UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET SW SUITE 23T85
ATLANTA, GEORGIA 30303-8931

July 29, 2004

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 PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION REPORT 050000302/2004007

Dear Mr. Young:

On July 2, 2004, the NRC completed an inspection at your Crystal River Unit 3. The enclosed report documents the inspection findings which were discussed on July 2, 2004, with you and other members of your staff.

This inspection was an examination of activities conducted under your license as they relate to the identification and resolution of problems, and compliance with the Commission's rules and regulations and 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, there were no findings of significance identified during this inspection. The inspectors concluded that overall, problems were properly identified, evaluated, and resolved within the problem identification and resolution programs. However, the inspectors observed from the more recent data reviewed that several lower threshold issues had not been entered into the corrective action program. In addition, several examples were identified where problem evaluations lacked thoroughness or were narrowly focused.

In accordance with 10 CFR 2.390 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 the NRC's document

system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Joel T. Munday, Chief
Reactor Projects Branch 3
Division of Reactor Projects

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

Enclosure: Inspection Report 05000302/2004007
w/Attachment: Supplemental Information

cc w/encl: (See page 3)

cc w/encl:
Daniel L. Roderick
Director Site Operations
Crystal River Nuclear Plant (NA2C)
Electronic Mail Distribution

Jon A. Franke
Plant General Manager
Crystal River Nuclear Plant (NA2C)
Electronic Mail Distribution

Richard L. Warden
Manager Nuclear Assessment
Crystal River Nuclear Plant (NA2C)
Electronic Mail Distribution

Michael J. Annacone
Engineering Manager
Crystal River Nuclear Plant (NA2C)
Electronic Mail Distribution

R. Alexander Glenn
Associate General Counsel (MAC - BT15A)
Florida Power Corporation
Electronic Mail Distribution

Steven R. Carr
Associate General Counsel - Legal Dept.
Progress Energy Service Company, LLC
Electronic Mail Distribution

Attorney General
Department of Legal Affairs
The Capitol
Tallahassee, FL 32304

William A. Passetti
Bureau of Radiation Control
Department of Health
Electronic Mail Distribution

Craig Fugate, Director
Division of Emergency Preparedness
Department of Community Affairs

Electronic Mail Distribution

Chairman
Board of County Commissioners
Citrus County
110 N. Apopka Avenue
Inverness, FL 36250

Jim Mallay
Framatome Technologies
Electronic Mail Distribution

Distribution w/encl:
B. Mozafari, NRR
L. Slack, RII EICS
RIDSNRRDIPMLIPB
PUBLIC

OFFICE	RII/DRP		RII/DRS		RII/DRP									
SIGNATURE	SON		RLM		RJR1									
NAME	SNinh		RMoore		RReyes									
DATE	7/29/2004		7/28/2004		7/29/2004									
E-MAIL COPY?	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO
PUBLIC DOCUMENT	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO

OFFICIAL RECORD COPY DOCUMENT NAME: C:\MYFILES\Copies\CRPIR-2004-07.wpd

U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No:	50-302
License No:	DPR-72
Report No:	05000302/2004007
Licensee:	Florida Power Corporation (FPC)
Facility:	Crystal River Unit 3
Location:	15760 West Power Line Street Crystal River, FL 34428-6708
Dates:	June 14 - July 2, 2004
Inspectors:	S. Ninh, Senior Project Engineer R. Moore, Senior Reactor Inspector R. Reyes, Resident Inspector
Accompanying Personnel:	C. Peabody
Approved by:	Joel T. Munday, Chief Reactor Projects Branch 3 Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

IR 05000302/2004007; 06/14/2004 - 07/02/2004; Crystal River Nuclear Plant, Unit 3; Identification and Resolution of Problems.

The inspection was conducted by a senior project engineer, a senior reactor inspector, and a resident inspector. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, “Reactor Oversight Process,” Revision 3, dated July 2000.

Identification and Resolution of Problems

The licensee’s corrective action program was generally effective at identifying problems at an appropriate threshold level and entering them into the corrective action program. Evaluation of issues was generally comprehensive and technically adequate. Formal root cause evaluation for issues classified as significant conditions adverse to quality were especially comprehensive and detailed. 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. Industry operating experience items were effectively evaluated for applicability and entered into the corrective action program (CAP). Nuclear Assessment Section (NAS) audits and departmental self-assessments were effective in identifying issues and directing attention to areas that needed improvement. Licensee identified weaknesses and issues in self- assessments were appropriately entered into the corrective action program and addressed. Based on discussions conducted with plant employees from various departments the inspectors did not identify any reluctance to report safety concerns. Further, the inspectors concluded that the licensee was aggressive in addressing potential chilling effect issues. However, the inspectors observed from the more recent data reviewed that several lower threshold issues had not been entered into the CAP. In addition, several examples were identified where problem evaluations lacked thoroughness or were narrowly focused.

Report Details

4. OTHER ACTIVITIES (OA)

4OA2 Problem Identification and Resolution

a. Effectiveness of Problem Identification

(1) Inspection Scope

The inspectors reviewed the licensee's corrective action program (CAP) procedures which described the administrative process for initiating and resolving problems primarily via Nuclear Condition Reports (NCRs). The inspectors reviewed selected NCRs, and attended meetings where NCRs were screened for significance, to determine whether the licensee was identifying, accurately characterizing, and entering problems into the corrective action process at an appropriate threshold. The sample of NCRs was selected starting from May 2002.

The inspectors selected NCRs for review which involved issues covering the seven cornerstones of safety identified in the NRC's Reactor Oversight Process (ROP). The selected sample involved various licensee classified severity levels and site departments. The inspectors also conducted a detailed review of NCRs for three risk significant systems and one low risk significant system. These systems were selected based on equipment performance history, Maintenance Rule (MR) considerations, and risk significance insights from the licensee's probabilistic safety assessment. The systems selected for review were the Emergency Diesel Generators (EDGs), Nuclear Services & Decay Heat Seawater System (RW), Main Feedwater System (MFW), and Offsite Power Transformer (OPT) and Backup ES Transformer (BEST). The inspectors reviewed the maintenance history and selected completed Work Orders (WOs) for the four systems and reviewed associated system health reports. Additional NCRs were selected which were associated with MR evaluations and problems previously identified by NRC. The inspectors also reviewed NRC inspection results of NCRs documented in NRC inspection reports over the last two year time period. These reviews were performed to verify that problems were being properly identified, appropriately characterized, and entered into the CAP. Items reviewed generally covered a 2 year period of time, however, 5 year historical review for the RW piping corrosion and EDG foreign material evaluation issues was conducted.

The inspectors conducted plant walkdowns of equipment associated with the four selected systems to assess the material condition and to look for any deficiencies that had not been entered into the CAP. Control Room walkdowns were performed by the inspectors to verify the main control room (MCR) deficiency list and to ascertain whether deficiencies were entered into the CAP. Control room operator logs and site

observation items were reviewed to verify that issues identified were properly entered into the CAP.

The inspectors reviewed selected industry operating experience items associated with the four systems, including NRC generic communications, to verify that these were appropriately evaluated for applicability and whether issues identified through these reviews were entered into the CAP.
The inspectors reviewed licensee Quality Assurance audits, Quality Assurance quality reports, and department self-assessments including those which focused on problem identification and resolution to verify that findings were entered into the CAP and to verify that these findings were consistent with the NRC's assessment of the licensee's CAP.

The inspectors attended various plant meetings to observe management oversight functions of the corrective action process. These included morning meetings, a Plant Nuclear Safety Committee meeting, a Nuclear Safety Committee meeting, and a weekly self unit evaluator meeting.

The inspectors reviewed a sample of employee concern reports (ECRs) completed in 2002 and 2003 to assess the licensee's disposition of the concern and verify that CAP-related items were being properly identified and entered into the CAP program.

Documents reviewed are listed in the Attachment.

(2) Assessment

The inspectors determined that the licensee's corrective action program was generally effective at identifying problems at an appropriate threshold level and entering them into the corrective action program. Industry operating experience items were effectively evaluated for applicability and entered into the corrective action program (CAP). Nuclear Assessment Section (NAS) audits and departmental self-assessments were effective in identifying issues and directing attention to areas that needed improvement. Licensee identified weaknesses and issues in self assessments were appropriately entered into the corrective action program and addressed. However, the inspectors observed from the more recent data reviewed that several lower threshold issues had not been entered into the CAP, as described below. The inspectors were unable to discern if this indicated a recent shift in threshold for documenting issues. The issues were discussed with licensee management who indicated that the procedural threshold and management expectations had not changed.

- Several fire extinguishers were missed during the performance of SP-800 surveillance on two separate occasions before a third occasion was documented in NCR 128280. No NCRs were initiated to document the first two separate occasions.

- Site observation #504 documented rainwater flowing from a contaminated area into a clean area, however, no NCR was generated to document and address the problem.

- Control room logs documented in February 2004 that the reactor building backup air sample pump, RM-A6A , would not function properly with a tritium trap in service and resulted in inadequate air sample flows, however, no NCR was generated to document the problem.

(2) Findings

No findings of significance were identified.

b. Prioritization and Evaluation of Issues

(1) Inspection Scope

The inspectors reviewed selected NCRs and operating experience items to determine if the licensee appropriately prioritized and evaluated problems in accordance with licensee procedure CAP-NGGC-0200, Corrective Action Program. The licensee's problem prioritization methodology since June 2001 involved three categories as described in CAP-NGGC-0200. Priority 1 NCRs were defined as significant conditions adverse to quality and required formal root cause evaluations. Priority 2 NCRs were defined as conditions adverse to quality and Priority 5 NCRs were defined as improvement items. The inspectors reviewed selected Priority 1 and 2 NCRs and evaluated whether root or apparent cause(s) were appropriately assigned 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) Assessment

The inspectors determined that overall, the licensee had appropriately assessed and prioritized issues. Adequate consideration was given to system or component operability and associated plant risks. The inspectors concluded that evaluation of issues was generally comprehensive and technically adequate. Formal root cause evaluation for issues classified as significant conditions adverse to quality were especially comprehensive and detailed. However, several examples were identified where problem evaluations lacked thoroughness or were narrowly focused:

- The inspectors determined that NCRs 00111445 and 00120067 involved inadequate material evaluation for component replacement of the main feedwater system. The apparent cause of these NCRs did not address why the material evaluation process failed to identify the incompatability of the components.

- NCR 00080569, "EDG-1A fuel leak from fuel header to fuel injector," was closed to NCR 00080551, "Fuel Oil Leak on EDG-1A extends LCO time." These two NCRs documented two separate problems. The inspectors determined that the investigation performed under NCR 00080551 did not address the concern identified in NCR 00080569. The licensee initiated NCR 00130880 to address this issue.

- The inspectors reviewed NCR 00106443, "RC pressure boundary leakage at upper level TAP for RC-1-LT3", which addressed the failure to identify and correct the RCS leakage from the pressurizer upper level instrument tap identified in NCV 2003-06. The inspectors determined that the root cause evaluation did not specifically address why the licensee failed to identify and correct the leaks at earlier opportunities (in 2000 and 2001 refueling outage).

- The inspectors identified that the licensee did not recognize a stroke test failure of valve MUV-544 on January 3, 2004, as a functional failure in their maintenance rule evaluation and did not place the system in a(1) status. Subsequently, the licensee initiated NCR 00119855 to conduct the extent of condition review. As a result, the licensee found several repetitive functional failures that were originally mis-classified and subsequently placed Electrohydraulic Control, Nuclear Services Closed Cycle Cooling, and Chemical Addition systems in a(1) status.

- The inspectors determined that four NCRs 00082203, 00067862, 00099848, and 00111050 were assigned as maintenance rule applicability, but maintenance rule evaluations were not performed. However, none of the equipment problems identified in these NCRs was considered a functional failure.

- The inspectors determined that although an apparent cause determination was required for NCR for 00099848, which involved seal ring leaks of valves RWV-128, 129, and 133, no cause was determined. The seal rings were simply replaced.

(3) Findings

No findings of significance were identified.

c. Effectiveness of Corrective Actions

(1) Inspection Scope

The inspectors reviewed NCRs associated with the systems selected to determine if appropriate corrective actions were identified and implemented in a timely manner. The inspectors verified that common causes and generic concerns were addressed when appropriate.

In addition, the inspectors reviewed corrective actions for previous NRC Non-Cited Violations (NCVs), NCRs/Action Requests (ARs) associated with operating experience issues, and NCRs associated with licensee event reports, licensee audits and self-assessments, trending reports, system health reports, and maintenance rule implementation issues to verify that the licensee had appropriately implemented.

(2) Assessment

The inspectors determined that 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.

(3) Findings

No findings of significance were identified.

d. Assessment of Safety-Conscious Work Environment

(1) Inspection Scope

The inspectors asked questions during technical discussions with members of the plant staff to develop a general perspective of the safety-conscious work environment at Crystal River Nuclear Plant and to determine whether any conditions existed that would cause workers to be reluctant to raise safety concerns.

The inspectors also reviewed 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 since May 2002 and selected several employee concern reports (ECRs) to evaluate in detail to verify that issues were being properly reviewed, resolved, and entered into the CAP when appropriate.

(2) Assessment

Based on discussions conducted with plant employees from various departments the inspectors did not identify any reluctance to report safety concerns. Further, the inspectors concluded that the licensee was aggressive in addressing potential chilling effect issues.

(3) Findings

No findings of significance were identified.

4OA6 Exit Meeting

The inspectors discussed these findings with Mr. Dale Young and other members of the licensee's staff on July 2, 2004. Licensee management did not identify any materials examined during the inspection as proprietary.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee personnel:

J. Huegel, Manager, Operations
W. Brewer, Manager, Maintenance
R. Davis, Manager, Training
J. Kreuhm, Manager, Work Controls and Outage
D. Hanna, Supervisor, Self Evaluation and Emergency Preparedness
S. Powell, Supervisor, Licensing
M. Rigsby, Radiation Protection Manager
R. Warden, Manager, Nuclear Assessment
D. Young, Vice President, Crystal River Nuclear Plant
S. Young, Security Manager

NRC

S. Stewart, NRC Senior Resident Inspector
V. McCree, Director, Division of Reactor Projects

ITEMS OPENED, CLOSED AND DISCUSSED

None

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, operability determination process, and system health report program.

2. A list of all condition reports initiated (at least) since May 1, 2002 (corresponding to performance of last PI&R inspection). Also, provide a list of all condition reports specifically for the following risk significant systems initiated since May 1, 2002. The systems include: Emergency Diesel Generators (EDGs), Main Feedwater System (MF) Offsite Power Transformer and ES Backup Transformer, Nuclear Services & Decay Heat Sea Water (RW). Ensure these lists include a brief description of the problem and the classification.

3. A listing of all condition report documents associated with LERs, Non-Cited NRC violations, NRC inspection report findings, issued since May 1, 2002.

4. Corrective action program statistics such as the number initiated by department, backlogs, human performance errors by department, and others as may be available.

5. A list of industry operating experience documents entered into the “industry operating experience program” (i.e., NRC Bulletins, NRC Generic Letters, NRC RISE, NRC Information Notices, Part 21 reports, and vendor information letters and information from other sites etc. affecting the risk significant systems listed in Item #2 above).

6. Copy of all Corporate Nuclear Safety Review Board (CNSRB) and Plant Nuclear Safety Committee (PNSC) meeting minutes/documents issued since May 1, 2002.

7. A copy of audits and self-assessments of the corrective action processes since May 1, 2002.

8. A list of all Employee Concern Program items received since May 1, 2002.

9. A copy of System Health Reports issued since May 1, 2002.

10. A list of systems which are or have been classified as (a) (1) in accordance with the Maintenance Rule since May 1, 2002. Include applicable procedures for classifying systems or components as (a) (1), date and reason for being placed in (a) (1), and actions completed and current status.

11. Provide a list of Maintenance Preventable Functional Failures since May 1, 2002. Include actions completed and current status.

12. Provide a list of all maintenance work requests generated on the systems discussed in Item #2. Include at least a general description to reasonably determine what maintenance problem involved.

13. A list of Temporary Modifications and instrument calibration failure reports for the systems annotated in Item #2.

14. Operator Work Around Log from May 1, 2002.

15. Outstanding main control room deficiencies list.

16. Backlog/deferred list of periodic tests, preventive maintenance items (PMs), corrective maintenance items (CMs).

17. A list of changes to EOPs since May 1, 2002 and a list of EOPs are remained to be open or working on.

18. A copy of control room logs for the month of June and July for 2002, 2003, and January and February for 2004.

LIST OF DOCUMENTS REVIEWED

Procedures

ADM-NGGC-0003, Conduct of probabilistic safety assessment unit operations
CP-150, Identifying and processing operability concerns
CP-111bB, Non-conforming condition resolution and evaluation
AI-1701, System Engineering Standards
NGG-NGGD-1400, NGG self evaluation program
ADM-NGGC-0006, Online EEOs models for risk assessment
REG-NGGC-0001, Employee concerns program
AI-701, Administration of the ASME Section XI inservice inspection and inservice testing program
CAP-NGGC-0201, Self-assessment program
CAP-NGGC-0200, Corrective action program
CAP-NGGC-0203, benchmarking program
CP-151, External reporting requirements
REG-NGGC-0013, Evaluating and reporting of defects and noncompliance in accordance with 10 CFR 21
AI-302, self evaluation program
CAP_NGGC-0202, Operating experience program
AI-1851, Site observation program
AI-1852, Management observation program
ADM-NGGC-0101, Maintenance rule program
CP-153B, Monitoring the performance of systems structures and components under maintenance rule
CAP-NGGC-0205, Significant adverse condition investigations
CAP-NGGC-0204, Human performance program
PM-305, Calibration of CHHE-1A/1B Magnetic Overload Relays, Rev. 0
MP-499, Emergency Diesel Generator Engine Inspection/Maintenance, Rev. 25

NCRs priority 1

NCR 00104557,BWST Water Inadvertently transferred to the SF pools
NCR 00070640, Repetitive failures of AHF-19B exceed MR performance criteria
NCR 00125872, Component mis-positioning - SFV - 43
NCR 00106453, Posted locked high radiation area found un-locked
NCR 00108956, Transfer of BWST to RCS during restoration of SP-417
NCR 00106443, RC pressure boundary leakage at upper level TAP for RC-1-LT3
NCR 00123632, Repeat functional failure in SW system
NCR 00092064, Failure of RWP-3A breaker during the testing
NCR 00073129, Drain valve opened for ECO # 42411 but red tag not hung
NCR 00064518, Clearance tags hung in wrong cabinet
NCR 00081924, The maintenance rule structural program does not include manholes
NCR 00062173, SROs stood licensed duties w/o being respirator qualified
NCR 00088129, "B" train SW system exceeds maintenance rule criteria
NCR 00064573, Operations clearance errors exceed the 2002 KPI goal
NCR 00118881, MUV-544 repetitive functional failures
NCR 00111509, EH system exceeds maintenance rule performance criteria
NCR 00123619, CA system repetitive functional failure
NCR 00105988, MSV-45 & 35 Setpoints AS-Found Data exceeds TS Limit
NCR 00076622, Auto Rx Trip on 11/7/02, Due to Mis-operation of Breaker 1662
NCR 00125149, DFV-61 Leak By on EGDG-1A Causes Slow Start
NCR 00071367, SAST 64213 Issues: Failure to Implement Corrective Action Plan
NCR 00075978, Power Reduction Due To FWP-2A Oscillations
NCR 00110023, Feedwater Transient Causes Reactor Trip
NCR 00062928, Unplanned Actuation of EGDG-1A Due to Loss of OPT
NCR 00066523, Unplanned Actuation of EGDG-1A Due to Loss of MTTR-9 OPT

NCRs priority 2

NCR 00084693, Rebar nicked during anchor installation for RW vent sleeves
NCR 00085621, WO 222316 out of tolerance
NCR 00081007, RWP-2A vibrations remain in the Alert range
NCR 00064538, Inadequate apparent cause evaluation for NCR 53418
NCR 00064451, RWP1 & 3A vibrations unacceptable when RWH-85/143 installed
NCR 00067678, RWH-152 rejected at time of final visual examination
NCR 00067983, Unable to open RWV-7 due to roll pin failure
NCR 00068281, Found out of tolerance during WO#222043
NCR 00069576, RWP-3A vibration data in Alert range
NCR 00072217, RWP-3A was not scheduled for an increased frequency run
NCR 00073109, RW-10-TI out of tolerance
NCR 00078462, RWP-2A in Alert on D/P during SP-344A
NCR 00060258, Weakness identified in the NCR initiation and review process
NCR 00081122, RW flow Vs. SWHE blockage calc (M94-0050) requires revision
NCR 00082023, RWH-92, Weld examination was not requested prior to SP-208
NCR 00089575, Began the installation of EC# 51262 without a signed WO task

NCR 00089822, RWP-2A lead weight trough installation
NCR 00067862, SWHE-1C requires cleaning impacting 2W30
NCR 00092144, High vibration levels observed on RWP2A/2B (both pumps running)
NCR 00117947, Discovery of boric acid accumulation on 1CS-537
NCR 00061781, OP-880A manual actions
NCR 00111050, AI-612 patch installed upstream of RMV-130
NCR 00105749, 10 CFR 50.59 screen prepared and reviewer not qualified at CR3
NCR 00064977, EWH-143 drawing does not match as left field conditions
NCR 00067142, RWP-2A will require a modification during 13R
NCR 00067495, RW flush water leak found during inspection
NCR 00067506, RWP-3B delta pressure low into action region
NCR 00078498, Incorrect bolt size at RWP-1 discharge flange
NCR 00094259, RWP-2A failed to meet SP-344A ISI criteria
NCR 00096453, AR 64451 closed prior to field work complete
NCR 00098171, Contractor not notified of required support in timely manner
NCR 00098198, Thru wall leak at RMV-130
NCR 00107695, Pipe support RWH-142 not in design configuration
NCR 00087013, WO# 222315-01 out of tolerance
NCR 00123772, RWV-58 failed high (SP-602)

NCR 00107783, Hanger deficiencies in WO 216921-15
NCR 00115171, PM request initiated but not submitted or created
NCR 00123310, RWV-24 has flow induced vibration
NCR 00100442, RWV-60 failed as found setpoint high
NCR 00091084, NEI generic guidelines for safeguards implementation
NCR 00094182, NEI document discovered to contain safeguards information
NCR 00108120, PT-542 was not performed for the week of 10/13/03
NCR 00083996, MR functional failure of CHHE-1B did not have root cause evaluation
NCR 00095966, Both Control Complex Chillers Inoperable
NCR 00080569, EGDG-1A Fuel Header Leak
NCR 00080551, EGDG-1A Fuel Header Leak
NCR 00108372, EGDG-1B Fails to Meet SP-354B Fast Start Requirement
NCR 00119066, EGDG-1A Turbo-charger End Play Clearance low
NCR 00051374, 2002 Assessment of CR3 Check Valve Program
NCR 00112333, SAST 101065, Weakness-1, Examples of Noncompliance with CAP-NGGC-200
NCR 00080475, Weakness-1 from SAST 74239, NAS CAP Self-assessment
NCR 00118025, EGDG-1B Injector Leaked During Maintenance Run
NCR 00052786, Feedwater Flow Transient While Removing Feedwater Pump 1A From Service
NCR 00052809, Placing Feedwater Pump 1B in Service Resulted in Feedwater Transient
NCR 00055691, Workers Were Contaminated During DHV-32 Maintenance
NCR 00058819, EFP-3 Tagging Error
NCR 00058911, Unanticipated Condition Orange For RWP Work Activities
NCR 00063197, NCR Not Written When Expected
NCR 00063230, One CA Assignment For A/R 52809 Was Not Created
NCR 00063299, Missed Recommendation For Follow Up Evaluation

NCR 00063336, No Further Invest. Determination For NCR 50188
NCR 00064187, NRC PI&R Inspection Action Item
NCR 00064188, NRC PI&R Action Item
NCR 00064561, MRSW-3E-4C Breaker Failure Not Documented With PC
NCR 00066692, Document The Programmatic Repeat Failure Of The OPT Feeder
NCR 00067398, Out Of Tolerance
NCR 00069085, FW-365-PI As Found Out Of Spec
NCR 00070875, ICS Upset During WO 283302
NCR 00074501, FWV-18 Inadvertently Opened Causing A Plant Transient
NCR 00076909, Problems With FW Pump Control during Recent Power Increase
NCR 00078305, FWP-1B Was Oscillating During Restoration From Manual
NCR 00083780, Power Increase Occurred When Transferring ICS To Auto
NCR 00089891, FWP-2B Oscillations In DP Control During Downpower
NCR 00090037, FWP-2B C/O Boundary Changes Not Controlled IAW OPS-NGGC-1301
NCR 00090049, FWV-28 Control Switch Failed To Close Valve
NCR 00090162, FW Swings During FWV-28 Cycling After maintenance On FWP-2B
NCR 00094858, RWP-2A, Increased Frequency Test Requirements
NCR 00095966, Both Control Complex Chillers Declared Inoperable
NCR 00096022, Out Of Tolerance On FW-371-F11
NCR 00100513, Licensed Operator Medical Restriction Not Updated
NCR 00100078, FWP-2B Control Linkage From The Governor Is Loose
NCR 00104792, Out Of Tolerance , SP-169B
NCR 00105249, Vibration Data Taken On Wrong Component
NCR 00106443, RC Pressure Boundary Leakage At Upper Level Tap For RC-1-LT3
NCR 00106834, FWV-32 Actuator T-Drain Did Not Meet EQ Requirements
NCR 00107615, FW-39-PT Failed Calibration
NCR 00107785, FWV-30 “As Left” Exceeded Cal Sheet NTE
NCR 00107868, Procedure Steps Performed Using Non-Conservative Techniques
NCR 00108130, HT Tools Found In Cold Tool Room
NCR 00108376, Replacement Valve For FWV-19 CAT# 63190006 Is Incorrect
NCR 00108661, Found Swagelok Fitting On FWV-153 Loose And Leaking
NCR 00108728, Found Indicators Out Of Tolerance
NCR 00108840, “B” MFP Speed Cals, Out Of Tolerances
NCR 00108841, PM’s Not Performed During W.O. 275881-01
NCR 00108960, PM’s Not Performed During W.O. 243982-01
NCR 00110179, Rod 2-1 Stator Temp Rise Requiring Securing Power To Rod
NCR 00110326, Incorrect ICS Module Calibrations Causes Plant Startup Delay
NCR 00111445, Main Feed Pump Woodward 2301 Replacement Power Supplies
NCR 00112744, FW-377-TT And FW-378-TT Found Out Of Tolerance
NCR 00119476, New Corrective Action Identified in LER 50-302/01-005-01
NCR 00120067, B Main Feedwater Pump Relatched After Trip
NCR 00122486, NCR 00122684 - FWV-8 Problem Delayed Return To Full Power
NCR 00106803, FWV-29 As Found Thrust Valve Exceed Cal Data Sheet Limits
NCR 00107785, FWV-30 “As Left” Exceeded Cal Sheet NTE
NCR 00108728, Found Indicators Out of Tolerance
NCR 00066692, Document the Programmatic Repeat Failure of the OPT Feeder

NCRs priority 5

NCR 00077147, DC/RW Flow instrument is difficult to use
NCR 00062079, RW thermal relief valve are unreliable
NCR 00125607, Total number of open correction actions above administrative limit
NCR 00124224, CR3 human error rate increased over limit
NCR 00124216, CR3 total open investigation number above the target
NCR 00125641, Mecatiss on RWP-2B needs compensatory action until restored
NCR 00095581, RWOP-2B A01-axial bearing vibration data in alert range
NCR 00096536, SWHE blockage count methodology needs reviewed
NCR 00098519, As found setpoint for RWV-2 found high
NCR 00098500, RW-2-PI out of tolerance
NCR 00107787, RW flush flows do not consistently restore after header test
NCR 00089284, RWP-2B vibration close to alert range
NCR 00091062, Several documents should be reviewed IAW SEC-NGGC-2120
NCR 00123020, To attain IPTE tracking number for “A” RW Flume dive
NCR 00107083, Document caveat for EC 53186 IAW EGR-NGGC-0005 Rev.15
NCR 00081243, IPTE for bravo RW dive on 1/15/03
NCR 00067411, Document Lessons Learned During the June OPT Trip That Were Not Captured in Other NCRs Related to That Event.

Work Orders

WO 00422791, RWP-2B rebuild
WO 00549037, RWP-2B obtain data
WO 00536634, RW-7-PI replacement
WO 00486294, RWV-131, Install AI-612 patch
WO 00486068, RWV-130, Install AI-612 patch
WO 00480633, With valve in manual and closed leak by is 5 gpm
WO 99456038, RWV-130 leaking from valve to pipe weld
WO 00430955, RWV-130 through wall leak downstream
WO 00275200, FWP-2A, Leak Repair EC 49473
WO 00276322, FW-58-FE, Install And Remove EC 49159
WO 00277687, FW-323-PS, SP-112T, Oil Leak On Component Fitting
WO 00282452, FW-320-PS, SP-112T, Oil Leak On Component Fitting
WO 00297839, S257 (FW-66-PT), Comp. Point Failed Low
WO 00332720, FWP-2A, Transient Condition "Reduction In Power"
WO 00338022, FWP-2B Contingent WO To Tune The FWP-2B
WO 00407981, Replace FWV-263
WO 00473200, FW-39-PT Failed Calibration
WO 00473538, FWV-31, MP-402E, During 14R
WO 00478824, FW-179-SV, Solenoid Valve Stuck Open
WO 00479165, FWTB-1A, Perform Funct. Test Of Controller
WO 00479171, FWTB-1B, Perform Funct. Test Of Controller
WO 00480450, FWP-2B Auto Relatching After Trip Signal Removed
WO 00481572, FWP-2B, CNTRL Of "B" FWP Lost Going From Hand To Auto

WO 00482152, FW-39-PT, Replace Failed L&N Xmitter With Rosemont
WO 00496022, FWP-1A, A List Of Vendor Repairs Required
WO 00506738, FW-283-PI (FWP-2B), 150 PSIG Error
WO 00529306, B Main Feedwater Pump Relatched After Manual Tripping
WO 00529896, FWV-30 Did Not Go Full Open In Automatic
WO 00537851, FWP-1A Interlock Will Not Make Up Allowing Start Of Pump
WO 00545562, FW-282-PI; Gauge Reads 100# High
WO 00370891, Replace All 24 fuel Injection Pump Discharge Cage O-rings and All Manifold Gaskets, 10/2/01
WO 00371174, Clean the Fuel Storage Tank, suction Foot Valve and Strainer, 110/2/01
WO 00370889, Install New Fuel Check Valves, 10/7/01
WO 00245345, M,PM, EGDG-1A MP-499 Maintenance, 3/1/04
WO 00237895, M,PM, EGDG-1B, MP-499 Maintenance, 2/11/04

Operating experience items

AR 00062283, OE NRC 2002-018
AR 00069994, OE14498- Preliminary: Gas void formation in high head safety injection
AR 00066717, NRC inspection report Crystal River 50-302/02-06
AR 00117728, OE17753 - non conservative design input used in LOCA
AR 00103831, OE- ECCS NPSH calc model error
AR 00073383, OE14444 Non-conservative methodology used
AR 00066315, OE14274 Flow restrict from epoxy on pall trinity micro filters
AR 00113811, BNF INPO AFI EN.2-1, Heat exchangers
AR 00113813, BNF INPO AFI EQ1-2, Equipment PMS
AR 00099004, Part 21 2003-18 Failure of K - line circuit breaker
AR 00104676, OE16839 Stuck open PORV caused by positioner failure
AR 00062594, NRC IN 2002-018, Water storage tank gas overpressure
AR 00068310, 10 CFR Part 21 - EMD D/G Piston Flaking
AR 00070218, OE 14502 - EDG Load Fluctuations
AR 00070717, SOER 86-3 Check Valve Failures and Degradation
AR 00108014, 10 CFR 21 Cutler Hammer Overload Heaters
AR 00069998, OE 14497 - Diesel Fuel Tank Level Discrepancy
AR 00072053, 10 CFR Part 21 - EMD Air Start Air Pressure Regulating Valve May Stick
AR 00084319, OE NRC event #39554, Four EDGs Declared Inop. At Fermi
AR 00087899, OE 15688, Update to OE 15387 - AFW Pump Turbine Overspeed
AR 00095132, OE16288 - NAMCO Limit Switch EA 740-80100 Failures
AR 00106115, IN 2003-17, Reduced Service Life of ASCO Solenoids with Buna-N Material
AR 00081334, 10 CFR Part 21 02-25, Fairbanks Morse Leaking Fuel Injector
AR 00125236, 10 CFR Part 21, Fairbanks Morse Engine Safety Hazard on Woodward Digital Reference Units
AR 00085024, OE 15380 - FWHE Tube Side Relief Valve
AR 00098862, OE 16556 - Cracks Found on Feedwater Drive Tube

NCRs/LERs

NCR 00106443, LER 03-003-00 RCS Pressure Boundary Leakage at Upper Level Tap for RC-1-LT3
NCR 00050427, LER 01-005-00, Unplanned Emergency Feedwater Actuation
NCR 00062928, LER 02-001-00, Unplanned Actuation of EGDG-1A Due to Loss of OPT
NCR 00119476, LER 01-005-01, New Corrective Action Identified in LER 50-302/01-005-01
NCR 00105988, LER 03-003-00, MSV-45 and 35 Set Point As-Found Data exceeded TS Limit
NCR 00043024, LER 01-003-00,
NCR 00076622, LER 02-002-00, Automatic Reactor Trip
NCR 00095966, LER 03-001-00,
NCR 00106443, LER 03-003-00 RC Pressure Boundary Leakage at Upper Level TAP for RC-1-LT3
NCR 00108023, LER 03-004-00, SPDS and T-SAT Power Supplies Reverse in the MCR
NCR 00110023, LER 03-005-00, Feedwater Transient Causes Reactor Trip
NCR 00119478, LER 03-005-01, Wrong Component Identifier in LER 50-302/03-005-00
NCR 00122486, LER 04-001-00,

NCR 00125075, LER 04-002-00, EDG-1A Failed to Start Within Required Time Per SP-354A

NCRs/NCVs

NCR 00058819, NCV 02-02-01, Failure to Properly Position a Component During Clearance (tagging) Activities
NCR 00058911, NCV 02-02-02, Failure to Complete an Accurate Risk Assessment per 10 CFR 50.65 (a)(4)
NCR 00094858, NCV 03-04-01, Failure to Implement Inservice Testing Program Requirements
NCR 00095966, NCV 03-05-01, Failure to Maintain Two Operable Control Complex Cooling Trains
NCR 00061781, NCV 03-05-02, Failure to Protec One Train of Safe Shutdown Equipment From Fire Damage
NCR 00107868, NCV 03-06-01, Failure to Correctly Perform the Magnetic Particle Calibration
NCR 00106443, NCV 03-06-02, Failure to Identify and Correct a Small Pressure Boundary Leak in the Pressurizer Upper Level instrument Tap Nozzles

NCRs/Green Findings

NCR 00066692, Document the Programmatic Repeat Failure of the OPT Feeder
NCR 00063230, One CA Assignment for A/R 52809 Was not Created
NCR 00105249, Vibration Data Taken on Wrong Component
NCR 00110023, Feedwater Transient Causes Reactor Trip
NCR 00100513, Licensed Operator Medical Restriction Not Updated

NCRs/Previous PI&R NRC Observations

NCR 00063299, Missed Recommendation for Followup Evaluation
NCR 00064187, NRC PI&R Inspection Action Item
NCR 00064188, NRC PI&R Action Item
NCR 00063336, No Further Investigation Determination for NCR 50188 Inaccurate
NCR 00063197, NCR Not Written When Expected
NCR 00064561, MTSW-3E-4C Breaker Failure Not Documented Within PC

Engineering Documents

System Health Reports in 2002 and 2003
Maintenance Rule System Scoping Report for Crystal River 3
Emergency Diesel Generator System Health Reports, Jan.-June 2003, July - Dec., 2003
Feedwater System Health Report: Jan -Jun 2003
Feedwater System Health Report: July- Dec 2003
Maintenance Rule Expert Panel Meeting Minutes - SE04-0062
Maintenance Rule Expert Panel Meeting Minutes - SE04-0016
CR-3 Four Quarter 2003 and First Quarter Standard Trend Process Reports

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 2002 to 1st Quarter 2004
CR-3 Self-Evaluation Board Meeting Minutes from 2002 to 2003

Self-Assessments

Self-Assessment Report 51478, Conduct a SA of the Implementation of the Corrective Action Program, dated 4/29/04
Self-Assessment Report AR74239, Biennial Assessment of the CR3NAS Corrective Action Program, dated 12/19/02
Self-Assessment Report 58783, Maintenance Self Assessment of Corrective Action Program, dated 6/28/02
Self-Assessment Report 64213, Operations Corrective Action Program Effectiveness Review, dated 8/22/02
Self-Assessment Report 60128, Biennial Assessment of t he CR3 Corrective Action Program, dated 10/25/02
Self-Assessment Report SSAERC 51190, 2002 SA for Effectiveness of 2001 NAS Issues, dated 3/30/02
Self-Assessment Report 102065, Adequacy of Documentation Contained Within Priority 2 NCRs Processed Using NFIR Option, dated 9/15/03
Self-Assessment Report 113092, , Cross functional SA of CR3's Corrective Action Program, dated 2/20/04
Self-Assessment Report 113090, Selected SOER Recommendations, dated 2/30/04
Self-Assessment Report 00079862, Perform SA for OE Program and SOER Process, dated 8/27/03

Misc

AR 00089384, PEP-240, Revision 6, Activation and operation of the TSC
PNSC Minutes# 109942 - February 19, 2004
CM Backlog
Operator Workaround list in 2004
Temporary Mods List in 2004
Control Room Operator Logs in 2004
Site Observations Unsatisfactory Results in 2004
PNSC Meeting Minutes in 2004
NSRC Meeting minutes in 2004
EOP/AP Manual Operator Critical Task Lists
Equipment Performance Priority List (EPPL)