



Challenges and Opportunities Facing Nuclear Power Group

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**Engineering Association / TVA Joint Designated Union
Representative Training**

June 8, 2011

Agenda

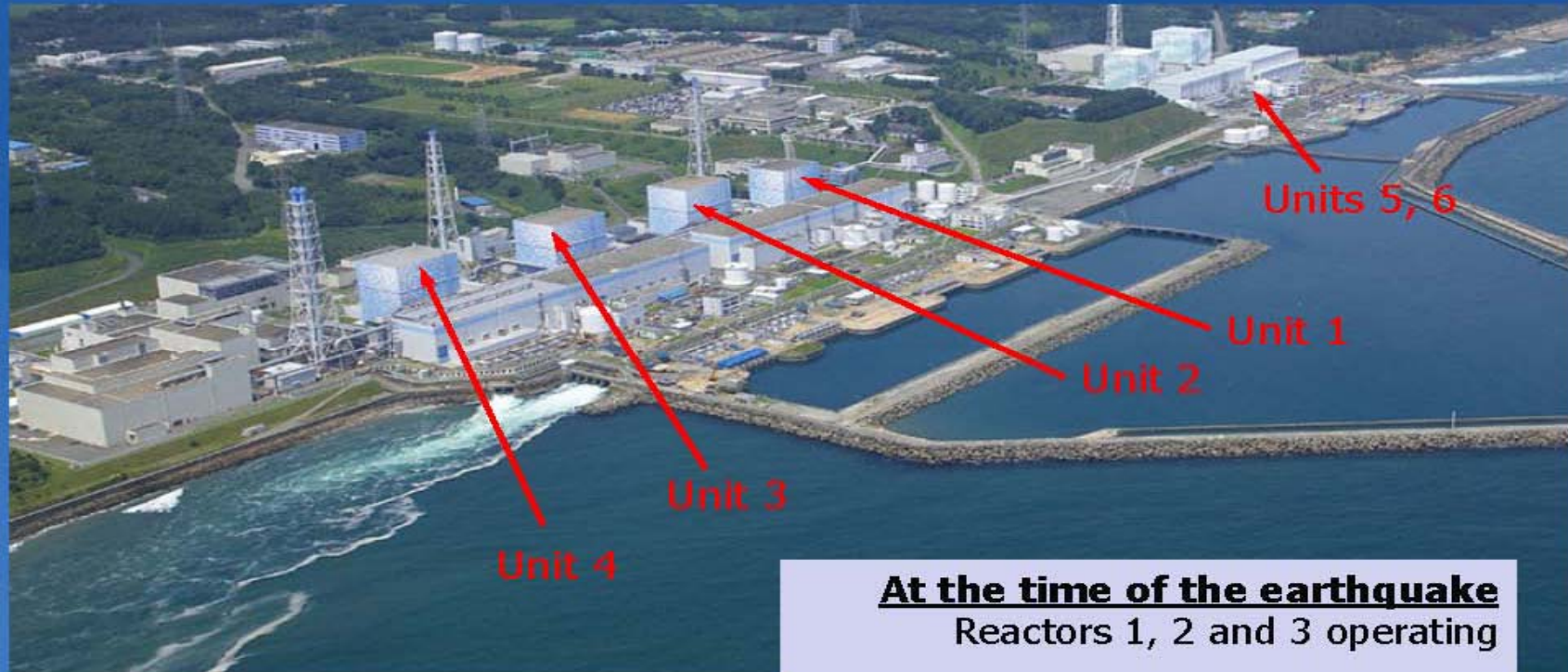
- Challenging Fiscal Year
 - Five Re-fueling Outages
 - Fukushima Event
 - Tornado Damages and BFN three units forced outage
 - NRC issuance of Red Finding for BFN
 - Approval of Multi Skilling MOU
 - NEI's Best of the Best Top Industry Practice Award
 - OHI Survey
- Fleet Focus Progress
 - Corrective Action and Human Performance
 - Equipment Reliability
 - Work Management and Outage Execution
 - Governance and Oversight
 - Training
 - **Talent Management and Alignment**
- NPG Culture of Excellence

Japanese Tsunami



Fukushima Daiichi Status

Fukushima Daiichi Nuclear Power Plant Before the Accident



At the time of the earthquake
Reactors 1, 2 and 3 operating

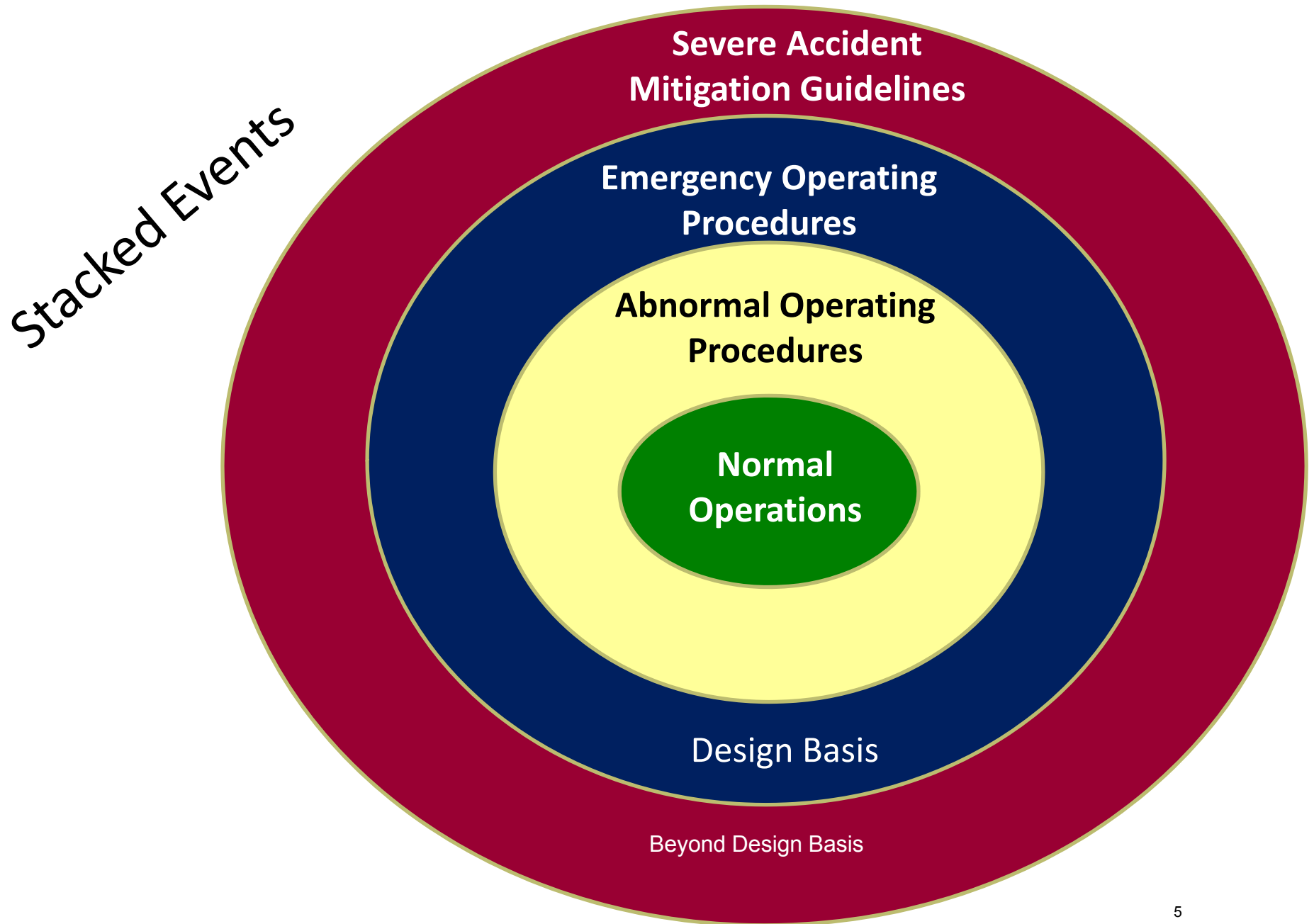
Reactors 4, 5 and 6 shutdown for
maintenance, inspection, refueling

Centralized Response

- ◆ Establish a TVA-wide centralized response center with satellite site response teams
- ◆ Understand events from Japanese reactors
- ◆ Assess readiness for design basis events
- ◆ Communicate accurate and timely information
- ◆ Evaluate vulnerabilities to ‘stacked’ events
- ◆ Provide short, intermediate, and long-term recommendations for TVA sites



TVA Reviews



Stakeholder Communications

Proactively communicating with internal and external stakeholders

- Employee meetings
- Discussions with federal, state, and local officials
- Presentations to Tennessee, Alabama EMAs
- Media interviews
- Media event at Browns Ferry





The Storms of April 2011



A Record Outbreak



Three waves of storms struck the southeast April 26 & 27

In the TVA region, a reported 153 tornadoes devastated entire communities

An estimated 330 people were killed across the southeast—
230 in Alabama

NOAA reports 226 tornadoes in the southeast over 24 hours—
the most in one event

Damage to TVA Region

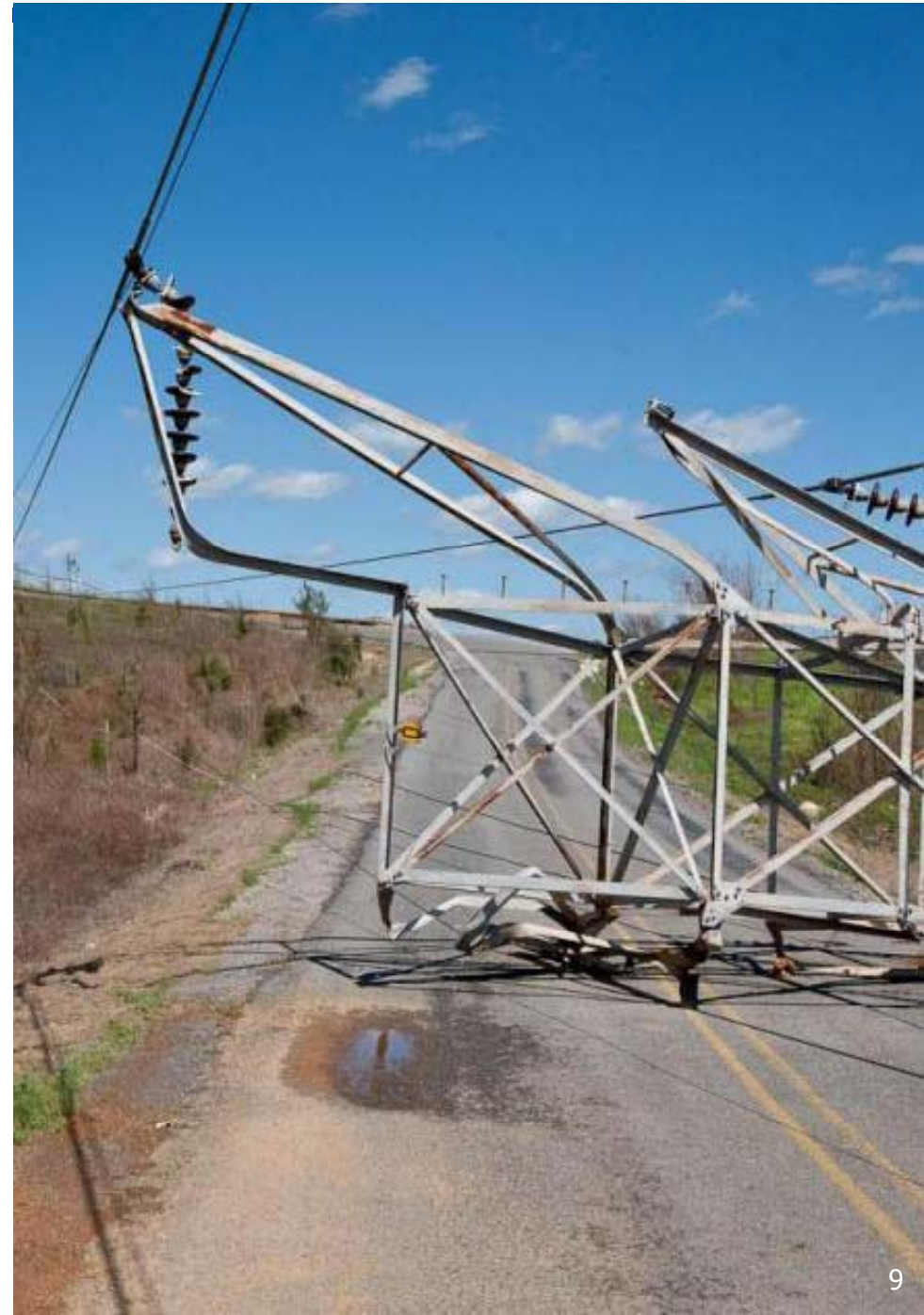
The TVA transmission system suffered the worst damage in its history

337 transmission structures damaged; 96 lines out of service

128 customer connection points interrupted

850,000 customers lost service

Several TVA plants shut down



Effects on Browns Ferry

- ◆ Lost most off-site power; all 3 units shut down safely
- ◆ Declared an Unusual Event
- ◆ Diesel generators powered shutdown cooling and reactors stayed in a safe shutdown condition
- ◆ Re-established off-site power 5 days after storms
- ◆ Rebuilding the 500-kV system will take months and may limit Browns Ferry's output

Rapid Restoration

4,000 workers labored 24/7 to restore service

Within 5 days:

- 121 of 128 customer connections were restored
- Most large industries had some power supply

Full repair of the 500-kV system may take months





BFN Three Unit Forced Outage

April / May 2011



Major Material/ER Upgrades

RHR Angle Globe Valve repairs completed

- 3-FCV-74-52 Lp I LPCI Outbd Injection Valve
- 3-FCV-74-66 Lp II LPCI Outbd Injection Valve
- 1-FCV-74-52 Lp I LPCI Outbd Injection Valve



This will resolve RIS 2005 (91-18) non-conformance issue for ALL BFN Units.

14 Raw Cooling Water Valves replaced



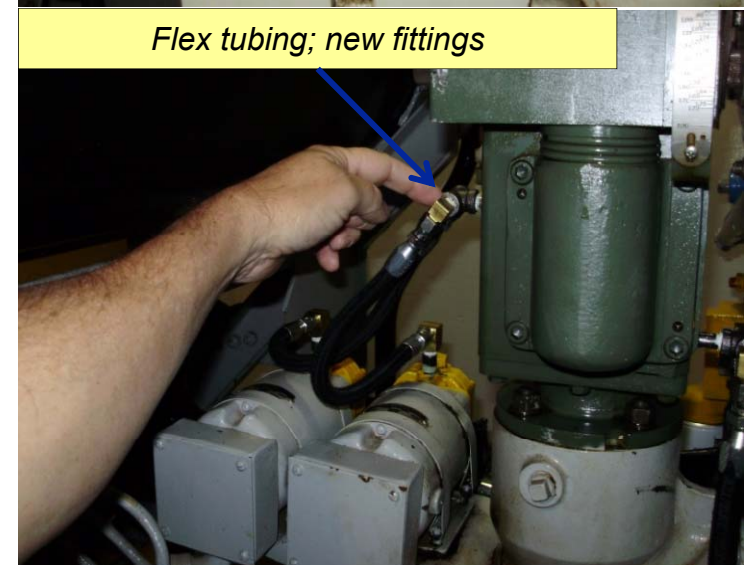
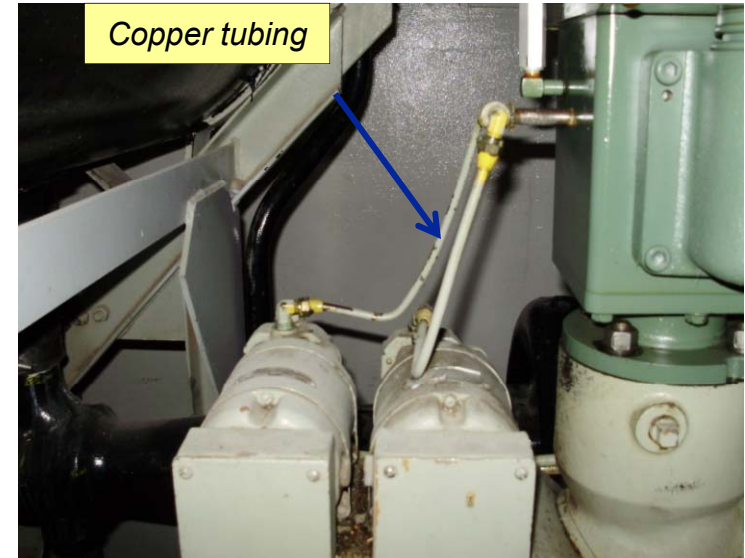
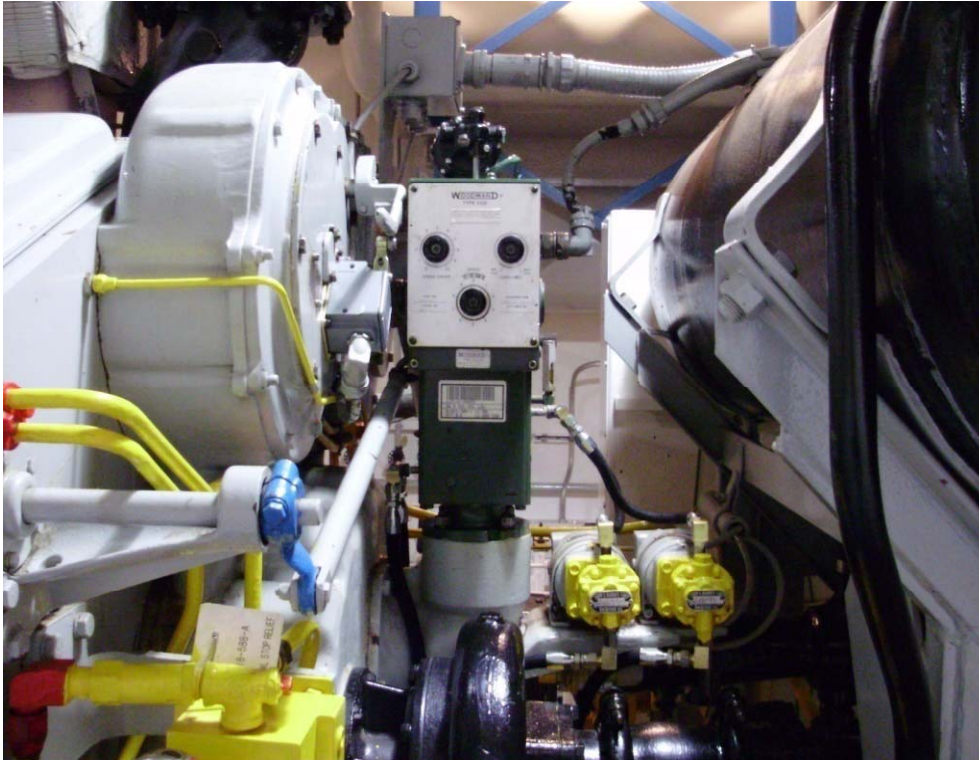
A number of valves were noted to be leaking by over a thousand gallons per minute. Many of the leaks were unisolable and required a 3-unit shutdown to safely perform repairs. On initial system restoration, Operations personnel noted header pressure was easily maintained with fewer pumps in service (only 4 of 13).

Channel Diesel Fire Pump Engine replaced



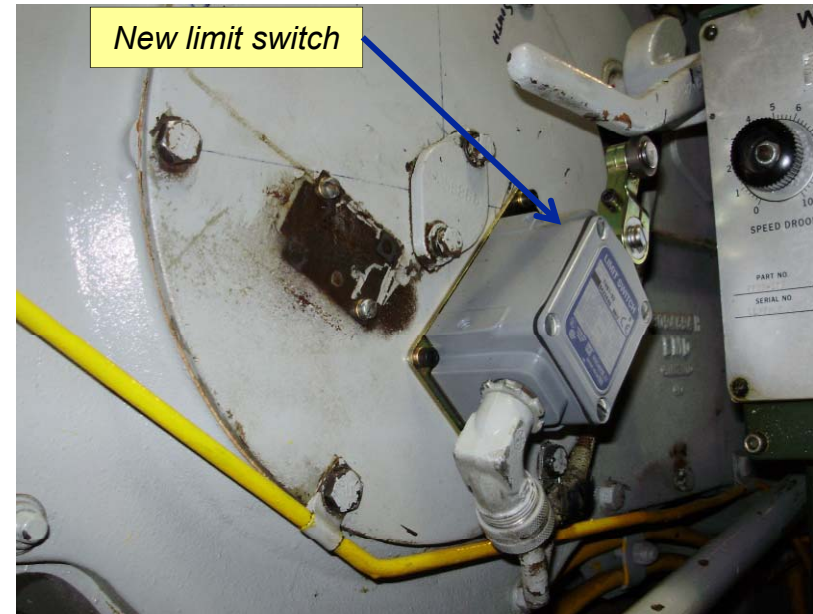
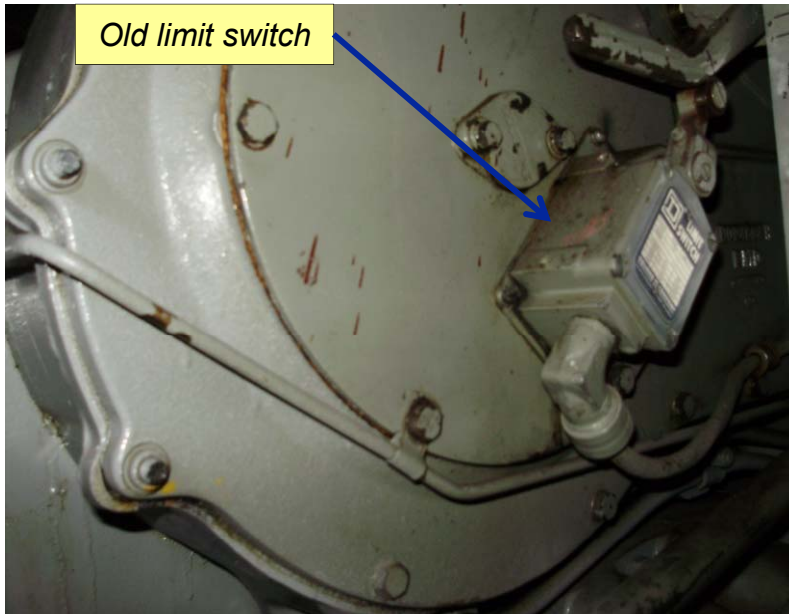
Emergency Diesel Generators

- Governor modification



Emergency Diesel Generators

- Over speed switch replacements- emergent degraded component

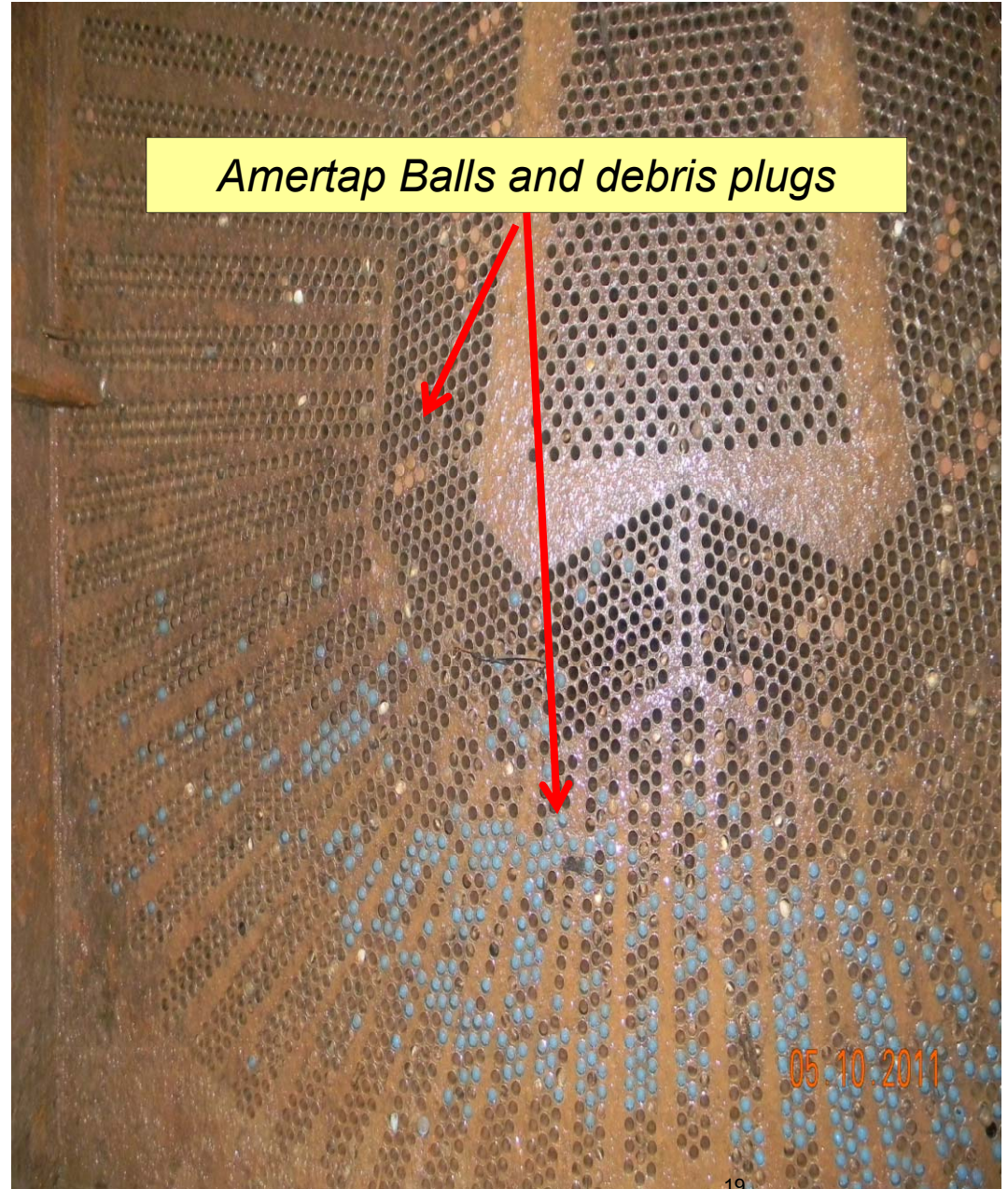


Water boxes - Before Cleaning

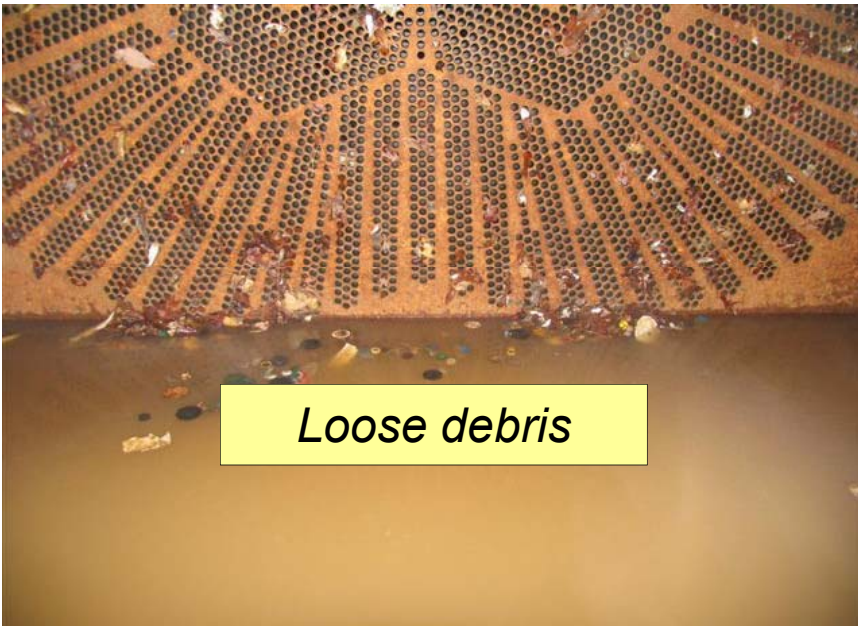
Plugged Screens at outlet



Amertap Balls and debris plugs



Loose debris



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Water boxes After Cleaning

U1 –

Four water boxes cleaned

U2 –

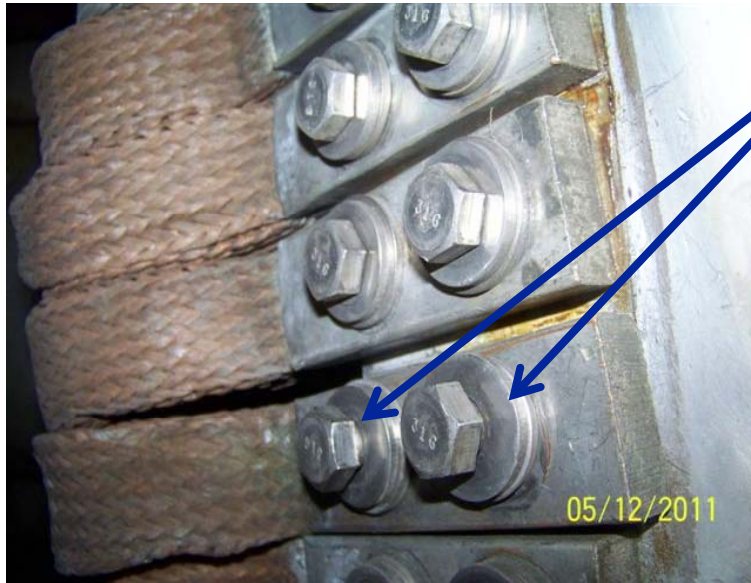
One water box cleaned; one
tube plugged

U3 –

Six water boxes cleaned



ISO-Phase Bus Duct cooling Inspections on Unit 1 & 3



Bus Duct inspection and cleaning found loose

... and missing bolted connections – potential for imminent failure with catastrophic results



Over 200 work orders have been completed to improve reliability and performance

- ◆ Completed “3B” (including GL 91-18 issue with high vibes) and “A” D/G 2 & 6 year PMs –
- ◆ Resolved GL 91-18 issues – replaced Control Bay Chiller Transformers and replaced C3 EECW pump
- ◆ Unit 3 RCIC EGM replacement– Maintenance Rule A(1) system
- ◆ License renewal inspections on embedded RHRSW piping which required a dual unit shutdown
- ◆ Refurbished Unit preferred MG set (Unit 2)
- ◆ Amertap system repairs
- ◆ All units will be returned to service after several years of disrepair; All units operational for summer peak
- ◆ Standby Gas Treatment Cable Replaced
- ◆ To perform work on-line would required entry into a short duration shutdown LCO on all 3 units.

Over 200 work orders have been completed to improve reliability and performance (Cont'd)

- ◆ 3A1 HP Heater Shell repair
- ◆ Would require deep down power and removal of heater string to repair
- ◆ Performed extent of condition Pulsed Eddy Current Testing on the Unit 3 #1, 2, and 3 FWHS
- ◆ 14 OWAs and 9 Control Room deficiencies corrected and 3 ODMIs were resolved
- ◆ Cleared alarm for Unit 2 Reactor vessel head seal leakage
- ◆ Repaired Unit 2 Reactor feed pump seal injection leaks
- ◆ Control Room Filter replacement
- ◆ long standing issue that avoids a 3 unit short duration shutdown LCO
- ◆ U2 Steam Packing Exhauster motors refurbished – high vibration on both motors
- ◆ U1 HPCI alignment – Turbine/Pump high vibrations
- ◆ Off-gas Stack Damper replacement- required 3 unit outage
- ◆ Security Diesel Generator Upgrade – new voltage regulator

Browns Ferry NRC RHR Valve Red Finding

Background:

- On Monday, April 4, 2011 TVA and the U.S. Nuclear Regulatory Commission met in Atlanta at a Regulatory Conference to discuss an apparent violation that was identified in the most recent Browns Ferry quarterly inspection report ending Dec. 31, 2010.
- The NRC made a preliminary determination that the violation was greater than Green, which is a finding of greater than very low safety significance.
- On May 9, 2011 the NRC concluded the finding should be characterized as Red, a finding of high safety significance that requires additional NRC inspection of the plant.

Browns Ferry NRC RHR Valve Red Finding

Key Points:

- The violation resulted from a Residual Heat Removal valve failing to open during the Unit 1 scheduled refueling outage in October 2010
- TVA reported the failure to the NRC
- We fixed the valve during that outage and have conducted further analysis and tests to understand the extent of the problem and possible mitigating conditions
- We also completed an evaluation of the functionality of that same valve type on all Browns Ferry units
- TVA continues to take action to ensure the safety and reliability of the residual heat removal system valves on all three Browns Ferry units. Browns Ferry is currently upgrading its fire protection program to the NRC endorsed performance based standard (NFPA 805)

Browns Ferry NRC RHR Valve Red Finding

Key Points (cont'd)

- During the Unit 2 refueling outage, workers welded in eight large gussets on two valves of the type that failed on Unit 1 to further strengthen them.
- During the ongoing forced outage of all three units, the remaining three valves of this type were inspected and, if necessary, strengthened.
- TVA worked with industry-leading engineering and design firms to determine what caused the valve problem on Unit 1 and its safety significance. TVA concluded the valve disc would have lifted and provided full flow had the system been required to perform its intended safety function.
- The TVA and third-party root cause analysis determined the problem was in the manufacturing of the valve and was not related to human performance.
- These valves also worked properly on April 27 when all units at Browns Ferry safely shut down following severe weather that damaged the TVA's transmission system

IP 95003 Violation/Driver

Performance Deficiency

- ◆ NRC determined that TVA's failure to implement an in-service testing (IST) program in accordance with ASME Code precluded the timely identification that the RHR Loop II subsystem was unable to fulfill its safety function due to a failure of LPCI outboard injection valve 1-FCV-74-66. The NRC concluded that TVA's IST program inadequacy was well within its purview, and represents a performance deficiency.
- ◆ This performance deficiency, which is the basis for the violation, is that the IST Program was deficient in that it did not result in identification of the valve failure.
- ◆ This finding is characterized as RED, a finding of high safety significance that will require additional NRC inspection , Inspection Procedure 95003.

IP 95003 Attributes

- I. Review of Performance Deficiency
 - Root Cause
 - Extent of Cause
 - Extent of Condition
- II. Assessment of Corrective Action Program
 - Identification
 - Assessment
 - Corrective Action
- III. Assessment of Performance Around Cornerstone
 - Design
 - Human Performance
 - Procedure Quality
 - Equipment Performance
 - Configuration Control
- IV. 3rd Party Assessment of Safety Culture
 - Comprehensive
 - Method to collect and analyze data
 - Results and conclusions

IP 95003 Team Make-up

- ◆ Corporate Driven
- ◆ Strong License Component
- ◆ Site Engagement
- ◆ External Support
- ◆ Oversight Arm
- ◆ Communication Support
- ◆ Admin/Project Support

Multi-Skilling MOU

- ◆ On March 3rd the Tennessee Valley Trades and Labor Council and TVA signed an agreement that will increase the level and depth of specialty skills of craft
- ◆ For me, this partnership for success started about four years ago . . . March 2007 . . . when I was serving as executive sponsor for the Maintenance and Modifications Peer Team.
- ◆ This agreement will result in craft becoming our subject matter experts on equipment they work on and being able to better support initiatives to drive equipment reliability, which leads to safer, more reliable plants

Multi-Skilling MOU

- ◆ In addition, this new agreement provides a pay compensation for these employees becoming experts in their specialty area
- ◆ This agreement will allow us to significantly reduce our dependency on long-term contractors and vendors
- ◆ That's because we will have the “go-to” experts right there on our team, in our fleet, and as part of our company

NPG Receives NEI's Best of the Best Top Industry Practice (TIP) Award

Employees at the NPG and Browns Ferry were honored with the B. Ralph Sylvia "Best of the Best" Award for developing a state-of-the-art method to detect reactor fuel rod defects and prevent costly fuel leaks.

The team also took the NEI Top Industry Practice (TIP) award for the nuclear fuels category. Team members:

Mike Keck, Greg Storey, Jim Lemons, David Marsh, and Rod De La Garza



Organizational Health Index Survey

- ◆ Our fleet has more than 385 key indicators we use to monitor our performance, but none of those targets, charts, and trends can give us the perspective that you can
- ◆ In addition to understanding where our fleet stands regarding to excellence, we must also know how aligned we are, how well we work together and communicate with each other, how we achieve and sustain high levels of performance, and how we can have some fun while at work.
- ◆ These are things only you can tell us, and hopefully have told us through the OHI Survey
- ◆ The OHI results are to be presented to me and the leadership team later this month
- ◆ We will roll them out to each organization and put initiatives in place to address them and monitor and measure our progress achieving the desired results

Progress on Five Fleet Focus Areas

Fleet Focus – Corrective Actions and Human Performance

Corrective Action Program (CAP)

◆ Actions Completed

- CAP-101 Training for all workers, integrated as part of NEE
- Qualitative performance measures in place
- Dedicated Department PI Coordinators
- Dashboard in POD to improve visibility of Root Cause status

◆ Moving Forward

- Specialized training for CARB and PSC members
- Improve coding and trending of issues

Fleet Focus – Corrective Actions and Human Performance

Human Performance (HU)

- ◆ Actions Completed
 - Department MRMs across the fleet
- ◆ Moving Forward
 - Human Performance Summer Initiative
 - Initial Human Performance Fundamentals training as part of NEE
 - Expand use of Technical Human Performance
 - Observation Program Improvements
 - Procedure/Work Package Quality
 - Process Rigor

Human Performance Summer Initiative

- ◆ Standardize COO Approach to Human Performance
 - All operating business units trained on standard Human Performance tools
- ◆ Heighten awareness of transmission system vulnerability
- ◆ Special Focus on 3 Tools
 - June: Stop When Unsure
 - July: Pre-job Briefing
 - August: Two-Minute Rule
- ◆ Metrics to compare performance between business units

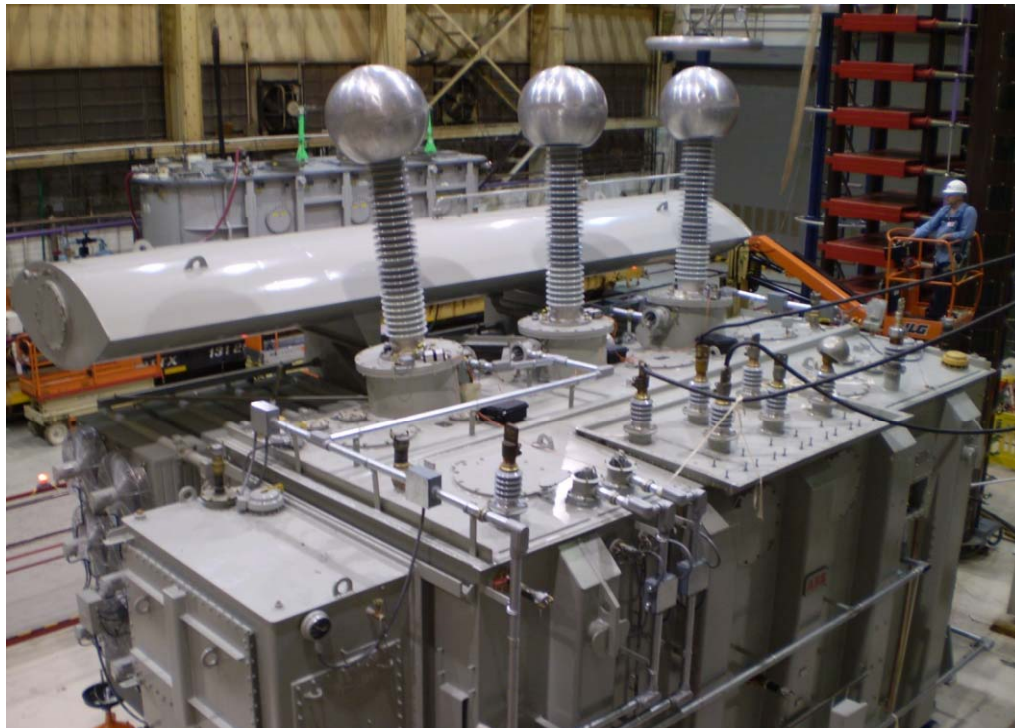
Fleet Focus: Equipment Reliability

- ◆ Fleet wide Material Condition Improvement Plan (MCIP)
 - 21 BFN system reviews completed, 0 In progress, 22 scheduled
 - 7 WBN system reviews completed, 3 in progress, 8 scheduled
 - 10 SQN reviews completed, 9 in progress, 4 scheduled
 - 375 key issues identified of which 115 are complete
 - 216 enhancement issues identified of which 27 are complete
 - Process requires fleet challenge for quality
 - 75 system reviews per site to be performed
- ◆ Examples of results:
 - Terry Turbines Governors (AFW/HPCI/RCIC) – control obsolescence issue – now on business plan to replace
 - LCV diaphragm replacements
 - Main feedwater water hammer issue resolved
 - AFW solenoid upgrades
 - Comprehensive SQN switchyard redesign to eliminate dual unit trip vulnerability

Fleet Focus: Equipment Reliability

- ◆ Fleet wide Material Condition Improvement Plan (Continued)
 - ◆ Spring completions:
 - SQN Unit 2 Make before break start board modification & start bus replacement I/P
 - Added assurance with bus power source changes
 - Higher confidence for Units to perform CSST work during outages
 - Resolved degraded bus insulation condition – potential phase to phase short
 - Resolved bus duct water intrusion potential
 - WBN Unit 1 ERCW TCV upgrade
 - Resolves “fail open” condition to control room TCVs
 - Allows Control room chiller TCVs to be modulated during loss of power events
 - Maintains higher flow to other ERCW components – margin increase
 - WBN Unit 1 main feedwater piping drain upgrade
 - Resolves a known severe water hammer condition when feedwater is shutdown/isolated
 - BFN Unit 2 stator cooling water temperature controller upgrade
 - Resolves a current obsolete controller issue
 - Resolves a single point vulnerability for plant trip/runback
 - Allows TCV to fail to a preset position

Fleet Focus: Equipment Reliability



Sequoyah Spare CSSTs



Fleet Focus: Equipment Reliability



BFN RHR Angle Globe Valve repairs completed



This will resolve RIS 2005 (91-18) non-conformance issue for ALL BFN Units.

Fleet Focus: Equipment Reliability

- ◆ Utilization of Engineering Excellence Plan (driven by peer team supports CNO strategy)
 - Functional Evaluations/Operability Determination Input
 - New fleet procedure
 - Fleet challenge required
 - Training in development through licensing
 - Process implementation after change management
 - Long Term Asset Management
 - Capital Spares business case developed
 - Developing long term major maintenance plans (WBN lead)
 - Central printed circuit card facility
 - Engineering Knowledge and Skills Assessment
 - Fundamental exam given
 - Incorporating results into Training Program
- ◆ Critical Component Failures
 - Preventive Maintenance Optimization (PMO) of components in progress to ensure right maintenance on the right components. (BFN lead, WBN and SQN in progress)

Fleet Focus: Equipment Reliability

- Expanding use of new predictive tools to ensure excellent performance between PMs
 - Baker testing of motors
 - ❖ Deploying for baseline testing in the fleet
 - ❖ Found rotor bar issue in BFN “A” motor driven fire pump when vibration signature indicated a bearing issue.
 - ❖ Used during WBN RFO10 to troubleshoot Motor Driven Auxiliary Feed water Motor 1A when vibrations increased after refurbishment to rule out motor problem.
 - RULER: The Remaining Useful Life Evaluation Routine (Ruler) instrument (WBN Pilot)
 - ❖ Determines the concentrations of antioxidants in new and used oils in order to monitor the depletion rates of the antioxidant protection
 - ❖ Recently used to determine that SQN’s MTOTs needed a varnish removal system and new oil.
- Fleet Engineering focus on PdM watchlist equipment has reduced average cycle time on the list by three weeks

Fleet Focus: Equipment Reliability

- ◆ Equipment Reliability Site Clock Process
 - Clock resets require report out by system engineer at morning POD fleet call for immediate learning's for the fleet
 - Quarterly rolling average of clock resets decreasing
- ◆ Systematic self-assessments utilizing INPO “how to” guides
- ◆ Strengthened corporate and site engineering organization structure
- ◆ GOES model
- ◆ INPO AP 913 ER model built into fleet processes
- ◆ Common fleet process
 - Results
 - SQN comprehensive switchyard upgrade in progress to eliminate dual unit trip vulnerability (significant work completed during Fall 2010 refuel outage, I/P on Unit 2)
 - BFN cooling tower 7 work is in progress, to be operational June 2011
 - BFN Unit 2 automatic voltage regulator
 - WBN Unit 1 automatic voltage regulator

Equipment Reliability Strategy

- ◆ Kicked off Site ER MRMs in February there will be 3 per year per site
 - Evaluate the effectiveness of the organization in achieving equipment excellence.
 - Review the effectiveness of continuous improvement initiatives as well as specific site abnormal or unexplained conditions
 - Foster behaviors that promote a zero tolerance for unexpected equipment failures
 - Provide strong oversight of site activities, ensuring that people, processes and equipment support superior performance.
 - Provide the opportunity for discussion on process/program implementation, looking at successes and problems.

Equipment Reliability Strategy

◆ Outage System Windows

◆ What controls Outage Program & System Windows - NPG-SPP-7.2.1

◆ What is an Outage Window?

- A sequence of activities which form the work scope or evolution
- Operation, clearance /tagging, maintenance, testing, etc

— Why is it important?

- Allows the Outage Control Center (OCC) to focus on upcoming window closures
- A communication tool for the window owner to engage the team
- Identify and create needed recovery plans for success
- Opportunity for teams to look ahead and challenge required recovery plans
- Focuses on getting the planned/discovery outage work completed with quality
- The next operating cycle(s) absolutely depend on it
- It affects us personally

Outage System Windows

U2R16 OUTAGE SYSTEMS WINDOWS - Updated 3/16/11 @ 0500

SYS # 001 Main Steam	SYS # 002 Condensate/Condensate Demins	SYS # 003 Feedwater System	SYS # 006 Heater Drains & Vents	SYS # 023 RHRSW	SYS # 024 Raw Cooling Water
Planned Start: 2/26/2011 1200 Actual Start: 2/26/2011 0400 Closure Date: 3/29/2011 0700 Forecast Closure: 03/29/2011 Original Activities: 619 Expected Remaining: 109 Actual Remaining: 259 John Moore Robert Lowery	Planned Start: 2/26/2011 2000 Actual Start: 2/26/2011 1500 Closure Date: 3/21/2011 2200 Forecast Closure: 03/21/2011 Original Activities: 172 Expected Remaining: 12 Actual Remaining: 85 Geoffrey McClain Bob Lowery	Planned Start: 2/26/2011 0800 Actual Start: 2/26/2011 2200 Closure Date: 3/23/2011 0400 Forecast Closure: 03/24/2011 Original Activities: 175 Expected Remaining: 54 Actual Remaining: 75 Geoffrey McClain Bob Lowery	Planned Start: 2/27/2011 0000 Actual Start: 2/27/2011 0400 Closure Date: 3/23/2011 1500 Forecast Closure: 03/24/2011 Original Activities: 160 Expected Remaining: 21 Actual Remaining: 87 Ed Kirby Dale Jones	Planned Start: 3/1/2011 0700 Actual Start: 3/2/2011 0900 Closure Date: 3/17/2011 1200 Forecast Closure: 03/18/2011 Original Activities: 32 Expected Remaining: 2 Actual Remaining: 12 Daryl Jackson Stewart Wetzel	Planned Start: 2/26/2011 2000 Actual Start: 2/27/2011 1500 Closure Date: 3/16/2011 1800 Forecast Closure: 03/21/2011 Original Activities: 35 Expected Remaining: 2 Actual Remaining: 32 Ed Kirby Kelli Harvey
SYS # 027 Cond Circ Water	SYS # 034 Vacuum Piping	SYS # 035 Gen Hydrogen Cool	SYS # 047 EHC Control	SYS # 063 SLC	SYS # 064 Primary/Sec Cool., Purge and PCIS
Planned Start: 2/27/2011 0000 Actual Start: 2/27/2011 0400 Closure Date: 3/20/2011 0200 Forecast Closure: 03/20/2011 Original Activities: 83 Expected Remaining: 24 Actual Remaining: 38 Stewart Wetzel Daryl Jackson	Planned Start: 2/27/2011 0200 Actual Start: 2/28/2011 0400 Closure Date: 3/20/2011 0200 Forecast Closure: 03/20/2011 Original Activities: 9 Expected Remaining: 0 Actual Remaining: 0 Stewart Wetzel Daryl Jackson	Planned Start: 2/26/2011 1200 Actual Start: 2/26/2011 1200 Closure Date: 3/24/2011 0700 Forecast Closure: 03/24/2011 Original Activities: 62 Expected Remaining: 11 Actual Remaining: 17 Darcell Washington Chris Reischman	Planned Start: 2/26/2011 1700 Actual Start: 2/26/2011 1500 Closure Date: 3/24/2011 1500 Forecast Closure: 03/22/2011 Original Activities: 73 Expected Remaining: 13 Actual Remaining: 26 Phil Porter Ron Beck	Planned Start: 3/14/2011 1100 Actual Start: 3/5/2011 Closure Date: 3/16/2011 1600 Forecast Closure: 03/12/2011 Original Activities: 10 Expected Remaining: 4 Actual Remaining: 3 Lenard Soto Jamie Ford	Planned Start: 2/26/2011 0400 Actual Start: 2/26/2011 0200 Closure Date: 3/24/2011 2200 Forecast Closure: 03/25/2011 Original Activities: 115 Expected Remaining: 19 Actual Remaining: 40 Jamie Ford Andrew Payton
SYS # 066 DRGas	SYS # 068 Reclrc (VFD)	SYS # 071 RCIC	SYS # 073 HPCI	SYS # 074 RHR	SYS # 075 Core Spray
Planned Start: 2/26/2011 0700 Actual Start: 2/27/2011 0400 Closure Date: 3/24/2011 2400 Forecast Closure: 03/24/2011 Original Activities: 76 Expected Remaining: 23 Actual Remaining: 36 Claire Holt Dale Jones	Planned Start: 2/26/2011 0800 Actual Start: 2/26/2011 2400 Closure Date: 3/19/2011 1500 Forecast Closure: 03/21/2011 Original Activities: 161 Expected Remaining: 36 Actual Remaining: 53 Phil Porter Drew Mitchell	Planned Start: 3/1/2011 1500 Actual Start: 3/7/2011 Closure Date: 3/20/2011 2300 Forecast Closure: 03/22/2011 Original Activities: 100 Expected Remaining: 40 Actual Remaining: 64 Phil Campbell John Lacasse	Planned Start: 3/2/2011 0300 Actual Start: 3/7/2011 Closure Date: 3/23/2011 1500 Forecast Closure: 03/23/2011 Original Activities: 160 Expected Remaining: 58 Actual Remaining: 83 Phil Campbell John Lacasse	Planned Start: 2/27/2011 0700 Actual Start: 2/27/2011 0300 Closure Date: 3/21/2011 1000 Forecast Closure: 03/23/2011 Original Activities: 766 Expected Remaining: 147 Actual Remaining: 234 Weaver Burton Mindy Roy	Planned Start: 2/26/2011 1000 Actual Start: 2/27/2011 0300 Closure Date: 3/21/2011 0400 Forecast Closure: 03/21/2011 Original Activities: 227 Expected Remaining: 32 Actual Remaining: 39 Weaver Burton Mindy Roy
SYS # 085 Control Rod Drive	SYS # 099 Rr Protection System	SYS # 236 Main Transformers	SYS # 242 Main Generator	SYS # 253 120-V AC Inst & Cbrl PWR	
Planned Start: 2/26/2011 2300 Actual Start: 2/26/2011 0400 Closure Date: 3/22/2011 1700 Forecast Closure: 03/23/2011 Original Activities: 198 Expected Remaining: 21 Actual Remaining: 77 Lenard Soto Keith Skinner	Planned Start: 2/26/2011 1200 Actual Start: 2/27/2011 0800 Closure Date: 3/24/2011 0400 Forecast Closure: 03/21/2011 Original Activities: 24 Expected Remaining: 1 Actual Remaining: 7 Darcell Washington Chris Reischman	Planned Start: 2/26/2011 0100 Actual Start: 2/28/2011 0200 Closure Date: 3/25/2011 2100 Forecast Closure: 03/25/2011 Original Activities: 18 Expected Remaining: 5 Actual Remaining: 11 Darcell Washington Chris Reischman	Planned Start: 2/26/2011 0100 Actual Start: 2/26/2011 0600 Closure Date: 3/20/2011 0200 Forecast Closure: 03/20/2011 Original Activities: 242 Expected Remaining: 56 Actual Remaining: 68 Darcell Washington Chris Reischman	Planned Start: 2/26/2011 0300 Actual Start: 2/27/2011 1000 Closure Date: 3/22/2011 0900 Forecast Closure: 03/23/2011 Original Activities: 24 Expected Remaining: 3 Actual Remaining: 3 Darcell Washington Chris Reischman	

	Green:- is for windows that are on or ahead of schedule
	White :-is for windows that are behind schedule, but do not require a recovery plan
	Yellow:- is for windows that are behind schedule but are recoverable with a plan.
	Red:- is for windows that are not able to recover to the original schedule

Governance and Oversight

◆ Highlights

- Surveillance instruction tracking
- Radiological performance during outages
- Completion of planned outage work scopes
- Improved execution of Ready-Ready process and staging of materials

◆ Hard Spots

- Cycle planning
- Ownership of AP 928 changes to work management process
- Outage planning
- Outage schedule adherence

Fleet Focus: Governance and Oversight

- ◆ New Memorandum of Understanding on Specialty Training
- ◆ New Memorandum of Understanding on Permanent Maintenance Training Instructors
- ◆ The agreement created 27 new, permanent trades and labor instructor positions which previously were filled temporarily by trades and labor personnel selected from the Maintenance and Operations
- ◆ Ownership of unit supervisors driving reactivity management related equipment repairs
- ◆ Successfully in-processed over 3,600 applicants for spring refueling outages
- ◆ Developed innovative “Craft Incentive” agreement with the TVTLC that was used successfully this spring for outage in-processing
- ◆ Revitalization of local Health and Safety Committees with union steward buy-in and active participation

Fleet Focus: Training

- ◆ BFN Operations Training Accreditation Renewal
- ◆ 22 new Licensed Operators since December, with 14 taking exams in June and 91 in the pipeline thereafter
- ◆ 98% pass rate on NRC LOR requalification exams
- ◆ 29 new instructors completed INPO certification
- ◆ 86 new Maintenance technicians in training/qualification
- ◆ 6 new Chemistry technicians in training/qualification
- ◆ 18 new Engineers in training/qualification
- ◆ 16 Chattanooga State RP graduates started internship
- ◆ 12 Chattanooga State NLO students started internship at WBN/SQN

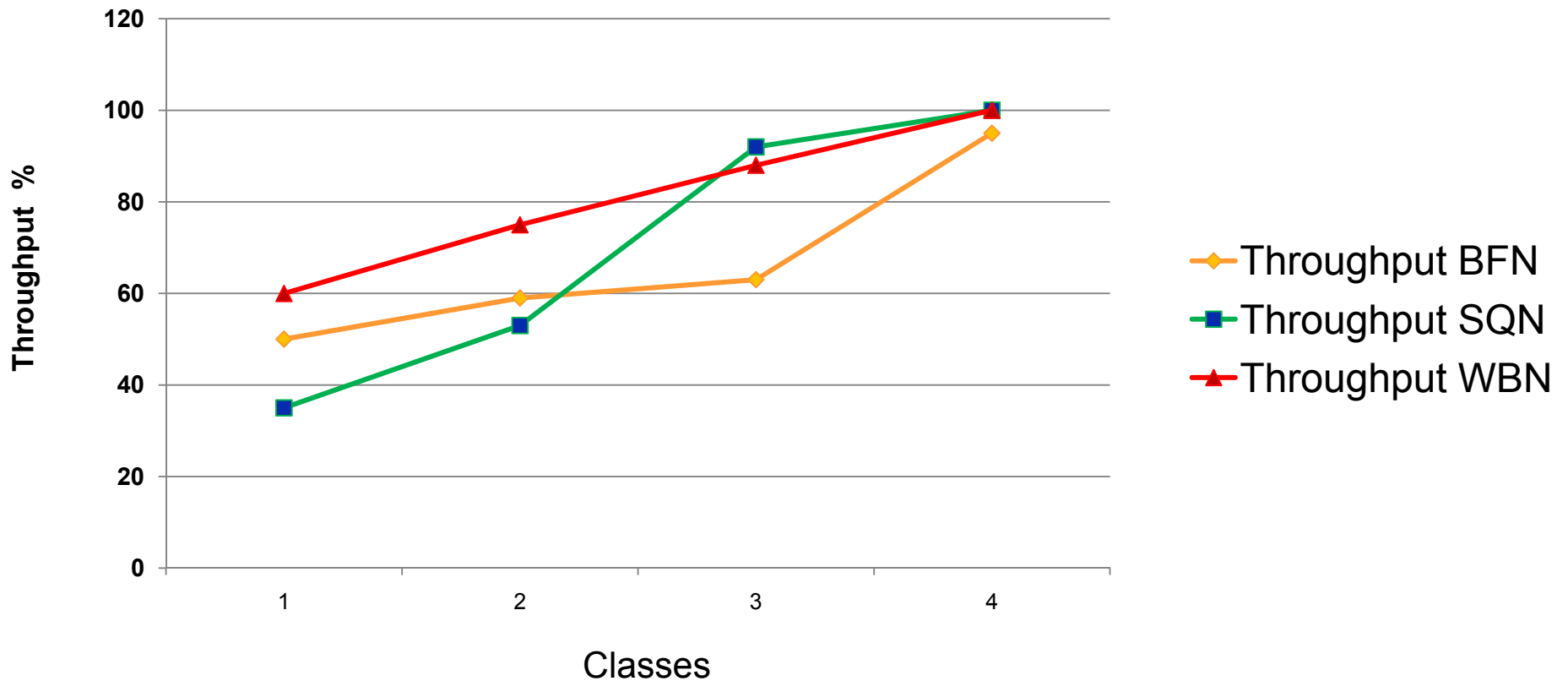
Fleet Focus: Training

- ◆ NRC accepted WBN dual unit license training plan
- ◆ SOER 10-2 critical thinking training
- ◆ Leadership development training piloted
- ◆ Central In-Processing supported all 3 spring outages
- ◆ NANTeL materials upgraded to support outage in-processing
- ◆ New video for Human Performance Tool usage is in final production
- ◆ TVA received “Training Excellence Award” for Chattanooga State RP program

Fleet Focus: Training

Throughput

Most recent four classes at each site, including those currently in progress



Fleet Focus: Talent Management and Alignment

- ◆ Completed eight rounds of 9-Box and Succession Planning
- ◆ Continue to meet our goal of 80% internal and 20% external hires
- ◆ COO Strategic Talent Reviews
- ◆ Strong leadership team across the fleet
- ◆ More rigor placed on developmental activities
- ◆ SRO Certs, INPO Assignments, Strategic Rotations
- ◆ Implementation of Deep Dive Program
- ◆ Quarterly Fleet Employee Focus (Business Plan) reviews and biannual “First Line Supervisor and Above” meeting
- ◆ Continue the STS Leadership Assessments

NPG FY '11 To-Date Ratio of Internal/External Hires

NPG Fiscal Year 2011 Ratio of Internal/External Hires

Supervising Managers - Through May 13, 2011

Organization	External	Internal	Total	% Internal
NPG BFNP	5	28	33	85%
NPG Corp	9	13	22	59%
NPG CORP Security	0	14	14	100%
NPG SQNP	6	16	22	73%
NPG WBNP	1	29	30	97%
NPG WBNP Unit 2	0	1	1	100%
Total	21	101	122	83%

NPG Culture of Excellence

◆ **Purpose:** Create and sustain a Culture of Excellence within NPG that is demonstrated by a continuous quest for excellence.

◆ **Definition:** NPG Culture of Excellence is our *values* and *behaviors* as modeled by our leaders and internalized by our members

Expectations for Culture of Excellence

- ◆ We are Aligned
- ◆ We Engage our Employees
- ◆ We internalize and demonstrate the Leadership Fundamentals
- ◆ We Always Strive To Be Better
- ◆ We Use The Accountability Model

Using the Accountability Model

Clear Expectations

- Senior Mgmt Sets Expectations and Required Behaviors
- Roll out in Development Class

Assess and Develop Skills

- Perform STS Leadership Assessment
- Develop IDPs and Monitor Progress

Feedback and Evaluate

- Mentoring & Coaching
- Oral Boards

Consequences

- Succession Planning
- Performance Improvement Plan

Our Challenges Remain as...

- ◆ Accountability on Financial Management
- ◆ Equipment Reliability
- ◆ Outage Planning and Execution
- ◆ Browns Ferry Power Red Finding
- ◆ Watts Bar 2-unit site integration

Mission

To serve TVA and the people of the Valley through energy, environment, and economic development by producing safe, reliable, and cost-effective electricity from clean nuclear power.

One Team
Fleet
TVA!



Nuclear Fleet Business Plan Milestones to Excellence

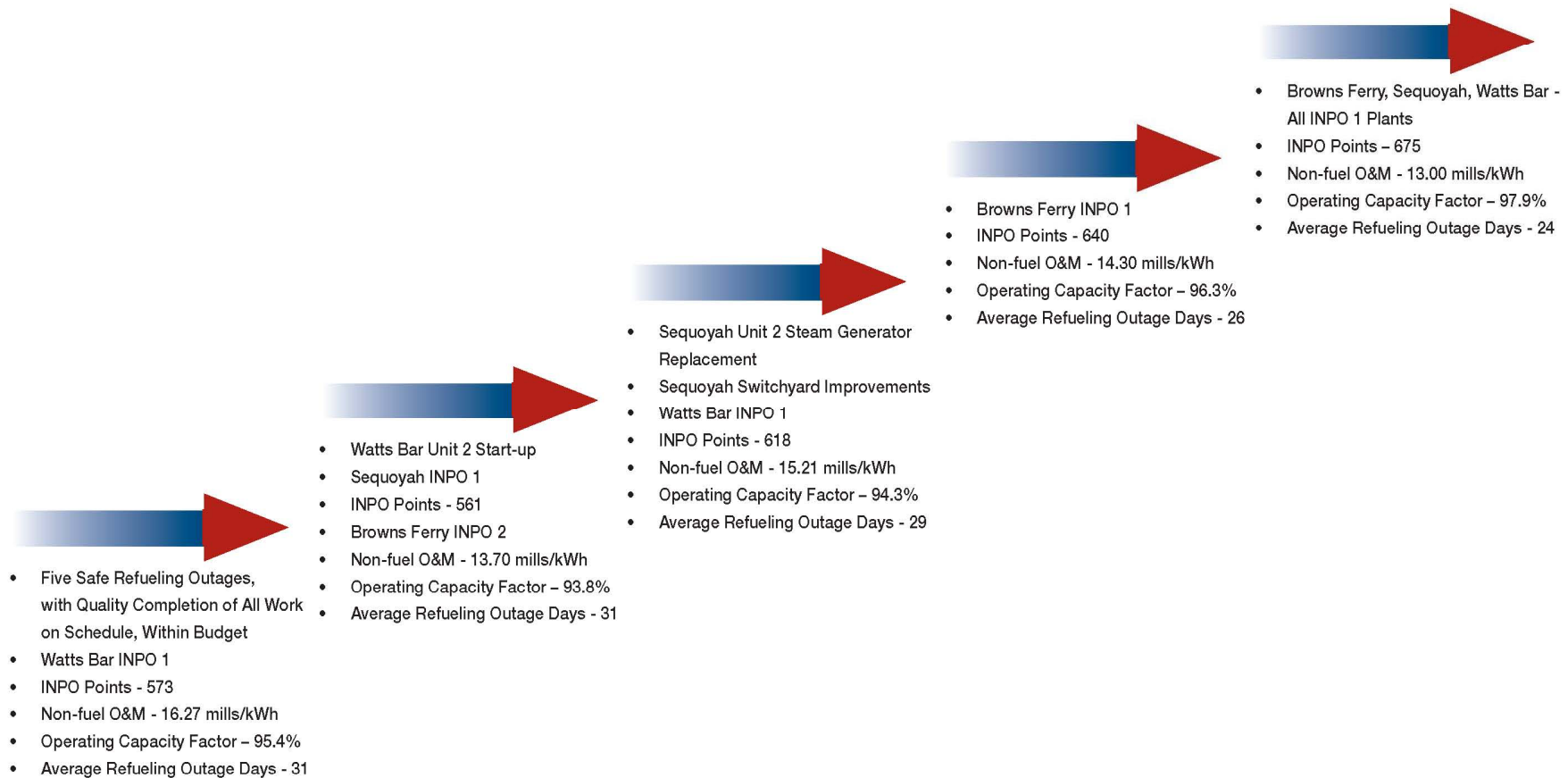
FY 11

FY 12

FY 13

FY 14

FY 15



Vision

Leading the industry in Safety • People • Performance