

NRC Region II Visit

October 24, 2008

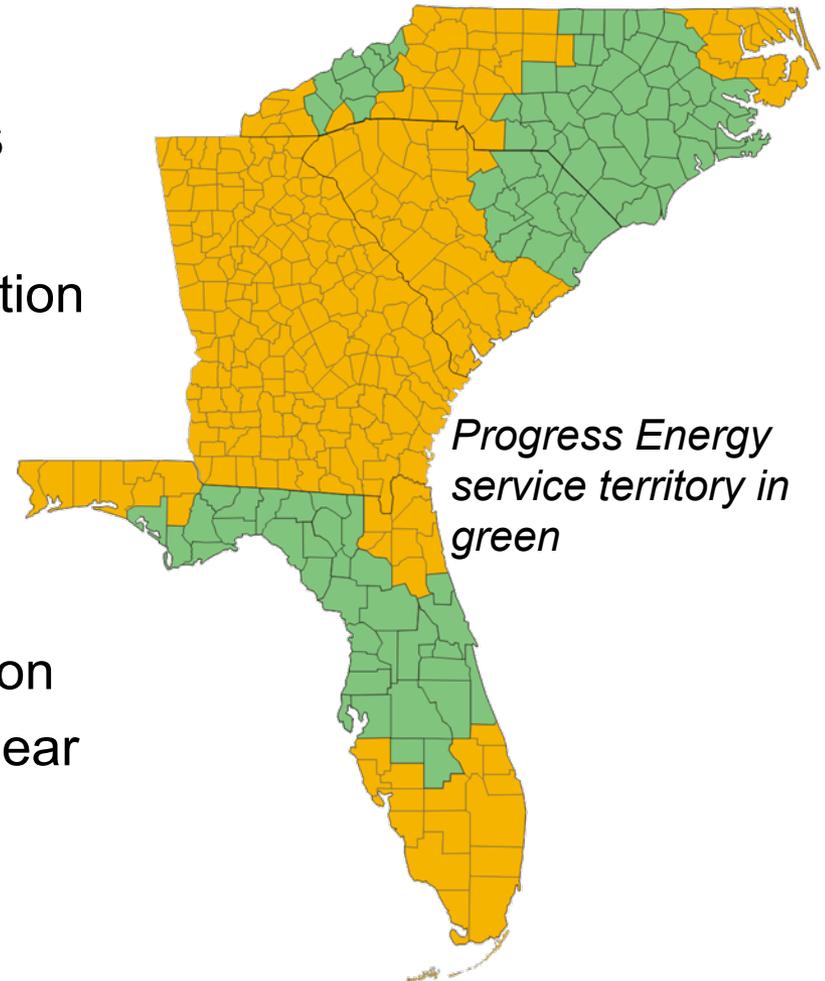


Agenda

- Progress Energy Overview
- Nuclear Leadership Team
- Fleet Organizational Changes
- Nuclear Performance
 - ◆ Recent accomplishments
 - ◆ Current challenges
- NRC Management Insights

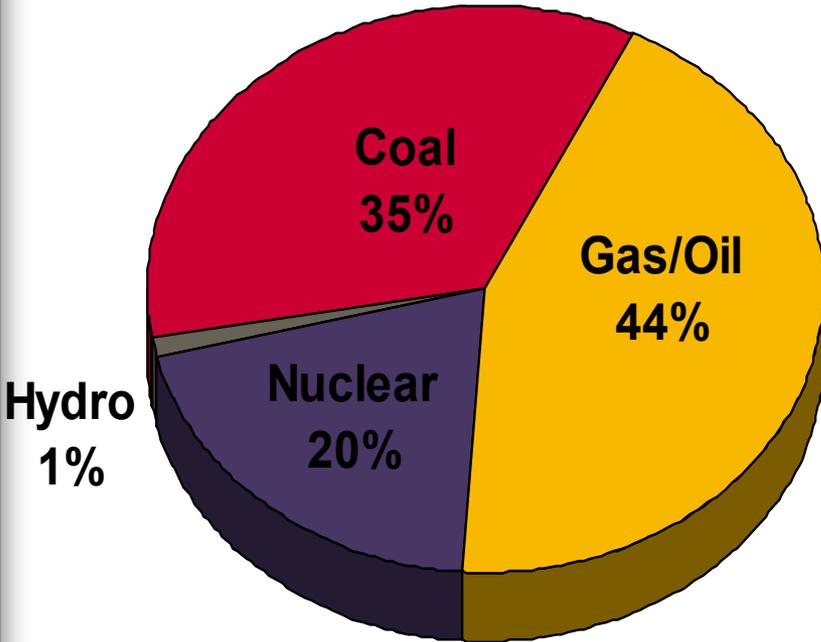
Progress Energy

- ~ 3.1 million customers
- Progress Energy Carolinas
 - ◆ ~ 1.4 million customers
 - ◆ 12,400 megawatts of generation
 - ◆ 2007 Energy Mix – 44% nuclear
- Progress Energy Florida
 - ◆ ~ 1.7 million customers
 - ◆ 9,400 megawatts of generation
 - ◆ 2007 Energy Mix – 18% nuclear

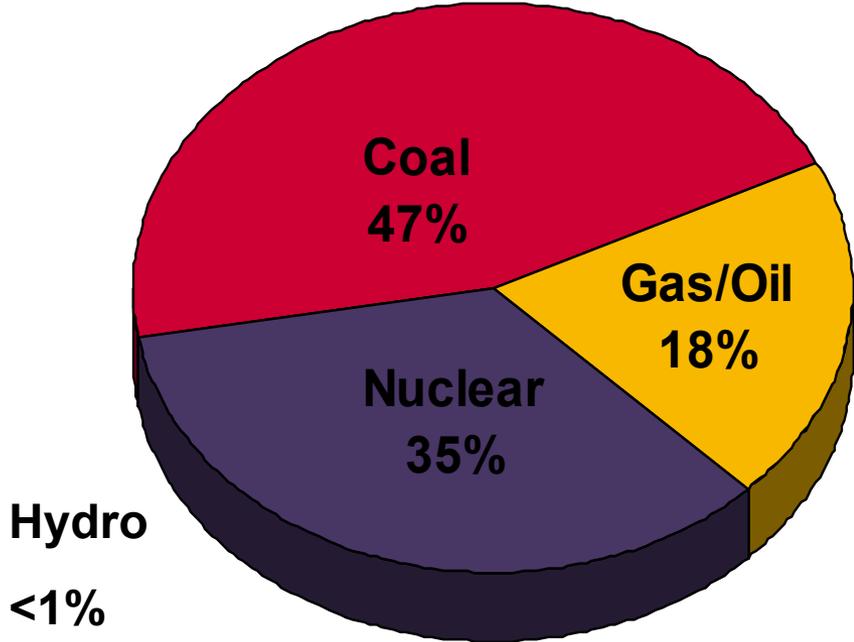


Progress Energy Year-End 2007

Capability Mix (MWs)

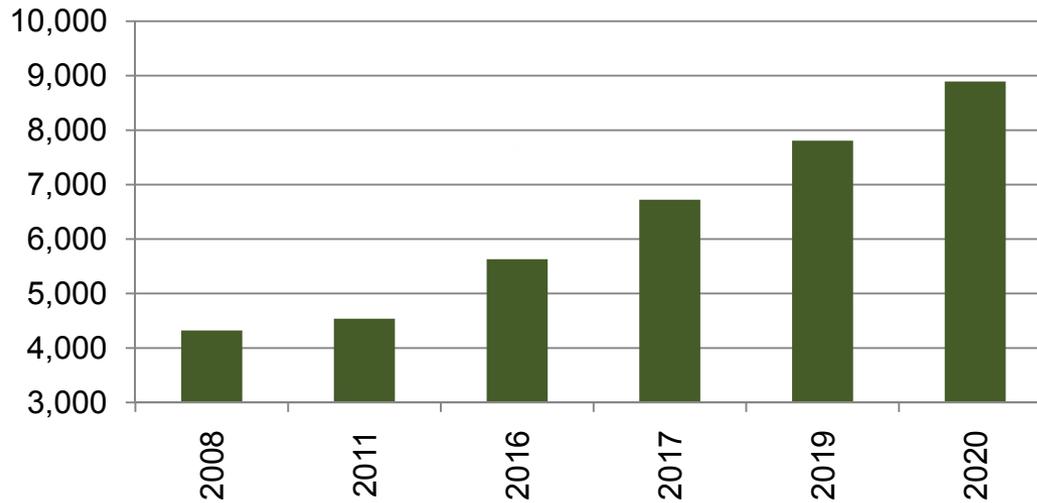


Generation Mix (MWHs)



Progress Energy's Balanced Solution

Planned nuclear generation capacity - MWs



ENERGY EFFICIENCY

ALTERNATIVE ENERGY

STATE-OF-THE-ART PLANTS



Progress Energy Executive Team



Progress Energy, Inc.
William D. Johnson
Chairman, President and
Chief Executive Officer



John R. McArthur
Executive VP
General Counsel and
Corporate Secretary



PE Florida, Inc.
Jeffrey J. Lyash
President and
Chief Executive Officer



PE Carolinas, Inc.
Lloyd M. Yates
President and
Chief Executive Officer



Power Operations
Paula J. Sims
Senior VP



Nuclear Generation
James Scarola
Senior VP and
Chief Nuclear Officer



Mark F. Mulhern
Senior VP and
Chief Financial
Officer



Energy Delivery
Michael A. Lewis
Senior VP



Energy Delivery
Jeffrey A. Corbett
Senior VP



Nuclear Generation Team



Jim Scarola
Senior VP and CNO



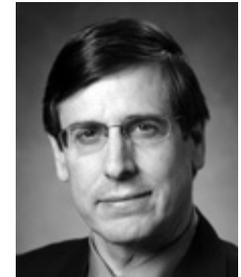
Ben Waldrep
VP-BNP



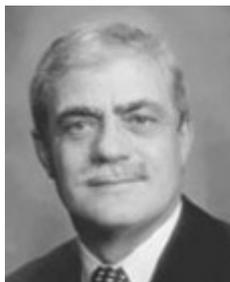
Chris Burton
VP-HNP



Bob Duncan
VP-Nuclear
Operations



Joe Donahue
VP-Engineering



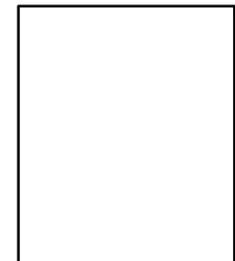
Dale Young
VP-CR3



Tom Walt
VP-RNP



Danny Roderick
VP-New Plants



TBD
VP-Oversight



Accomplishments

- Operational Excellence and Safety
 - ◆ New emergency sirens for all stations with battery backup
 - ◆ NRC B.5.b implementation and inspections at all four sites
 - ◆ Successful force-on-force drills at RNP and CR3 (2nd round)
 - ◆ Fire protection modifications
 - ◆ Containment sump projects
 - ◆ SAMG diesels at BNP
 - ◆ Charging Safety Injection Pump transfer switch at HNP
 - ◆ INPO Excellence at HNP and RNP
- Strategic Actions
 - ◆ Submitted Harris and Levy COLAs
 - ◆ License renewal
 - ◆ Organizational changes



Organizational Changes and Personnel

- New Position - VP of Nuclear Operations
 - ◆ Accelerate fleet alignment
 - ◆ Accelerate organizational learning
 - ◆ Improve fleet performance
 - ◆ Gain efficiencies and synergies
- New Position – VP of Nuclear Oversight
 - ◆ Provide greater independence
 - ◆ Improve transparency of organization
 - ◆ Greater consistency in processes
- Two additional board members with nuclear experience
- Changes in external oversight committees
- New positions in Chief Engineering Section
- Workforce strategy

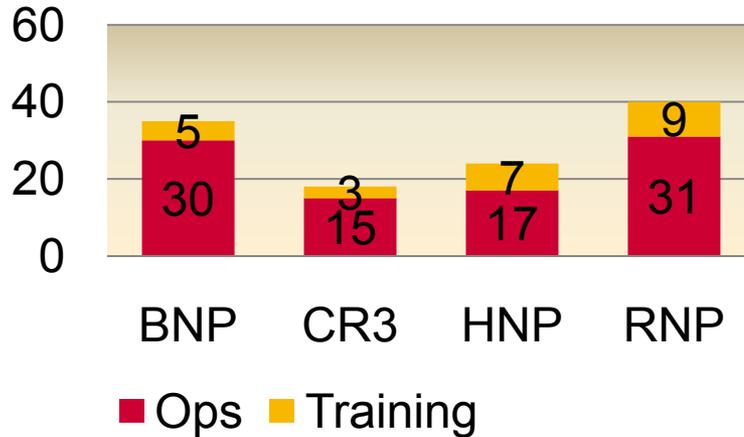


Staffing/Personnel Development

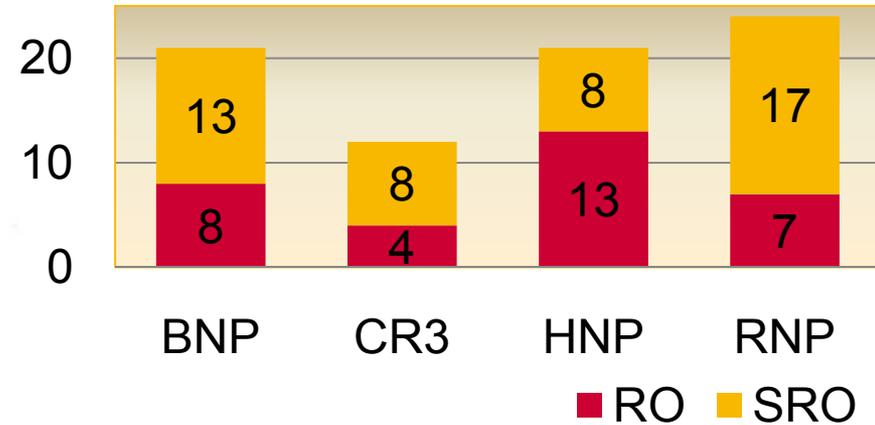
- Fleet Workforce Strategy
 - ◆ 5 year staffing plans proactively address attrition
 - ◆ Support for local universities, community colleges, and technical schools
 - ◆ Training programs, including multiple license classes
 - ◆ Knowledge transfer and retention programs
 - ◆ Leadership development and succession
 - ◆ Rotation of senior and middle managers within fleet
 - ◆ Diversity outreach
 - ◆ Dedicated recruiting staff

Staffing

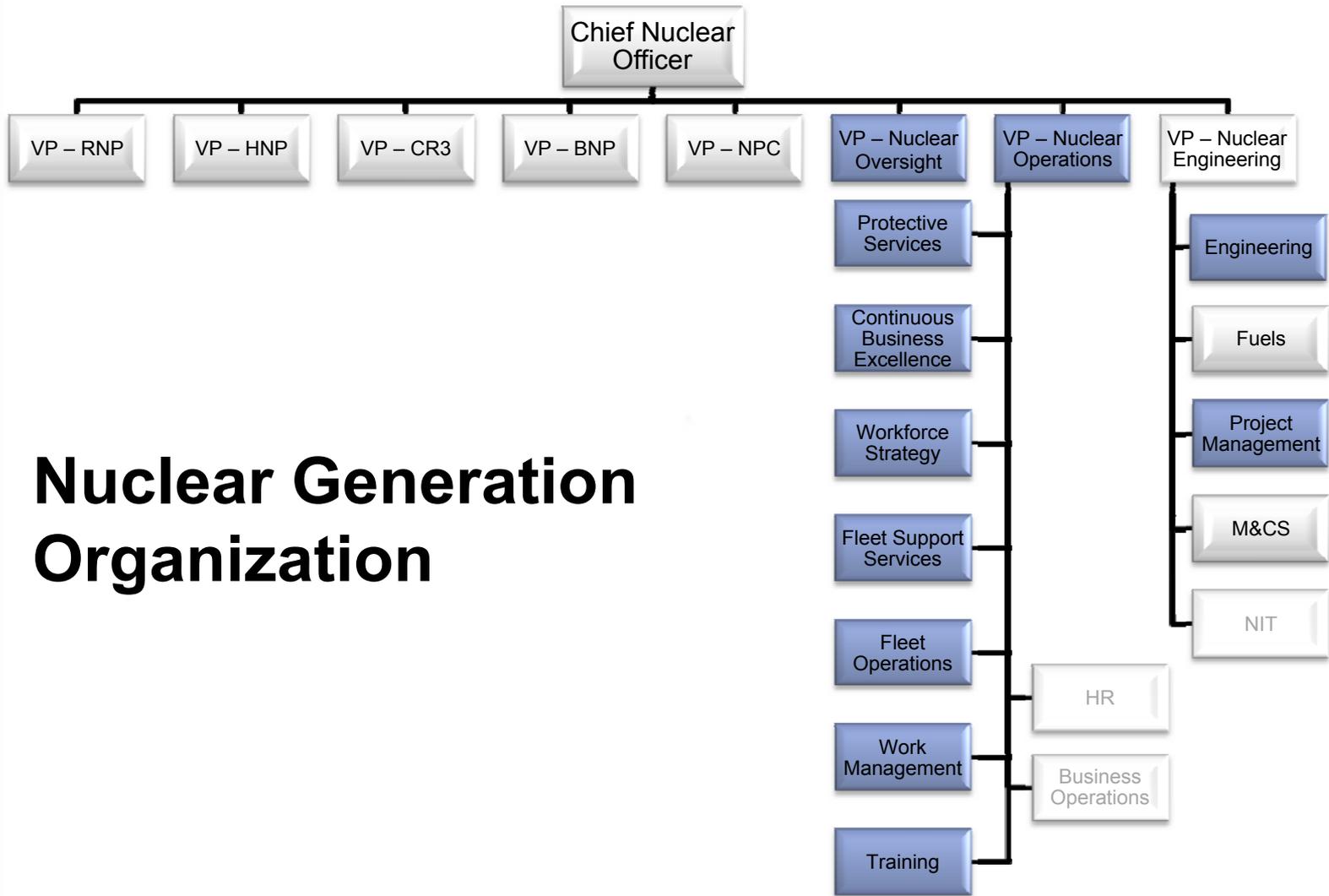
Staff Increases



Initial License Classes



- Vacancy Reductions:
 - ◆ BNP reduced from 81 to 30
 - ◆ CR3 reduced from 20 to 15
 - ◆ HNP reduced from 30 to 11
 - ◆ RNP reduced from 40 to 14



Nuclear Generation Organization

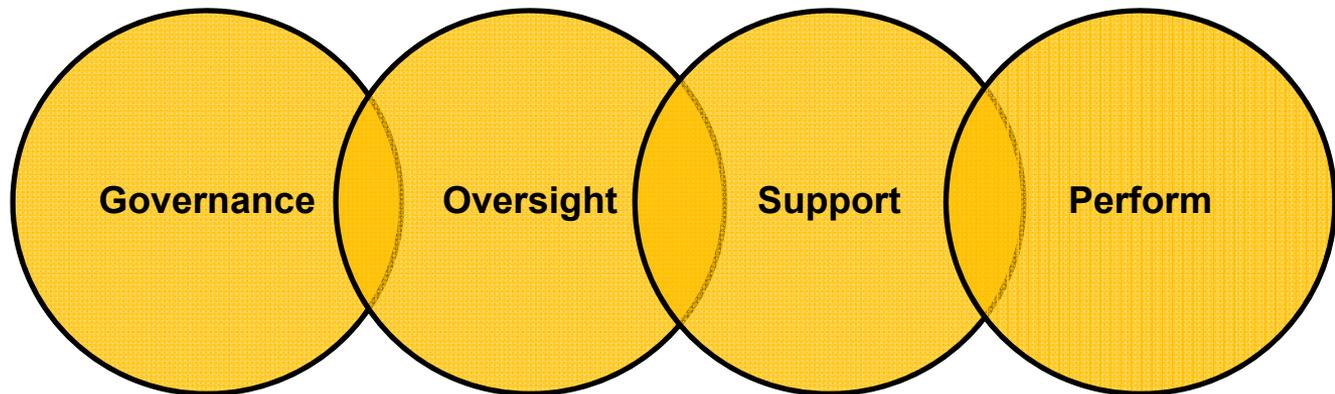
What's The Concern?

- Individual unit performance
- Fleet performance
- Fleet functional area opportunities
- Missing top quartile benchmarks

A transformation is needed in order to develop and sustain a top quartile performing fleet again

Fleet Nuclear Operations Model

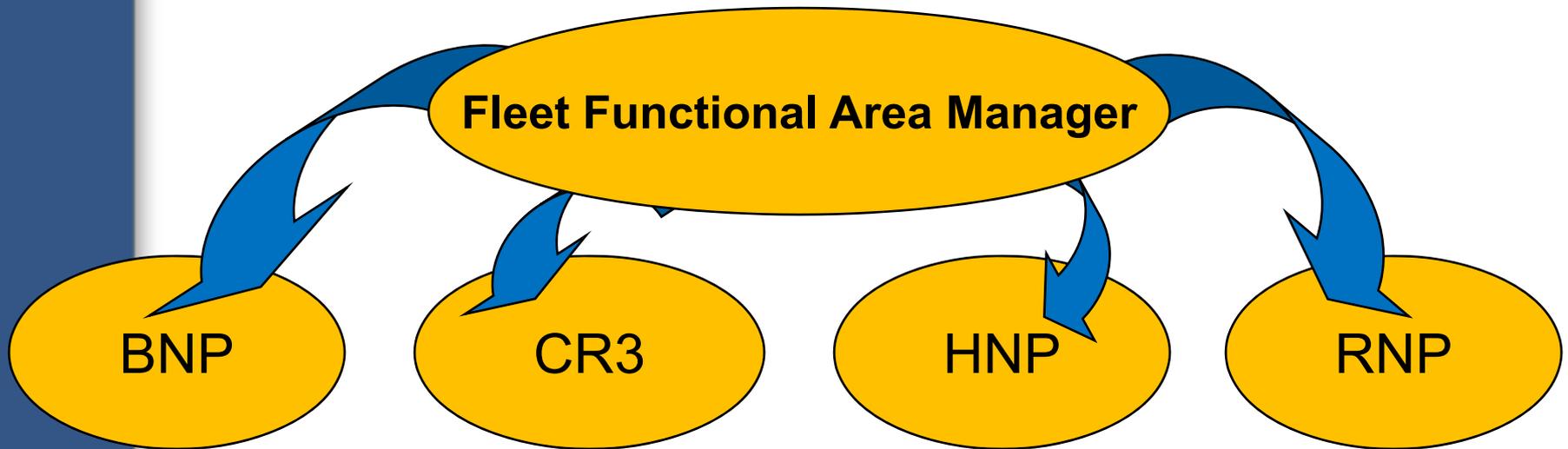
- Fleet standardization model. Through standardization comes efficiency and consistency. Standardize at industry best practices.



- Immediate Focus Areas
 - ◆ Common Conduct of Operations for each functional area
 - ◆ Fleet Alignment Manual
 - ◆ Change Management Plan

New Model

- “Action Team” Mission:
 - ◆ Industry best practices at all site locations
 - ◆ Governance, Oversight, Support, Perform

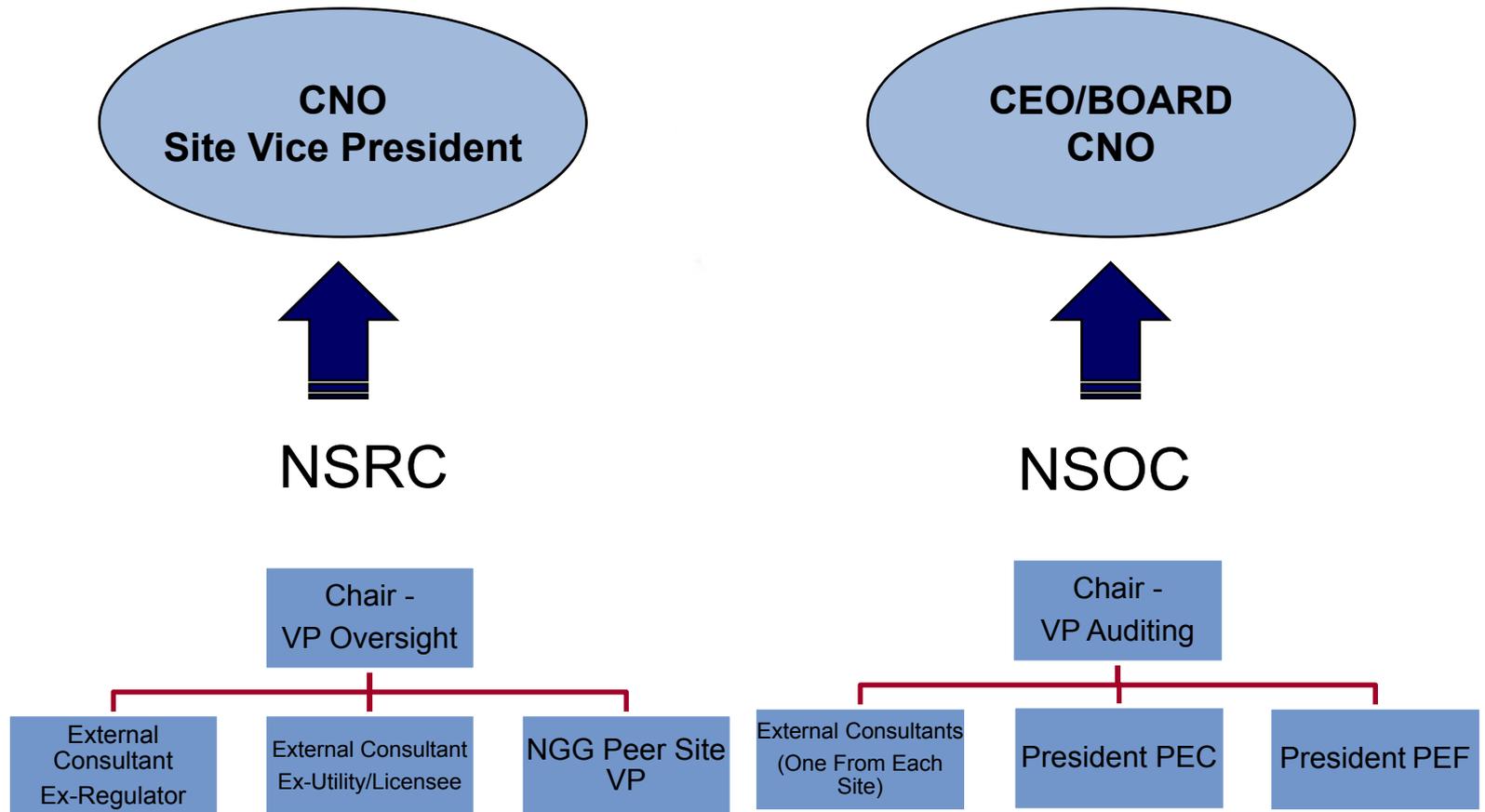


Action Team Chair is Fleet Functional Area Manager

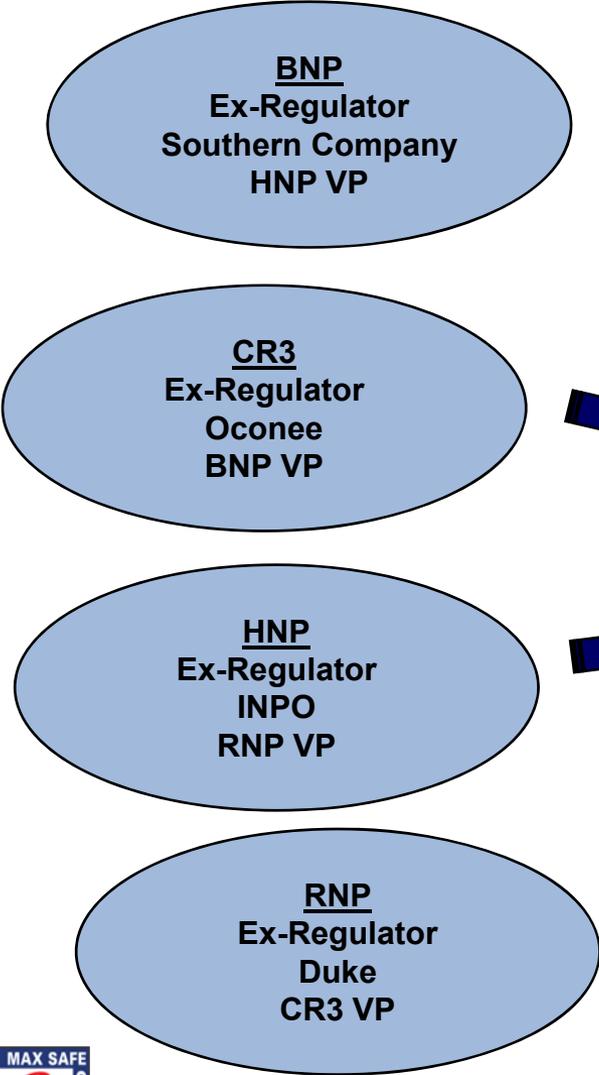
NGG Fleet Improvements

- Standardization
- Centralization
- 2009 – 2011 Planning Linkage
- Lean Projects/Tools

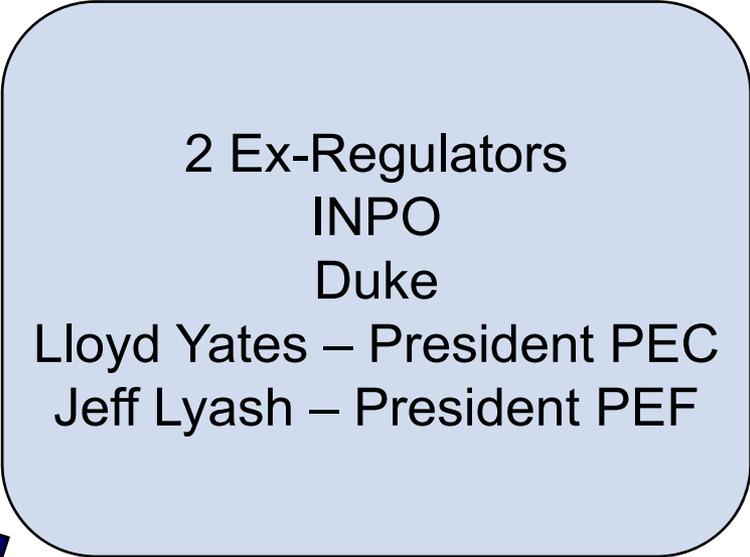
External Oversight Structure



Nuclear Safety Review Committees



External Oversight Structure



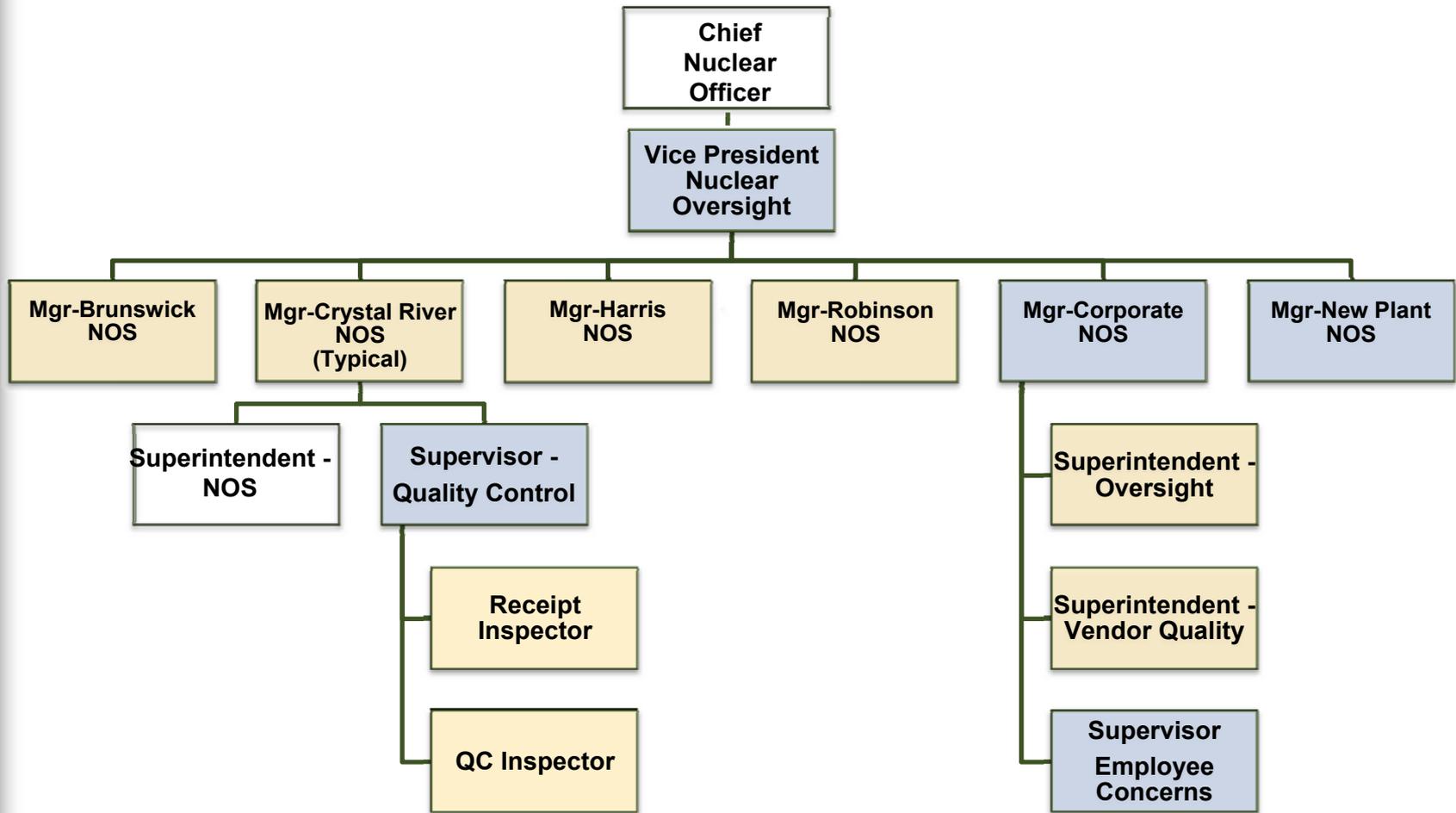
Nuclear Safety Oversight Committee



NGG Internal Oversight Changes - Objectives

- Provide Greater Independence
 - ◆ Nuclear Oversight VP reports directly to CNO
 - ◆ Oversight managers no longer report to Site VP
 - ◆ More direct line of communication from “Control Room to Board Room”
- Improve Transparency of Organization
- Greater Consistency In Processes
 - ◆ Coordination of assessments

NGG Oversight Structure - New

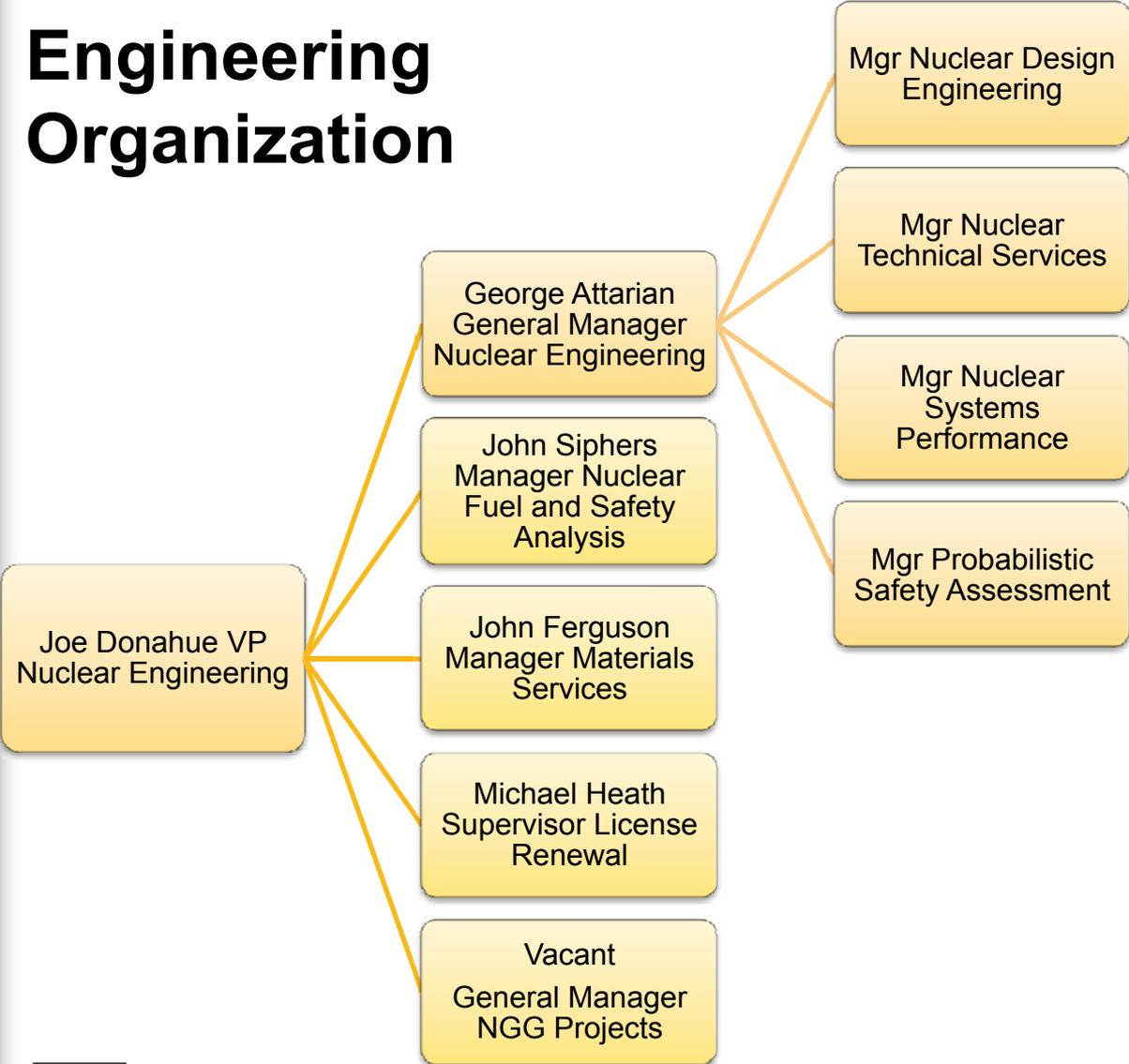


New Reporting Alignment

New Position



Nuclear Engineering Organization



- Improve design rigor
- Fleet efficiency enhancements
- Equipment reliability
- Component engineers
- Engineering programs
- System performance
- Key engineering industry responses



Fleet Engineering Focus

- Industry Issues
 - ◆ GSI-191 - Assessment of Debris Accumulation on PWR Sump Performance
 - ◆ GL 2008-01 - Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal and Containment Spray Systems
- Plant Performance
 - ◆ Equipment reliability
 - ◆ Risk reduction
- Engineering Organization
 - ◆ Engineering alignment and performance
 - ◆ Engineering staffing

Fuel Performance

- AREVA fuel
 - ◆ Transitioning from GE to AREVA at BNP
 - ◆ High Thermal Performance Fuel at PWRs
- FME program and control
- Reactivity management
- Sound fuel inspections
- Strict reactor maneuvering controls

Fire Protection

- HNP is a pilot plant for NFPA-805
 - ◆ Submitted license amendment request in May 2008
 - ◆ Implement by December 2010
 - ◆ Submittal schedule for other plants
 - ◆ CR3 – 1Q 2010
 - ◆ RNP – 3Q 2010
 - ◆ BNP – 3Q 2011
 - ◆ Industry leadership

Reactor Coolant System Materials

- CR3 & HNP: Completed Alloy 600 mitigation of pressurizer
- CR3: Replacing steam generators in 2009
- RNP: Current status
- BNP: Inspecting dissimilar metal welds earlier than scheduled at both units due to operating experience
- Industry leadership

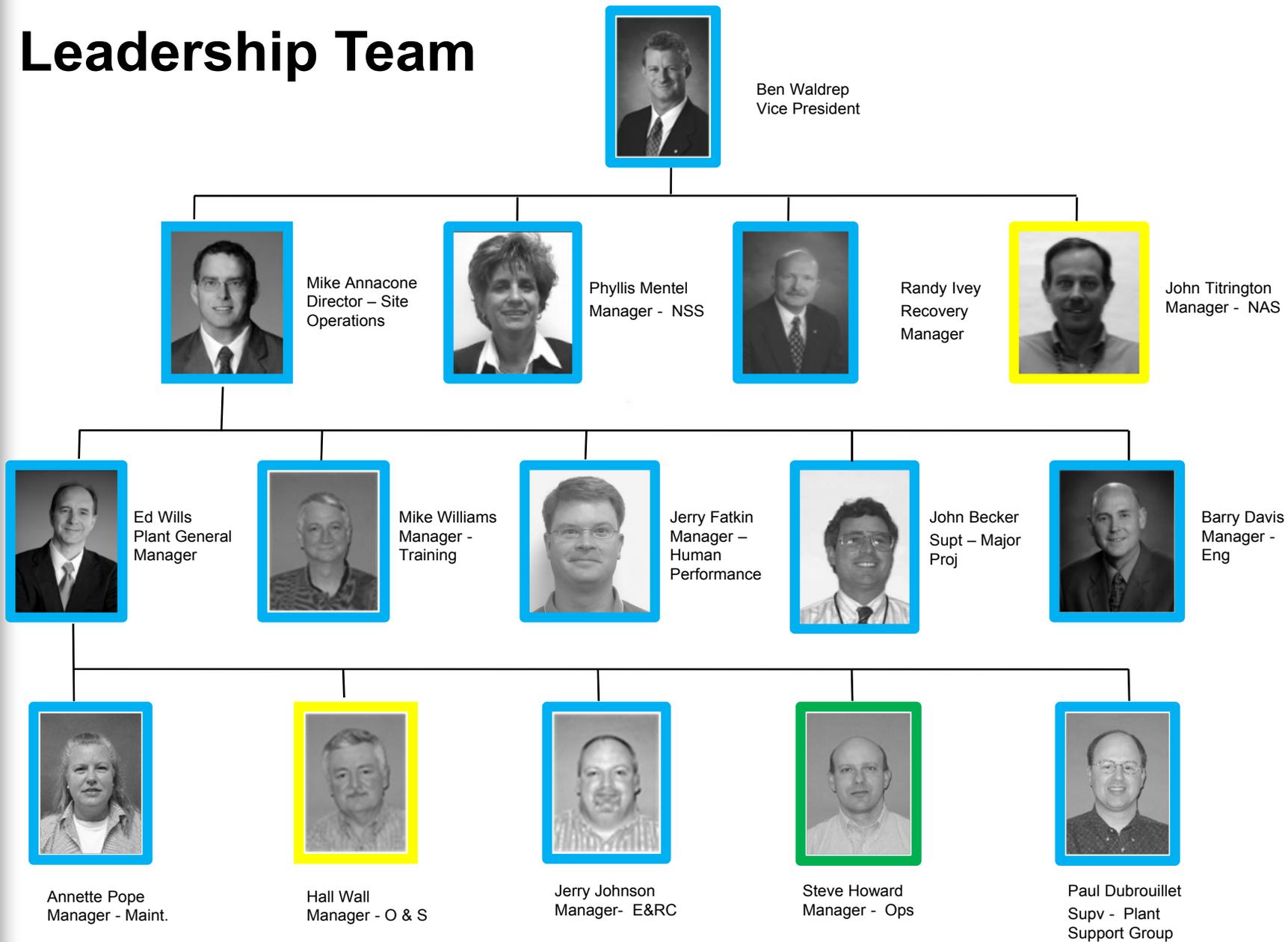
Brunswick Nuclear Plant

Ben Waldrep

Vice President



Leadership Team



- In position greater than 2 years
- In position 1 - 2 years
- In position less than 1 year

BNP1 NRC Performance Indicators

Cornerstone/Barrier	Current Value	Indicator Color (Margin in Green)	Industry Quartile
Unplanned Scrams	0.0	100%	1 st
Unplanned Scrams with Complications	0.0	100%	1 st
Unplanned Power Changes	0.0	100%	1 st
MSPI-AC Power	4.90 E-08	95%	Not Applicable
MSPI – HPCI Injection	2.80 E-07	72%	Not Applicable
MSPI – Heat Removal-RCIC	-3.60 E-08	104%	Not Applicable
MSPI – RHR	-5.60 E-07	156%	Not Applicable
MSPI – Service Water System – SW	3.70 E-07	63%	Not Applicable
Safety System Function Failures	2.00	67%	3 rd
RCS Activity	0.000	100%	1 st
RCS Leakage	14.00%	72%	4 th
ERO Drill/Exercise Performance	97.0 %	70%	2 nd
ERO Drill Participation	100.0%	100%	1 st
ERO Alert & Notification System	99.9%	98%	1 st
Occupational Exposure Control	0.00	100%	1 st
RETS/ODCM Effluents	0	100%	1 st

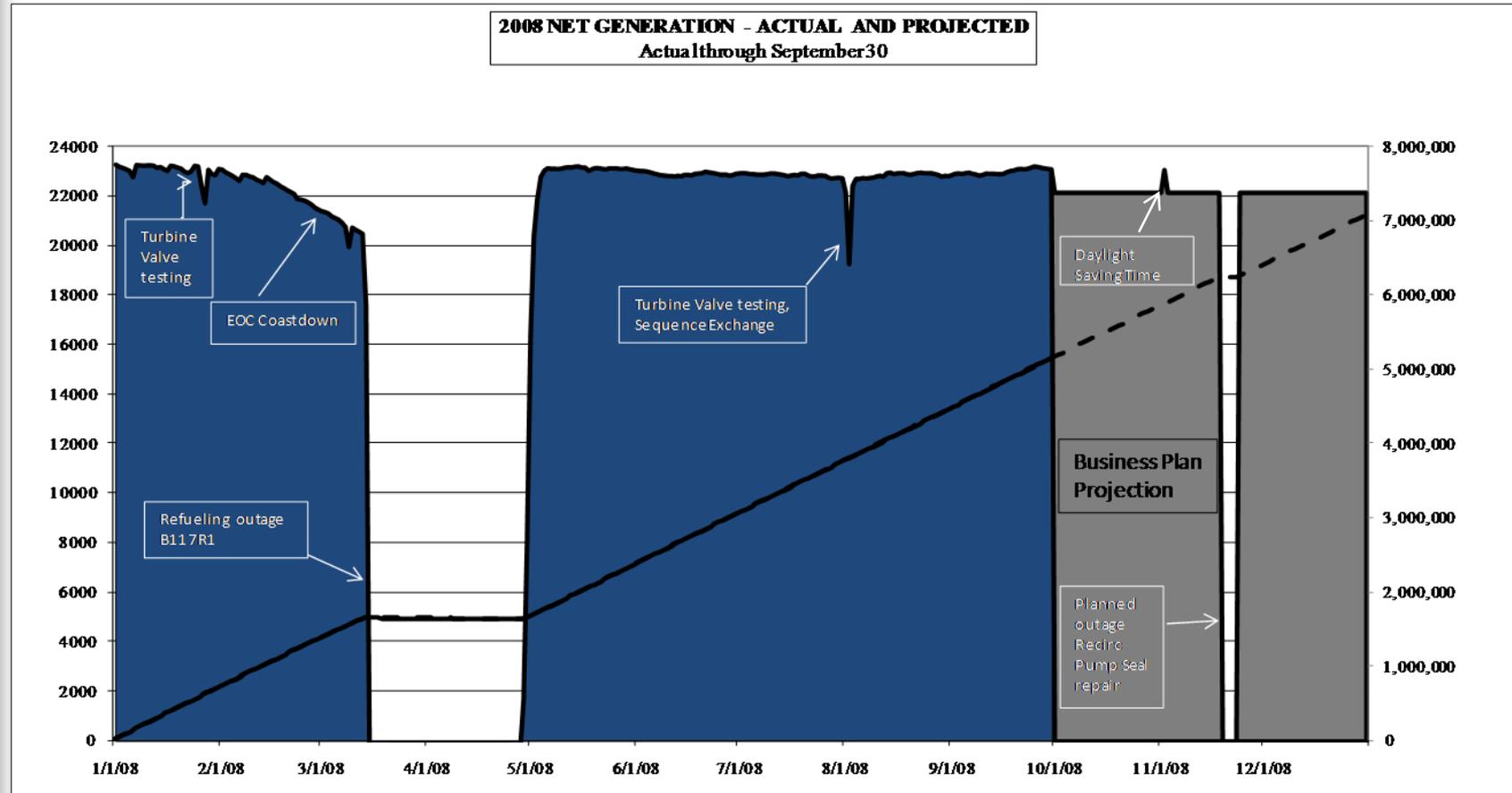


BNP2 NRC Performance Indicators

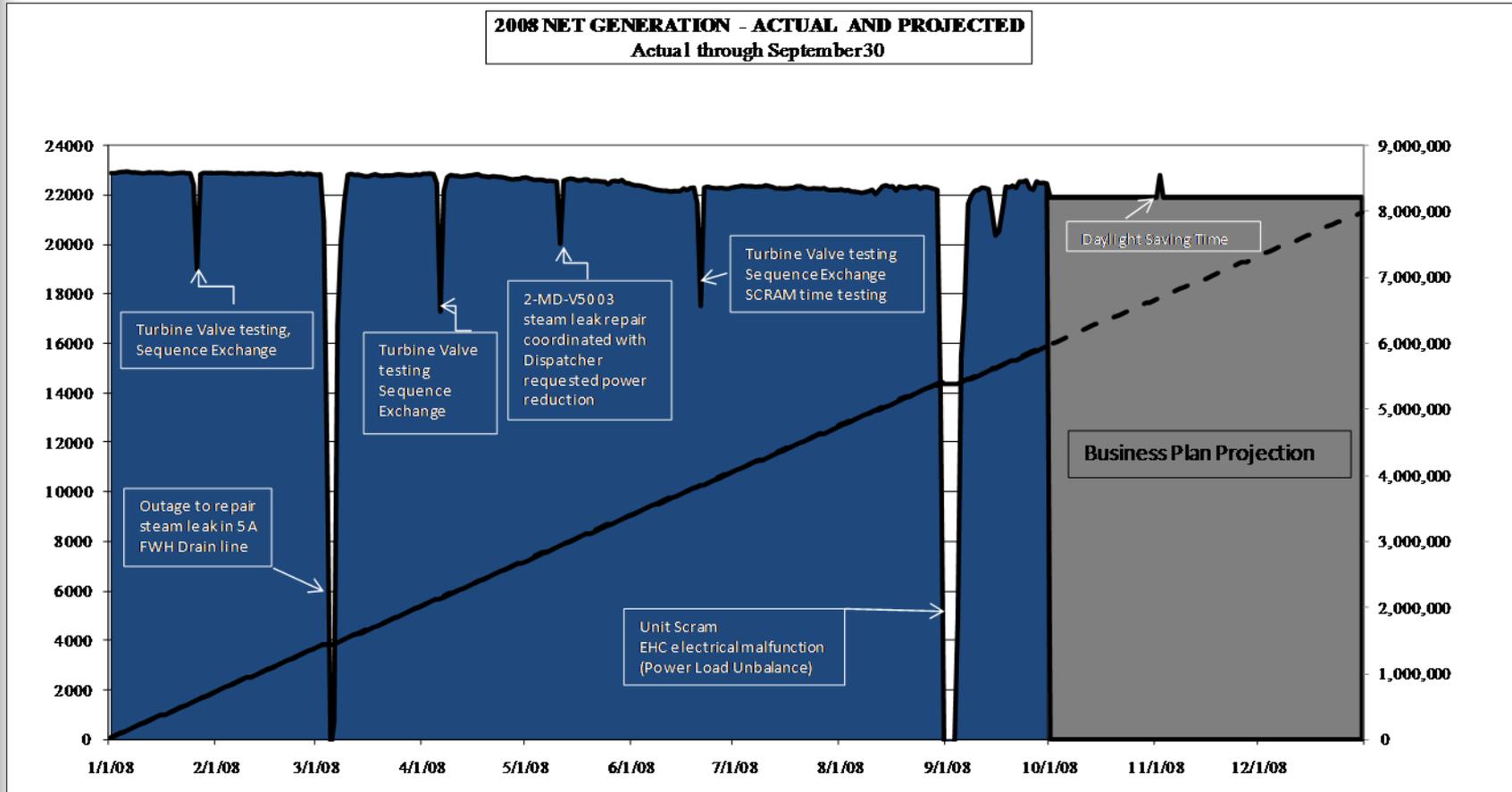
Cornerstone/Barrier	Current Value	Indicator Color (Margin in Green)	Industry Quartile
Unplanned Scrams	0.8	73%	3 rd
Unplanned Scrams with Complications	0.0	100%	1 st
Unplanned Power Changes	0.8	87%	2 nd
MSPI-AC Power	2.40 E-08	98%	Not Applicable
MSPI – HPCI Injection	1.70 E-07	83%	Not Applicable
MSPI – Heat Removal-RCIC	-2.00 E-09	100%	Not Applicable
MSPI – RHR	-4.40 E-07	144%	Not Applicable
MSPI – Service Water System – SW	-1.40 E-07	114%	Not Applicable
Safety System Function Failures	2.00	67%	3 rd
RCS Activity	1.700%	96.6%	4 th
RCS Leakage	10.00%	80%	3 rd
ERO Drill/Exercise Performance	97.0%	70%	2 nd
ERO Drill Participation	100.0%	100%	1 st
ERO Alert & Notification System	99.9%	98%	1 st
Occupational Exposure Control	0.00	100%	1 st
RETS/ODCM Effluents	0	100%	1 st



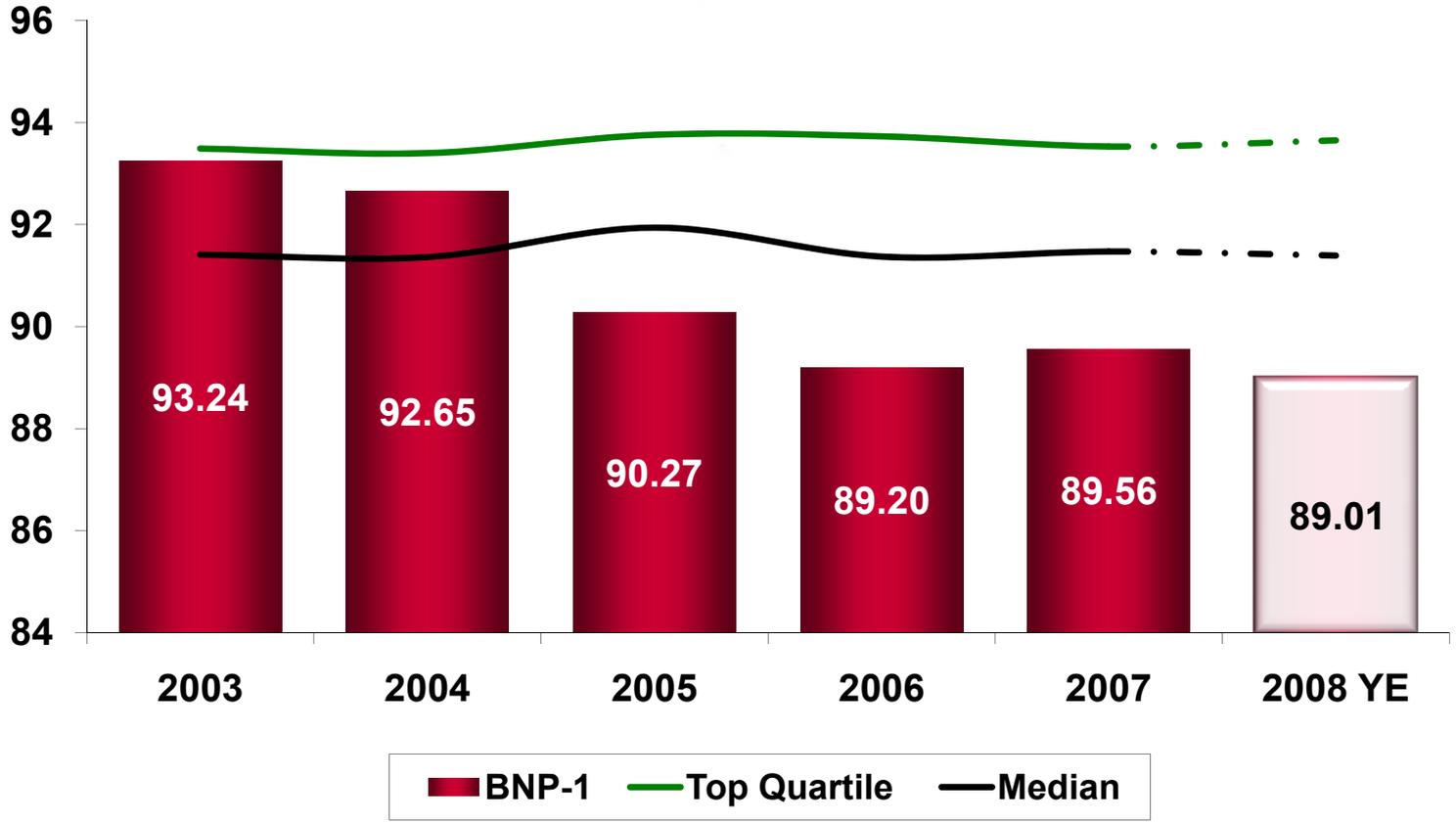
BNP1 Unit Performance - Generation



BNP2 Unit Performance - Generation



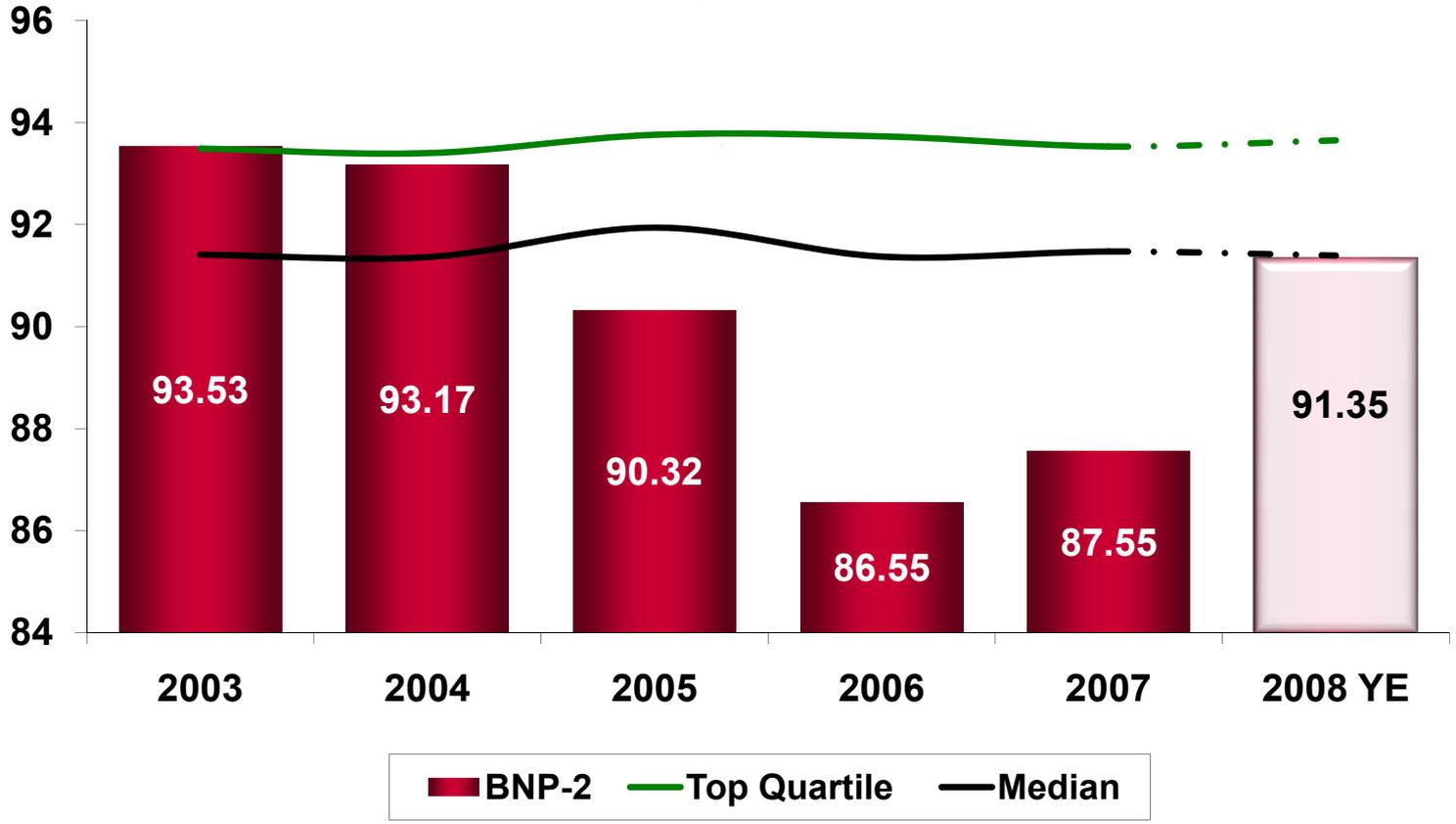
BNP1 Unit Performance – Capability Factor



24 month operating cycle



BNP2 Unit Performance – Capability Factor

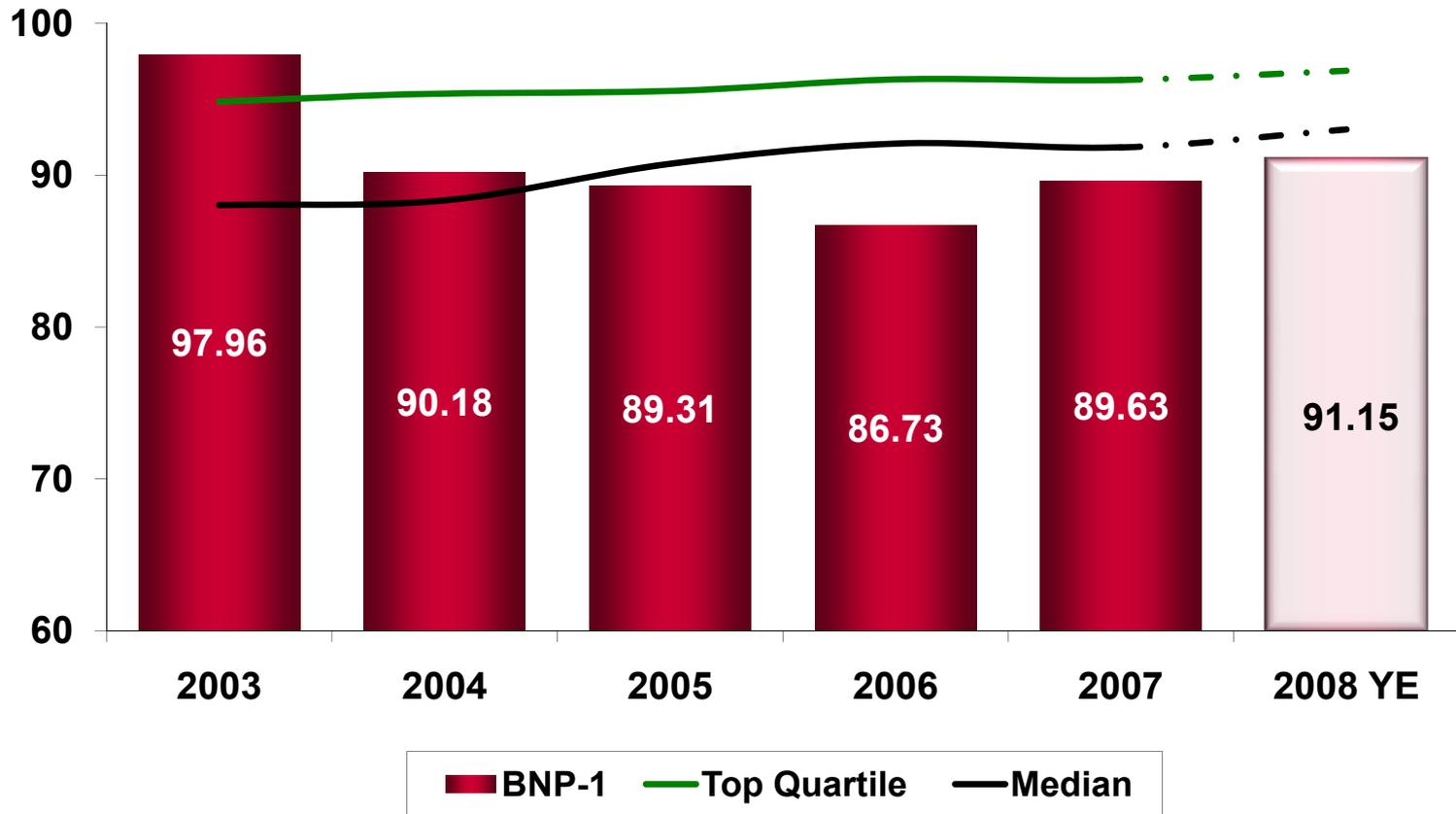


24 month operating cycle



BNP1 Unit Performance - INPO Index

2008 Year-To-Date: 93.74

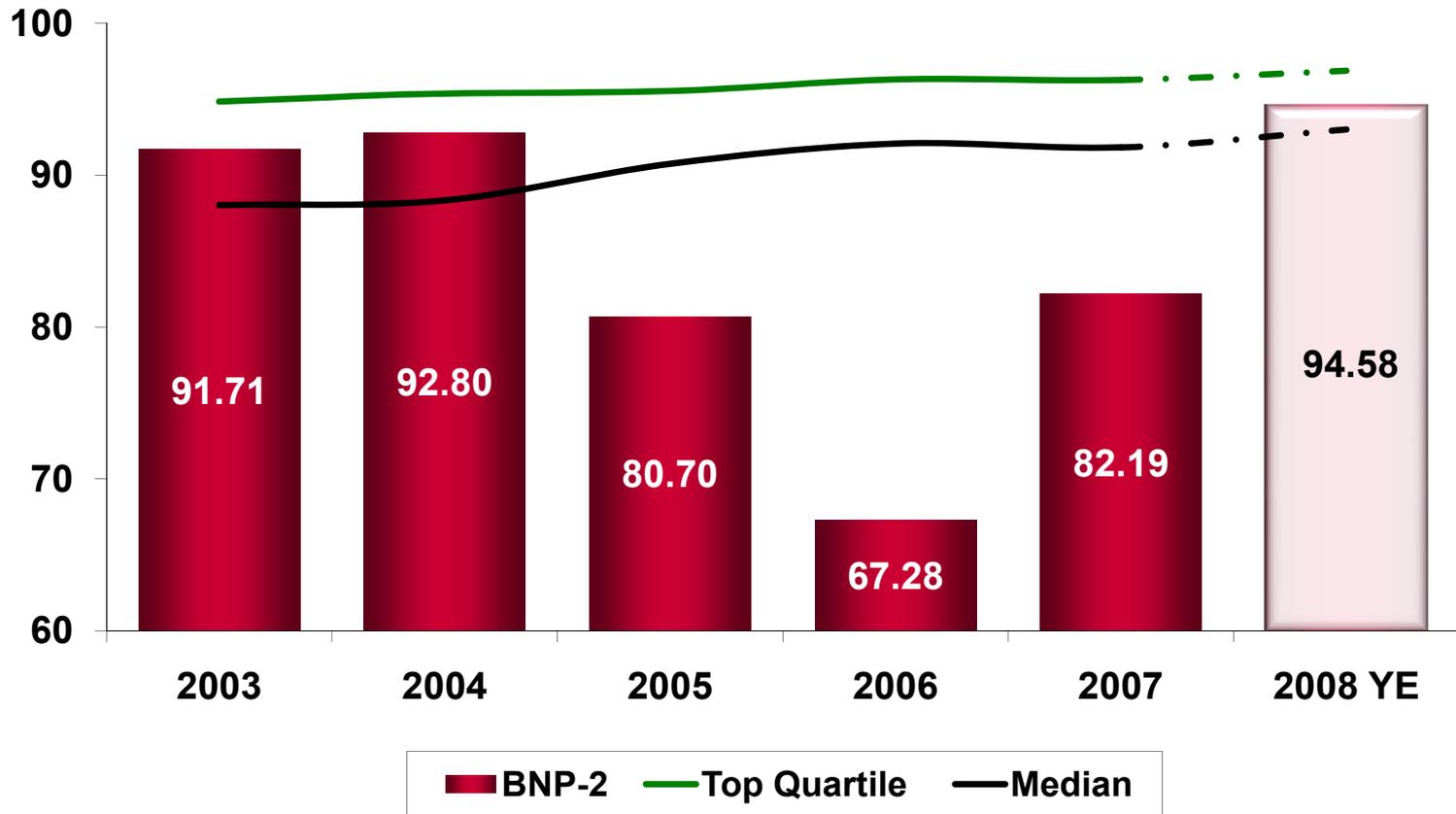


Historical INPO Index data is based on current Index calculation



BNP2 Unit Performance - INPO Index

2008 Year-To-Date: 77.59



Historical INPO Index data is based on current Index calculation



2008 Accomplishments

- STEP 2010 Improvement Plan progress
- Corrective Action Program improvements
- Permanent sodium hypochlorite system
- Once through ventilation
- Leadership Academy training
- Equipment Reliability
 - ◆ No Load disconnect switches
 - ◆ Condenser upgrades
 - ◆ Large Pump and Motor program
 - ◆ PM program/single point vulnerability projects/RRIL
 - ◆ Legacy FME actions

2008 Accomplishments

- SAMG diesels
- Service Water System reliability improvements
- EDG reliability improvements
- B.5.b. implementation and inspection
- Emergency siren replacement

2008/2009 Initiatives & Challenges

- Emergency diesel generator reliability
- Tritium (stabilization pond project)
- STEP 2010 Improvement Plan
- CAP and Human Performance improvements
- Service water system reliability improvements
- Major Projects implementation
- Permanent SAMG diesels
- NRC EP graded exercise (11/18/08)

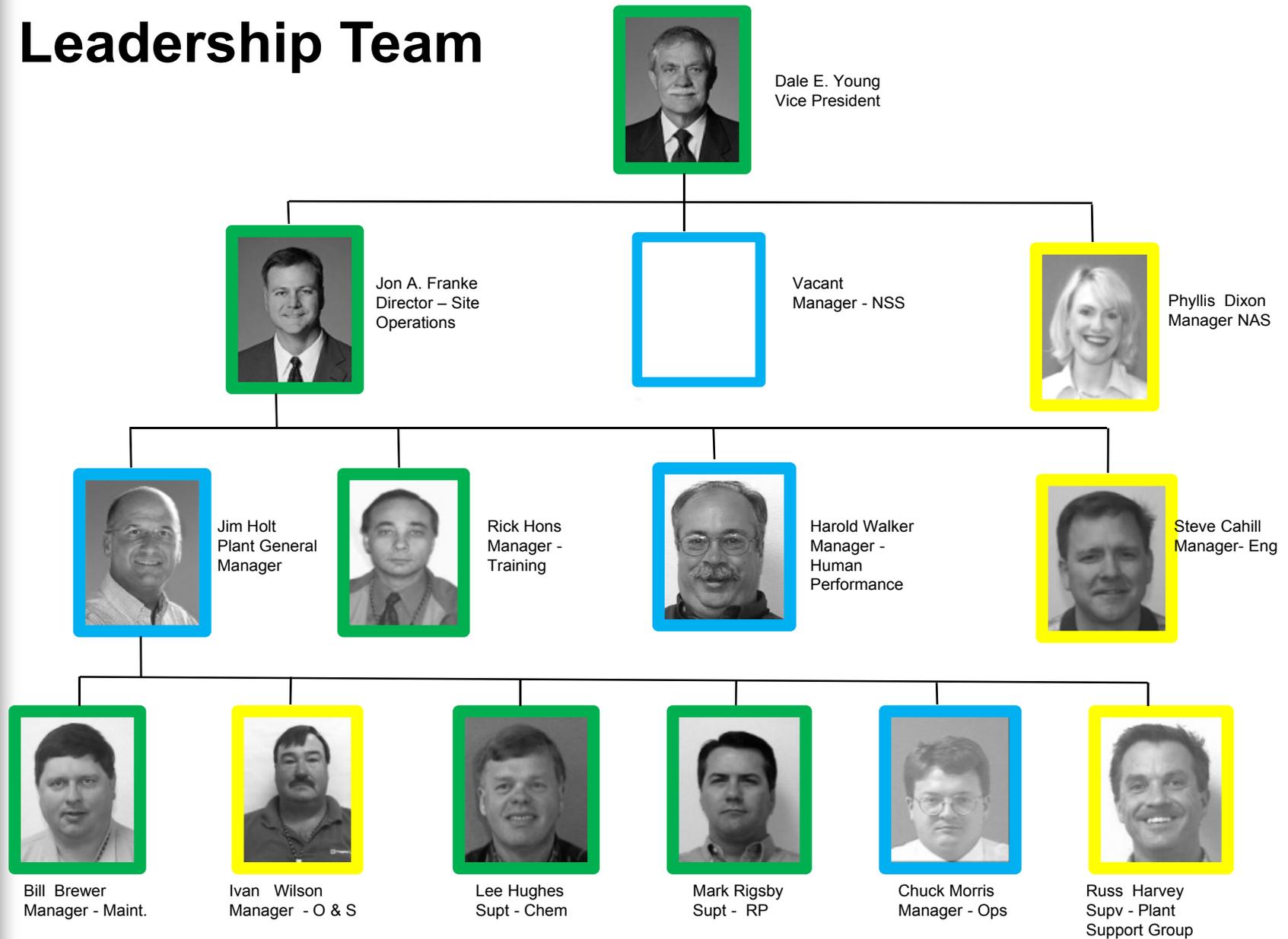


Crystal River Nuclear Plant

Dale Young
Vice President



Leadership Team



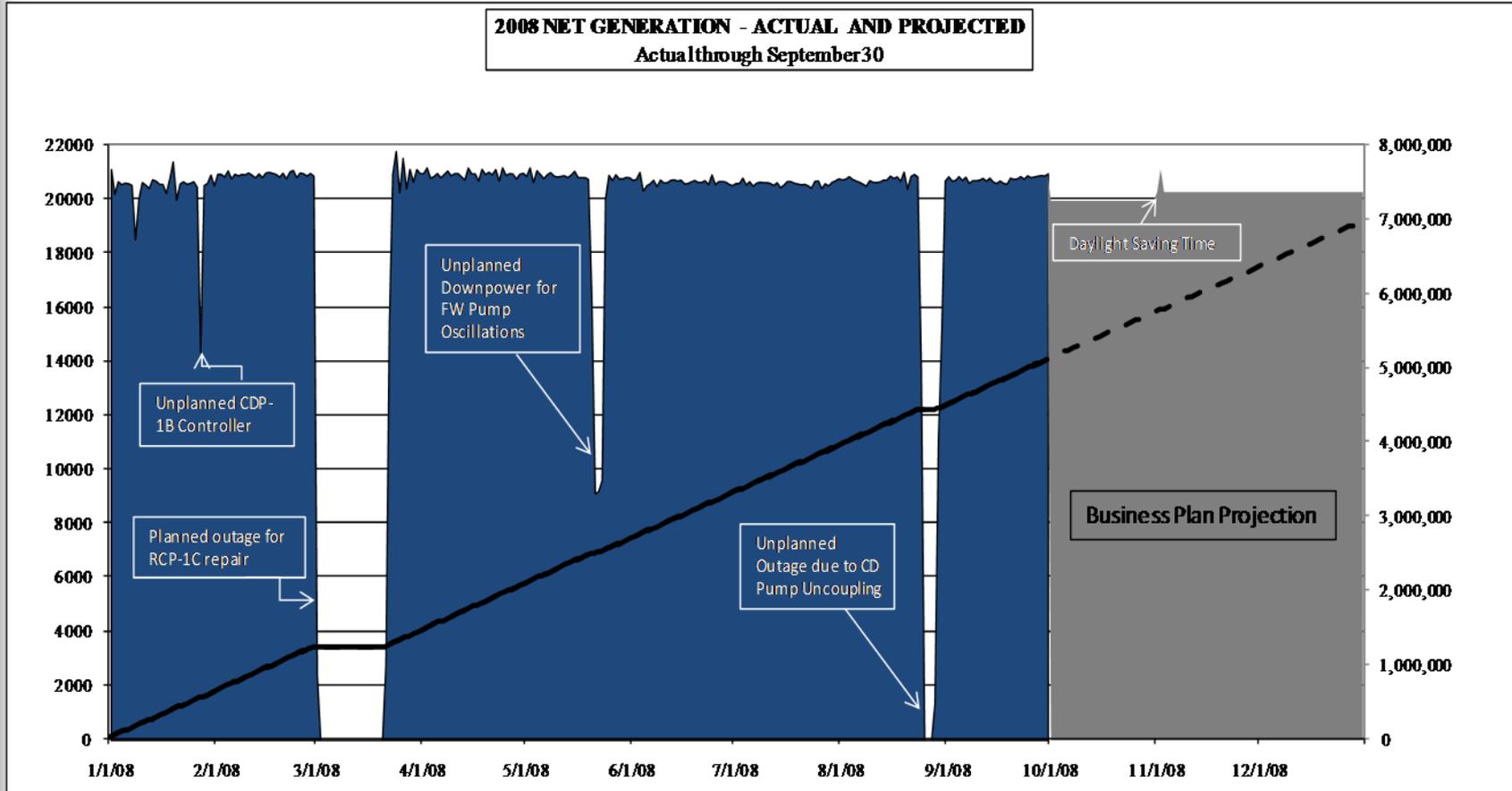
- In position greater than 2 years
- In position 1 - 2 years
- In position less than 1 year

CR3 NRC Performance Indicators

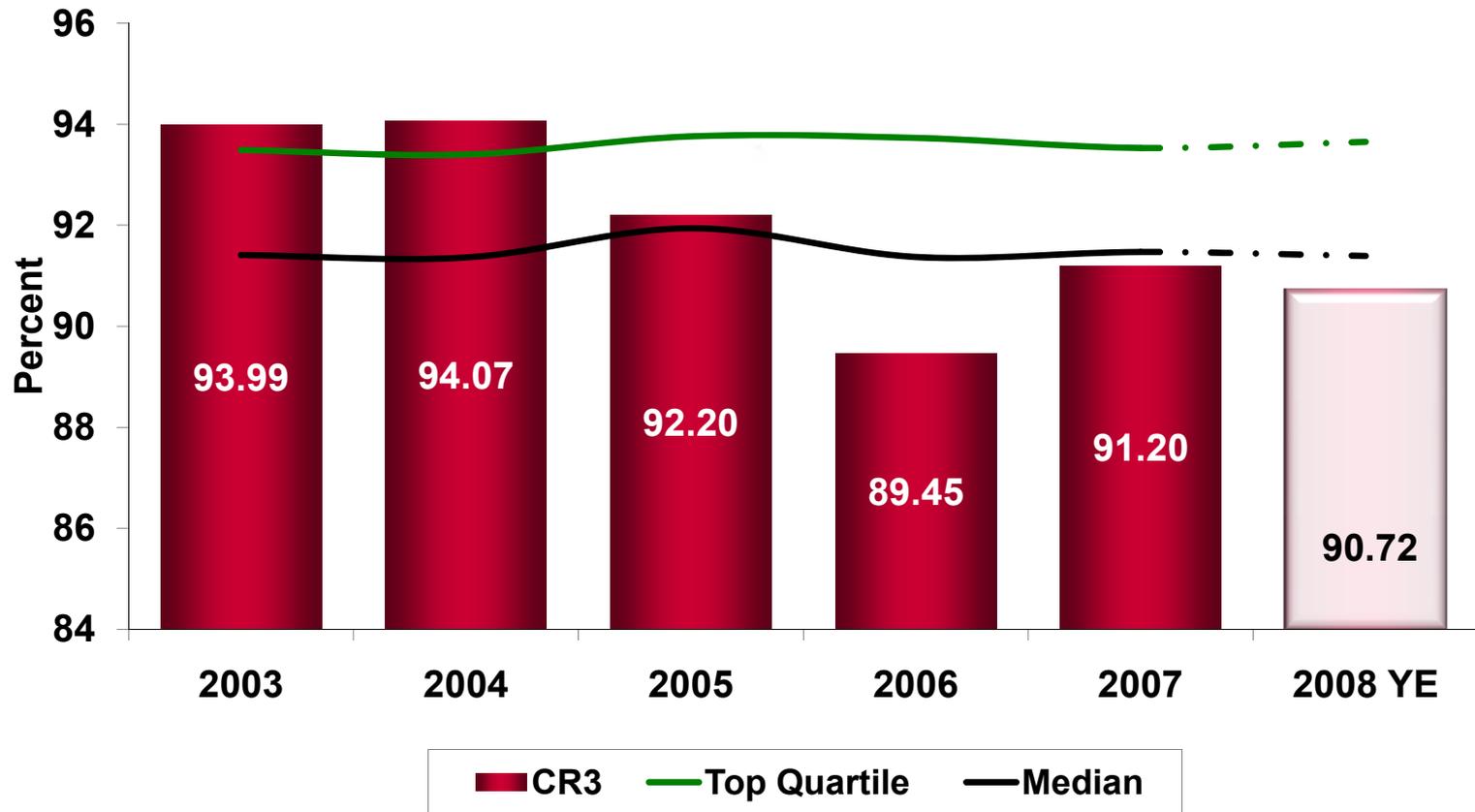
Cornerstone/Barrier	Current Value	Indicator Color (Margin in Green)	Industry Quartile
Unplanned Scrams	0.9	70%	3 rd
Unplanned Scrams with Complications	0.0	100%	1 st
Unplanned Power Changes	2.8	53%	4 th
MSPI - AC Power	5.10 E-08	95%	Not Applicable
MSPI – HP Injection	-1.5 E-08	102%	Not Applicable
Heat Removal - EFW	-3.00 E-08	103%	Not Applicable
Residual Heat Removal System – LPI	-3.40 E-08	103%	Not Applicable
Cooling Water System – RW/SW &DC	-1.00 E-08	101%	Not Applicable
Safety System Function Failures	0.00	100%	1 st
RCS Activity	0.200%	99.6%	4 th
RCS Leakage	1.60%	96.8%	4 th
ERO Drill/Exercise Performance	96.0%	60.0%	3 rd
ERO Drill Participation	94.0%	70%	4 th
ERO Alert & Notification System	99.6%	93%	3 rd
Occupational Exposure Control	0.00	100%	1 st
RETS/ODCM Effluents	0	100%	1 st



CR3 Plant Performance – Generation



CR3 Unit Performance – Capability Factor

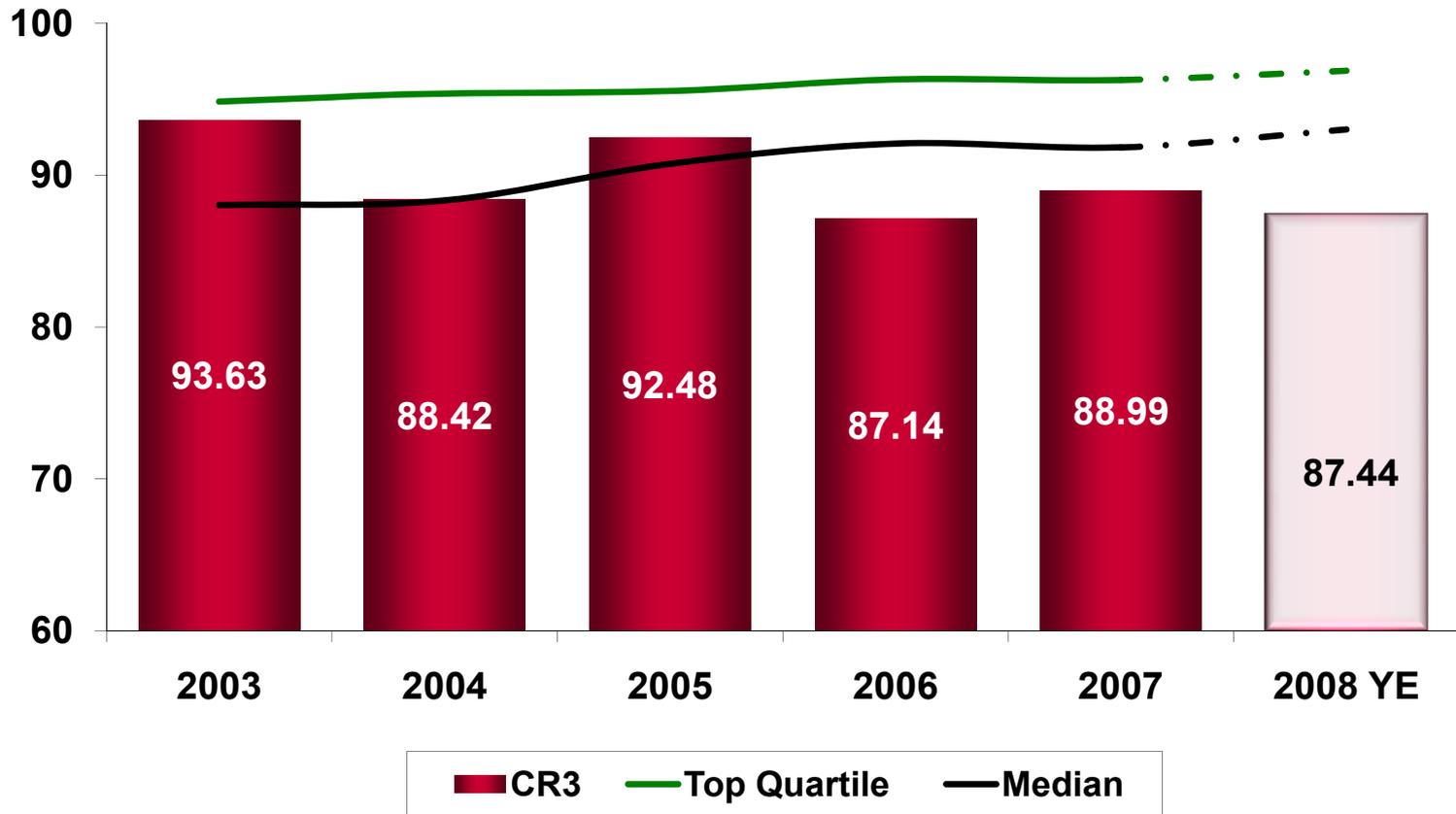


24 month operating cycle



CR3 Unit Performance - INPO Index

2008 Year-To-Date: 86.75



2008 Accomplishments

- RCP seal outage
- Decay Heat Drop line mitigation
- WANO Evaluation
- Evaluated emergency preparedness exercise
- INPO Technical Training accreditation
- Force-on-Force exercise
- B.5.b implementation and inspection
- Emergency siren replacement

2008/2009 Initiatives & Challenges

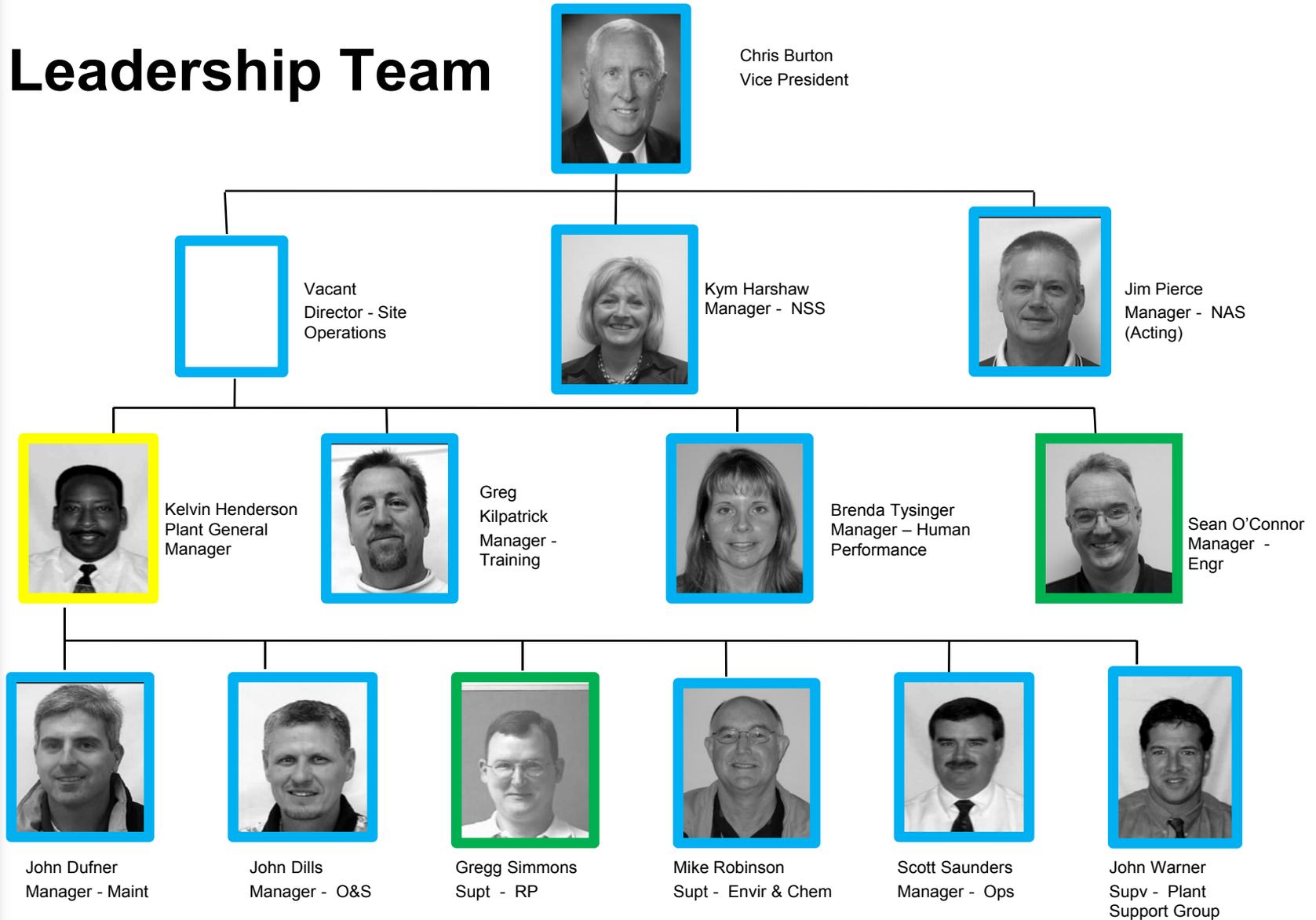
- Human performance
- Equipment reliability
- Source term reduction
- Steam Generator replacement/extended power uprate
- License renewal
- Workforce strategy
 - ◆ License operator pipeline
 - ◆ Aging workforce
 - ◆ New plant

Harris Nuclear Plant

Chris Burton
Vice President



Leadership Team



-  In position greater than 2 years
-  In position 1 - 2 years
-  In position less than 1 year

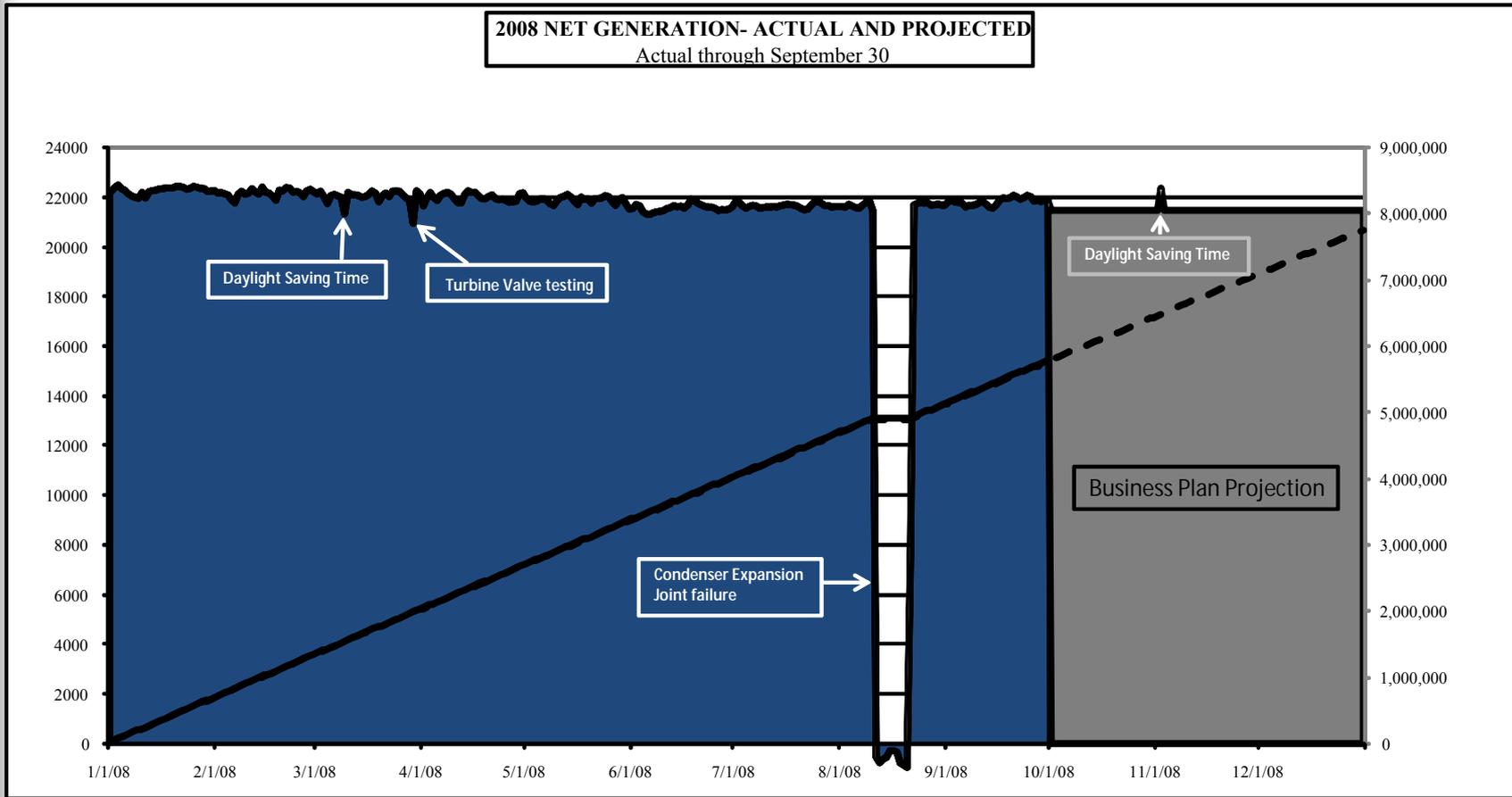


HNP NRC Performance Indicators

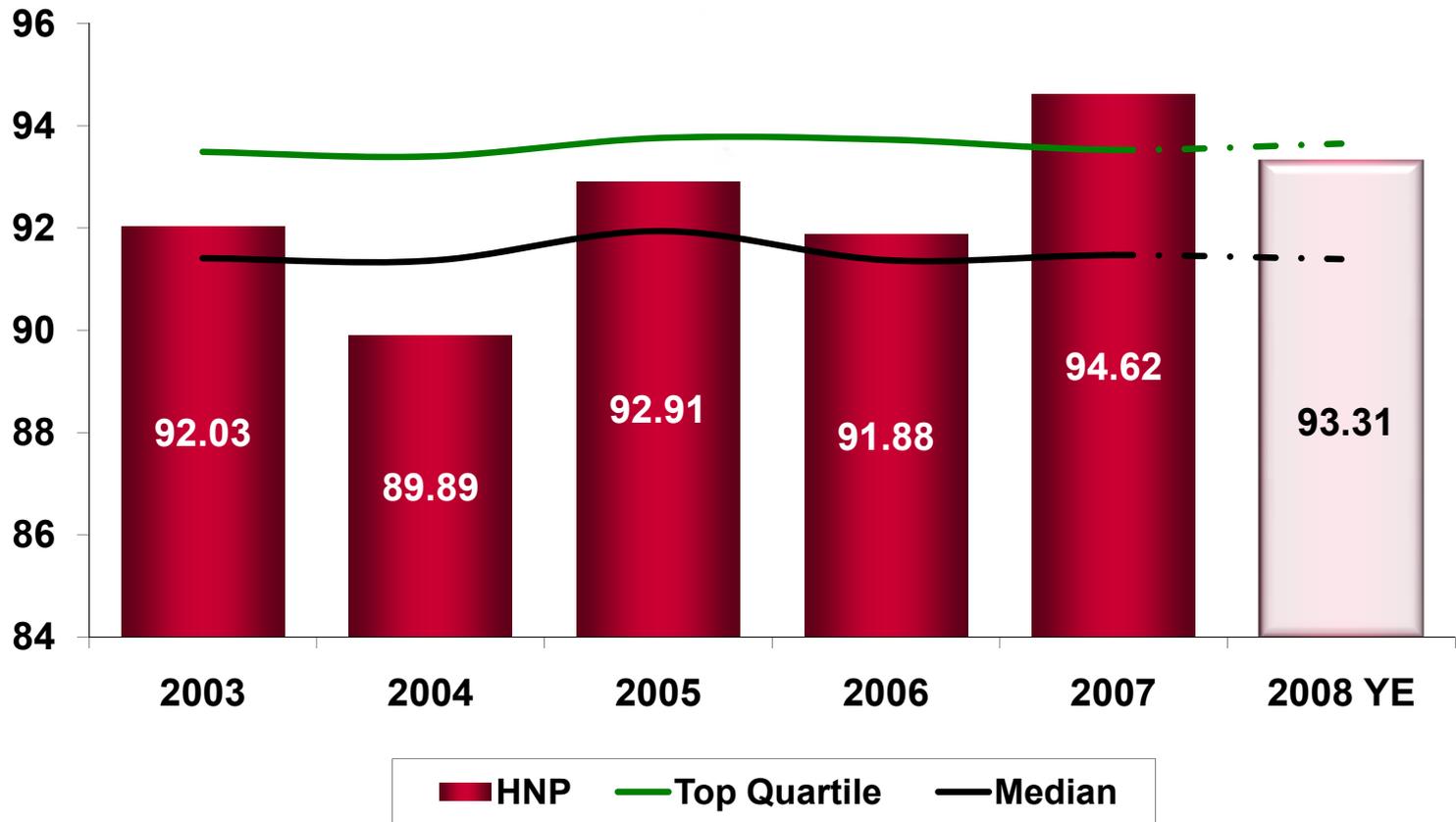
Cornerstone/Barrier	Current Value	Indicator Color (Margin in Green)	Industry Quartile
Unplanned Scrams	0.9	70%	3 rd
Unplanned Scrams with Complications	0	100%	1 st
Unplanned Power Changes	0.9	85%	3 rd
MSPI-AC Power	-3.50 E-07	135%	Not Applicable
MSPI – HP Injection	-3.20 E-09	100%	Not Applicable
MSPI – Heat Removal – AFW	-6.90 E-08	107%	Not Applicable
MSPI – RHR – LPI	-5.20 E-08	105%	Not Applicable
MSPI – Cooling Water – ESW & CCW	-2.00 E-07	120%	Not Applicable
Safety System Function Failures	0.00	100%	1 st
RCS Activity	0.000%	100%	1 st
RCS Leakage	0.20%	99.6%	1 st
ERO Drill/Exercise Performance	95.7%	57%	3 rd
ERO Drill Participation	100.0%	100%	1 st
ERO Alert & Notification System	99.4%	90%	3 rd
Occupational Exposure Control	1.00	50%	4 th
RETS/ODCM Effluents	0	100%	1 st



HNP Unit Performance – Generation



HNP Plant Performance – Capability Factor

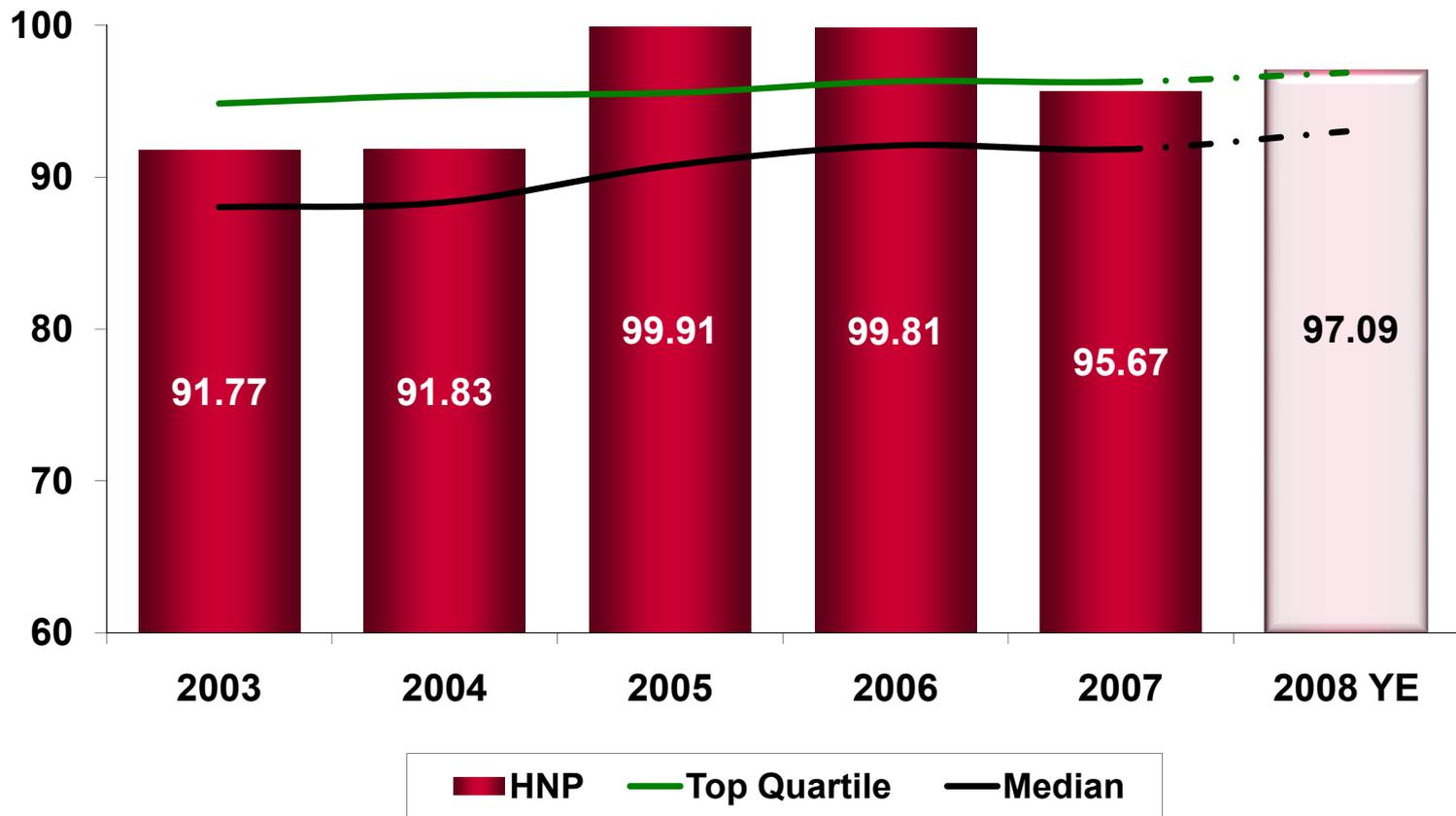


18 month operating cycle



HNP Unit Performance - INPO Index

2008 Year-To-Date: 97.09



Historical INPO Index data is based on current Index calculation



2008 Accomplishments

- Force-On-Force internal drills
- INPO evaluation
- B.5.b implementation and inspection
- Emergency siren replacement
- Maintenance backlog reduction
- Fire Protection modifications
- Charging Safety Injection Pump transfer switch

2008/2009 Initiatives & Challenges

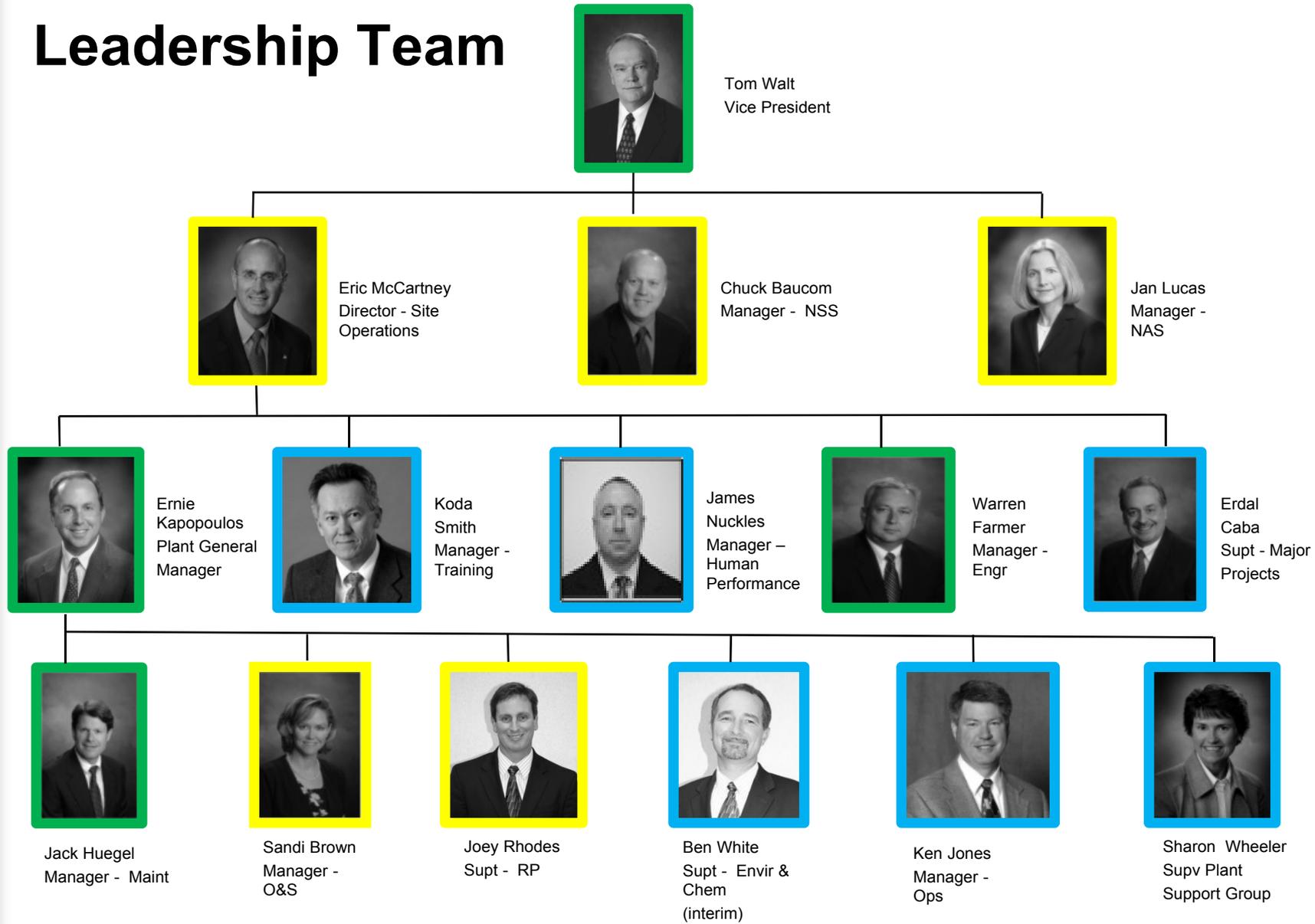
- Equipment reliability
 - ◆ 1RC-103
 - ◆ August forced outage
- HNP CAP improvement plan
- NFPA-805 transition
- Operator exam development
- Security performance
- Single point vulnerability continuation

Robinson Nuclear Plant

Tom Walt
Vice President



Leadership Team



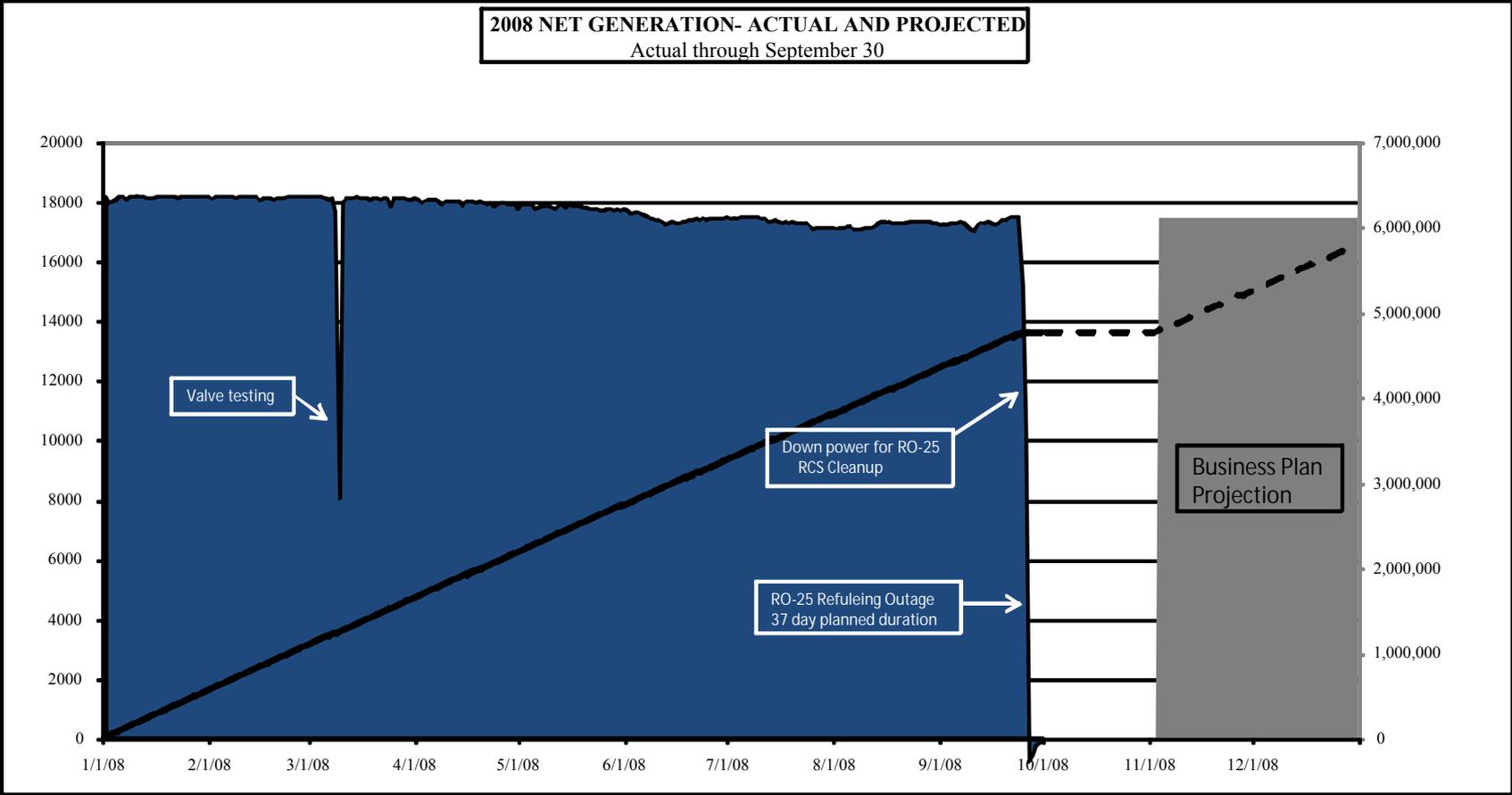
- In position greater than 2 years
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RNP NRC Performance Indicators

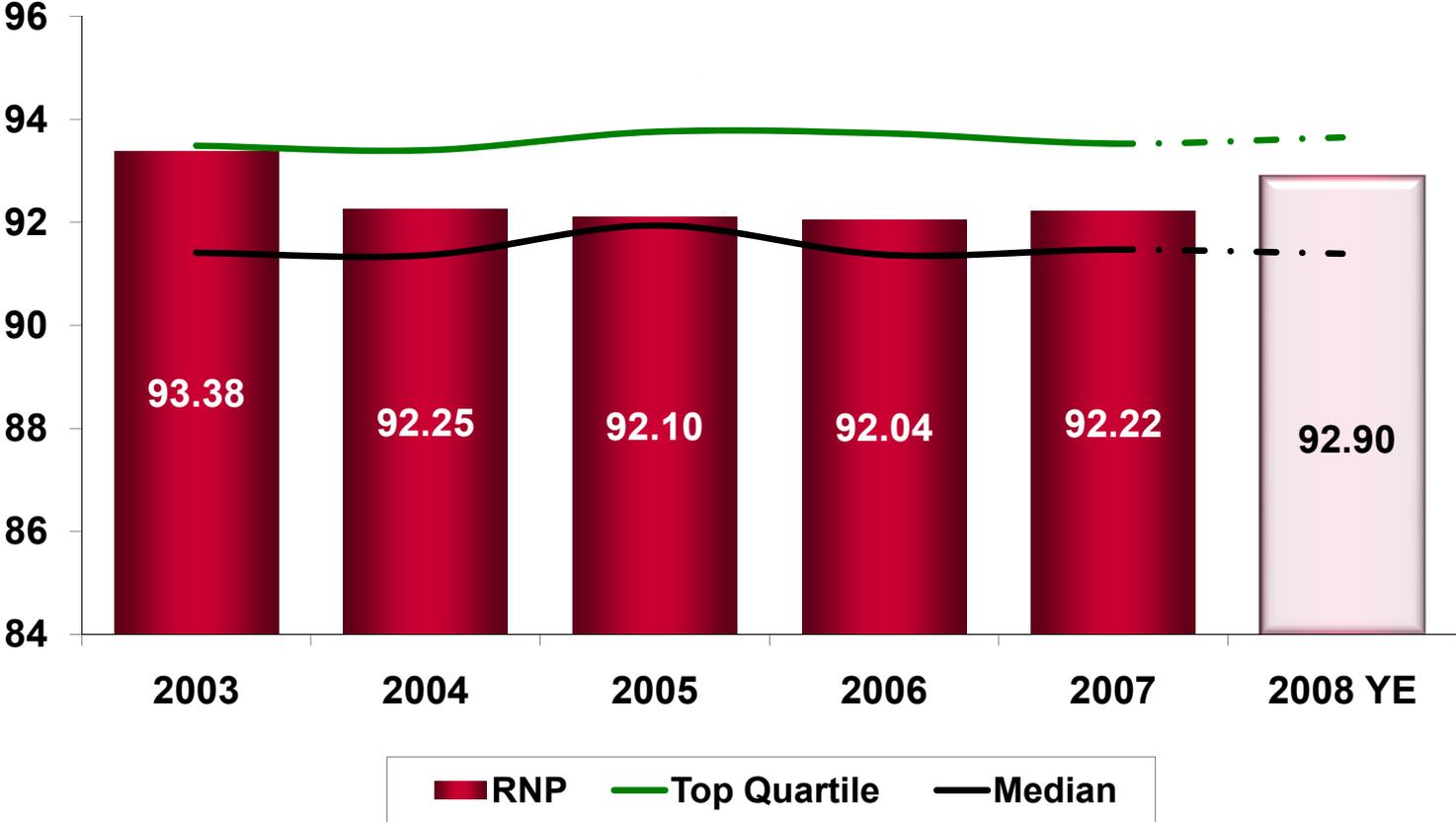
Cornerstone/Barrier	Current Value	Indicator Color (Margin in Green)	Industry Quartile
Unplanned Scrams	0	100%	1 st
Unplanned Scrams with Complications	0	100%	1 st
Unplanned Power Changes	0	100%	1 st
MSPI - AC Power	-1.70 E-07	117%	Not Applicable
MSPI – HP Injection	-3.80 E-08	104%	Not Applicable
MSPI – Heat Removal – AFW	4.60 E-07	54%	Not Applicable
MSPI – RHR – LP Injection	1.60 E-07	84%	Not Applicable
MSPI – Cooling Water – CCW/SW	3.40 E-07	66%	Not Applicable
Safety System Function Failures	0.00	100%	1 st
RCS Activity	28.700%	42.6%	4 th
RCS Leakage	0.20%	99.6%	1 st
ERO Drill/Exercise Performance	95.1%	51%	3 rd
ERO Drill Participation	98.5%	93%	3 rd
ERO Alert & Notification System	99.9%	98%	1 st
Occupational Exposure Control	0.00	100%	1 st
RETS/ODCM Effluents	0	100%	1 st



RNP Performance Summary - Generation

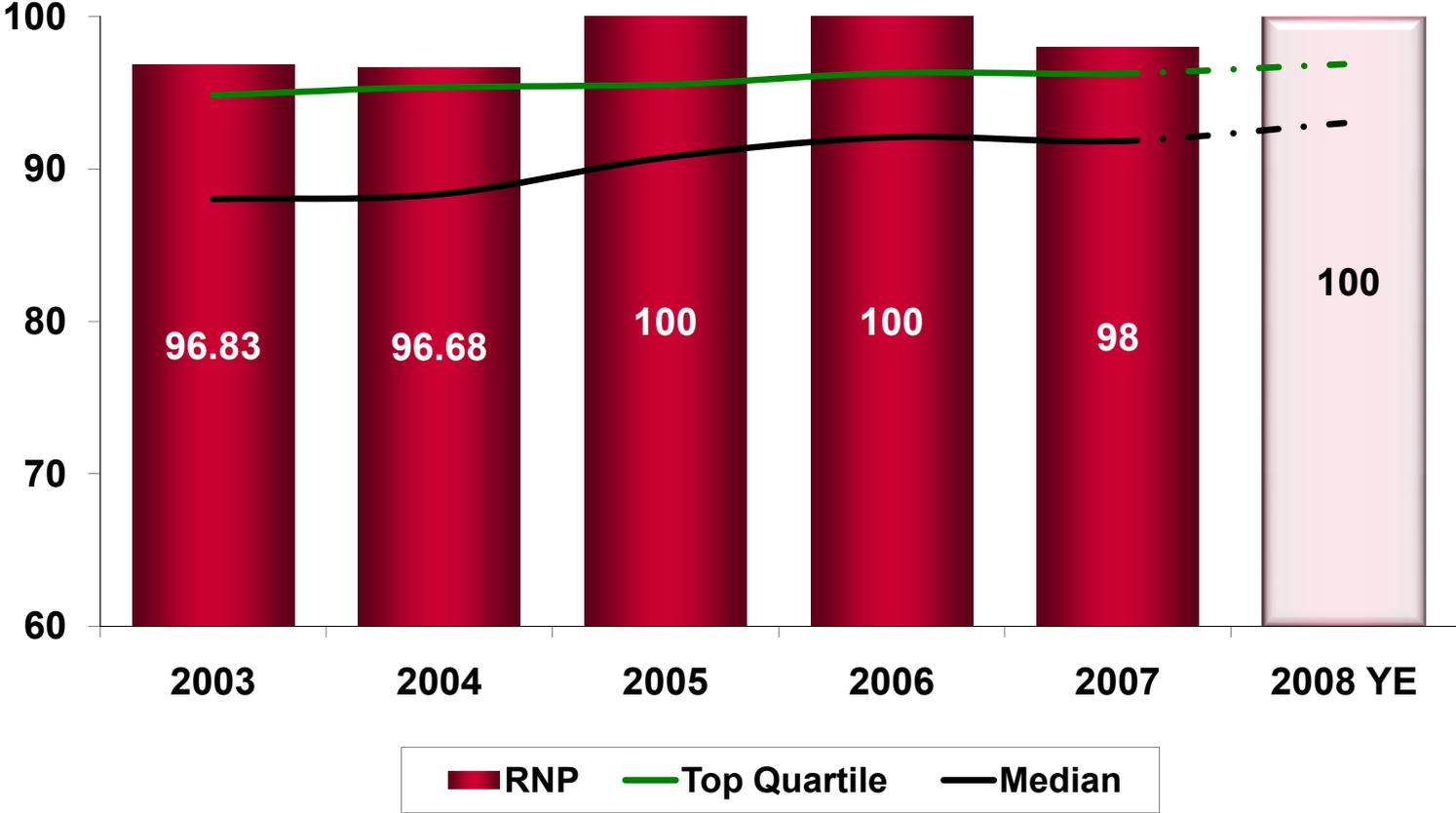


RNP Performance Summary - Capability Factor



RNP Performance Summary - INPO Index

2008 Year-To-Date: 89.45



Historical INPO Index data is based on current Index calculation



2008 Accomplishments

- Force-on-Force exercise
- Dry fuel storage campaign
- INPO Evaluation
- Collective radiation exposure
- Chemistry performance
- B.5.b implementation and inspection
- Emergency siren replacement



2008/2009 Initiatives & Challenges

- Operations Training Accreditation Renewal
 - ◆ Accrediting Board meeting (11/19)
 - ◆ Focus on Training Excellence
- Operations Initial Training
 - ◆ Development of NRC examinations
- Fuel Defect
 - ◆ Zero by 2010

2008/2009 Initiatives & Challenges (Cont'd)

- Emergency Preparedness Graded Exercise
 - ◆ ERO drill/exercise performance
- Improving Safety System Margins
 - ◆ Auxiliary feedwater
- Transition to Renewed Operating License in 2010
- Self Evaluation Excellence

Progress Energy Nuclear Generation

- Continued focus on and commitment to operational excellence and safety
- Committed to invest in current plants and expansion of nuclear generation
- Open and transparent communication with stakeholders
- Investing in people for today and the future