

# UNITED STATES NUCLEAR REGULATORY COMMISSION

#### REGION II

SAM NUNN ATLANTA FEDERAL CENTER 61 FORSYTH STREET SW SUITE 23T85 ATLANTA, GEORGIA 30303-8931

July 28, 2000

Florida Powder & Light Company

ATTN: T. F. Plunkett

President - Nuclear Division

PO Box 14000

Juno Beach, FL 33408-0420

SUBJECT: ST. LUCIE NUCLEAR PLANT - NRC INTEGRATED INSPECTION REPORT

50-335/2000-05 AND 50-389/2000-05

Dear Mr. Plunkett:

On July 1, 2000, the NRC completed an inspection at your St. Lucie 1 & 2 reactor facilities. The enclosed report presents the results of that inspection, which were discussed on July 6, 2000, with Mr. R. Kundalkar and other members of your staff.

The inspection was an examination of 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 a selective examination of procedures and representative records, observations of activities, and interviews with personnel.

No findings were identified during this inspection.

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 <a href="http://www.nrc.gov/NRC/ADAMS/index.html">http://www.nrc.gov/NRC/ADAMS/index.html</a> (the Public Electronic Reading Room).

Sincerely,

/RA/

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

Docket Nos. 50-335, 50-389 License Nos. DPR-67, NPF-16

Enclosure: NRC Inspection Report

w/Attached Revised Reactor Oversight Process

cc w/encl: (See page 2)

FPL 2

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FPL 3

W. Gleaves, NRR PUBLIC

OFFICE	RII:DRP	RII:DRP	RII:DRP	RII:DRP	RII:DRS	RII:DRS	RII:DRS	RII:DRS
SIGNATURE	LWert/for	TRoss	TRoss/for	GWarnick	LWert/for	GKuzo	RAiello	BCrowley
NAME	SNinh	TRoss	DLanyi	GWarnick	CPatterson	GKuzo	RAiello	BCrowley
DATE	7/28/00	7/27/00	7/27/00	7/27/00	7/25/00	5/17/00	7/28/00	6/13/00
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

# U.S. NUCLEAR REGULATORY COMMISSION REGION II

Docket Nos: 50-335, 50-389 License Nos: DPR-67, NPF-16

Report No: 50-335/2000-05, 50-389/2000-05

Licensee: Florida Power & Light Company (FPL)

Facility: St. Lucie Nuclear Plant, Units 1 & 2

Location: 6351 South Ocean Drive

Jensen Beach, FL 34957

Dates: April 2, 2000 - July 1, 2000

Inspectors: T. Ross, Senior Resident Inspector

D. Lanyi, Resident Inspector G. Warnick, Resident Inspector

C. Patterson, Senior Resident Inspector (Turkey Point)

G. Kuzo, Senior Radiation Specialist (Region II)

R. Aiello, Reactor Engineer (Region II)
B. Crowley, Reactor Inspector (Region II)

Approved by: L. Wert, Chief

Reactor Projects Branch 3 Division of Reactor Projects

#### SUMMARY OF FINDINGS

IR 05000335-00-05, IR 05000389-00-05, on 04/02-07/01/2000; Florida Power & Light; St. Lucie Plant; Units 1 & 2. Resident Operations Report.

This inspection was conducted by the resident inspectors, an regional operator licensing examiner, a regional senior radiation specialist, and a regional reactor maintenance inspector. No findings were identified during this inspection. The significance of issues is indicated by their color (green, white, yellow, red) and would have been determined by the Significance Determination Process (see attachment; NRC's Revised Reactor Oversight Process).

#### Report Details

# Summary of Plant Status:

Unit 1 operated at essentially full power for the entire report period. Unit 2 began the report period at full power, but was shutdown on April 16, 2000 for a scheduled refueling outage. Unit 2 was returned to full power operation on May 20, 2000, and remained at full power for the remainder of the report period.

#### 1. REACTOR SAFETY

**Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity (Reactor - R)** 

# 1R01 Adverse Weather Preparations

# .1 Hurricane Season Preparations

#### a. <u>Inspection Scope</u>

The inspectors verified that systems, structures, and components (SSCs) vulnerable to high winds and potential flooding were in a condition to remain operable during a hurricane or tropical storm affecting the site. The inspectors reviewed the Updated Final Safety Analysis Report (UFSAR), Individual Plant Examination of External Events, Emergency Plan Implementing Procedures (EPIPs), Technical Specifications (TS), and Administrative Procedure ADM-04.01, Hurricane Season Preparations. Additionally, selected areas and equipment were walked down to verify that the licensee had adequately implemented the requirements of ADM-04.01.

# b. Issues and Findings

No findings were identified.

#### .2 Tornado Warning

#### a. Inspection Scope

The inspectors verified that the licensee took appropriate actions in accordance with Administrative Procedure AP-0005753, Severe Weather Preparations, when the State of Florida declared a tornado warning on April 13, 2000.

## b. <u>Issues and Findings</u>

No findings were identified.

# 1R04 Equipment Alignment

#### a. Inspection Scope

The inspectors conducted partial alignment verifications of the safety related systems listed below to evaluate the alignment of the redundant trains or backup systems while the other trains were inoperable or out of service. The verifications included reviews of plant lineup procedures, operating procedures, and piping and instrumentation drawings which were compared with observed equipment alignments to identify any discrepancies which could affect operability of the redundant train or backup system.

- 2A high pressure safety injection (HPSI) system
- Unit 2 shutdown cooling (SDC) and HPSI systems prior to reduced inventory operations
- 1A component cooling water (CCW) system
- Unit 2 instrument air system

# b. <u>Issues and Findings</u>

No findings were identified.

# 1R05 Fire Protection

#### .1 Routine Tours of Plant Areas

#### a. Inspection Scope

The inspectors conducted tours of the areas listed below that are important to reactor safety and referenced in Administrative Procedure AP-1800022, Fire Protection Plan, to evaluate conditions related to licensee control of transient combustibles and ignition sources; the material condition, operational status, and operational lineup of fire protection systems, equipment and features; and the fire barriers used to prevent fire damage or fire propagation.

- Unit 1 emergency diesel generators (EDGs)
- Unit 2 reactor containment building
- Unit 2 electrical and mechanical penetration rooms
- Unit 2 cable spreading room

# b. Issues and Findings

No findings were identified.

# .2 Fire Brigade Drills

#### a. Inspection Scope

The inspectors observed two fire brigade drills to evaluate the readiness of the licensee's personnel to prevent and fight fires in accordance with Administrative Procedure AP-1800023, Fire Fighting Strategies.

#### b. Issues and Findings

No findings were identified.

# 1R06 Flood Protection Measures

#### a. Inspection Scope

The inspectors reviewed documentation and conducted walkdowns of risk significant areas for both units to verify that flood mitigation plans and equipment are consistent with the design requirements and the risk analysis assumptions. Documents reviewed included UFSAR Sections 3.4 and 9.5A, the Individual Plant Examination, and the Individual Plant Examination of External Events. Plant areas containing risk significant systems or components which were susceptible to either internal or external flooding were examined to evaluate the condition of flood protection equipment. These areas included the Unit 2 CCW building, -0.5 foot elevation of the reactor auxiliary buildings (RAB), emergency core cooling system rooms, and several safety related manholes and catch basins. The inspectors also reviewed Off-Normal Procedure ONP-24.01, RAB Flooding, to verify that operator actions to mitigate an internal flooding event could reasonably be used to achieve the desired actions.

# b. <u>Issues and Findings</u>

No findings were identified.

#### 1R11 Licensed Operator Requalification Program

#### a. Inspection Scope

The inspectors observed and assessed simulator training for actions taken during station blackout conditions. The inspectors assessed the following items:

- Clarity and formality of communication.
- Ability to take timely action to safely control the unit.
- Prioritization, interpretation, and verification of alarms.
- Correct use and implementation of procedures, including the alarm response procedures by the crew.
- Control board operation and manipulation, including high-risk operator actions.
- Oversight and direction provided by the shift supervisor, including ability to identify and implement appropriate technical specifications actions such as reporting and emergency plan actions and notifications.
- Effectiveness of the post training critique.

#### b. Issues and Findings

No findings were identified.

#### 1R12 Maintenance Rule Implementation

#### .1 Maintenance Rule Effectiveness

#### a. <u>Inspection Scope</u>

The inspectors sampled portions of the systems listed below due to performance problems and assessed the effectiveness of maintenance efforts on these systems in accordance with ADM-17.08, Implementation of 10 CFR 50.65, The Maintenance Rule. Reviews focused on maintenance rule scoping in accordance with 10 CFR 50.65 and characterization of failed systems or components. Additionally, the safety significance classifications, the 10 CFR 50.65 (a)(1) or (a)(2) classifications, and the appropriateness of performance criteria for systems or components classified as (a)(2), or goals and corrective actions for those classified as (a)(1), were also reviewed.

- Units 1 and 2 radiation monitors
- Unit 2 reactor protection system (RPS)
- Unit 2 low pressure safety injection (LPSI) system
- Units 1 and 2 CCW systems
- Units 1 and 2 EDGs

#### b. Issues and Findings

No findings were identified.

# .2 Periodic Assessment

#### a. Inspection Scope

The inspectors reviewed the licensee's third maintenance rule periodic assessment, "Maintenance Rule Periodic Assessment August 1998 Through February 2000", dated February 25, 2000, issued to satisfy paragraph (a)(3) of 10 CFR 50.65. The inspectors verified that the assessment was issued in accordance with the time restraints of the Rule, and included evaluation of: balancing reliability and unavailability, (a)(1) activities, (a)(2) activities, and use of industry operating experience. To verify compliance with 10 CFR 50.65, the inspectors reviewed selected maintenance rule activities covered by the assessment period from the following risk significant systems: Unit 1 Auxiliary Feedwater (AFW) system, Unit 2 RPS, Unit 1 EDGs, Units 1 and 2 HPSI systems, Units 1 and 2 CCW systems, and Unit 2 Chemical Volume and Control system.

#### b. <u>Issues and Findings</u>

No findings were identified

#### 1R13 Maintenance Risk Assessments and Emergent Work Control

#### a. <u>Inspection Scope</u>

The inspectors reviewed the following maintenance tasks to evaluate the effectiveness of the risk assessments performed before maintenance activities were conducted. The inspectors verified that the licensee was managing overall risk appropriately, and that, upon identification of an unplanned situation, resulting emergent work activities were properly planned and controlled per ADM-10.03, Work Week Management. The inspectors also confirmed that problems with maintenance risk assessments and emergent work were identified and addressed through the corrective action program.

- Unit 1 sodium hydroxide/containment spray additive solenoid valve electrical ground
- Unit 2 power operated relief valve inoperable for low temperature overpressure protection.
- Unit 2 refueling water tank to coolant charging pump line leak
- Unit 2 HVS-5B motor windings overhaul due to low resistance readings
- Unit 1 emergency borate valve 36 month preventive maintenance

#### b. <u>Issues and Findings</u>

No findings were identified.

#### 1R14 Personnel Performance During Non-routine Plant Evolutions and Events

#### a. Inspection Scope

The inspectors examined Operations personnel performance during the following two unplanned events:

- On April 17, 2000, Unit 2 experienced excessive leakage from the reactor coolant system (RCS) while operators were attempting to place the 2A shutdown cooling (SDC) system into service. Unit 2 was in a shutdown condition when this incident occurred. This unexpected RCS leakage resulted in a Notice of Unusual Event according to EPIP-01, Classification of Emergencies.
- On May 4 and May 7, 2000, the 2A SDC system experienced three water hammers during attempted quick starts of the 2A LPSI pump in accordance with normal operating procedure 2-NOP-03.05, Revision 6, Shutdown Cooling. Unit 2 was in a shutdown condition when these incidents occurred, with no fuel in the Unit 2 reactor vessel during the first two occurrences.

The inspectors witnessed portions of operator actions in response to the first event; and reviewed applicable documentation, including operator logs, strip charts, and Condition Reports (CRs), of operator response to both events. The inspectors also interviewed responsible operators, their supervisors, and Operations management. The inspectors verified that problems associated with these incidents were appropriately identified and addressed in the licensee's corrective action program.

# b. <u>Issues and Findings</u>

No findings were identified.

# 1R15 Operability Evaluations

#### a. Inspection Scope

The inspectors reviewed the following operability evaluations to ensure that operability was properly justified and the SSC remained available, such that no unrecognized increase in risk occurred. Review of the UFSAR and CR dispositions were accomplished to assess the technical adequacy of these evaluations.

•	CR 00-0969/0970	Unit 2 Power Operated Relief Valve stroke test failure
•	CR 00-0878	Foreign material in Unit 2 reactor vessel
•	CR 00-0468	Unit 2 main steam isolation valve environmental qualification
•	CR 00-1102	1B1 safety injection tank level indication and alarm

#### b. Issues and Findings

No findings were identified.

#### 1R16 Operator Workarounds

#### a. Inspection Scope

The inspectors evaluated an operator workaround involving the Unit 2 Power Operated Relief Valves (PORVs) for risk significance and the cumulative effect on safety. A small amount of seat leakage had developed from both PORVs due to the valves being cycled numerous times during the recent Unit 2 outage for position indication troubleshooting. Both PORV block valves were required to be placed in an abnormal configuration to isolate the PORVs and stop the seat leakage. The workaround screening criteria of Operations Policy OPS-510, Operations Workaround Policy was reviewed for this abnormal PORV configuration. The workaround was reviewed to determine if the functional capability of the relief system or human reliability in responding to an initiating event was affected. Also, the inspector evaluated the effect on the operator's ability to implement abnormal or emergency procedures. During this review, the PORV seat leakage subsequently stopped and the normal valve configuration was restored which terminated the need for the workaround.

#### b. Issues and Findings

No findings were identified.

#### 1R19 Post Maintenance Testing

#### a. <u>Inspection Scope</u>

The inspectors reviewed post maintenance test procedures and test activities for selected risk significant mitigating systems to assess the following: (1) the effect of testing on the plant had been adequately addressed by control room and/or engineering personnel; (2) testing was adequate for the maintenance performed; (3) acceptance criteria were clear and adequately demonstrated operational readiness consistent with design and licensing basis documents; (4) test instrumentation had current calibrations, range and accuracy consistent with the application; (5) tests were performed as written with applicable prerequisites satisfied; (6) jumpers installed or leads lifted were properly controlled; (7) test equipment was removed following testing; (8) and that equipment was returned to the status required to perform its safety function.

WOs 29020153, 29014026
 WOs 29019922, 28023530
 WO 28010729
 ZA EDG
 ZB EDG

WO 30007521-01 Unit 2 pressurizer level control channel

#### b. <u>Issues and Findings</u>

No findings were identified.

# 1R20 Refueling and Outage Activities

#### a. <u>Inspection Scope</u>

The inspectors examined the following activities accomplished during the scheduled Unit 2 refueling outage. These activities were inspected for conformance with applicable plant procedures and Technical Specifications. Selected aspects of each of these activities were also witnessed by the inspectors.

- Outage planning and associated risk assessment activities
- Reactor shutdown
- Reactor cooldown and initiation of shutdown cooling
- Reduced reactor cooling system inventory and mid-loop operations
- Shutdown risk evaluations
- Reactor cavity seal ring installation and testing
- Refueling operations
- Equipment clearance orders 2-00-02-271R and 2-00-02-206R
- Containment closeout
- Reactor startup
- Startup physics testing
- Power escalation

# b. <u>Issues and Findings</u>

No findings were identified.

# 1R22 Surveillance Testing

#### a. <u>Inspection Scope</u>

The inspectors witnessed operating procedures (OP), operations surveillance procedures (OSP), maintenance surveillance procedures (MSP), instrumentation and control procedures (ICP), and reviewed test data of selected risk-significant systems or components listed below, to assess whether they met TS, UFSAR, and licensee procedure requirements. Also, the inspectors verified that the testing demonstrated that the systems were operationally ready and capable of performing their intended safety functions.

•	OP 2-0700050	2B Auxiliary Feedwater System In-Service Test
•	OP 2-0400050	Engineered Safety Features Testing
•	OP 2-2200050A	2A Emergency Diesel Generator 24 Hour Test
•	2-OSP-100.16	Remote Shutdown Components 18 Month Functional Test
•	OP 0-1300052	Unit 2 Airlock Periodic Leak Testing
•	ICP 2-1200054	PORV Low Temperature Overpressure Protection Setpoint
		Verification
•	2-MSP-08.07	Main Steam Safety Valve Testing
•	ICP 1400055	Environmental Data Acquisition Semi-Annual Calibration

#### b. <u>Issues and Findings</u>

No findings were identified.

#### 1R23 <u>Temporary Plant Modifications</u>

#### a. Inspection Scope

The inspectors reviewed temporary system alteration TSA#1-00-003 for removing the 1A hot leg resistance temperature detector (TE-1112HD) input to the reactor protection system. The inspectors evaluated the temporary modification and associated 10 CFR 50.59 screening against the system design basis documentation, and verified that the modification did not affect system operability or availability. Additionally, inspectors verified that the installation was consistent with applicable modification documents and was conducted with adequate configuration control.

# b. <u>Issues and Findings</u>

No findings were identified.

#### **Cornerstone: Emergency Preparedness (EP)**

# 1EP6 Emergency Planning Drill Evaluation

#### a. Inspection Scope

On June 22, 2000, the inspectors observed an emergency response organization drill. The inspectors observed licensee activities in the main control room (simulator) and

Technical Support Center to assess whether classification, notification, and protective action recommendation development activities were in accordance with applicable EPIPs. Additionally, the inspectors evaluated the adequacy of the post drill critiques conducted in the simulator and Technical Support Center.

#### b. Issues and Findings

No findings were identified.

#### 2. RADIATION SAFETY

**Cornerstone: Occupational Radiation Safety (OS)** 

#### 2OS1 Access Control to Radiologically Significant Areas

#### a. Inspection Scope

Radiological controls for the following Unit 2, Refueling Outage Cycle 12, activities were reviewed:

- Radiation Work Permit (RWP) 00-3002, Unit 2, Reactor Containment Building (RCB), 62 foot (') Elevation and Reactor Cavity, Remove, Install lower Duct work, Reactor Cavity Static Lines, Install/Remove Dance Floor, Revision 1 (Rev. 1),
- RWP 00-3006, Unit 2, RCB 62' Elevation and Reactor Cavity, Install/Remove Stud Tensioners, Detension, Tension, Studs, Install Stud Hole Plugs, and Alignment Pins, Rev. 0,
- RWP 00-3005, Unit 2 RCB 62' Elevation and Reactor Upper Cavity, Remove Cavity Seal Ring, Cut and Remove Old Rubber Boot, Rev. 0,
- RWP 00-3055, Unit 2 RCB 62' Elevation, Install/Remove Core Support Barrel Lift Rig. Remove Core Support Barrel To Lower Cavity/Replace in Vessel After Inspection, Rev. 1,
- RWP 00-3409, Unit 2, RCB 23' Reactor Drain Tank. Inspect and Repair Screens Around Emergency Core Cooling System Sump, Rev. 1,
- RWP 00-3324, Unit 2 RCB 18' 2A/2B Steam Generator Channel Heads, C.E.
   Install, Operate, and Remove Genesis Equipment in Steam Generators, Perform Eddy Current Testing and Tube Plugging Operation, Rev. 1,
- RWP 00-3418, RCB All Areas, Install and Remove Freeze Seals and Support Work, Rev. 0

The inspectors reviewed administrative and engineering controls for high radiation, locked-high radiation, and very high radiation areas. Where applicable, evaluations included direct observation of pre-job briefings, work-in-progress, and Health Physics

job coverage. Area and personnel radiation surveys and controls for storage of highly activated materials were verified. Radiological control details for tasks with significant dose rate gradients, with transient high dose-rates, and with the potential to create elevated concentrations of airborne radioactive materials were reviewed. Licensee activities were reviewed against TS and 10 CFR Part 20 requirements.

#### b. Issues and Findings

No findings were identified.

# 2OS2 "As Low As Reasonably Achievable" Program Planning and Controls

#### a. Inspection Scope

The inspectors reviewed the plant collective exposure history, current exposure trends and ongoing high dose-rate and high person-rem exposure activities. Site-specific trends in collective exposures and source-term data were reviewed and discussed. The licensee program for estimating and tracking department and job-specific dose expenditures was reviewed. Engineering controls, low dose waiting areas, radiation worker performance, health physics technician proficiency, and supervisory oversight used to reduce occupational dose during the current refueling outage were evaluated. Licensee "As Low As Reasonably Achievable" Program job evaluations, and exposure estimates for selected refueling outage tasks were reviewed. For selected tasks, estimated and actual dose budgets were compared.

#### b. Issues and Findings

No findings were identified.

# 4. OTHER ACTIVITIES (OA)

# 4OA1 Performance Indicator Verification

#### .1 Initiating Events

#### a. Inspection Scope

The inspectors verified the accuracy of the performance indicator for unplanned power reductions of 20 percent or more which were reported to the NRC. The inspectors reviewed data applicable to four quarters of operation beginning with the second quarter of 1999 and ending the first quarter of 2000. The inspectors reviewed Operations logs, monthly operating reports, condition reports, and maintenance rule records to ensure the data reported was complete and accurate.

#### b. <u>Issues and Findings</u>

No findings were identified.

# .2 <u>Mitigating Systems</u>

# a. Inspection Scope

The inspectors verified the accuracy of the performance indicator for safety system unavailability of the HPSI system which was reported to the NRC. The inspectors reviewed data applicable to four quarters of operation beginning with the second quarter of 1999 and ending the first quarter of 2000. The inspectors reviewed Operations logs, condition reports, and maintenance rule records to ensure the data reported was complete and accurate.

#### b. Issues and Findings

No findings were identified.

#### .3 <u>Barrier Integrity</u>

#### a. Inspection Scope

The inspectors verified the accuracy of the performance indicator for reactor coolant system leakage which was reported to the NRC. The inspectors reviewed data applicable to four quarters of operation beginning with the second quarter of 1999 and ending the first quarter of 2000. The inspectors reviewed Operations logs and OP 0010125A, Data Sheet 1, Reactor Coolant System Water Inventory Balance, to ensure the values reported were accurate.

#### b. Issues and Findings

No findings were identified.

# .4 Occupational Radiation Safety

#### a. Inspection Scope

The inspectors verified the Occupational Exposure Control Effectiveness performance indicator for the Occupational Radiation Safety Cornerstone through April 2000. The inspectors reviewed data reported to the NRC and sampled and evaluated selected Health Physics Program records and applicable Corrective Action Program Condition Reports.

# b. <u>Issues and Findings</u>

No findings were identified.

# 4OA3 Event Followup

- .1 (Closed) Licensee Event Report (LER) 50-389/2000-001: Cycle 11 Main Steam Safety Valves Surveillance Outside Technical Specification Requirements. The main steam safety valve surveillance test failures were in the conservative direction, and were attributed to setpoint drift and appropriately evaluated to have a very low safety significance. The inspector reviewed the licensee's root cause and safety analyses, and concluded that the findings as stated in the LER were reasonable. The low setpoints were not caused by any deficiencies in the licensee's performance. Corrective actions to restore compliance with TS were completed during the recent Unit 2 refueling outage. This LER is closed.
- .2 (Closed) LER 50-335/2000-002: Missed Surveillance and Operation Prohibited by Technical Specifications. On April 2, 2000, Operations personnel determined that a required weekly surveillance test to verify that safety related 4160 volt buses were capable of receiving power from off-site power had not been performed within the required time period. The surveillance was completed satisfactorily on April 1, 2000, which was two days after the grace period had expired, while preparing for an unrelated EDG test.

The inspector reviewed CR 00-0517 written to address this missed surveillance, and the associated root cause analysis. The analysis was comprehensive and thorough in evaluating the event, determining root causes, and developing corrective actions. Personnel error was determined to be the cause of this event in that Operations personnel did not give adequate attention to detail with regards to following procedural requirements for surveillance testing and during supervisory review of shift paperwork.

The inspectors concluded that this violation of TS had no safety impact. It was an isolated incident caused by personnel error, and not indicative of a programmatic deficiency. Review of the surveillance completed on April 1, 2000, confirmed that the safety related 4160 volt buses remained capable of receiving power from off-site power

sources through the associated start-up transformer. This issue constitutes a violation of minor significance and is not subject to formal enforcement action. This LER is closed.

.3 (Closed) Licensee Event Report (LER) 50-389/2000-002: Valve V3523 Not Fully Closed Results in Operation of Facility Outside Technical Specifications. During the recent Unit 2 refueling outage, the licensee discovered foreign material (portions of a broken charging pump spring) inside the 2B hot leg safety injection valve (V3523). This material was the apparent cause of the performance problems with V3523 in December 1998 which were previously examined in detail by the resident inspectors as documented in section E2.1 of NRC Inspection Report 50-335,389/98-12. After reviewing this LER, and conducting additional followup inspection, the inspectors determined that the conclusions presented in IR 98-12 regarding V3523 operability remained valid. Due to the intermittent nature of the problems with V3523, the licensee's actions were considered appropriate and did not constitute a violation of TS. Between December 4 and 16, the operators successfully stroked V3523 fully closed on several occasions, thereby exiting the applicable TS action statements. The licensee also appropriately addressed the charging pump spring issues in their corrective action program. This LER is closed.

# 4OA5 Other

(Closed) Inspector Followup Item (IFI) 50-335, 389/99-09-01: The inspectors reviewed the licensee's corrective actions which resulted from a licensee self assessment and from NRC identified issues documented in Inspection Report 50-335,389/99-09. These issues were tracked as Inspector Followup Item (IFI) 50-335,389/99-09-01, Followup of Systems Approach to Training Weaknesses.

The inspectors reviewed corrective action program documentation to determine if corrective actions were sufficient to preclude repetition of the noted weaknesses. These issues included corrective actions dealing with the loss of configuration control; inadequate exam development, validation and grading; the evaluation process used to assess program changes; and on-shift training and mentoring. The inspectors determined that the licensee was appropriately addressing the issues tracked as IFI 50-335, 389/99-09-01 in the corrective action program. The IFI is closed.

#### 4OA6 Meetings

# .1 Exit Meeting Summary

The inspectors presented the inspection results to Mr. R. Kundalkar and other members of licensee management at the conclusion of the inspection on July 6, 2000. The licensee acknowledged the findings presented.

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

# .2 Plant Performance Review Meeting

On May 24, 2000, the Region II Division of Reactor Projects Branch Chief conducted the Plant Performance Review (PPR) meeting for the period February 1, 1999 to January 31, 2000. The Division of Reactor Projects Branch Chief discussed the results of the PPR as described in the PPR letter dated March 31, 2000.

# .3 Revised Reactor Oversight Process Meetings

On May 24, 2000, a meeting with the public and local officials was held to present an overview of the NRC's Revised Reactor Oversight Process.

#### PARTIAL LIST OF PERSONS CONTACTED

#### Licensee

- B. Dunn, Site Engineering Manager
- G. Bird, Protection Services Manager
- W. Bladow, Maintenance Manager
- D. Calabrese, EP Supervisor
- R. De La Espriella, Site Quality Manager
- W. Guldemond, Operations Manager
- R. Kundalkar, Site Vice President
- C. Ladd, Operations Supervisor
- W. Lindsey, Training Manager
- E. Weinkam, Licensing Manager
- R. West, Plant General Manager
- C. Wood, Work Control Manager

Other licensee employees contacted included office, operations, engineering, maintenance, chemistry/radiation, and corporate personnel.

#### **ITEMS CLOSED**

Closed		
50-389/00-01	LER	Cycle 11 Main Steam Safety Valves Surveillance Outside Technical Specification Requirements (Section 4OA3.1).
50-335/00-02	LER	Missed Surveillance and Operation Prohibited by Technical Specifications (Section 4OA3.2).
50-389/00-02	LER	Valve V3523 Not Fully Closed Results in Operation of Facility Outside TS (Section 4OA3.3).
50-335,389/99-09-01	IFI	Followup Of SAT Weaknesses (Section 4OA5)

# NRC's REVISED REACTOR OVERSIGHT PROCESS

The federal Nuclear Regulatory Commission (NRC) recently revamped its inspection,

assessment, and enforcement programs for commercial nuclear power plants. The new process takes into account improvements in the performance of the nuclear industry over the past 25 years and improved approaches of inspecting and assessing safety performance at NRC licensed plants.

The new process monitors licensee performance in three broad areas (called strategic performance areas): reactor safety (avoiding accidents and reducing the consequences of accidents if they occur), radiation safety (protecting plant employees and the public during routine operations), and safeguards (protecting the plant against sabotage or other security threats). The process focuses on licensee performance within each of seven cornerstones of safety in the three areas:

# Reactor Safety

# Radiation Safety

# **Safeguards**

- Initiating Events
- Mitigating Systems
- Barrier Integrity
- Emergency Preparedness
- Occupational
  - Public
- Physical Protection

To monitor these seven cornerstones of safety, the NRC uses two processes that generate information about the safety significance of plant operations: inspections and performance indicators. Inspection findings will be evaluated according to their potential significance for safety, using the Significance Determination Process, and assigned colors of GREEN, WHITE, YELLOW or RED. GREEN findings are indicative of issues that, while they may not be desirable, represent very low safety significance. WHITE findings indicate issues that are of low to moderate safety significance. YELLOW findings are issues that are of substantial safety significance. RED findings represent issues that are of high safety significance with a significant reduction in safety margin.

Performance indicator data will be compared to established criteria for measuring licensee performance in terms of potential safety. Based on prescribed thresholds, the indicators will be classified by color representing varying levels of performance and incremental degradation in safety: GREEN, WHITE, YELLOW, and RED. GREEN indicators represent performance at a level requiring no additional NRC oversight beyond the baseline inspections. WHITE corresponds to performance that may result in increased NRC oversight. YELLOW represents performance that minimally reduces safety margin and requires even more NRC oversight. And RED indicates performance that represents a significant reduction in safety margin but still provides adequate protection to public health and safety.

The assessment process integrates performance indicators and inspection so the agency can reach objective conclusions regarding overall plant performance. The agency will use an Action Matrix to determine in a systematic, predictable manner which regulatory actions should be taken based on a licensee's performance. The NRC's actions in response to the significance (as represented by the color) of issues will be the same for performance indicators as for inspection findings. As a licensee's safety performance degrades, the NRC will take more and increasingly significant action, which can include shutting down a plant, as described in the Action Matrix.

More information can be found at: http://www.nrc.gov/NRR/OVERSIGHT/index.html.