PSEG Nuclear

Assessment Results and Plans for Improving the Work Environment at Salem/Hope Creek

NRC Public Meeting June 16, 2004



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Frank Cassidy

President & COO – PSEG Power



Agenda

Frank Cassidy Corporate Commitment

Chris Bakken Response to the Annual Assessment Letters

Jim O'Hanlon Independent Assessment Team (IAT) Results

Frank Cassidy Corporate Position

Chris Bakken Overall Assessment Results

Strategic Action Plans and Progress

Tactical Actions and Progress

Mike Brothers Safety Conscious Work Environment (SCWE)

Action Plan

Performance Measures

Chris Bakken Conclusions

Corporate Commitment

Salem/Hope Creek Remains Critical to PSEG and the Public

- Continue to Safely Operate Salem/Hope Creek
- Improve Corporate/Site Interface & Corporate Messages
- Ensure Salem/Hope Creek Receive Required Resources
- Achieve Nuclear Excellence to Meet Corporate Business Goals

Chris Bakken

Senior Vice President – Nuclear Operations



NRC Annual Assessment Letters

No Serious Safety Violations Identified

We Recognize Substantive Cross-cutting Issue - Problem Identification & Resolution

Several Examples of Corrective Action Program (CAP)
 Performance Issues

Concern About Station Work Environment

- January 28, 2004 Letter
- Emergent Equipment Issues and Associated Operational Decision Making
- We Recognize Work Management Program's Contribution

NRC Annual Assessment Letters

Corrective Actions for the White Findings

- Salem EDG
- Hope Creek Traveling Screen

Completed CAP Assessment

- Short-Term Actions
- Long-Term Actions Part of Revised Business
 Plan

Response to January 28, 2004 Letter

- Key Element of the Revised Business Plan
- Recognize CAP and Work Management Issues Impact Safety Conscious Work Environment (SCWE)

James O'Hanlon

Independent Assessment Team Lead



Independent Assessment Team (IAT)

Formally Chartered by CEO

Experienced Assessment Team

- Former Utility Managers
- Former NRC Managers

Experienced Independent Reviewers

Broad Sources of Data

- 190 Structured Interviews
- PSEG Quarterly Culture Surveys
- Other Assessments/Survey (USA, Synergy)
- Internal Documentation (Assessment Reports, CAP Assessment, CAP Data Base, Quality Assurance Reports, etc.)
- External Documentation (NRC Inspection Reports)

SCWE Review Standards

Four SCWE Pillars

- Do personnel feel free to raise nuclear safety concerns without fear of retaliation for doing so?
- Is the site problem identification and resolution process (primarily the corrective action program) effective when addressing employee concerns?
- Are alternate mechanisms, such as an Employee Concerns Program (ECP), available for personnel to raise nuclear safety concerns and are they effective?
- Is management effective at detecting and preventing retaliation and potential chilling effect?

Key Findings

Safety Conscious Work Environment

- Personnel Will Raise Nuclear Safety Concerns
 - Some Hesitancy Resulting from Unresolved Issues and Fear of Retaliation
- The CAP and Work Management
 - Processes Are Sound
 - Implementation Issues Exist

The Employee Concerns Program (ECP)

- Has the Requisite Elements
- Not Viewed as a Viable Resource by a Significant Fraction of Site Personnel

No Systemic Issue Involving Retaliation Identified

 Management Ineffective in Understanding or Addressing Potential Chilling Effect

Prior Assessments

- PSEG Quarterly SCWE Self Evaluations Not Effective at Assessing the Work Environment or Enhancing the Work Environment
- 2003 Synergy Survey and 2004 Utility Service Alliance (USA) Assessment Are Consistent With Independent Assessment Team (IAT) Findings

Operational Decision-Making and Unresolved Conflicts

- The Way Decisions Were Made and Communicated Has Sent Mixed Messages
- Perceptions Include:
 - Conservative Decision-Making Influenced by Production and Schedule Considerations
 - Degraded Equipment Conditions Are Acceptable
 - Procedural Non-Adherence Is Tolerated

Operational Decision-Making and Unresolved Conflicts (Continued)

- Some in Management:
 - Did Not Clearly Communicate
 - Have Taken Actions, or Failed to Take Actions, that Had a Chilling Effect
 - Have Been Inappropriately Involved in Operational Decisions

Corporate - Site Interface

- Some Employees Perceive Issues Such As Longstanding Equipment Problems Are Due to a Lack of Resources
- Business Planning and Goal Setting May Have Sent Mixed Messages Regarding the Relative Importance of Production and Safety
- Corporate Interfaces Need Improvement
 - Human Resources
 - Financial Planning

Key Recommendations

Train All Personnel on the SCWE Policy

Upgrade Existing Supervisory Skills Training to Include SCWE Principles

Promote and Reinforce SCWE on an Ongoing Basis

Address CAP & Work Management Deficiencies Identified by IAT and USA Assessments

Upgrade ECP

Key Recommendations (Continued)

Align HR, Labor Relations & Financial Practices With SCWE Expectations

Continue to Take Aggressive Action to Overcome Perceptions Caused by Unresolved Conflicts

Improve Corporate - Site Interface

- Improve Communications
- Increase Direct Interfaces
- Revise Power Behaviors to Include Safety Values

Frank Cassidy

President & COO – PSEG Power



Corporate Position

Corporate – Site Interface Issues

- Perception of Lack of Resources
 - Short- and Long-term Funding
 - Playbook Processes
 - Communications
- Business Planning and Goal Setting
 - Revised Power Behaviors
 - Playbook Processes
 - Communications
- Human Resources and Finance Interfaces
 - Playbook Processes

Corporate Support

Short and Long-Term Funding

- Historical
- **2004**
 - Salem 1 Refueling Outage
 - Salem 2 and Hope Creek Maintenance Outage
 - Hope Creek Refueling Outage
- Long Term

Progress in the Plan for Change

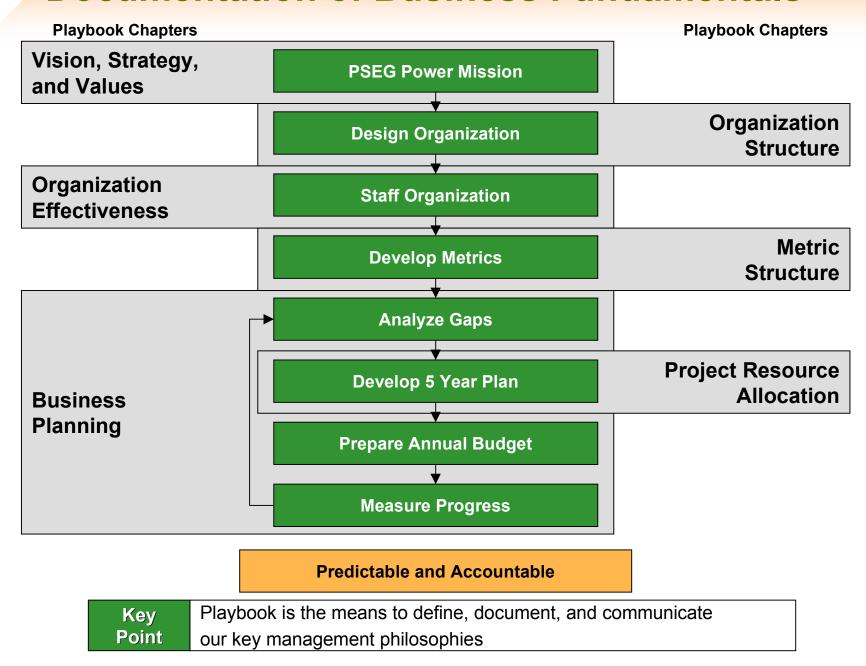
2003–2004: Fundamental Change Designed to Assure Safe Reliable Operation

Accomplishments

- Mission Statement
- Reorganized
- Staffed the Organization
- Unitization for Focus
- System Engineers
- Capital Increase
- Capital Shift
- Succession Plan
- Metrics with Line of Sight
- Performance Management
- Gap Analysis
- Implementing Business Plan
- Foundation Set for Further Improvement



Documentation of Business Fundamentals



Communications

Initiated Multiple Communications Improvements

- Corporate Management Presence on Site
- "Straight Talk" Newsletter to Respond to Issues
- Vice President Meeting With Shifts
- Bi-weekly Managers Communication Meeting
- CCTV Postings of Avenues to Raise Concerns
- Weekly Site Communications/Corporate Communications/External Affairs Coordination Meeting
- Weekly Project News Communication
- Improved Business Plan Communications
- All-Hands and Rollout Meetings

Corporate Position

Revised PSEG Power Behavior

- Place Operational Safety First
 - Integrate with SCWE in Nuclear
- Principal Attributes
 - Promptly Identifies and Corrects Any Conditions Adverse to Safety
 - Does not Tolerate Conditions or Acts that Undermine Safety
 - Encourages Questioning Attitude and Conservative Decision Making
- Assess Performance
 - Safety Metrics
 - Performance Appraisals

Chris Bakken

Senior Vice President – Nuclear Operations



Current Status

Completed the Gap Analysis

Docketed Assessment/Survey Results

Revising Business Plan

- Five Business Objectives
- Employee Teams Participating in Plan Development Where Appropriate
- SCWE Related Plan Developed
- Developing Remainder of the Business Plan

Implementing Short-Term Actions

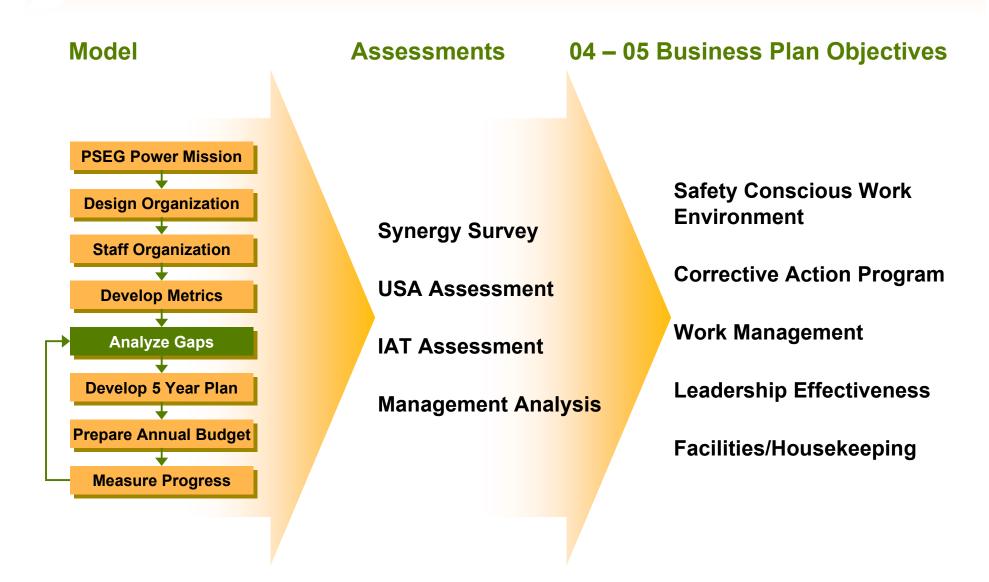
Overall Summary of Reports

Salem & Hope Creek Plants Are Safe to Operate Considerable Improvements Must Be Made

- People (Willingness of Employees to Raise Issues; SCWE)
- Plant (Upgrades and Workarounds)
- Processes (CAP and WMP)

All these Degraded Areas Are Linked, and Must Be Improved to Raise Performance and Improve Work Environment

Approach



Development of Improvement Plans



Assessment & Survey Reports

Integrate

Issues Matrix					
Issues	Synergy	USA	IAT		
<u> </u>					

Issues Matrix

Develop Schedule

Action Plan						
Issue	Action	Owner	Due Date			

Action Plans – Business Plan

Develop Action Plans

Track Issue Resolution

Project Schedule							
Action	Owner	Due Date	Schedule				
Action 1				ш		ш	
Actioin 2							
Action 3							
Action 4							
Action 5							
Action 6							
Action 7							

Project Schedule

Track Progress



Metrics

Improvements Supporting SCWE

Corrective Action Program Action Plan

- Identification
- Ownership and Responsibility
- Resolution
- Training

Work Management

- Management Alignment /Awareness
- Discipline in the Work Management Process
- Process Improvement
- Communication/Training

Tactical Actions

Senior Management Reinforcement for Conservative Operational Decisions

- Completed Salem 1 Increased Outage Scope
- Conservative Decisions During Operating Cycle
 - Consistent Since Fall Forced Outages
- Increased Scope of Fall Hope Creek Outage
- Improving Communications of These Decisions
- Increased Scope of Hope Creek May Maintenance Outage

Oversight & Monitoring of Progress

Manage Improvements Through the Business Plan

- Includes Metrics
- Monthly Progress Updates
- Monthly Operational Excellence Review Meetings

External Activities

- Next Survey After the Hope Creek Outage
- Subsequent Surveys During Next Five Years
- Meet with NRC to Discuss Progress During First Quarter 2005
- Periodically Publish Key SCWE Metrics

Keep Resident Inspectors Informed

Michael Brothers

Vice President, Site Operations – PSEG Nuclear



Development of Improvement Plans - Overview



Assessment & Survey Reports

Integrate

Issues Matrix				
Issues	Synergy	USA	IAT	

Issues Matrix

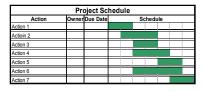
Develop Schedule

Action Plan					
Issue	Action	Owner	Due Date		

Action Plans – Business Plan

Develop Action Plans

Track Issue Resolution



Project Schedule

Track Progress



Metrics

Major Gaps - SCWE

Long Standing Material Deficiencies Are Allowed to Exist

Communications on All Levels of the Organization

Training Needed on Working and Managing a SCWE

All Proposed Personnel Actions Do Not Receive a Systematic Review

Closure Portion of the Corrective Action and Work Management Program

SCWE Action Plans – Major Milestones

Raising Concerns

Implement SCWE Organization	07/15/04
Develop SCWE Training Plan	08/01/04
Implement Communication Strategy	08/01/04
 Perform SCWE Training 	12/31/04

Processes are Effective

 Develop an Issues Management Process 	08/01/04
Increase Safety Emphasis in 2005	08/01/04
Incentive Program	
 Review/Revise Current HR Practices 	12/31/04

SCWE Action Plans – Major Milestones (Cont.)

Effective Alternative Mechanisms

 Enhance Employee Concerns Program 08/01/04 Effectiveness

Detecting and Preventing Retaliation

Establish an Executive Review 06/07/04
 Board

Establish a Process for Responding to 08/01/04
 Potential Retaliation

Establish a People Team 08/01/04

Improvements Supporting SCWE

Corrective Action Program Action Plan

- Identification
- Ownership and Responsibility
- Resolution
- Training

Work Management

- Management Alignment /Awareness
- Discipline in the Work Management Process
- Process Improvement
- Communication/Training Strategies

Performance Will Be Measured and Published

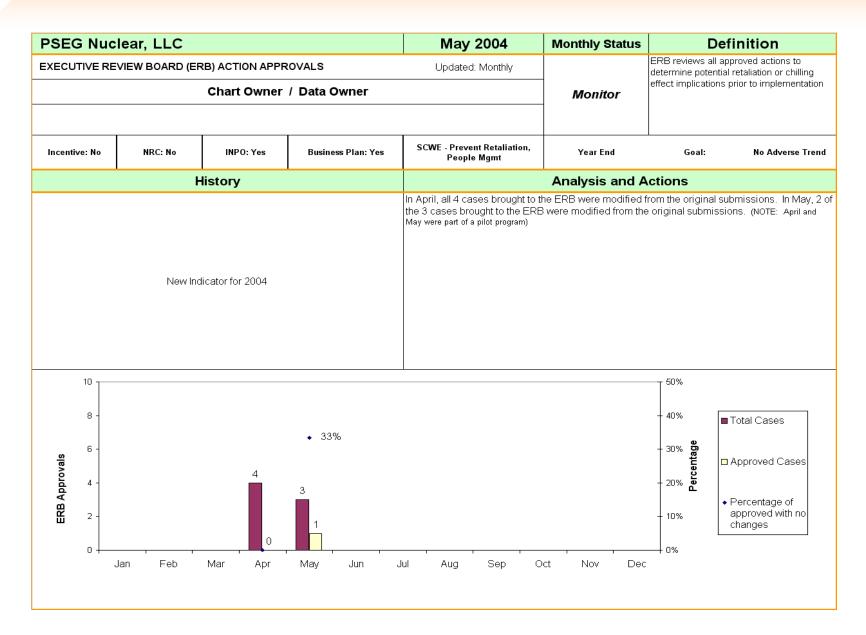
Key SCWE Metrics

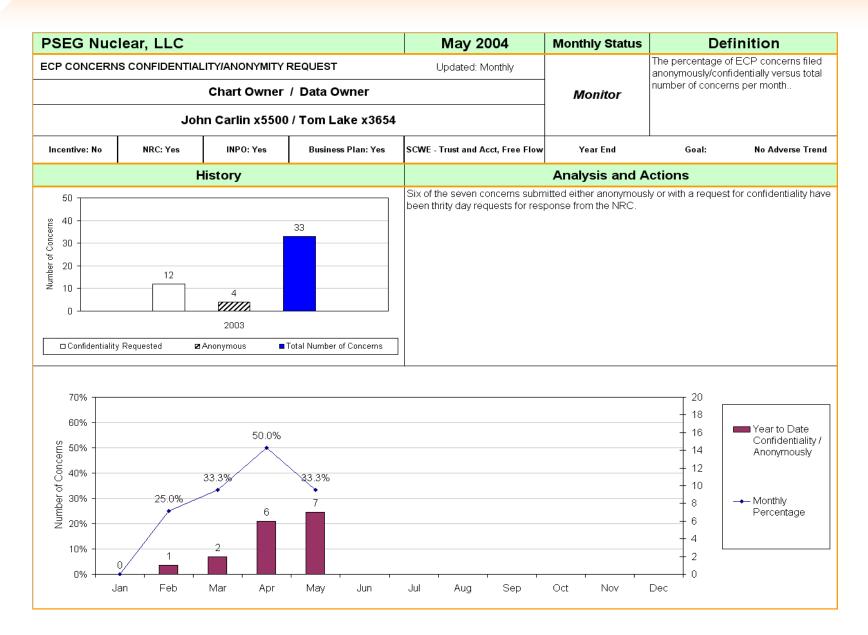
- Survey Results of Employees' Perception of Management Commitment
- Executive Review Board Action Approvals / No Comments
- Survey Results of Employees' Perception of Supervisor Communication Effectiveness
- ECP Concerns Confidentiality/Anonymity Request
- Survey Results of Trust Between Management and Employees
- Total Notifications Generated
- Nuclear Condition Reports (NUCRs) Operations Overdue

Performance Will Be Measured and Published

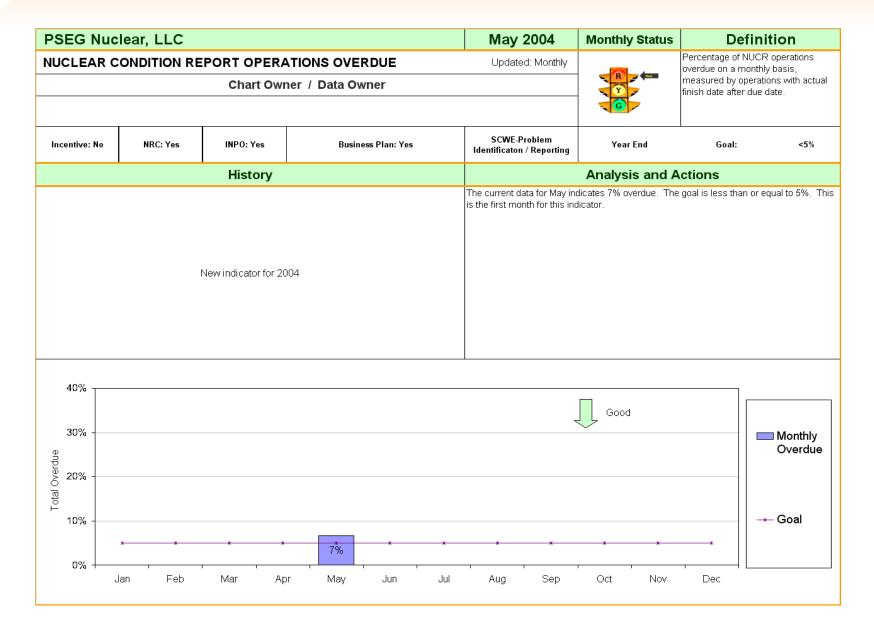
Key SCWE Metrics (Continued)

- Open NUCR Evaluations with Due Date Extensions
- Repeat Nuclear Safety Related Notifications
- Safety System Unavailability
- Unplanned Limiting Condition of Operation (LCO)
 Entries
- Unplanned Operational Challenges
- Survey Results of SCWE Management Training Completion
- Survey Results of Knowledge of Alternate Avenues
- Corrective Maintenance Backlog
- Elective Maintenance Backlog
- Corrective Action Problem Resolution

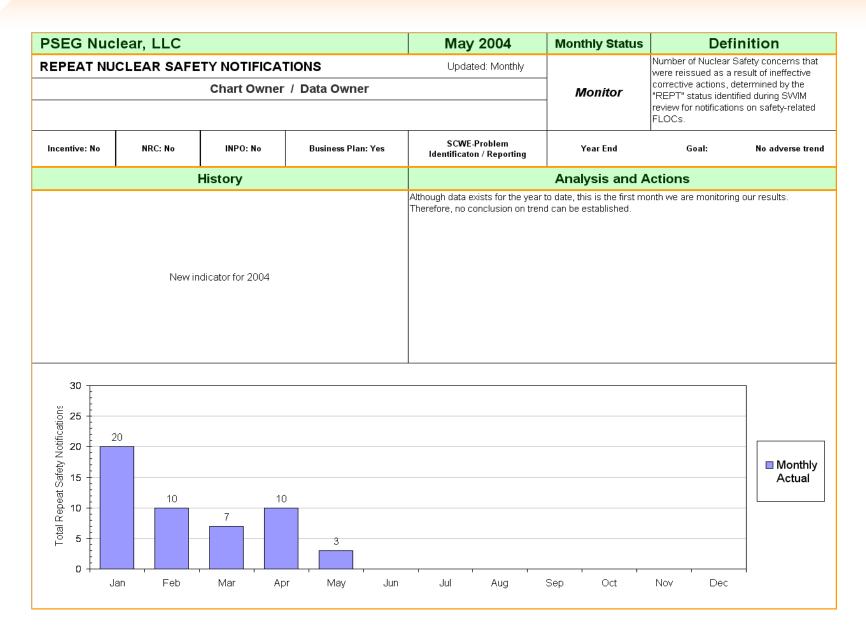








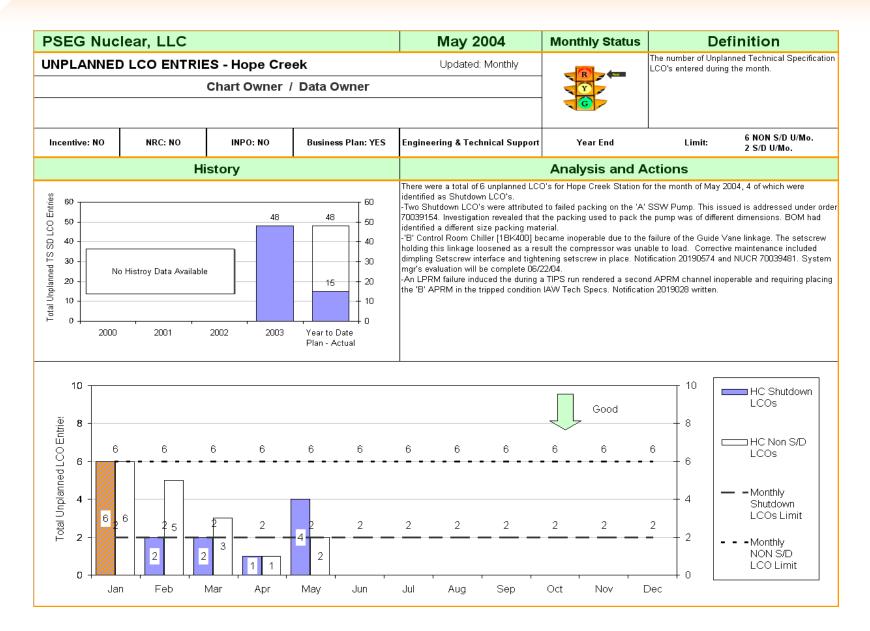


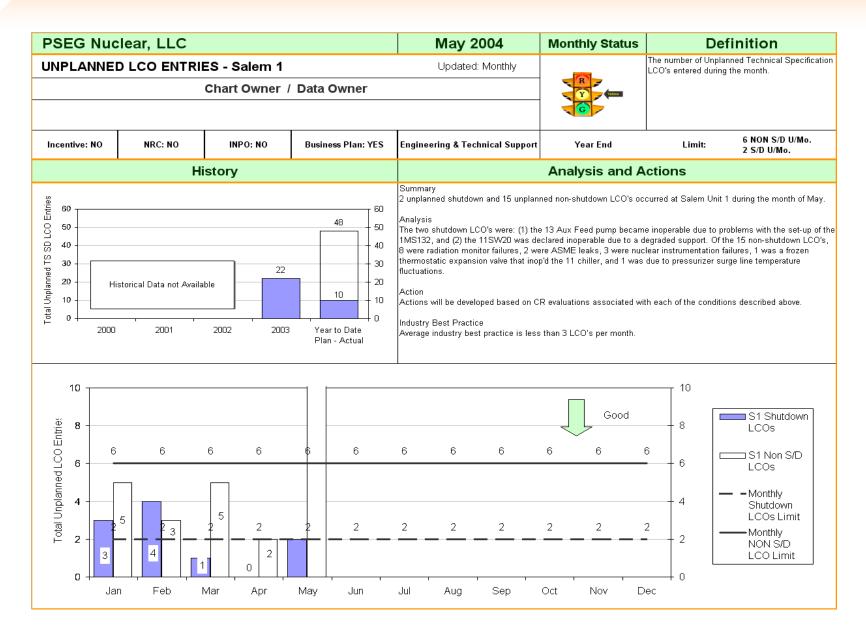


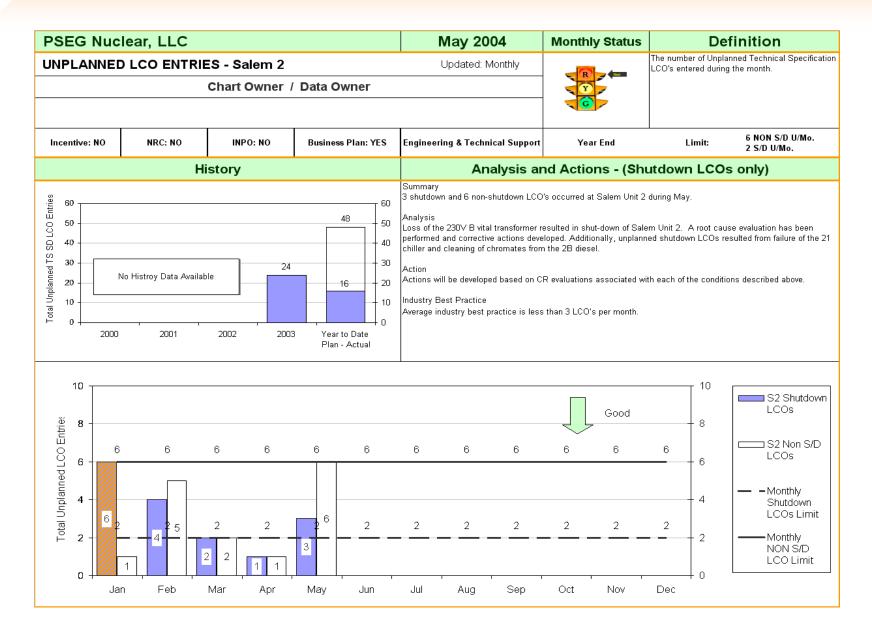
PSEG N	ıclear, LLC			May 2004	Monthly Status	D	efinition
SAFETY S	YSTEM UNAVA	AILABILITY - H Chart Owner		Updated: Monthly	R V G	This indicator is the percent of the unavailability hours as compared to goal f the Reactor Core Isolation Cooling(RCIC) Reactor Heat Removal(RHR), High Pressure Coolant Injection(HPCI) and Emergency Diesel Generators(EDG).	
Incentive: No	NRC: Yes	INPO: Yes	Business Plan: Yes	SCWE - Conservatism	Year End	Goal:	*
	Н	listory			Analysis and Ac	tions	
	New ind	licator for 2004		been implemented which have imp HPCI 4.0%, RHR 1.5%, RCIC 4.09	oved availability and reliability of the and EDG 2.5%.	Hope Creek Safety S	ystems. Yearly goals are
100% T							■ RCIC
90% - = 80% -							□ HPCI
5 70%							■EDG
60% + 50% +						Good	■ RHR
70% - 10% -							
•	Jan Feb	Mar A	.pr May .	Jun Jul Aug	Sep Oct No	ov Dec	

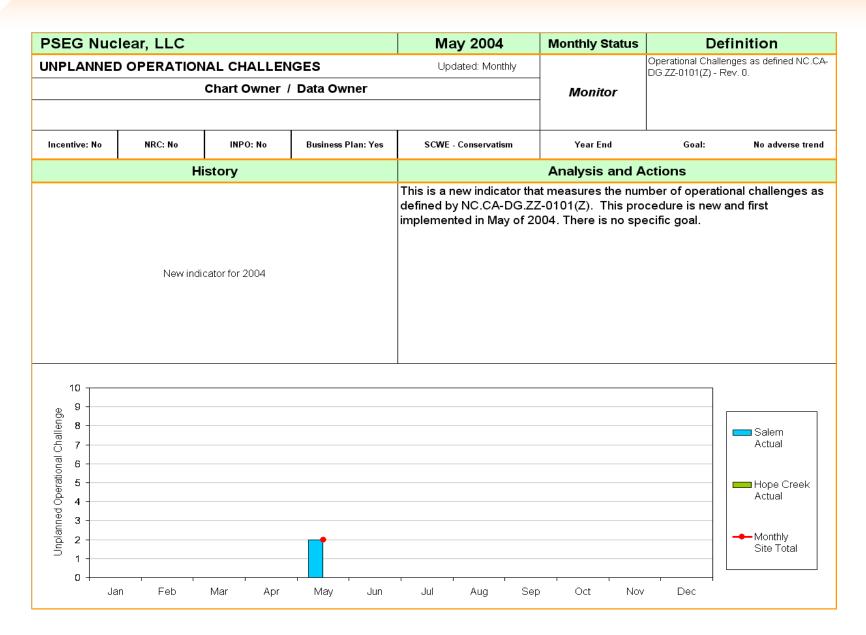
PSEG Nuc	clear, LLC				May 2004	Mont	hly Status	S	De	efinition	
SAFETY SY	STEM UNAVA	AILABILITY -	S1	·	Updated: Monthly	R	-	una	availability hou	the percent of the rs as compared	l to goal fo
		Chart Owne				Y		Auxiliary Feedwater(AFW), High Pressure Safety Injection(HPSI) and Emergency Diesel Generators(EDG).			
	1	_							esei Oelleratui	s(LDO).	
Incentive: No	NRC: Yes	INPO: Yes	Business Plan: Y	es S	CWE - Conservatism	١	ear End		Goal:	*	
	Н	listory			Analysis and Actions						
	New ind	licator for 2004		actions h	nit 1 safety systems hav ave been implemented v W 2.0% and EDG 2.5%	which have improve					
90%										☐ AF	
70% = 60%		_				~	Goo	od		│ □HF	'SI
00% - 70% -										■EC	OG
30% - 10% - 10% - 0%											

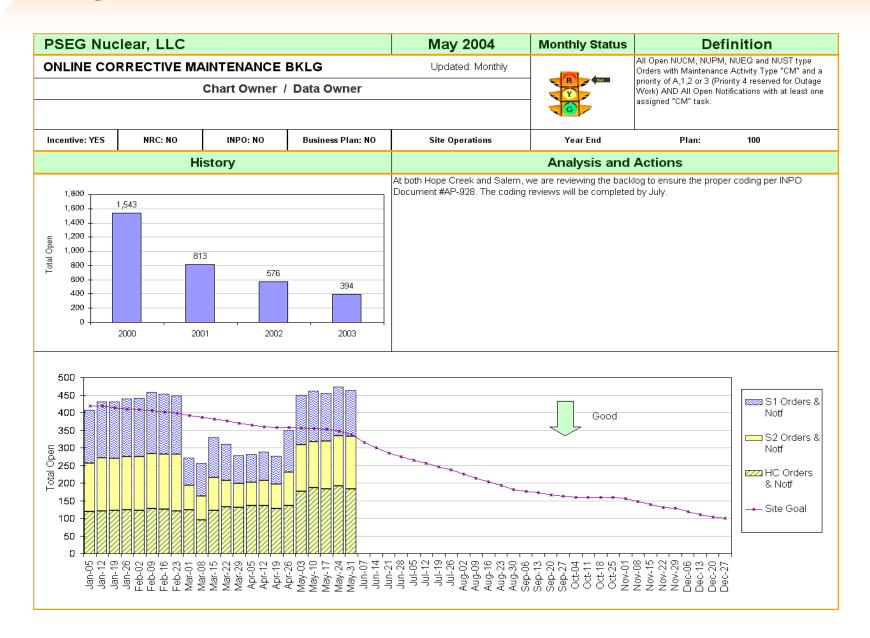
PSEG Nuc	lear, LLC				May	2004	Mont	hly Status		Definition		
SAFETY SY	Update	d: Monthly	R	R		This indicator is the percent of the unavailability hours as compared to goal for Auxiliary Feedwater(AFW), High Pressure Safety Injection(HPSI) and Emergency Diesel Generators(EDG).						
Incentive: No	NRC: Yes	INPO: Yes	Busi	ness Plan: Yes	SCWE - Co	nservatism	Y	ear End	Goal:	*		
	Н	istory					Analysis and Actions					
	New ind	icator for 2004				implemented whi				ability, and aggressive corrective Systems. Yearly goals are HPI		
100% 90% 90% 70% 60% 40% 10% 10% 10% 10%	Jan Feb	Mar	Apr	May	, Jun Jul	Aug	Sep	Oct N	Good	■ AFW □ HPSI ■ EDG		

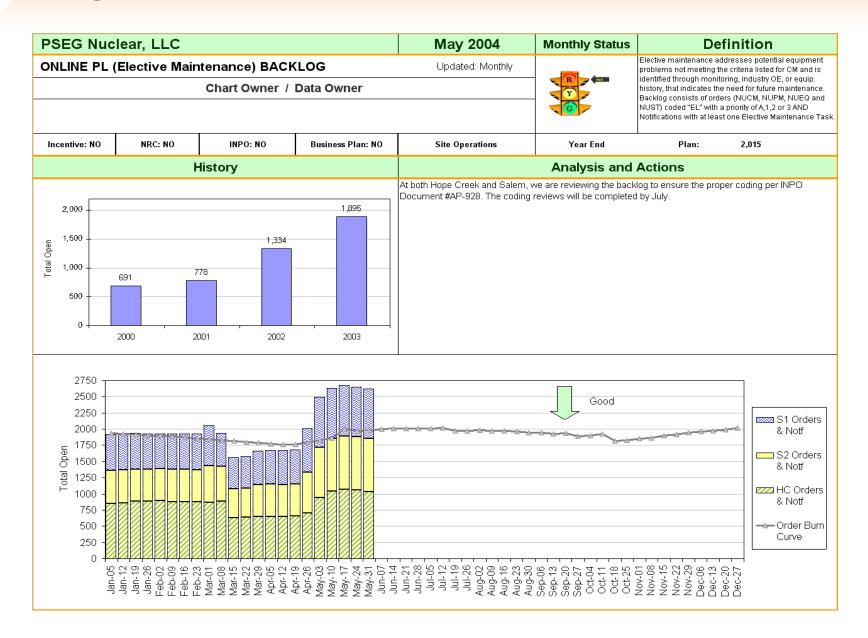












PSEG Nuclear, LLC					I N	May 2004 Monthly Status		ly Status	Definition			
CORRECTIVE ACTION PROBLEM RESOLUTION Chart Owner / Data Owner					Updated: Monthly			R	-	The percent of corrective action closures determined to be acceptable by the corrective action closure boards' review, based on the		
					Ŷ		problem resolution criteria. The performance indicator is a monthly value.					
Incentive: NO	NRC: NO	INPO: NO	Business	Plan: YES	Nuc	lear Asses	sment	Yea	ar End	Goal:	95%	
History								Analys	sis and A	ctions		
					adequate w Department 84%, Salem	nich did not s that did no 84% and Ti s shown tha	meet the goal it meet the goa raining 90%. P t employees bo	of 95%. CACB Il were Busines erformance is	identified 31 tec ss Support 89% not improving a	hnical errors and 39°a , Engineering 77%, Ho s expected. The correc	and determined that 84% we dministrative errors. upe Creek 86%, Plant Suppoi tive action program (CAP) ga ck of focus on quality and is	
	New indi	icator for 2004			discussed v corrected. D observation	vith the indiv etailed repo s are also p dure revisio	idual, an emai rts and a CACI ublished via Ni	I is sent to the B Feedback Su uclear Outlook	individual and th Immary are avai The CAP Reco	neir supervisor and ma llable on the Corrective	this indicator. Details are anager, and each error is Action web page. CACB s a backlog reduction project sview	
										750		
100%		95% 95%	6 95%	95%	95%	95%	95%	95%	95% 9	750 5%		
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				95%	95%	95%	95%	95%	95% 9	5%		
90% - 80% -	Reporting / data entry	95% 959	17 425		95%	95%	95%	95%	95% 9	5% - 650 - 550	□ Goal	
90%		44	17 425		95%	95%	95%	95%	95% 9	5% - 650 - 550 - 450 pawaja	Goal Actual	
90% - 80% -	data entry starts in	81%	425		95%	95%	95%	95%	95% 9	5% - 650 - 550		

Chris Bakken

Senior Vice President – Nuclear Operations



Schedule

Milestones

- Completed Plans by July 31, 2004
- Commitment Letter to NRC by June 25, 2004
- Resurvey After Hope Creek Outage
- Keep NRC Informed
 - Ongoing
 - Public Meeting After Analyzing Resurvey Results
 - Docket Survey Results

Conclusions

We have Established the Foundation for Change We Understand Our Issues

- Our Gap Analysis is Completed
- We Have Analyzed the Results

We Will Have Comprehensive and Integrated Plans to Resolve Our Issues

We Have the Resources We Need

- Financial
- Personnel

We Will Publicly Track Our Progress

Safe Plant Operation Will Not Be Compromised

Questions and Comments

Assessment Results and Plans for Improving the Work Environment at Salem/Hope Creek

NRC Public Meeting June 16, 2004

