



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
245 PEACHTREE CENTER AVENUE NE, SUITE 1200
ATLANTA, GEORGIA 30303-1257**

November 17, 2010

EA-09-321

Mr. Mano Nazar
Executive Vice President
Nuclear and Chief Nuclear Officer
Florida Power and Light Company
P.O. Box 14000
Juno Beach, Florida 33408-0420

**SUBJECT: PUBLIC REGULATORY PERFORMANCE MEETING SUMMARY – ST. LUCIE
NUCLEAR PLANT, UNIT 1 - DOCKET NO. 50-335**

Dear Mr. Nazar:

This refers to the meeting conducted on November 4, 2010, in Jensen Beach, Florida. The purpose of this Regulatory Performance Meeting was to discuss corrective actions associated with the Yellow finding that was documented in NRC Inspection Report 05000335/2010007. The finding dealt with the failure to identify and correct the source of air in-leakage into the component cooling water (CCW) system. Your staff's presentation adequately described their evaluation of the root causes of the issue and corrective actions proposed to prevent recurrence. The NRC reviewed those corrective actions and documented closure of the finding in NRC Inspection Report 05000335/2010009. The meeting was beneficial in that it furthered both NRC and public understanding of your St. Lucie facility. Details of the meeting are provided in the Enclosures to this letter.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and Enclosures will be made 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/

Daniel W. Rich, Chief
Reactor Projects Branch 3
Division of Reactor Projects

Docket No.: 50-335
License No.: DPR-67

Enclosures: 1. List of Attendees
2. NRC Presentation
3. Licensee Presentation

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X PUBLICLY AVAILABLE ☐ NON-PUBLICLY AVAILABLE

☐ SENSITIVE X NON-SENSITIVE

ADAMS: X ☐ Yes ACCESSION NUMBER: _____

XSUNSI REVIEW COMPLETE

| | | | | | | | |
|--------------|-------------|------------|------------|--------|--------|--------|--------|
| OFFICE | RII:DRP | RII:DRP | RII:DRP | | | | |
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| NAME | SNinh | TMorrissey | THoeg | | | | |
| DATE | 11/17/2010 | 11/17/2010 | 11/17/2010 | | | | |
| E-MAIL COPY? | YES NO | YES NO | YES NO | YES NO | YES NO | YES NO | YES NO |

OFFICIAL RECORD COPY
SUMMARY-NOV-4-10.DOCX

DOCUMENT NAME: G:\DRPI\RPB3\STLUCIE\MEETINGS\ST LUCIE -REG-PERF- MEETING

cc w/encl:

Richard L. Anderson
Site Vice President
St. Lucie Nuclear Plant
Electronic Mail Distribution

Robert J. Hughes
Plant General Manager
St. Lucie Nuclear Plant
Electronic Mail Distribution

Gene St. Pierre
Vice President, Fleet Support
Florida Power & Light Company
Electronic Mail Distribution

Ronnie Lingle
Operations Manager
St. Lucie Nuclear Plant
Electronic Mail Distribution

Eric Katzman
Licensing Manager
St. Lucie Nuclear Plant
Electronic Mail Distribution

Larry Nicholson
Director
Licensing
Florida Power & Light Company
Electronic Mail Distribution

Alison Brown
Nuclear Licensing
Florida Power & Light Company
Electronic Mail Distribution

Mitch S. Ross
Vice President and Associate General
Counsel
Florida Power & Light Company
Electronic Mail Distribution

Marjan Mashhadi
Senior Attorney
Florida Power & Light Company
Electronic Mail Distribution

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

Ruben D. Almaguer
Director
Division of Emergency Preparedness
Department of Community Affairs
Electronic Mail Distribution

J. Kammel
Radiological Emergency Planning
Administrator
Department of Public Safety
Electronic Mail Distribution

Mano Nazar
Executive Vice President and Chief Nuclear
Officer
Florida Power & Light Company
P. O. Box 14000
Juno Beach, FL 33408

Seth B. Duston
Training Manager
St. Lucie Nuclear Plant
Electronic Mail Distribution

Faye Outlaw
County Administrator
St. Lucie County
Electronic Mail Distribution

Jack Southard
Director
Public Safety Department
St. Lucie County
Electronic Mail Distribution

Letter to Mano Nazar from Daniel W. Rich dated November 17, 2010

SUBJECT: PUBLIC REGULATORY PERFORMANCE MEETING SUMMARY – ST. LUCIE
NUCLEAR PLANT, UNIT 1 - DOCKET NO. 50-335

Distribution w/encl:

C. Evans, RII

L. Slack, RII

OE Mail

RIDSNRRDIRS

PUBLIC

RidsNrrPMStLucie Resource

Attendance List

November 4, 2010

Regulatory Performance Meeting

| NAME | AFFILIATION | CONTACT INFO. |
|--------------------------------|--------------------------------|---------------|
| Art Ketchum | NELC | |
| Amy Bruges | FPL | 772 337-7006 |
| Tom Morrissey | NRC | |
| Tim Hoeg | NRC | |
| Susan Salisbury | DB POST | |
| ^{mtm} Ronald M Bright | Florida Municipal Power Agency | 352-465-8689 |
| Craig Bushman | FPL | |
| JOHN FERRICK PAT FERRICK | NORTH FORK PROPERTY OWNERS | 461-3612 |
| Joey Leford | NRC | 404.997.4416 |
| Jennifer Cecil | DBPOST | |
| Jim Thomas | NRC FR REP | |
| Roger Rankin | FDEM REP | |
| Kurt Myers | SLC Public Safety | 772-462-8100 |
| Randy Hughes | FPL | |
| Victoria Ingalls | FPL | |

St. Lucie Nuclear Plant Regulatory Performance Meeting



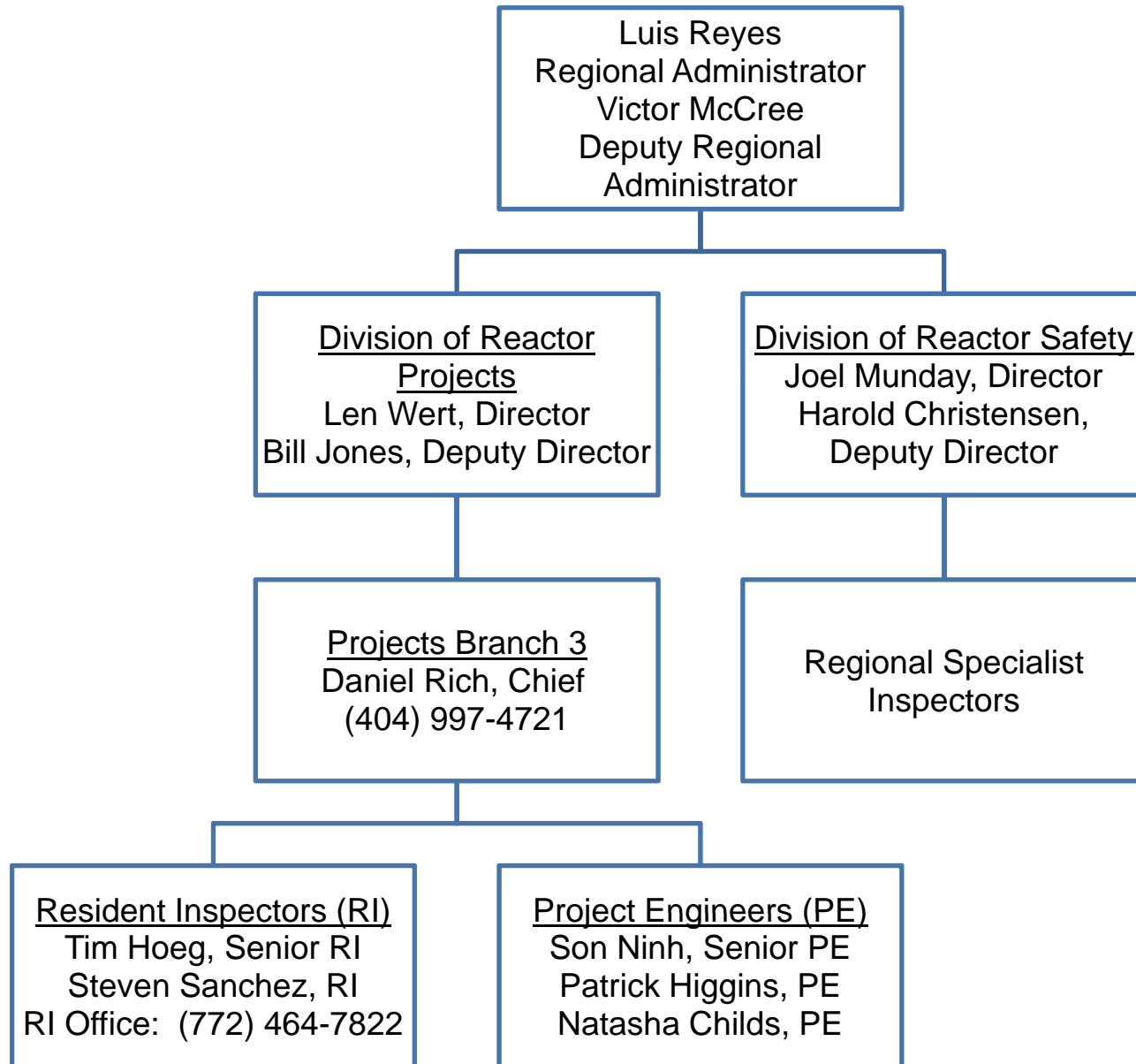
**Nuclear Regulatory Commission - Region II
Jensen Beach, FL
November 4, 2010**

Agenda

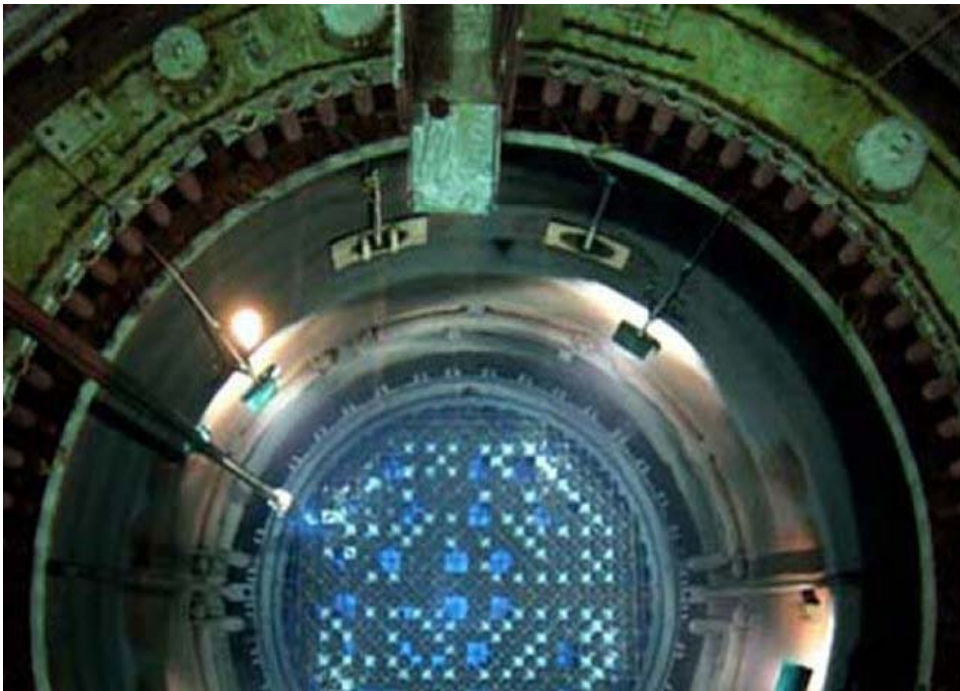
- Introduction
- Review of Reactor Oversight Process
- Discussion of current plant performance
- Performance deficiency
- Licensee discussion of corrective actions
- Supplemental Inspection results
- NRC Closing Remarks

- NRC available after presentation to address public questions
- NRC Public Meeting Feedback Forms
- Please sign attendance list

Region II Organization



Our Mission

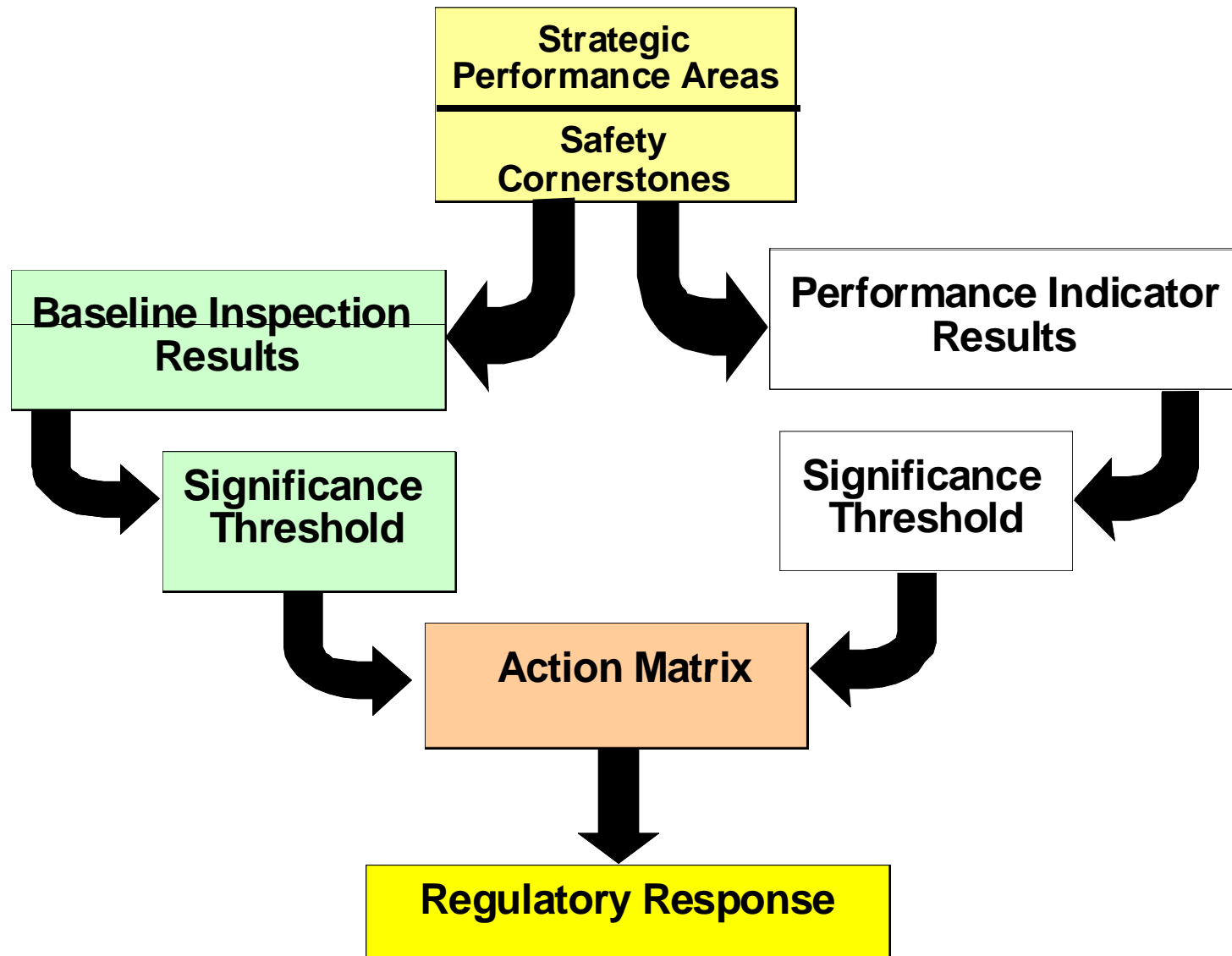


- To license and regulate the nation's civilian use of byproduct, source, and special nuclear materials to ensure adequate protection of public health and safety, promote the common defense and security, and protect the environment.

The NRC Regulates

- Nuclear reactors - commercial power reactors, research and test reactors, new reactor designs
- Nuclear materials - nuclear reactor fuel, radioactive materials for medical, industrial, and academic use
- Nuclear waste – transportation, storage and disposal of nuclear material and waste, decommissioning of nuclear facilities
- Nuclear security – physical security of nuclear facilities and materials from sabotage or attacks

Reactor Oversight Process



Significance Threshold

Inspection Findings & Performance Indicators

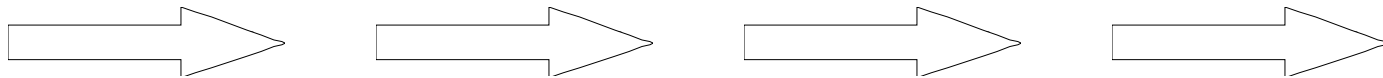
| | |
|----------------|-------------------------------------|
| Green: | Very Low Safety Significance |
| White: | Low to Moderate Safety Significance |
| Yellow: | Substantial Safety Significance |
| Red: | High Safety Significance |

NRC Response:

| | |
|----------------|-----------------------------------|
| Green: | Only Baseline Inspection |
| White: | Requires additional NRC oversight |
| Yellow: | Requires additional NRC oversight |
| Red: | Requires additional NRC oversight |

Action Matrix Concept

| | | | | |
|------------------------------|--------------------------------|---------------------------------|--|-------------------------------------|
| Licensee Response | Regulatory Response | Degraded Cornerstone | Multiple/Rep Degraded Cornerstone | Unacceptable Performance |
|------------------------------|--------------------------------|---------------------------------|--|-------------------------------------|



Increasing Safety Significance

Increasing NRC Inspection Efforts

Increasing NRC/Licensee Management Involvement

Increasing Regulatory Actions

St Lucie Unit 1 Performance

Unit 1 Entered the Degraded
Cornerstone Column of the Action
Matrix in the 4th Quarter, 2009,
Due to identification of a Yellow Finding

Unit 1 Action Matrix

| 1 st Qtr 2009 | 2nd Qtr 2009 | 3rd Qtr 2009 | 4th Qtr 2009 | 1st Qtr 2010 | 2nd Qtr 2010 | 3rd Qtr 2010 | 4th Qtr 2010 |
|---------------------------------|---------------------------------|---------------------------------|--|--|--|--|---------------------------------|
| | | | | | | | |
| Licensee Response (Column 1) | Licensee Response (Column 1) | Licensee Response (Column 1) | Yellow finding for air-in leakage into CCW | Yellow finding for air-in leakage into CCW | Yellow finding for air-in leakage into CCW | Yellow finding for air-in leakage into CCW | Licensee Response (Column 1) |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Licensee Response (Column 1) | Licensee Response (Column 1) | Licensee Response (Column 1) | Degraded Cornerstone (Column 3) | Degraded Cornerstone (Column 3) | Degraded Cornerstone (Column 3) | Degraded Cornerstone (Column 3) | Licensee Response (Column 1) |

NRC Action Matrix
Key

| | | | | |
|---------------------------------|--------------------------------------|---------------------------------------|--|---|
| Licensee Response (Column 1) | Regulatory Response (Column 2) | Degraded Cornerstone (Column 3) | Multiple /Repetitive Degraded (Column 4) | Unacceptable Performance (Column 5) |
|---------------------------------|--------------------------------------|---------------------------------------|--|---|

Unit 2 Action Matrix

Unit 2 for the 3rd qtr 2010 was within the Licensee Response Column

- All inspection findings being Green
- All PI's being Green requiring no additional NRC oversight

Unit 2 Action Matrix

| 1 st Qtr 2009 | 2nd Qtr 2009 | 3rd Qtr 2009 | 4th Qtr 2009 | 1st Qtr 2010 | 2nd Qtr 2010 | 3rd Qtr 2010 | 4th Qtr 2010 |
|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| | | | | | | | |
| Licensee Response (Column 1) | Licensee Response (Column 1) | Licensee Response (Column 1) | Licensee Response (Column 1) | Licensee Response (Column 1) | Licensee Response (Column 1) | Licensee Response (Column 1) | Licensee Response (Column 1) |
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| Licensee Response (Column 1) | Licensee Response (Column 1) | Licensee Response (Column 1) | Licensee Response (Column 1) | Licensee Response (Column 1) | Licensee Response (Column 1) | Licensee Response (Column 1) | Licensee Response (Column 1) |

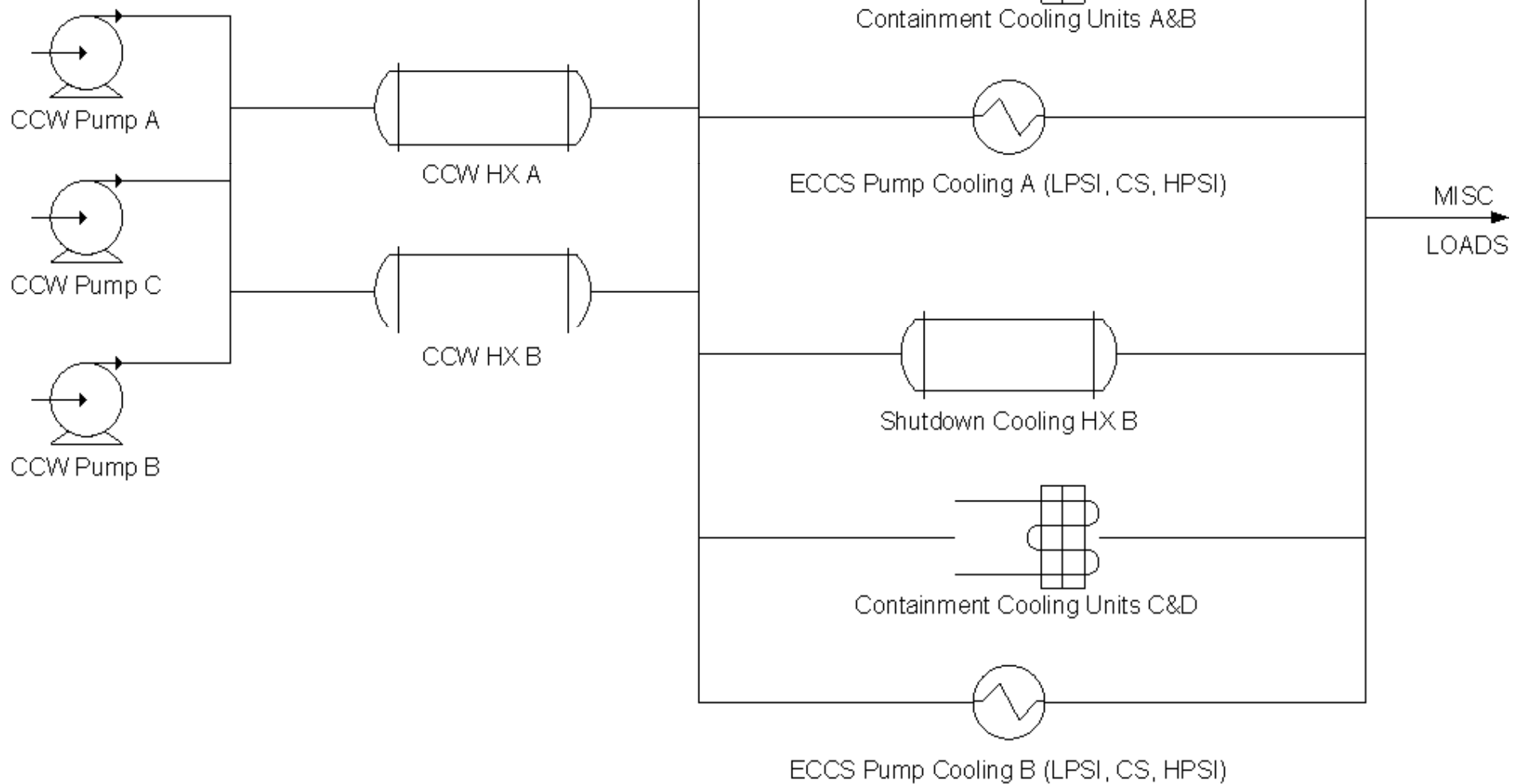
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Key

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| Licensee Response (Column 1) | Regulatory Response (Column 2) | Degraded Cornerstone (Column 3) | Multiple /Repetitive Degraded (Column 4) | Unacceptable Performance (Column 5) |
|---------------------------------|-----------------------------------|------------------------------------|---|---|

Performance Deficiency

- Air in-leakage into the Unit 1 CCW system occurred in October 2008. The licensee did not identify the root cause.
- NRC Inspection found the failure to identify and correct the root cause was a performance deficiency.
- The risk significance was evaluated by the Significance Determination Process, and a Yellow finding was issued.

Component Cooling Water System (Simplified)



Licensee discussion of corrective actions

IP 95002 Supplemental Inspection Objectives

- Ensure Root and Contributing Causes are understood
- Independently Assess Extent of Condition and the Extent of Cause
- Evaluate Safety Culture
- Corrective Actions

Supplemental Inspection Results

- The licensee's Root Cause Evaluation (RCE) was Broad in Scope; Appropriate Level of Detail
- The root and contributing causes of the event were well understood
- Corrective Actions Appropriate and Sufficient to address the Root and Contributing Causes

Supplemental Inspection Results

- The licensee's extent of condition and the extent of cause were sufficient in breadth and scope
- Appropriately Considered Safety Culture

Supplemental Inspection Results

- Corrective Actions were Comprehensive:
 - Operability Determination Process
 - Corrective Action Program
 - Plant Procedures
 - Equipment Design Changes

Assessment

- St. Lucie Unit 1 Performance transitioned from Degraded Cornerstone to Licensee Response; Oct 1, 2010
- St. Lucie Unit 2 Performance remained in the Licensee Response Column for CY 2010

Contacting the NRC

- Report an emergency
 - (301) 816-5100 (call collect)
- Report a safety concern:
 - (800) 695-7403
 - Allegation@nrc.gov
- General information or questions
 - www.nrc.gov
 - Select “About NRC” for Public Affairs

Reference Sources

- Reactor Oversight Process
 - <http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/index.html>

- Public Electronic Reading Room
 - <http://www.nrc.gov/reading-rm.html>

- Public Document Room
 - 1-800-397-4209 (Toll Free)



St. Lucie Unit 1 Component Cooling Water Event

November 4, 2010

**Rich Anderson
Site Vice President**

Nuclear Safety is our Overriding Priority

- **Corrective Action Program as “Core Business”**
 - CAP Excellence Attributes
- **Nuclear Excellence Model**
 - Value Based
 - Nuclear Safety Culture
 - Self-Improving Culture and Learning Organization
 - Safety Guiding Principles



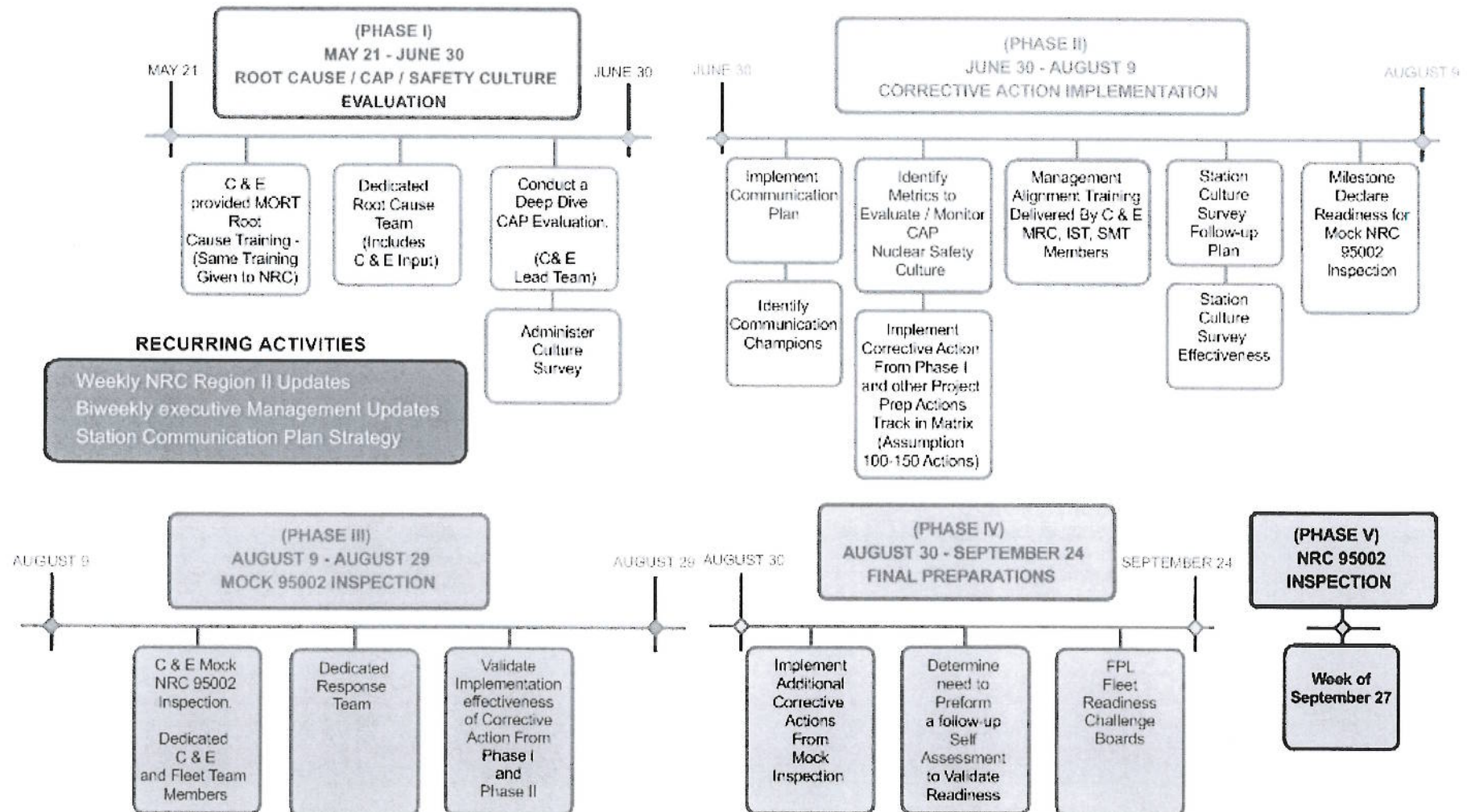
Unit 1 Component Cooling Water Event

- Original Plant Design
- Identification of event significance and effective correction action
- Multi-phased approach for event evaluation

St. Lucie



PSL NRC 95002 DEGRADED CORNERSTONE INSPECTION TIMELINE



IG 10GRAPHICS 95002-COW AIR INTRUSION

Improvement Strategy

- Performance Improvement
- Nuclear Safety Culture Program
- Communication Outreach Plan

Performance Improvement

- Component Cooling Water Design and Knowledge
- Process Changes
- Sustainability

Performance Improvement

CCW Design and Knowledge Initiatives

- Design modification completed to eliminate Unit 1 CCW air intrusion pathway
- Implemented Operations response procedures
- Trained on Unit 1 CCW air intrusion events and response
- Completed evaluations of extent of condition and extent of cause

Results

- Increased overall site awareness of CCW air intrusion risks

Performance Improvement

Process Initiatives

- Improved assessment of Operating Experience
- Improved Corrective Action Program procedures
- Improved Operations procedures, including Operational Decision-Making
- Improved Maintenance procedures, including maintenance configuration control
- Ongoing Effectiveness Reviews

Results

- Improved risk informed decision-making
- Increased focus on nuclear safety implications
- Increased focus on system interactions
- Increased accountability for corrective action program performance

Performance Improvement

Sustainability Initiatives

- Continued reinforcement of Nuclear Excellence Model
- Implemented Nuclear Safety Culture Oversight Committee
- Conducted root cause, apparent cause, and failure modes and effects analysis training
- Improved Initial Screening Team (IST), Management Review Committee (MRC) and Corrective Action Review Board (CARB) performance
- Implemented operational decision-making and condition report screening performance indicator metrics
- Scheduled effectiveness assessments

Nuclear Safety Culture

Initiatives

- Nuclear Safety Culture oversight program
- Increased monitoring of safety culture at plant and fleet levels
- Revised fleet procedures to add safety culture aspects including establishment of safety culture advocate
- Fleet safety culture initiative, including safety culture surveys
- Improved safety culture and safety conscious work environment awareness

Results

- Increased management sensitivities to safety culture issues
- Increased communications with workforce
- Improved management focus and behaviors regarding safety culture

Communication Outreach Plan

- Organizational Alignment
- Station All-Hands Meetings
- Leadership Meetings
- Department Road Shows
- 2 C's Meetings with PGM and SVP

What We Learned From This Event

- Event significance
- CAP
- Nuclear Safety Culture
- Performance Improvement and Sustainability