42456 MTSW-3J-3B Failed To Close
50005 Breaker 3395 Failed to Close From Control Room
49967 DPDP-1D-9-FU-01&02 Appear Undersized for Application
51244 Peanut Shells and Cigarette Butts Found Inside the RCA
41636 Found PASS Room to be an Airborne Radioactivity Area
40087 PI for Security Equipment Has Exceeded 75% of the Green Band Margin
43550 RM-L3 Setpoint Change
44378 RM-L3 Setpoint Change
60949 Incorrect Data Submitted for Chemistry Tritium KPI
40206 Incorrect Boron Concentration for RCBT Reported to Control Room
51574 Flow Through WDDM-2A Causes Rods to Move More Than Calculated
48964 RCS Boron Lower Than Required by the COLR in Mode 6
40834 DPBA-1A&2A Failed SP-522 As Left Visual Inspection
40893 DPBA-1B&2B Failed SP-522 As Left Visual Inspection
53157 Missed Opportunity to Troubleshoot ‘C’ Battery Ground
42302 Found Overcurrent Protective Relaying Dropped Flags Tripped for BSP-1A
45102 BEST and OPT Temperature Switch Calibration Performed by Substation Personnel
45875 Clarification on PC-98-3171 and PC-00-1222
46130 Additional Training on Transformer Failure Modes/Dangers
47187 Relay AH (27BY) Failed During SP-907B
49725 Breaker 3211 Remote Shutdown Undervoltage Trip Defeated
49741 Breaker 3209 Will Not Open Via Control Handle on Main Control Board
49921 Breakers 1661 & 1662 Breaker Failure Relays Failed Trip Check
40317 2000 RERP Exercise ARCA: Incorrect Emergency Classification
40754 Declining Trend in Siren Reliability PI
42421 2001 Exercise Enhancements - Various Equipment Deficiencies
51874 Tabletop Drill Implementation Improvements Needed

52327 Unsatisfactory Completion of State Warning Notification Form
55317 Harris Plant Benchmarking Trip
58438 Item for Consideration From Benchmarking Trip to FP&L
59134 Out of Date Procedures Found in Five EOF Emergency Manuals
40133 Rebar-Spike Security Barriers Present a Significant Personnel Hazard
40567 Unsafe Work Practice Observed
41917 Badging Personnel Did Not Check Identification of NRC Personnel
47651 Security Tabletop Exercises Need Improvement
48925 Incomplete Vehicle Search at the Primary Gate
56232 Incomplete Corrective Action to Consolidate Ownership of All Site Keys
59255 Increased Safety Awareness for Weapons Handling in Security
59416 Security Nuisance Fence Found to be Degraded
41138 Site Indicator For Gaseous Effluents Exceeded Target Value
59861 RM-A6 Warning and High Setpoint Change
48050 Material Lost During Reactor Building Entry
40109 RWP-3B Exceeded Unavailability Performance Criteria
40364 RWV-61 Failure to Lift During Testing
40809 RW-2-PI Found Out of Calibration
40966 RWP-36 Failure to Close
40967 Continued Failures of RWP-1 Discharge Pressure Indication
42076 RW-2-PI Gauge Indicating Inaccurately
42389 Through-wall Leak Downstream of RWV-131
49830 High Vibration on RWP-3A
51662 Instruments RWV-150-FR2 and RWV-150-IP Out of Calibration
54655 RWP-2B Elevated Vibration Levels
55273 RWP-3A High Discharge Pressure
55638 Repeat Maintenance on Piping Downstream of RWV-131
55642 Pinhole Leak on RWP Flush Water Piping
55714 RW Leak Downstream of Weld of RWV-131
56389 RW Spool Piece Wall Thickness Degraded
39665 SWP-1A Pump Flow Rate Too High
39749 SWV-151 Failed Stroke Time Test
39936 SWV-80 Failed Stroke Time Test
41108 490 of 545 Tubes in SWHE-1A Are Clogged
41949 SWV-399 Found Out of Calibration
42106 SWV-399 Possible Repeat Maintenance
42341 SWV-151 Stroke Time Failure
45182 SWV-151 Stroke Time Failure
49435 SWV-151 Stoke Time Exceeded
50188 AHF-1A Failed Service Water Flow Test
51626 SWH-372 is Operable but not Fully Qulified
53418 As-Found Condition of SW-229-TC Was not as Expected
56004 SW-86-PT Found Out of Calibration
57588 Replaced SW-208-FI, Still Over Ranged
58746 SWV-355-PS Found Out of Tolerance
42501 Operator Work Around Guidance Needs Improvement
43024 RM-L3 In Warning Following Plant Startup
45775 RB Airborne Indicates RCS Leak Associated with Pressurizer
47566 SAV-420 Valve Mispositioning

51951 ARV-20 Found Out of Position
50397 Failure to Enter ITS 3.7.4
52809 Placing FWP-1B In Service Resulted in Feedwater Transient
52817 Feedwater Transient When FWV-28 Was Closed
53437 FSV-167 Found with No Seal
54543 WDV-887 Found Out of Position
54835 FSV-1166 Found Out of Position
57237 Conduct a Self-Assessment of 2001 Operation Configuration Control Issues
57804 ASV-23 Position Restored Incorrectly
58704 Breaker 3209 Tripped During Testing
60920 FSV-106 Found Out of Position

Precusor Cards

01-0091	DHP-1A in Alert Range for Vibration
01-1353	Found Crack in DHV-3 Yoke
00-1670	Electrical Buses Required to be Operable per ITS 3.4.8 Not included in 3.4.9 ITS List
01-0769	Badging Personnel Did Not Check Identification Of NRC Personnel Proir to Issuing Their Badge
01-0012	Continuous Fire Watch Not Performed As Required
00-2741	Findings Addressed in NRC Inspection Report Not Addressed In CAP

Operating Experience (OPEX/NCR) Items

58781 NRC IN 2002-12 Submerged Safety Related Cables
49544 NRC IN 2001-14 Problems With Incorrectly Installed Swing Check Valves
53768 NRC IN 2001-19 Improper Maintenance and Reassembly of Oil Bubblers
40090 NRC IN 2000-14 Non-Vital Bus Fault Leads to Fire and Loss of Offsite Power
40091 NRC IN 2000-13 Review of Refueling Outage Risk
41133 NRC IN 2000-21 Detached Check Valve Disc Not Detected
59844 NRC RIS 2002-04 Proposed Changes to NRC Performance Indicators
46085 NRC RIS 2001-15 Performance of DC-Powered MOV Actuators
46937 NRC RIS 2001-15 Corrective Actions
52620 NRC RIS 2001-13 Reset Fault Exposure Hours For Safety System Unavailability
52243 NRC RIS 2001-20 Revision to Guidance on NOEDs
40446 New Information Received Regarding PSC 2-00
50129 Vital Bus Transfer Switch Control Card Issue
44794 10CFR21 Notification/Review Process Is Inadequate

Work Order Documents

367899	Decay Heat Tank Filter PM
371499	Install Temporary Modification for Seal Injection on DHV-4
371117	Hot Torque Bonnet Bolting on DHV-4
370137	Reinjection of Sealant into DHV-3
368808	Remove and Replace Relief Valve DHV-38
368739	Eliminate Leaks From Decay Heat Pump, DHP-1A

370998	Prepare and Install Vibration Absorber Clamp on DHP-1A
370629	Replace Oil in DHP-1A
370229	Repair Cracked Yoke on DHV-3
370233	Replace Valve Yoke Clamp on DHV-3
368635	Provide Support for Mechanical; Testing of EXV-4
368905	Replace High Flux Trip Bistable on Channel D RPS
371062	Inspect DHP-1B Motor Shaft and Keyway
371811	Clean/Repair/Replace Damaged PI Connector
372403	Troubleshoot Failure of AHF-14C to Start
369817	Troubleshoot Negative Sequence Relay Failure on EGDG-1A
372727	Repair Leaks on DHP-1A Vent Connection
267899	Troubleshoot DCV-10-FR Failure
364990	Troubleshoot MUV-452 Failure
367518	ARV-117 Stuck Open
365205	Replace 15 VDC Power Supply on ES Channel 3
368851	Adjust MUV-543 Valve Actuator Limit Switch
370125	Refurbish Breaker MTSW-2E-3B8
368455	Repair Battery Connections
216833	Perform Infrared Surveys
368190	Clean DPBA-1C Battery Cell Connections
216358	Clean DPBA-1C Battery Cell Connections
216455	DC Ground Present on Non-1E Battery
368456	Repair Battery Connections
216966	Periodic Checks For Battery Grounds
370248	Determine Why Breaker MTSW-3J-3B Failed To Close
216526	Repair Breaker MTSW-3J-3B
370795	Inspect Internal Wiring on Breaker MTMC-7-5C
369227	Replace Stripped Bolts on MTDG-1
368321	Refurbish Breaker MTSW-3E-4C
367097	Correct Control Wiring Discrepancies in RWP-2B
367394	Rebuild Pump RWP-3A
369364	Perform UT Exam of Piping at RWP-1 Discharge
369935	Perform UT Exam at RWV-146
370225	Repair RWP-4 Loss of Flow Indication
370303	Replace SWV-84-KS1/KS2 Limit Switches
370695	Adjust Speed Controls to SWV-151
370972	Rebuild SWHE-1B Tube Side Relief Valve
371438	Install Flow Plugs in RCP-1B Seal Coolers
371993	Clean RWSP-1A
372465	Verify Correct Wiring on Output Isolator Modules

Engineering Documents

System Health Reports, 4th Quarter 2000 through 1st Quarter 2002
Maintenance Rule System Scoping Report for Crystal River 3
Crystal River 3 Probabilistic Safety Assessment, Level 1 Qualification Notebook

Quality Assurance Documents

CNAS-2001-07, Corrective Action Program
CNAS-2001-13, Operations Functional Area Assessment
CNAS-2001-20, Engineering Section Assessment
CR-3 Trend Rollup Reports from 1st Quarter 2001 to 1st Quarter 2002
CR-3 Self-Evaluation Board Meeting Minutes from 2001 to 2002