

CENG

- Date: August 1, 2011
- Memo To: File
- Attached are the slides that were presented at the CENG Annual Communication Meeting with NRC



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CENG Annual Communication Meeting with NRC

CENG Offices, Baltimore
July 26, 2011

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Welcome and Agenda

▪ Opening Remarks	Maria Korsnick, Bill Dean	9:00 am
▪ CENG Update and Fleet Initiatives	Maria Korsnick	9:10 am
▪ Exelon-Constellation Merger	Brew Barron	9:25 am
▪ CENG Corporate Governance and Oversight	Jim Spina	9:45 am
BREAK		10:00 am
▪ Site Performance Overview <ul style="list-style-type: none"> • Calvert Cliffs • Nine Mile Point • Ginna 	George Gellrich Sam Belcher Joe Pacher	10:15 am
▪ Response to Fukushima <ul style="list-style-type: none"> • CENG Perspective • NRC Perspective 	Maria Korsnick Eric Leeds (NRC)	11:15 am
▪ Luncheon (closed session)	Bruce Montgomery	12:00 pm
▪ NRC Region I	Bill Dean (NRC)	12:45 pm
▪ Nuclear Reactor Regulation	Eric Leeds (NRC)	1:15 pm
▪ Nuclear Security and Incident Response	Jim Wiggins (NRC)	1:45 pm
▪ Closing Remarks & Adjourn		2:20 pm



Key Messages

- Fleet performance remains solid with a strong emphasis on learning from CENG and industry events over the past year
- We remain well-connected with and trusted by our local communities and public stakeholders
- The proposed Exelon-Constellation merger will not have a major impact on CENG operations but will provide long-term benefits
- CENG has implemented “best-in-class” processes and tools for fleet governance and oversight
- CENG is dedicating substantial resources to respond to learnings from the Fukushima event



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CENG Update and Fleet Initiatives

Maria Korsnick
Chief Nuclear Officer

- Organizational Update
- Fleet Performance Overview
- Fleet Initiatives
- Public Outreach

CENG Leadership Team

Board of Directors

5 CEG

5 EDF



Brew Barron
President, CEO & Chairman CENG, LLC
Exec. Vice President, CE



Sue Collins
SVP, Human Resources



Joël Louis-Joseph-Dogué
SVP, Support Services



Maria Korsnick
CNO & COO



Steve Miller
SVP, General Counsel & Secretary



Bernard Minvielle
SVP, Chief Financial Officer



Mark Sullivan
Director, Nuclear Communications



Bridget Horner
VP, IT



Sam Belcher
VP, NMP



Joe Pacher
VP, Ginna



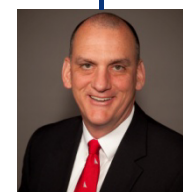
George Gellrich
VP, Calvert



Jim Spina
VP, CSO



Steve Mormann
VP, Fin. Svcs. & Treasurer



Gene Van Slyke
VP, Bus. Ops.

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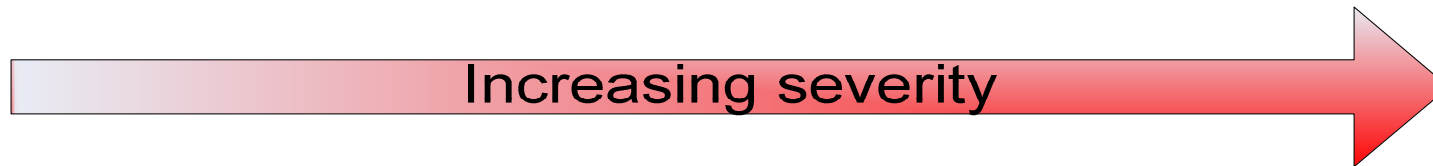
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Fleet Performance Overview

Maria Korsnick

Current CENG ROP Performance*



LICENSEE RESPONSE	REGULATORY RESPONSE	DEGRADED CORNERSTONE	MULTIPLE/ REPETITIVE DEGRADED CORNERSTONE	UNACCEPTABLE PERFORMANCE
All performance indicators and cornerstone findings GREEN	No more than two WHITE inputs in DIFFERENT cornerstones	One degraded cornerstone (two WHITE inputs or one YELLOW input or three WHITE inputs in any strategic area)q	Repetitive degraded cornerstone, multiple degraded cornerstones, or multiple YELLOW inputs, or one RED input	Unacceptable Performance
NRC BASELINE RISK INFORMED INSPECTION PROGRAM	NRC BASELINE AND SUPPLEMENT INSPECTION 95001	NRC BASELINE AND SUPPLEMENTAL INSPECTION 95002	NRC BASELINE AND SUPPLEMENT INSPECTION 95003	NRC ORDER TO MODIFY, SUSPEND OR REVOKE LICENSED ACTIVITY
Calvert Cliffs Unit 1	Ginna			
Calvert Cliffs Unit 2				
NMP Unit 1				
NMP Unit 2				

* Excludes Physical Protection Cornerstone



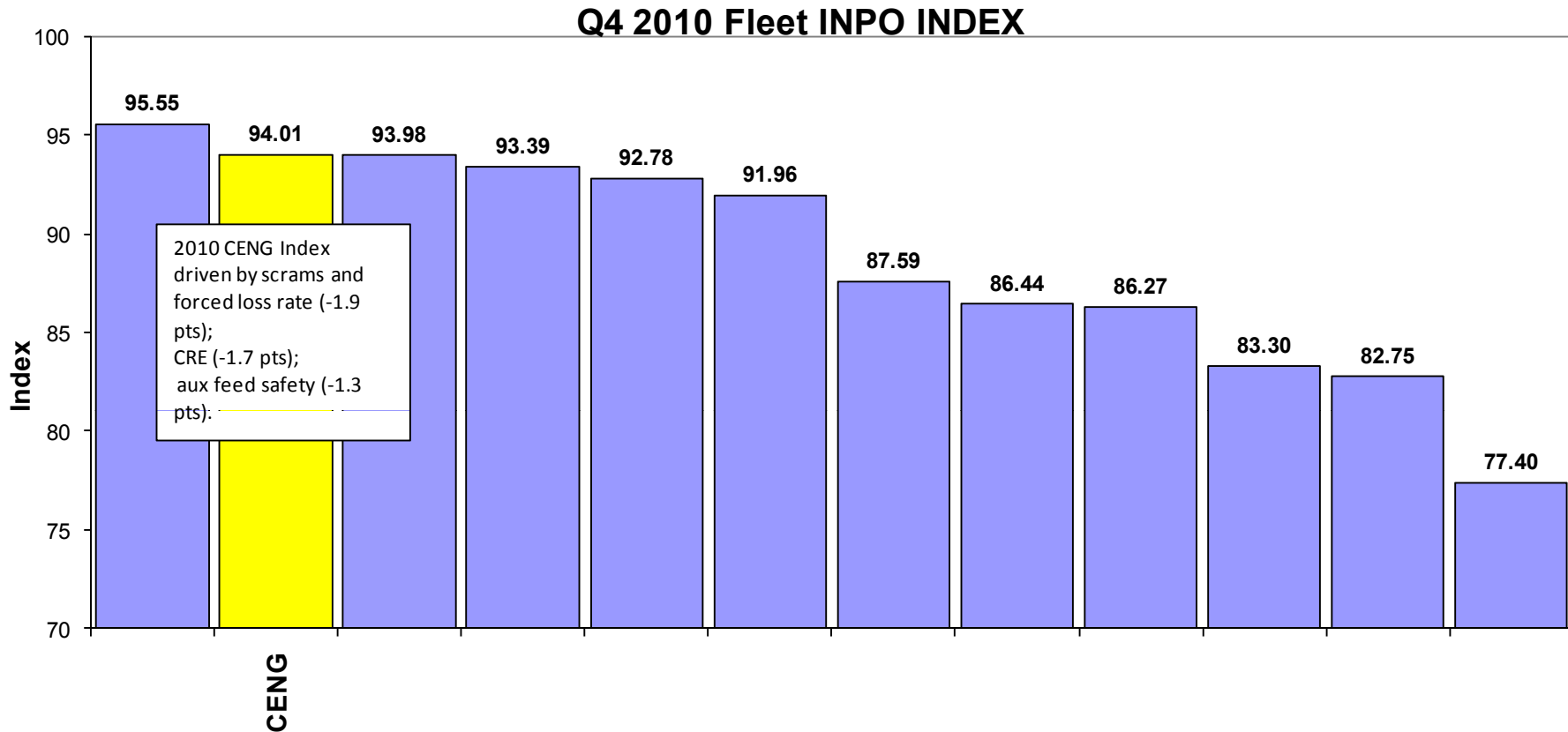
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Fleet Operational Performance

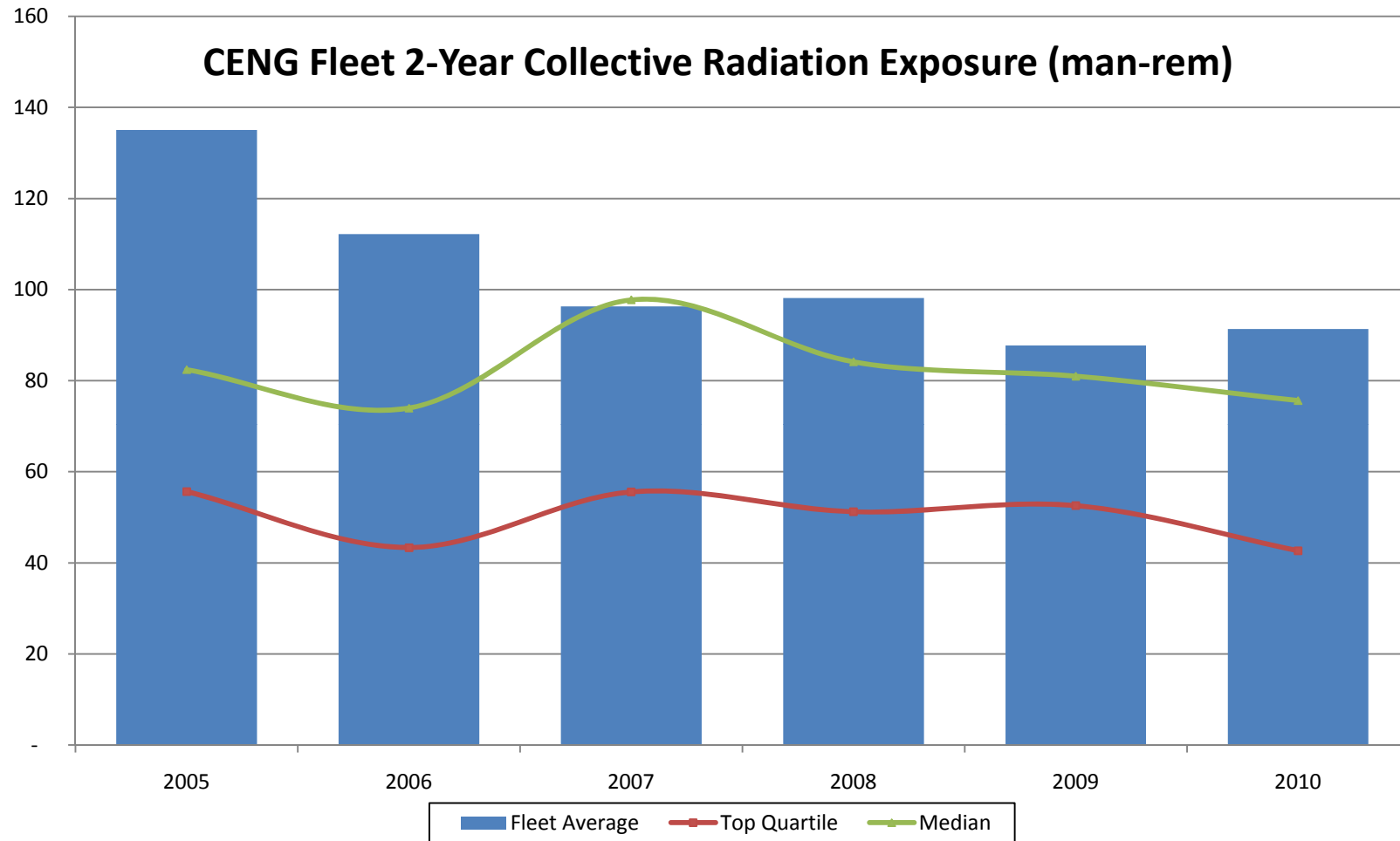
CENG Industry Performance Index



Major drivers of lost points through Q4 2010: Unplanned scrams and forced loss rate - 1.9 points; Nine Mile CRE - 1.7 points; Ginna aux feed safety system performance - 1.3 points; Calvert Cliffs fuel reliability - .4 points; and Nine Mile chemistry - .4 points.



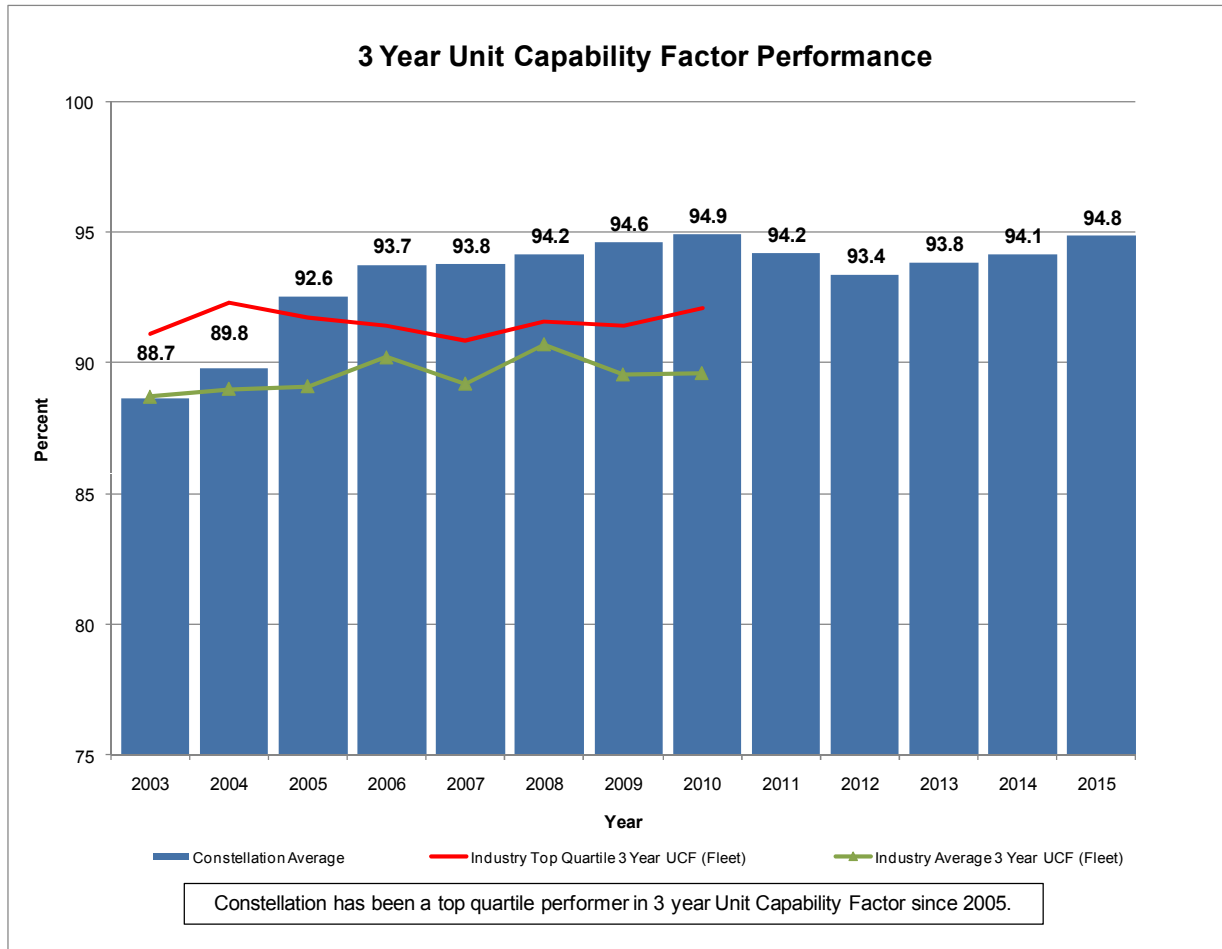
Occupational Dose vs. Industry



2011-2015 plan includes investments at all three CENG stations to drive fleet dose performance to best quartile.



CENG Fleet Capability Factor vs. Industry



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2011 CENG Initiatives

2012 -2016 Fleet Initiative List

• Strategic Initiatives

- ❖ Performance Improvement (Owner : Jim Spina)
- ❖ Equipment Reliability / Engineering Effectiveness (Owner : Joe Pacher)
- ❖ Leadership Effectiveness (Owner : Sue Collins and Maria Korsnick)
- ❖ Training as a Strategic Tool to Drive Improvements (Owner : George Gellrich)
- ❖ Owning Fleet Performance (Owner : Sam Belcher & Jöel Dogue)

• New Initiatives

- Fukushima Response
- SOER 10-02 – Engaged, Thinking Organization
- Process and Productivity Improvements
- IER 11-3 – Operating Fundamentals

• Continuing Initiatives

- Cyber-Security (CIP & CFR 73.54)
- NFPA 805
- Source-Term Reduction Improvements
- Improve Nuclear Fuel Performance
- Manage EPA Ruling on Cooling Water
- Emergency Preparedness NRC Rule-Making
- Improve Emergency Preparedness Performance
- Implement Fleet Training Initiatives



CENG Public Outreach

- We value our neighbors and reach out in many ways:
 - Neighborhood meetings
 - Community Advisory Councils
 - Community tours
 - Partnerships with non-profits, schools, environmental groups, local public officials
 - Proactive outreach with media
 - Letters, mailings, personal phone calls to neighbors and public officials:
 - Significant announcements
 - Sponsorship of community events
 - Notifications of siren tests



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Exelon-Constellation Merger

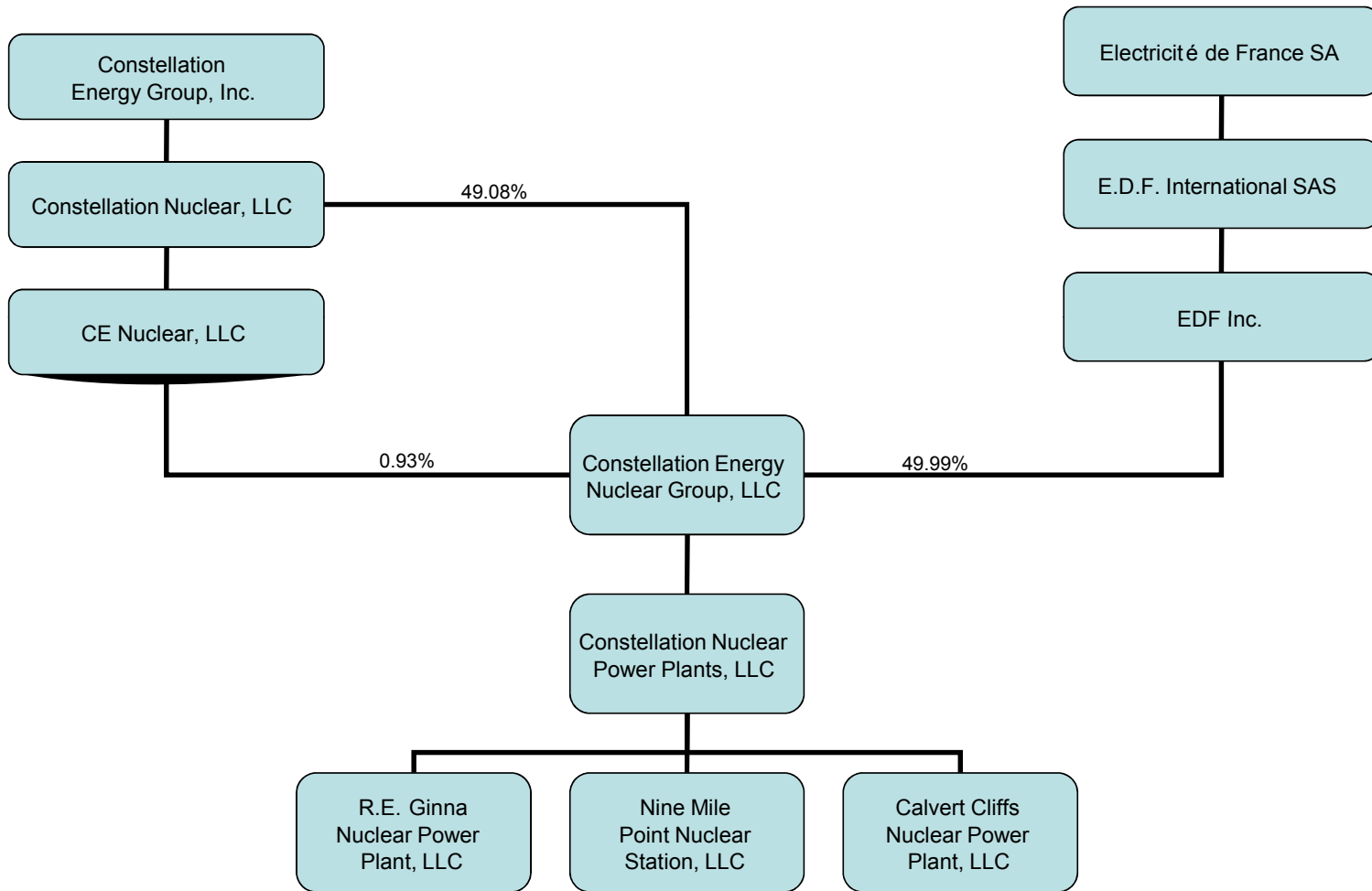
Brew Barron
President and CEO
CENG

Exelon-Constellation Merger

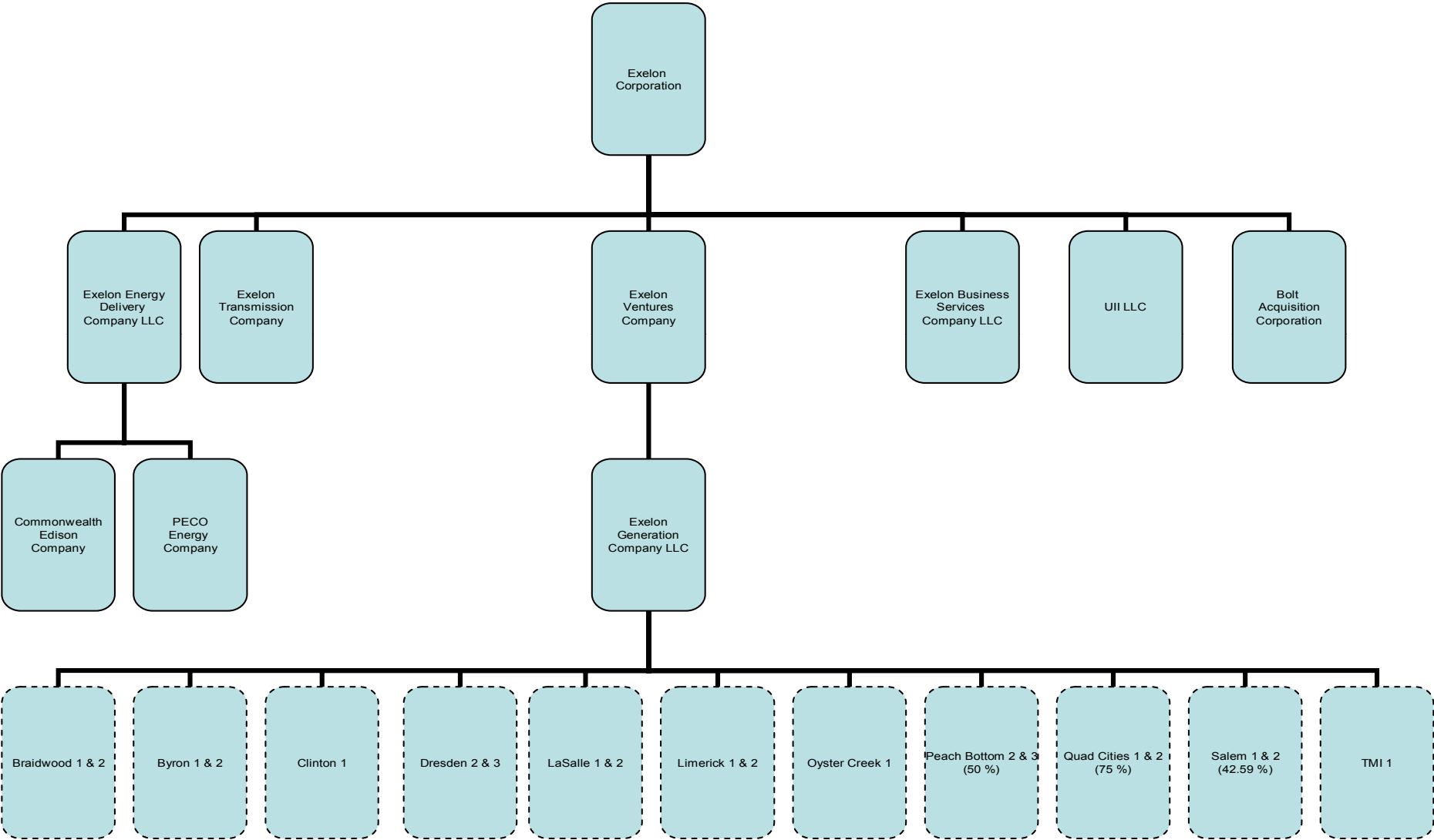
- CEG remains a member of CENG Joint Venture with EDF
 - CENG is a Board-Managed JV, with member authorities limited to designation of board members
 - Governance changes effecting decision making require prior NRC approval
- CENG remains in Baltimore
 - Exelon Nuclear organization is relocating its headquarters to Kennett Square, PA
- Exelon-CEG integration activities underway, with CENG participating/providing information
- Merger presents learning opportunities/synergies
 - Exelon: largest fleet operator in US, third in the world
 - EDF: largest fleet operator in the world



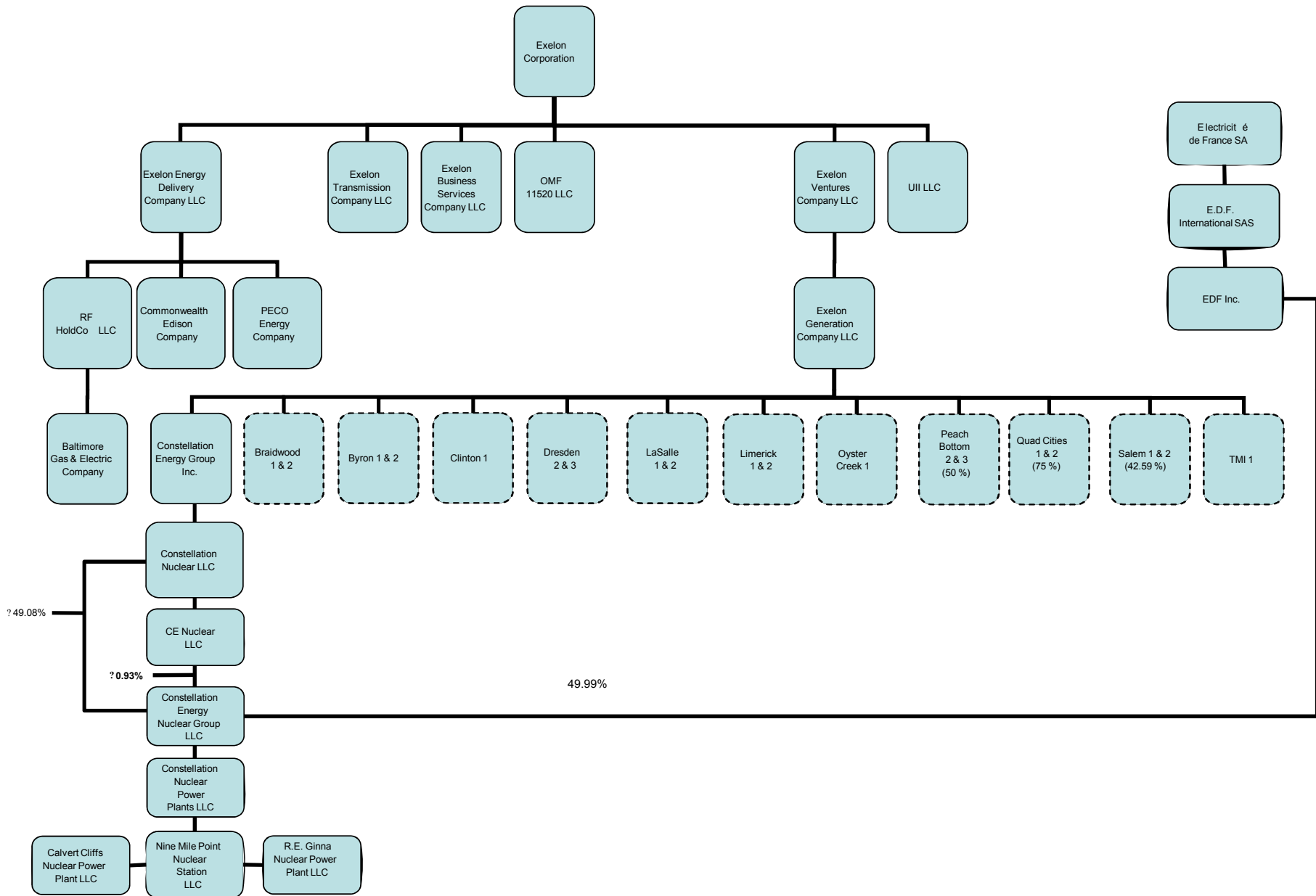
Current CENG Organization



Current Exelon Organization



Current Post-Merger Organization



NRC Indirect License Transfer Application

- Required by 10 CFR 50.80, “Transfer of Licenses”
- Application for an “indirect” transfer due to upstream change in control of a licensee parent, rather than a direct transfer of ownership
- Joint submittal by Exelon and CENG
 - Submitted May 12, 2011
 - NRC request for additional information received July 14
 - CENG will respond within 30 days of request
- Merger expected to close in 1Q/2012



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CENG Governance and Oversight

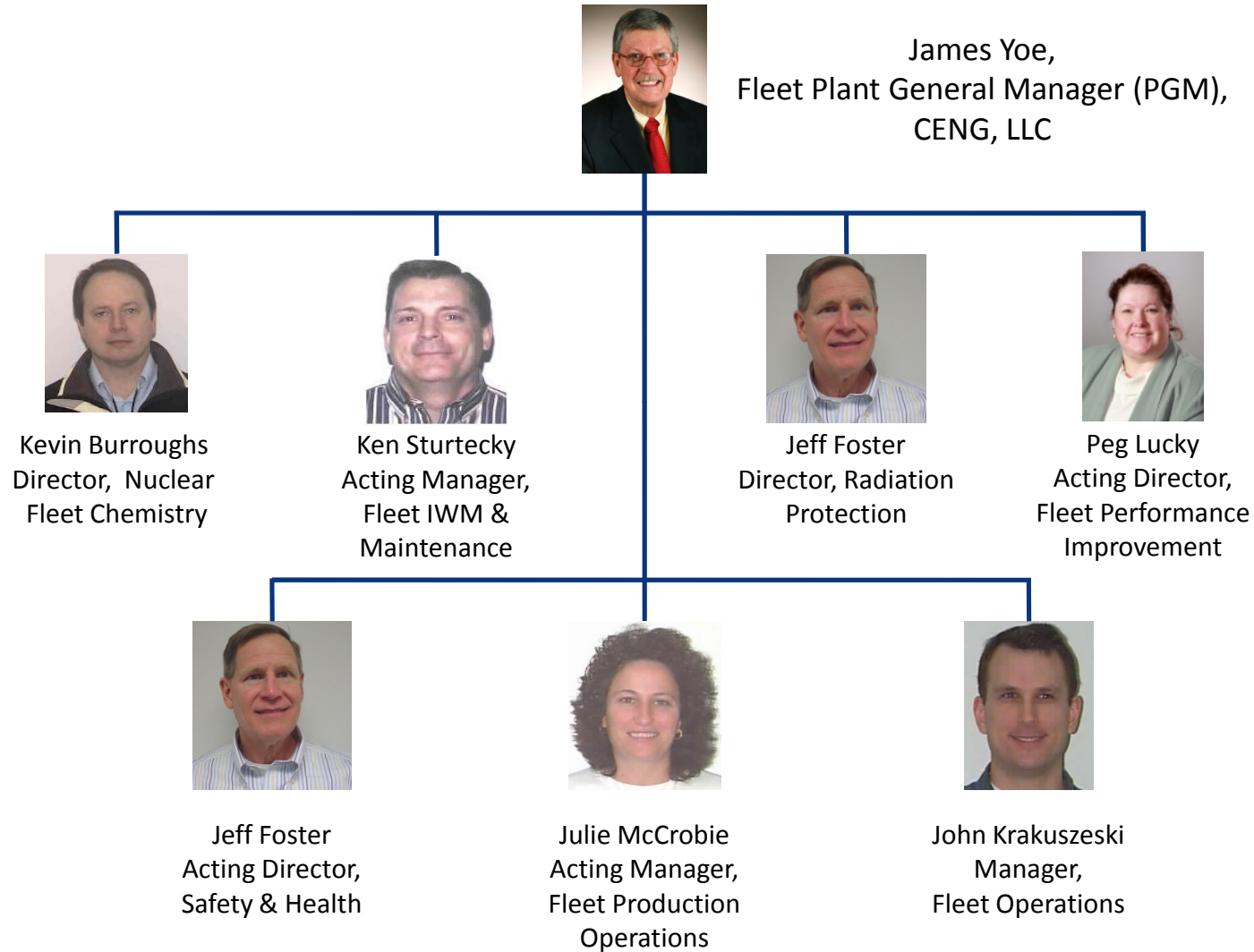
Jim Spina
Vice President
Corporate Site Operations

- CENG G&O Initiatives
- Progress and Performance Management
- G&O Touchpoints
- New NSRB Membership

Corporate Site Operations (CSO) VP Leadership Team



CSO PGM Leadership Team



CENG Governance and Oversight Initiatives

- CENG is a player in industry efforts to improve effectiveness of corporate governance and oversight
 - Jim Spina participates on INPO's Center of Excellence for Corporate Performance Improvement
- New G&O tool (P&PM suite) developed by CENG and utilized in the 2010 corporate INPO-style mid-cycle focused self-assessment



CENG Governance, Oversight, Support and Perform

- GOSP Elements:
 - **Governance (G)** - The accountability to set the policies and practices that create the broad boundaries that guide the development of methods, procedures and practices to achieve the outcomes assigned to that function.
 - **Oversight (O)** - The accountability to critically monitor, assess and evaluate the conduct of nuclear stations.
 - **Support (S)** - The accountability to provide supplemental resources to organizations doing the execution on an agreed-upon basis.
 - **Perform (P)** - “Execution of the function.” The accountability to manage, provide appropriate resources, schedules, scope and detailed procedures to implement those plans as necessary and to deliver quality work products of the function.

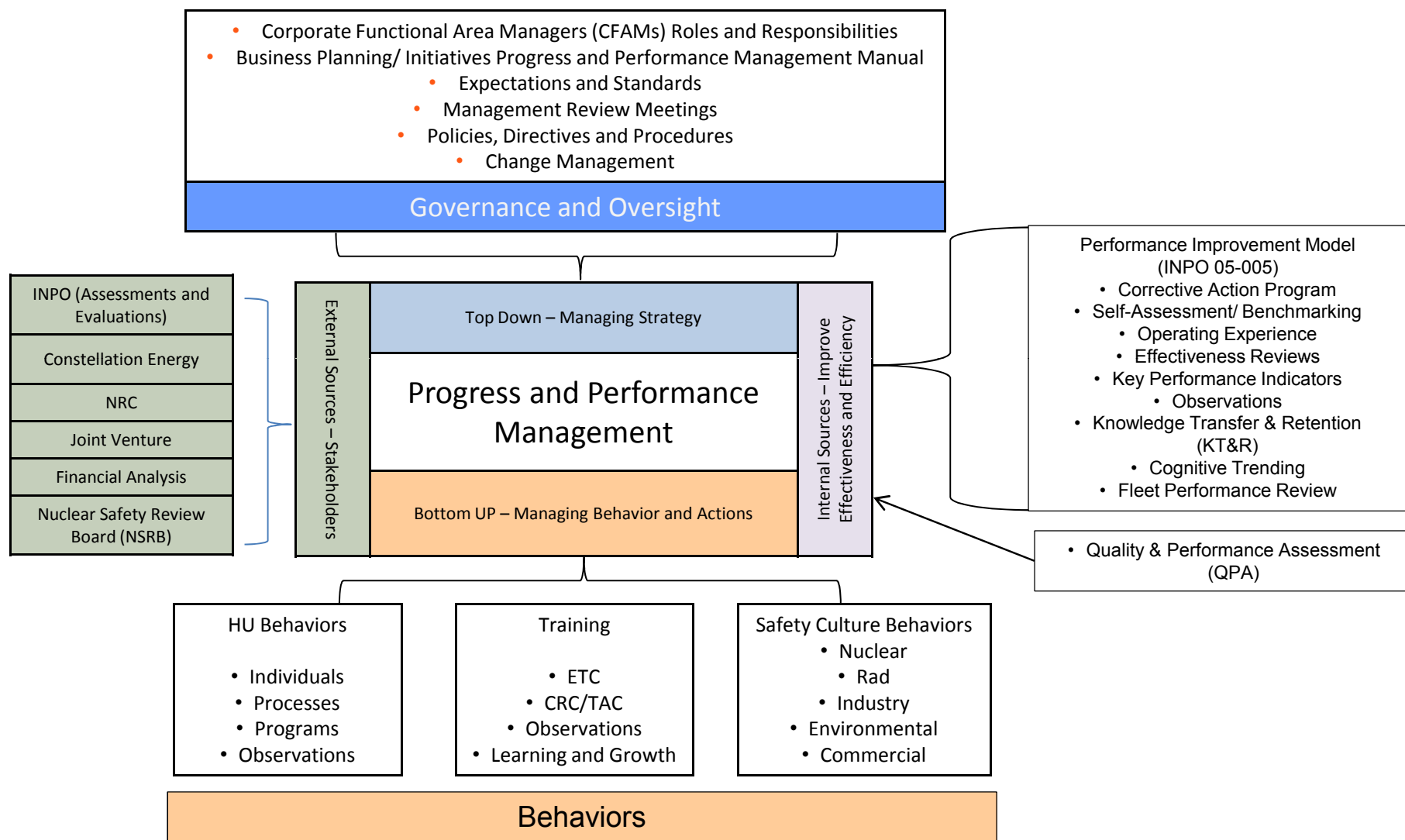


Governance and Oversight Roles and Responsibilities

- WIN Teams and Governance and Oversight
 - Drives Continuous Improvement towards best-in-class performance at the nuclear sites, through WIN Team Leadership.
 - Ensures Transfer of Knowledge learned between the sites and functional areas through WIN Team Leadership.
 - Accountable for WIN Team fleet procedure development process including procedure quality, content and consistency.
 - Escalating fleet alignment issues to WIN Team Executive Sponsors.
 - Develop, coordinate and communication of Change Management Plans.
 - Establish cross-functional interfaces with other WIN Teams.



Progress and Performance Management (P&PM) Tool

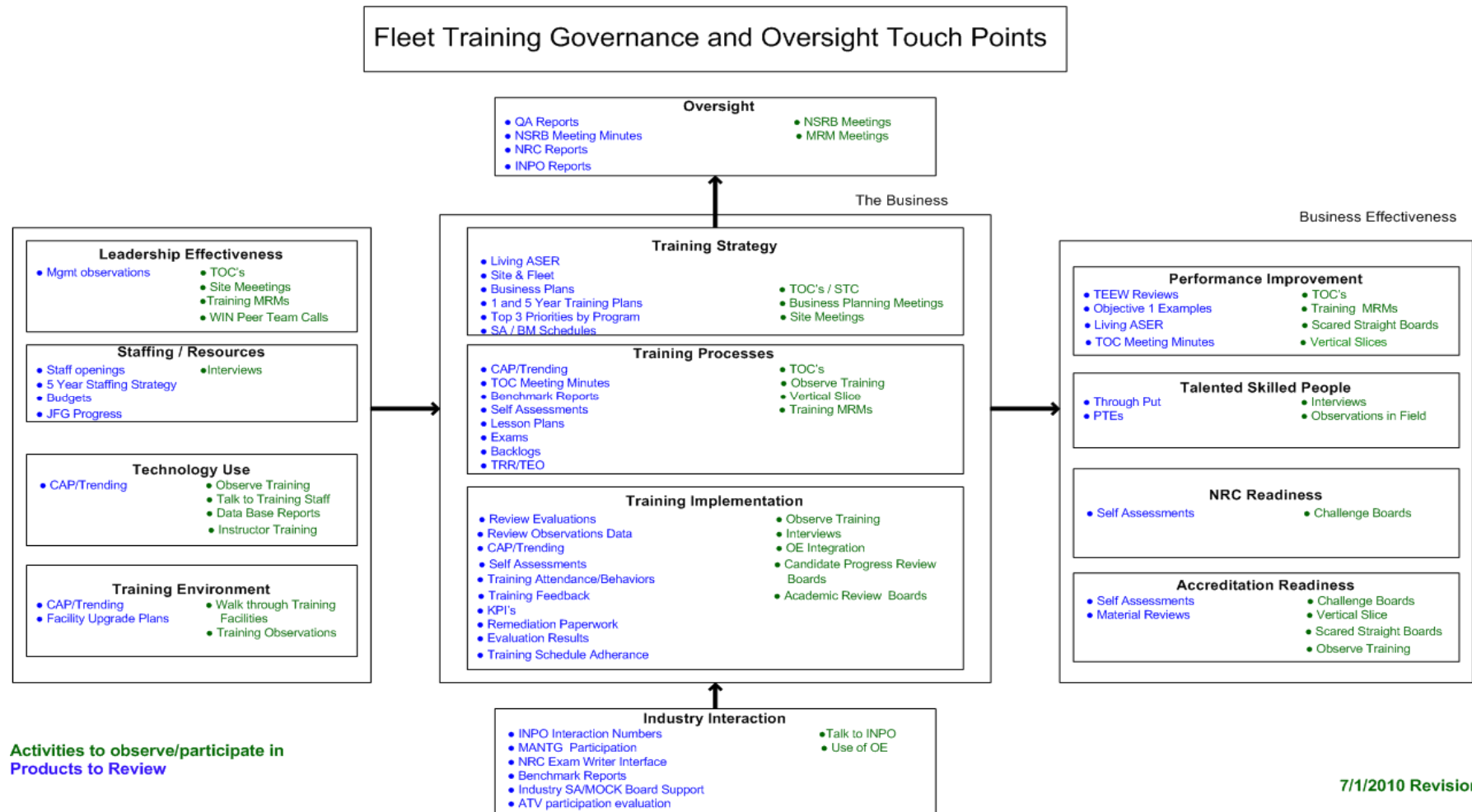


What P&PM accomplishes

- The Integrated Performance Assessment (IPA) process combines site and corporate assessments to establish fleet focus areas.
 - Each site uses cognitive trending tool to identify and evaluate their gaps to excellence.
 - Station leadership discusses the trend information during the Site Quarterly Roll-Up Meeting with the site leadership team.
 - The Corporate Functional Area Managers (CFAMs) review the site cognitive trending data to identify trends across the fleet in each functional area and develop “touch-point” maps.
 - A Fleet Performance Review Meeting is held with the CFAMS and Plant General Managers to identify cross-functional, common “Gaps to Excellence.”



Governance and Oversight Touchpoints – Example



7/1/2010 Revision



Changes to Nuclear Safety Review Board (NSRB)

Area	Previous Membership	New Membership
Chairman	Darrell Eisenhut	Sam Collins
Operations	Dave Sager	Dave Wozniak
Maintenance/WM/RP	Harry Kaiser	Jay Doering
Engineering	Warren Fujimoto	Bill Eaton
Regulatory & Nuclear Oversight	Denny Crutchfield	Bruce Mallet



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Station Performance Overview

Site Vice Presidents

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**Constellation
Energy**



EDF



Nine Mile Point Performance Overview

Sam Belcher

Site Vice President

Scrams and Significant Power Changes – Unit 1

Dates	Event	Cause
1/18-20/2010	Power Reduction	Feed water control valve Quick Track testing
2/16-20/2010	Power Reduction	Feed water control valve Quick Track replacement
11/10-13/2010	Scram	Inadequate post maintenance testing of the MSIVs
1/31-2/2/2011	Power Reduction	Main generator leads fan bearing failure
3/21 - 4/19/2011	Shutdown for Refueling Outage	Refueling Outage
4/26-30/2011	Power Reduction	Vibration of the #13 Feed water Pump
4/30 - 5/2/2011	Power Reduction	Turbine shaft vibrations
5/2-18/2011	Scram	Turbine trip due to oil pressure fluctuations to the turbine master trip solenoid
5/26-27/2011	Power Reduction	One feed water heater tripped



Scrams and Significant Power Changes – Unit 2

Dates	Event	Cause
1/7-10/2010	Scram	Inadequate fill and vent affected ISC Redundant Reactivity logic
4/2-5/4/2010	Shutdown for Refueling Outage	Refueling Outage
10/2-3/2010	Power Reduction	Feed water pump hot alignment
12/11/2010	Power Reduction	Feed water pump rotation
1/29/2011	Power Reduction	Feed water pump rotation
3/5/2011	Power Reduction	Feed water pump rotation
4/16-4/17/2011	Power Reduction	Stator water cooling water temperature increase
6/4-5/2011	Power reduction	Feed water pump rotation



2010-2011 Performance Highlights

- On- Line Dose (Station)
 - 2010 = 102.304 Rem (goal = 77.0 Rem)
 - 2011 = 56.4 Rem by 6/30/2011 (goal = 38.5 Rem)
 - 2011 – Annual Goal = 75 Rem
- Fuel Performance
 - Sustained excellent fuel performance at both Units
- 2011 Refueling Outage (Unit 1)
 - 0 OSHA recordables
 - 1 Site HU clock resets
 - 0 Shutdown safety violations
 - Dose 159.3 Rem versus goal of 190.0 Rem
- Training Accreditation Renewal of Technical Training Program



Major Licensing Activities

- Unit 2 extended power uprate application under review. Submitted 5/27/2009.
- Unit 2 EDG completion time extension under review.
- ISFSI project under construction. First loading anticipated August 2012. General License.
- NFPA-805 submittal for Unit 1 is in development with submittal projected for 2Q12.



Site Improvements

- Modified Unit 2 HPCS generator cooling water system to improve reliability as well as gain improved PRA margin
- Modified Unit 1 shutdown cooling valves to eliminate thermal binding (replaced solid wedges with flexible wedges)
- Replaced Unit 1 main transformer
- Performed Unit 1 main generator stator winding wedging and stator water leak repairs
- Replaced 37 CRD blades at Unit 1 for source term reduction



Focus Areas

- **Controlling Our Future**
 - **Owning Our Safety**
 - Industrial, Radiological, Nuclear
 - **Raising Our Standards**
 - Performance Improvement, Human Performance, Peer-to-Peer coaching
 - **Planning Our Work**
 - Work Management, Asset Management, Equipment Reliability
 - **Driving Our Performance**
 - Continuous Improvement, Strategic Use of Training, Strategic Staffing



Future Planned Activities

- Unit 2 Extended Power Uprate Implementation
- Continued construction of Independent Spent Fuel Storage Installation (ISFSI)
- Labor Contract Agreement
- Component Design Bases inspection in progress since 7/11/2011. Expected to be completed on 8/5/2011
- PI&R inspection scheduled during the weeks of 10/3 and 10/17
- Revised EAL based on NEI 99-01 Rev 5 submitted to the NRC on May 6, 2011



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Calvert Cliffs Report

George Gellrich
Site Vice President

Reactor Trips and Significant Power Changes- Unit 1

Dates	Event	Cause
5/12-19/2010	Automatic Reactor Trip	Load Rejection-Switchyard Maintenance
9/11/2010	Power Reduction	Main Turbine Valve Testing
9/27/2010	Power Reduction	11C Feedwater Heater Oscillations.
3/24/2011	Power Reduction	Main Turbine Valve Testing and DAS Maintenance.



Reactor Trips and Significant Power Changes- Unit 2

Dates	Event	Cause
5/02 - 03/2010	Power Reduction	21 SGFP Maintenance
6/05 - 06/2010	Power Reduction	21 SGFP Maintenance
2/13 - 3/12/2011	Shutdown for Refueling Outage	Refueling Outage.
3/12 - 15/2011	Outage Extension	21 and 22 SGFP Additional Work Scope
3/25 - 28/2011	Power Reduction	21 SGFP Maintenance



2010 and 2011 Performance Highlights

- On-Line Dose
 - 2010 = 16.555 rem (goal = 17.4)
 - 2011 = 3.666 rem by 6/30/2011 (goal = 4.993)
 - 2011 Annual Goal = 10.5 rem
- Fuel Performance
 - Proceeding with transition to AREVA fuel
 - Started transition in 2011 RFO (Unit 2)
 - Complete transition in 2016 RFO (both units with full core load of AREVA fuel)

2011 Refueling Outage

- 1 OSHA recordable
 - 0 site HU clock resets
 - 0 shutdown safety violations
 - Dose 93.176 rem versus goal of 102.5 rem
- Training Accreditation Renewal of Technical Training Programs



Regulatory Performance

- Mitigating Systems – white finding
 - 95001 inspection completed satisfactorily in March 2011
- Safeguards Information Update



Major Licensing Actions

- License Renewal for ISFSI
 - Submitted to NRC on 09/17/2010
- EAL Scheme Change to NEI 99-01, Revision 5
 - Submitted to NRC on 02/01/2011
 - Preparing response to NRC RAI's received 7/14/2011
- The following are planned for 3Q 2011
 - Exemption for Work Hour Rules for severe weather
 - ISFSI high burnup canisters LAR
 - Address AREVA fuel one-cycle license condition LAR
- NFPA 805
 - LAR submittal planned for 3Q 2013



Accountability

- Clear performance expectations are established
- Metrics are created and utilized to assess performance against planned objectives
- Structured processes are in place
- Planned touch points are utilized
- The difference between dissatisfaction and intolerance is recognized



2011 Station Focus Areas

- Equipment Reliability
 - Critical component failure reduction
 - Operations aggregate impact assessment process
 - Operating margin recognized and protected
 - Latent vulnerabilities eliminated (technical design rigor, modifications, design bases)
 - Achieve Long-term Health (Obsolescence, Preventative Maintenance, Long Term Asset Management)
- Performance Improvement
 - Corrective Action Program
 - Training for Evaluators and Sponsors
 - Operating Experience, Self Assessments, and Benchmarking



2011 Station Focus Areas (cont'd)

- Human Performance
 - Standard Clarity / Management Expectations
 - Training will Measure and Address Attitudes
 - Accountability
 - Department / Section Management Review Meetings
 - Supervisor Observations
 - Human Performance Oversight Team and Working Committee

- Emergency Preparedness
 - Functional Area Assessment
 - EAL Transition to NEI 99-01 Rev. 5
 - Calvert Exercise, Drills
 - ERO Teams 5 Deep + 1
 - Emergency Response Equipment Performance



Site Improvements

- Completed
 - Relay program
 - Maintenance Backlog Reductions
 - Simulator Upgrade
- In Progress
 - Roof Replacements
 - Radiation Monitors
- 2012 RFO Major Modifications
 - Unit 1 Cycle 21 Core Reload Modification
 - Pressurizer Heater Sleeves
 - Unit 1 Main Generator Centerline (Rotor Rewind)
 - Replace Condenser Tubes With Titanium
 - Replace Plant Process Computer (1st Phase)
- Future
 - NFPA 805
 - Steam Generator Feed Pump Control System
 - Unit 2 Voltage Regulator



Future Planned Activities

- Emergency Preparedness Graded Exercise
September 12 - 16, 2011
- Performance Improvement and Resolution Inspection
October 24 – November 18, 2011
- Spent fuel ISFSI campaigns (4 in 2011, 2 in 2012)



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Ginna Report

Joe Pacher
Site Vice President

Reactor Trips and Significant Power Changes

Dates	Event	Cause
12/30/2009 - 1/05/2010	Reactor Trip	Failure of EH Pumps
1/08/2011	Power Reduction	Turbine Stop Valve Testing
4/23 - 6/09/2011	Shutdown for Refueling Outage	Refueling Outage



2010 and 2011 Performance Highlights

- On-Line Dose
 - 2010 = 5.550 rem (goal = 5.9)
 - 2011 = 2.698 rem as of 6/30/2011 (goal = 2.458)
 - 2011 Annual Goal = 4.9 rem
- Fuel Performance
 - Sustained excellent fuel performance
- 2011 Refueling Outage
 - 2 OSHA recordables
 - 2 site HU clock resets
 - 0 shutdown safety violations
 - Dose [100.8] rem versus goal of [107] rem
- Training Accreditation Renewal of Operations and Engineering Support Personnel Training Programs is currently in progress



Regulatory Performance

- Mitigating Systems – White Performance Indicator
 - 95002 inspection completed satisfactorily in August 2010
 - Performance Indicator returns to Green in the 4th quarter 2011

Key Lessons Learned

- Utilization of assumptions in Failure Modes and Effects Analysis and the lack of challenge by decision making teams. The Operational Decision Making (ODM) and Issue Response Team (IRT) processes have been aligned to facilitate fact based conservative decision making.
 - Management assumed that individuals understood the nuclear safety relevance in the application of these processes. Safety culture advocates have been assigned to challenge and emphasize expected behaviors at important station meetings. This ensures a consistent nuclear safety message is delivered by all Ginna leadership.
 - Site is focused on reliability improvements of highest risk systems.
- Safeguards Information Update



Major Licensing Actions

- EAL Scheme Change to NEI 99-01, Revision 5
 - Submittal planned for the 3rd quarter 2011
- NFPA 805
 - LAR submittal planned for 1st quarter 2013



2011 Site Focus Areas

- Safety
 - Nuclear, Industrial, Radiological
- Standards & Fundamentals
 - Human Performance, Accountability, Worker Practices
- Training Performance
 - Line Ownership, Training to improve performance
- Plant Performance
 - Work week performance, Operations focus index



Site Improvements

- Turbine driven auxiliary feedwater pump steam admission and control valve upgrades
- Major 2011 RFO vessel inspections
- Leak repair of the spent fuel pool liner
- Increased spent fuel pool cooling capabilities
- Safety injection and containment spray full flow test line installation
- Incore thimble tube replacement
- Control rod drive mechanism coil replacement



Future Planned Activities

- 2012 RFO major modifications
 - Both trains of main battery replacement
 - Completion of fuel handling manipulator upgrade
 - Additional auxiliary feedwater pump
 - Incore flux mapping system replacement
- EP evaluated exercise (NRC to participate) 11/24-11/28/11
- NRC modification/50.59 Inspection 10/3-10/21/11
- INPO Accreditation Board 11/17/11



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Response to Fukushima Event

Maria Korsnick
Eric Leeds

The Way Forward: The Nuclear Industry Approach

- INPO, NEI, EPRI and licensees have developed an approach to address lessons learned from Fukushima Daiichi
- This approach is documented in the “The Way Forward” released June 8
- Defines Strategic Goals, Guiding Principles, Desired Objectives, Stakeholders and Leadership Model and Building Blocks
- Leadership response organization defines roles and responsibilities and seven areas of focus (building blocks)
 - Existing Plant Performance
 - Support International Orgs.
 - Improve Effectiveness of Industry Response Plan
 - Lessons Learned
 - Technical and R&D
 - Regulatory Response
 - Communications / Outreach
- Maria Korsnick on Fukushima response Steering Committee



CENG Approach and Plan

- Fukushima Lessons Learned Implementation Project established April 7
 - Corporate project lead (full time) project lead; three Site Leads (>50% of time); twelve additional part time contributors
- Business case to address short-to-medium term actions in review
 - Severe accident mitigation guideline upgrade and improved interface with emergency operating procedures, B.5.b. procedures
 - Spent fuel pool instrumentation addition/ upgrade
 - Additional portable equipment and connections for that equipment
 - Margin evaluations for flooding and seismic events
 - Hardened vent improvements for Nine Mile Point
- Expect portable equipment and initial engineering procurement to occur in September
- Monitoring NRC Staff Task Force report recommendations



NRC Response to Fukushima

- Eric Leeds – Director, Office of Nuclear Reactor Regulation



NRC Region I Perspectives

- Bill Dean - NRC Region I Administrator



NRC/NRR Perspectives

- Eric Leeds - Director, Office of Nuclear Reactor Regulation



NRC/NSIR Perspectives

- Jim Wiggins - Director, Office of Nuclear Security and Incident Response



Closing Remarks

- Brew Barron/Maria Korsnick
- Bill Dean

