NRC Region II Meeting
Robinson Nuclear Plant

July 26, 2007

Progress Energy

Enclosure 2

Agenda

Introduction……..……....Tom Walt

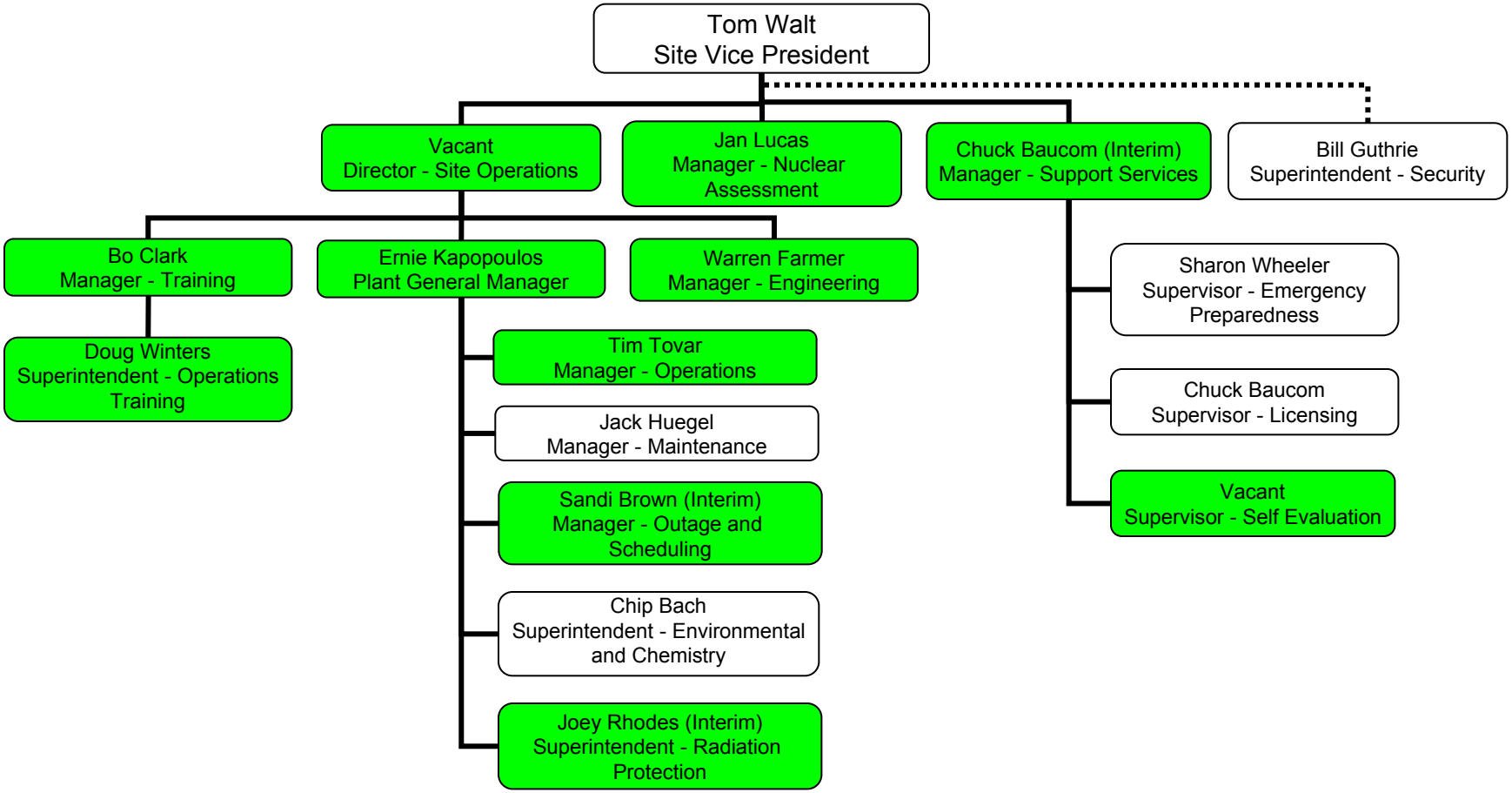
Plant Performance Overview…….……....Ernie Kapopoulos

Engineering Overview……Warren Farmer

Regulatory Performance……....Chuck Baucom

Closing Remarks……....Tom Walt

Leadership Team



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Plant Performance Overview

Ernie Kapopoulos
Plant General Manager

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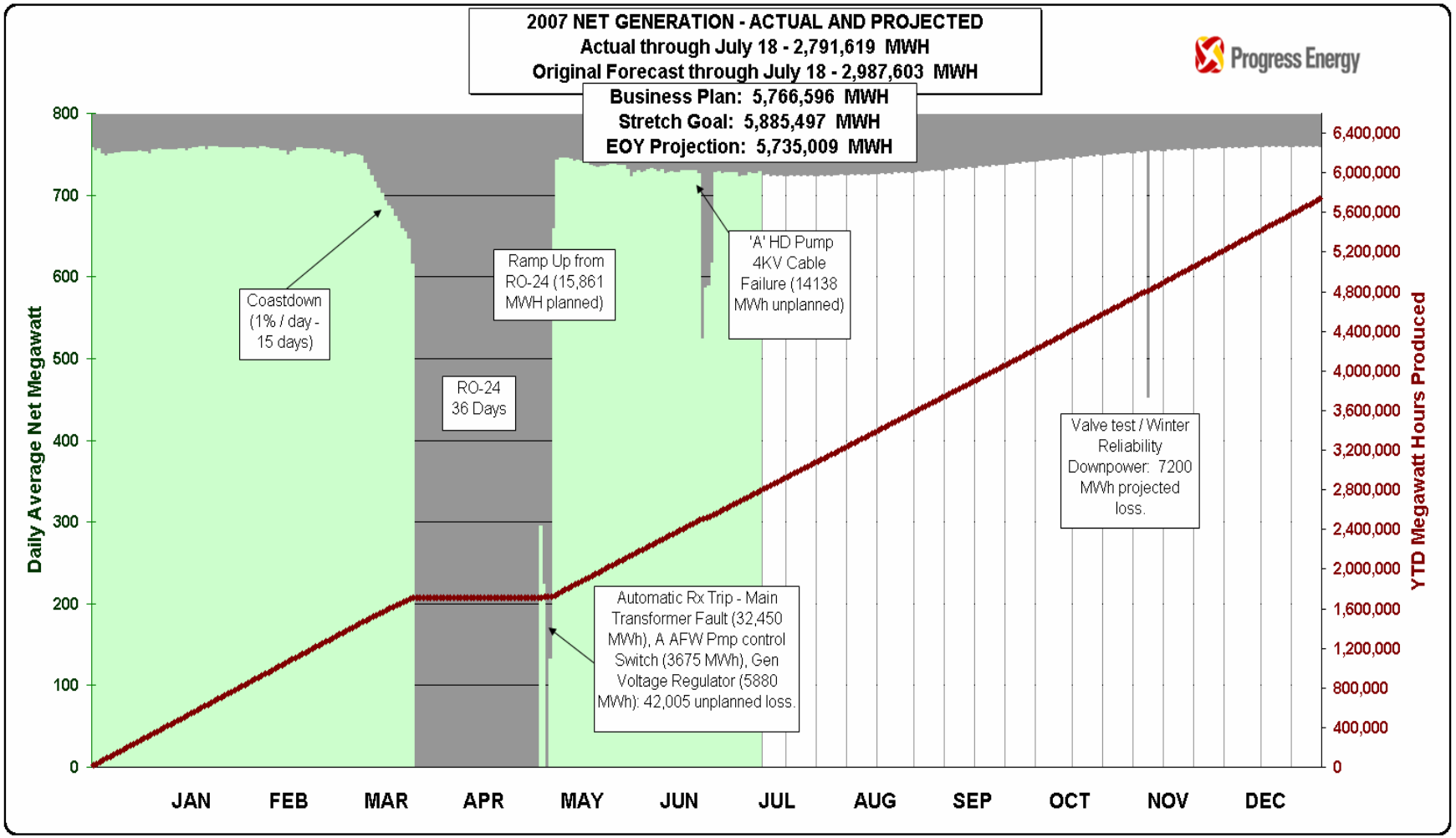
Operating Status

	YTD
Injury Rate	0.36
On-Line Dose	3618 mRem
Days On-Line	63
Capacity Factor	80.83%
Capability Factor	77.77%
Forced Loss Rate	1.67%
INPO Index	98

-- Data as of July 20

Net Generation



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Small Fuel Defect

- No Fuel Leak During Cycle 24
- Elevated Noble Gas During Start-Up Sampling
  - No fuel handling anomalies

Small Fuel Defect

- Issued Report To Industry (SOER 03-2)
- Action Plan
  - Monitoring for changes
  - Implement “triggers” for further actions
- Heighten Worker Awareness
- Locate Assembly And Identify Cause
- Repair Or Remove Assembly

Refueling Outage 24

- Start - April 7, 0000 Hours
- Finish - May 13, 2120 Hours
- Duration - 36 Days, 21 Hours
- Dose - 79.764 Rem (Electronic Dosimetry)

Refueling Outage 24 - Goal Details

- Human Performance Events
  - CVC-312B valve body damage
  - Inadvertent EDG start
- Two OSHA Recordable Injuries
  - Contractor employees

Refueling Outage 24 - Achievements

- Equipment Repairs
  - Boron Injection Tank (BIT) Header
    - No longer leaking into BIT
  - Containment liner/coatings
    - Repaired 52 Containment liner panels
- Closed Six Operator Workarounds
- Rod Position Indication Performance
  - Modification
  - Calibration

Refueling Outage 24 - Achievements

- Circulating Water Pumps
  - Pump and motor refurbishment
- Repaired Degraded Items (RIS 2005-20)
  - H-links on Main Steam Isolation Valves
  - Containment liner panel
- ECCS Sump Modification
- Integrated Leak Rate Test

May 15 Plant Trip - Overview

- Indications (1028 Hours)
  - Plant at 83% power, power ascension in progress
  - 28 alarms received
- Automatic Trip (1116 Hours)
  - 86P Relay actuated Turbine Trip that resulted in Reactor Trip

May 15 Plant Trip - Control Room Indications

- Main Transformer “C” Trouble Locked-In
- DC Bus “A” Indicated Zero Volts On Plant Process Computer (ERFIS)
  - Local indication normal
  - DC Bus grounds normal on Battery Charger “A”
- Start-Up Transformer Breaker To 4kV Bus 2 (52/12) Dual Indication
  - Discussion on Emergency Bus power
- Humming Noise From Generator Protection Panel

May 15 Plant Trip - Operating Crew Response

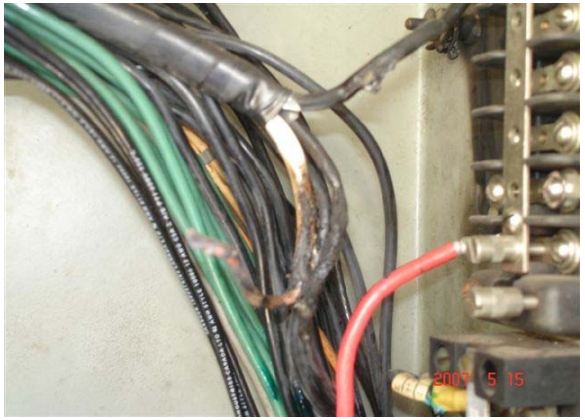
- Diverse Indications Used To Validate Control Board Annunciators
- Operating Crew Decision-Making
- Implemented Emergency Operating Procedures To Stabilize Plant
  - Motor-Driven Auxiliary Feedwater Pump “A” did not automatically start on Steam Generator Low-Low Level signal
  - Prompt, successful manual start

May 15 Plant Trip – Equipment Problems

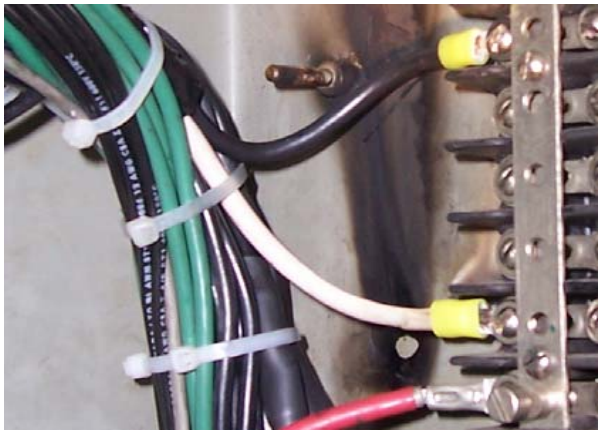
- Generator Differential Relay 87G Missing Surge Withstand Kit
- Battery Charger “A”
  - Ground detection circuit card failed
  - Swapped to Battery Charger A-1, hard ground indicated
- Grounded Wire In Main Transformer “C” Control Cabinet

May 15 Plant Trip - Cause

- Alternating Current Induced On 125V DC Bus “A” Initiated 86P Generator Lockout And Subsequent Reactor Trip
- Wire Pulled Loose From Uncrimped Connector (Existed Since 1991)
- Wire Shorted To Panel, Melting Cable Insulation And Insulation Of Adjacent Wiring



As-Found Terminal Block



Post-Repair Terminal Block

May 15 Plant Trip - Recovery

- Extent Of Condition Testing
- Motor-Driven Auxiliary Feedwater Pump “A”
  - Control board switch malfunction
    - Unrelated to event
  - Pump start logic relays tested satisfactorily

Heater Drain Pump "A" Trip

- Pump Tripped At 2323 Hours On June 30
- Operator Response
  - Abnormal Operating Procedure implemented
  - Limited to 85% power
- 4kV Motor Leads Failed
  - Electrical storm in area
  - Analysis in progress

Heater Drain Pump "A" Trip

- Repair Timeline
  - Motor removed on July 1
  - Vendor repair
    - No motor damage
  - Motor returned to site July 3
  - Motor returned to service July 4

Licensed Operator Examinations

- Licensed Operator Initial Written Examinations
  - Exam administered February 2
  - Interim exam report issued March 23
  - “As given” exam invalid
  - Re-examination on June 26
    - All passed
    - Seven SRO Licenses
    - Two RO Licenses

Initial Licensed Operator Classes

- New Class Started July 8 (HLC-08)
- Planned Class For 2008 (HLC-09)
  - Start in January
  - Two simultaneous classes

Employee Development

- Three New Plant Section Unit Managers
  - Operations
  - Radiation Control
  - Outage & Scheduling
- Development Of Bench Strength
- New Operator License Class
- Internal And External Hires

Observation Program Initiative

- Outage Observation Program
  - Targeted
  - Successful
- Leadership Team In The Field
  - Program procedure/guidance (PLP-119)
  - Coach and train behaviors
  - Human Performance standards

Spent Fuel Management

- New 24-P ISFSI Initially Loaded And Operational In August 2005
- Loading Campaign Planned For Second Quarter 2008
  - Maintain full core offload reserve

2008 INPO Evaluation

- Crew Performance Observations
  - Week of March 3
  - Simulator and in-plant
- On-Site Evaluation Scheduled For April 7-18
- Formal Exit On May 15

Engineering Overview

Warren Farmer
Manager - Engineering

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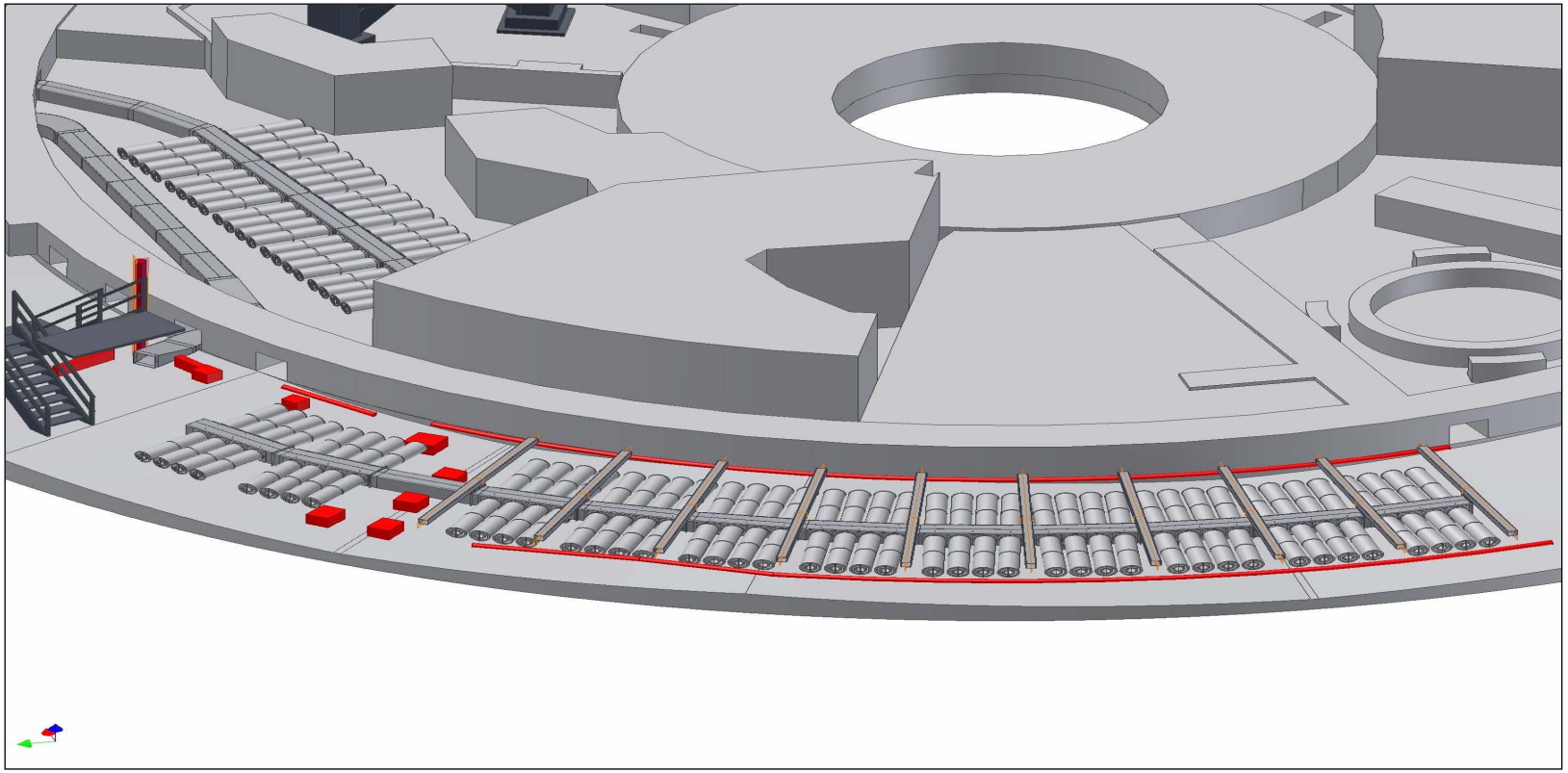
ECCS Strainer Installation

- Regulatory Significant Scope Of ECCS Strainer Installation Completed During Refueling Outage (RO)-24
  - Remaining walkway structure scheduled for RO-25
- Surface Area Increased From ~100 Ft^2 To ~4,100 Ft^2
- Favorable NRC Inspection

ECCS Strainer Installation

Overview



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ECCS Strainer Installation

"Top Hat" Assemblies
Outside Polar Crane Wall

ECCS Strainer Installation

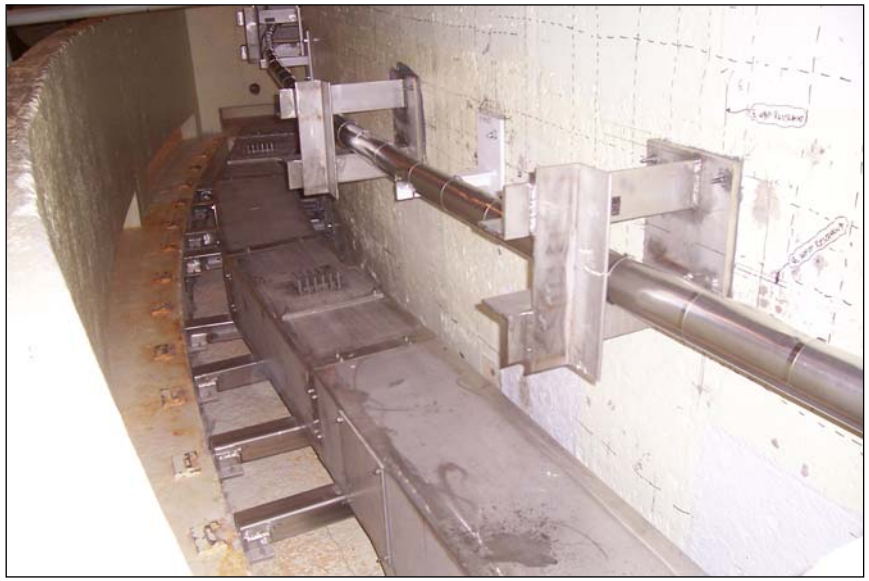
Under Fuel
Transfer Canal

ECCS Strainer Installation

Suction to Residual Heat Removal (RHR) Pumps

ECCS Strainer Installation

Suction to RHR Pumps



ECCS Sump - RHR Suction Debris

- Detailed Foreign Material Inspection Performed On RHR Suction Lines During ECCS Strainer Installation
- Loose Debris Discovered
- Attributed To ECCS Screen Repairs Performed In 1998
  - Inadequate work instructions and worker practices

ECCS Sump - RHR Suction Debris

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ECCS Sump - RHR Suction Debris

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ECCS Sump - RHR Suction Debris

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ECCS Sump - RHR Suction Debris

- Foreign Material Removed
- New ECCS Sump Strainer Installed
- Engineering Analysis For RHR Pump Past Operability (Flowserve)
- Independent Oversight Of Analysis And Flow Test Plan Development (MPR Associates)
- Perform Debris Flow Test And Determine Downstream Effects

Chemical Effects Strategy

- Reduce Debris 'Source Term'
  - Removal of Aluminum
    - Progress made during RO-24
    - Additional component replacement designs planned for RO-25
  - Insulation assessment
  - Coatings assessment and repair

Chemical Effects Strategy

- Reduce pH Of Post-LOCA Recirculation Fluid (Buffer Change)
  - Sodium Hydroxide to Sodium Tetraborate
  - Westinghouse testing to address NRC questions
  - Submit License Amendment in 2007
    - On-line implementation restricted by Technical Specifications Allowed Outage Time
  - Consider reducing Spray Additive Tank level/inventory

Chemical Effects Strategy

- Evaluate Conservatisms In Analytical Model (WCAP)
- Chemical Effects Testing
  - Scheduled for early August
  - Results will determine need for further actions, e.g., insulation removal or banding, etc.

Safety Related Cables To Intake

- Original Cables Direct-Buried, Exhibiting Signs Of Aging
- Replacement Plan For Seismic Duct Bank
  - Study completed in 2006
  - Design in 2007
  - Implement in 2008
  - Tie-in during RO-25

Main Generator And Exciter

- Asset Management Plan
- EPRI Study (2005)
- Installed Bushings, Current Transformers, And Discharge Monitors In 2007 (RO-24)
- Install Flux Probes, Vibration Instruments, And Resistance Temperature Detectors In 2008 (RO-25)
- New Exciter Installation (RO-25)

Switchyard Transformers

- RO-23 Maintenance
  - New transformer monitoring system
  - Fault pressure relay upgrade
  - Control cabinet cabling replacement
- INPO Transformer/Switchyard/Grid Review During 2006
- EPRI Review During 2006
- Long Range Plan For Replacement In 2010/2011

Turbine Rotor And Condenser Replacements

- Turbine Low Pressure Rotor Replacement Planned For 2010
- Condenser Replacement Planned For 2011

Regulatory Performance

Chuck Baucom
Manager – Support Services

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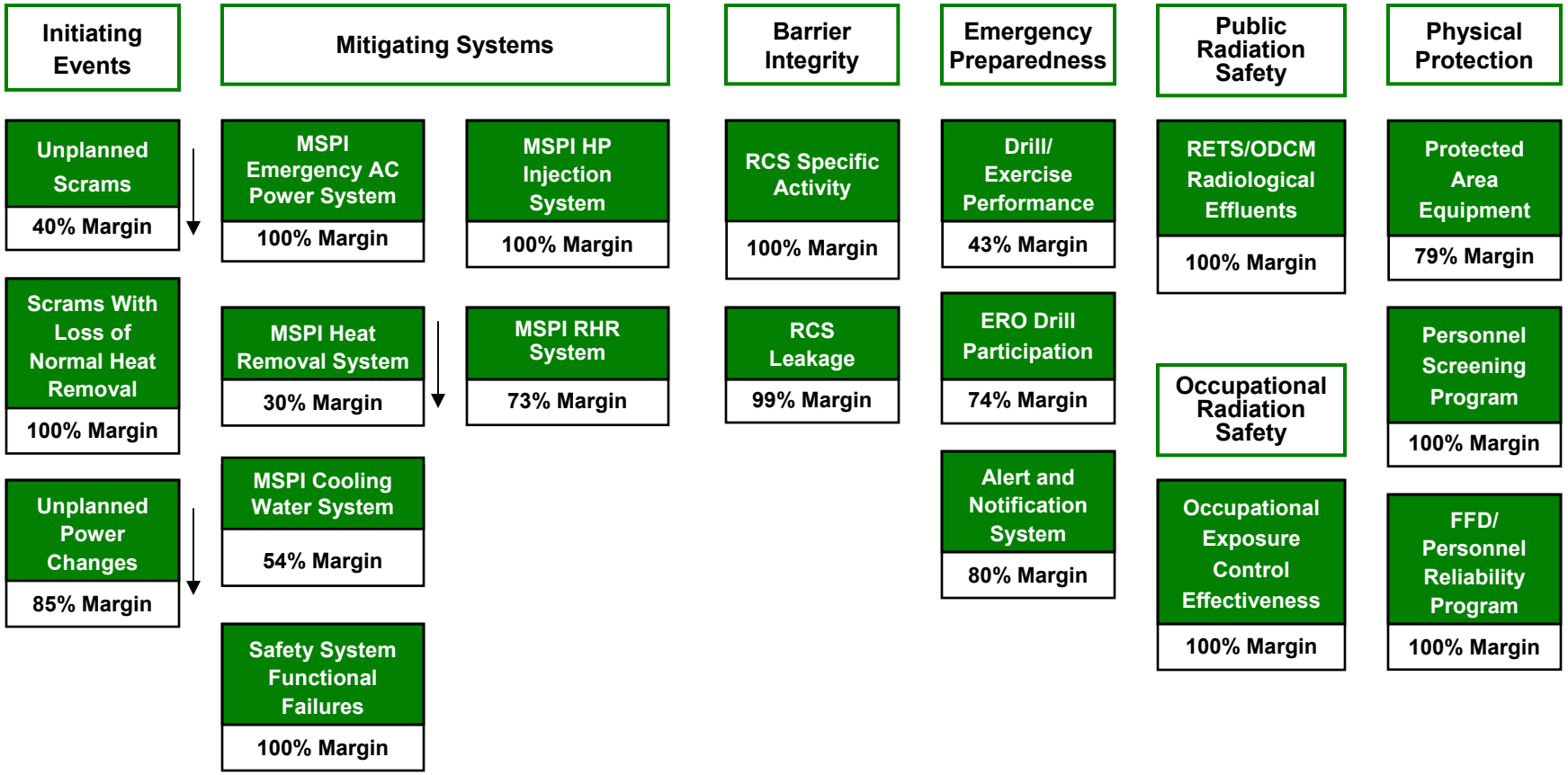
NRC Performance Indicators - 2Q2007



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NRC Inspection Findings - 2Q2007

	Initiating Events	Mitigating Systems	Barrier Integrity	Emergency Preparedness	Occupational Radiation Safety	Public Radiation Safety	Physical Protection
2Q/2007	No Findings this Quarter	No Findings this Quarter	No Findings this Quarter	No Color	No Findings this Quarter	No Findings this Quarter	Not Publicly Available
1Q/2007	No Findings this Quarter	No Findings this Quarter	No Findings this Quarter	G	No Findings this Quarter	No Findings this Quarter	Not Publicly Available
4Q/2006	No Findings this Quarter	G	No Findings this Quarter	No Color	No Findings this Quarter	No Findings this Quarter	Not Publicly Available
3Q/2006	No Findings this Quarter	No Findings this Quarter	No Findings this Quarter	No Findings this Quarter	No Findings this Quarter	No Findings this Quarter	Not Publicly Available

Significant NRC Inspections

- Component Design Bases Inspection
- Fire Protection Triennial Inspection
  - October 22 - November 9
  - NFPA 805 implementation schedule
- Emergency Preparedness Graded Exercise Inspection
  - December 3 - 7

Emergency Preparedness

- WebEOC Implementation
- NEI 99-01 Emergency Action Level Conversion
- Siren Upgrade
- Pandemic Planning And Preparedness
- Investment In Facilities
- B.5.b

Emergency Preparedness

Technical Support Center
Renovations

Emergency Operations
Facility Renovations

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Self Evaluation

- Self Evaluation Supervisor Position
- Robinson Self Evaluation Board
- Effectiveness Reviews For Corrective Actions To Preclude Recurrence
- Increased Emphasis On Operating Experience
  - Significant Operating Experience Report (SOER) Recommendations

IBEW Organizing Campaign

- Attempted To Establish Collective Bargaining Representative For Progress Energy Carolinas
  - Brunswick, Harris, and Robinson
- Election Results Certified July 11
- Voting Results Overwhelmingly Pro-Company
- Management Commitment To Listening To Employee Concerns And Suggestions

10 Key Convictions

1. We will value our employees.
2. We will maintain managerial integrity.
3. We will focus on safety and quality.
4. We will be the first to find our problems.
5. We will have a robust Corrective Action Program.
6. We will understand and rigorously maintain our Design and Licensing Basis.
7. We will have objective performance measures.
8. We will continually benchmark ourselves against the industry leaders.
9. We will actively groom a healthy regulatory interface.
10. We will have a meaningful succession plan.


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