



Kewaunee Power Station Cross-cutting Issues

USNRC Region III
May 8, 2007



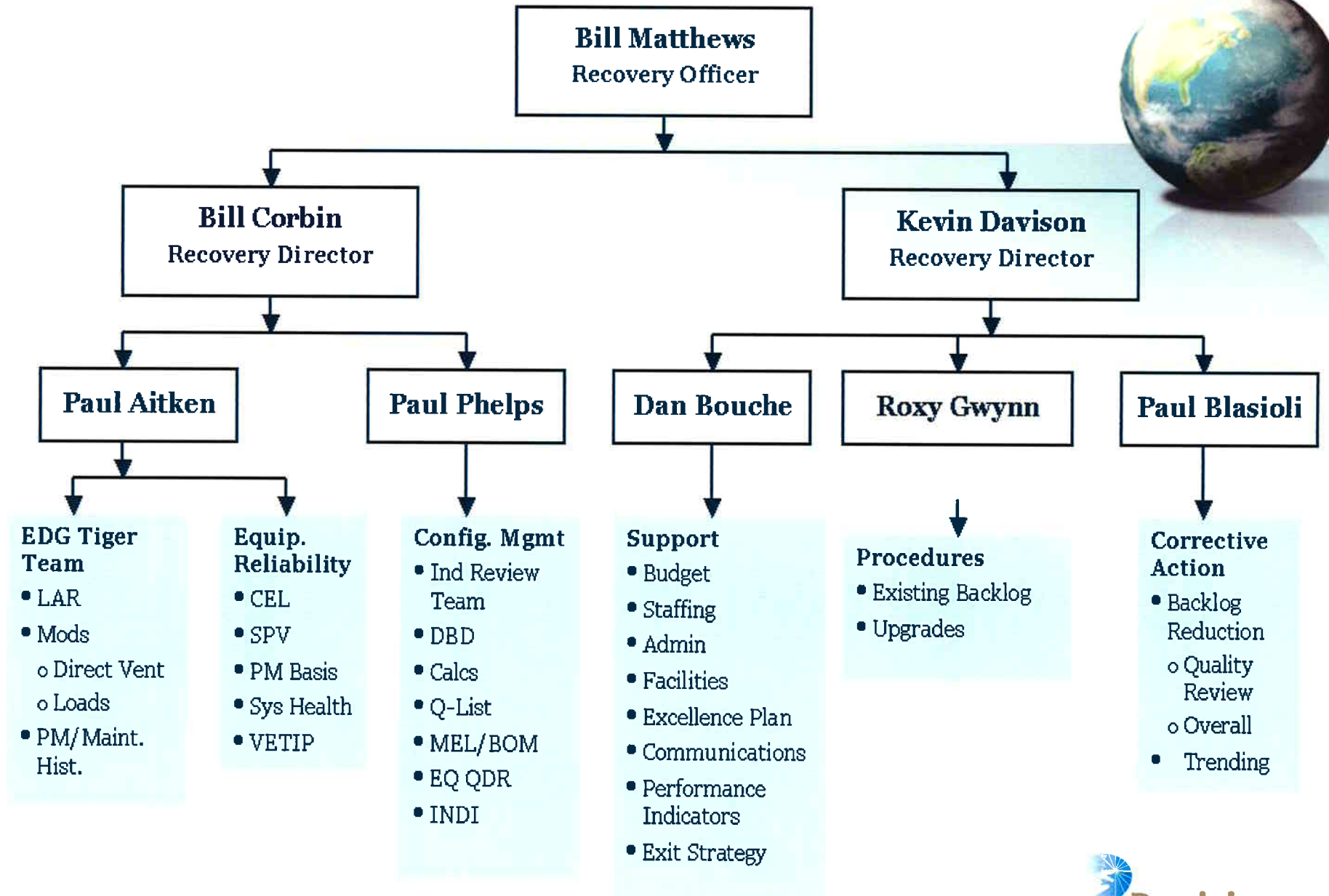
Agenda



- Introduction – Leslie Hartz
- Recovery – Kevin Davison
- PI&R – Tom Webb
- Human Performance – Mike Crist



KPS Recovery



Recovery



- Concept: Remove recovery burden from station allowing station personnel to focus on day-to-day operation of the station
- Recovery organization autonomous from station; reporting to different Directors and dedicated Recovery Officer

Recovery



- Scoping complete
 - Comprehensive integrated plan
- Resources allocated
- Conclusion of 3 year recovery plan will be ITS submittal

Recovery



- Staffing
 - Phased approach to license renewal and recovery
 - Brought in Dominion Project Managers from Surry, North Anna, Millstone, and Innsbrook
 - Supplemented with limited number of station staff
 - Added staff to station organization and will add additional staff as necessary

Recovery



- All recovery actions driven by KPS Excellence Plan
- Integrated with station processes
- All activities scheduled and resource loaded
- Expected duration is approximately three years



Problem Identification and Resolution

Problem Identification and Resolution Self-Assessment



- 18 member team
 - 4 Kewaunee
 - 10 Fleet
 - 4 external peers
- 2 week inspection
 - 1 sequester week
 - 1 inspection week
- Reviewed
 - Safety Culture
 - Leadership/Management
 - INPO focus areas (OF,RP/Chem,ER,CM,PI,OR)

Problem Identification and Resolution Self-Assessment



- Major Conclusions
 - Safety Culture
 - No concern of retaliation for identifying Issues
 - Root and apparent cause evaluation quality adequate
 - Personnel became complacent regarding major equipment issues
 - Closure of corrective actions from RCEs and ACEs needs improvement
 - Change not occurring at desired rate – weakness in:
 - Accountability
 - Staffing
 - Resolving competing priorities

Problem Identification and Resolution Self-Assessment



- Actions Taken:
 - Fleet support for Equipment Reliability & PI&R:
 - RCEs and Assessments
 - Plant Transient and Equipment Failure
 - Recovery Organization
 - Staffing Identified
 - Funding Approved
 - Resources to implement CA process effectively
 - Department Corrective Action Coordinators
 - Organizational Effectiveness Supervisor
 - Organizational Effectiveness SRO

Problem Identification and Resolution Self-Assessment



- Actions Taken:
 - Increased Accountability:
 - Adherence to CA Procedure
 - Initiating quality CAPs
 - Initiating CAPs when required (When in doubt fill it out)
 - Directors at CARB/screening
 - Non-Cited Violation closure
 - CAPs for review and approval of NCV closure
 - Improved Department Self-Evaluation meetings

Problem Identification and Resolution Self-Assessment



- Actions Planned
 - Equipment Reliability
 - Tiger team D/Gs
 - Started 5/3/07
 - Systematic system and program health review
 - Validate plans and corrective actions
 - PM basis
 - PM procedures
 - VETIP improvements
 - Critical Equipment List/Single Point Vulnerability

Problem Identification and Resolution Self-Assessment



- Actions Planned:
 - Corrective Action Program Improvements
 - CARE (Corrective Action Review for Excellence) team
 - Review for quality closure
 - CAP Backlog reduction

Problem Identification and Resolution



- Summary
 - Personnel identifying issue
 - RCEs and ACEs quality acceptable.
 - CARB is effective at reviewing RCE and ACEs
 - CARB rejection Rate decreased from 50% in DEC 06 to 19 % in April 2007
 - Have we achieved excellence?
 - No, that's why we are dedicating extensive recovery resources to corrective action



Human Performance

Human Performance Cross-cutting Issues



- Human Performance Common Cause Assessment
 - Completed 4th quarter 2006
 - Driver of cross cutting issue:
 - Poor adherence to expectation for procedural use and adherence driven by lack of clarity in Management expectation.

Actions Taken



- Human Performance
 - Reinforced standards
 - Clarity of Management Expectations for Procedure Use and Adherence
 - Training
 - Standards reinforced in all Training Settings
 - High Intensity Training
 - » Operator Fundamentals
 - » 4.0 Crew
 - » Senior Leadership review of scenarios and debriefs
 - Management Expectations
 - Operational Focus Meeting
 - HU Focus of the Week
 - Security Force Reminders

Actions Taken



- Human Performance (continued)
 - Reduce Error Likely Situations
 - Procedure Upgrade
 - Labeling
 - Internal Operating Experience (Clock Resets)
 - Populated Portal
 - Developed DBDs

Before and After Labels



Results to Date



4.0 Crew Debrief

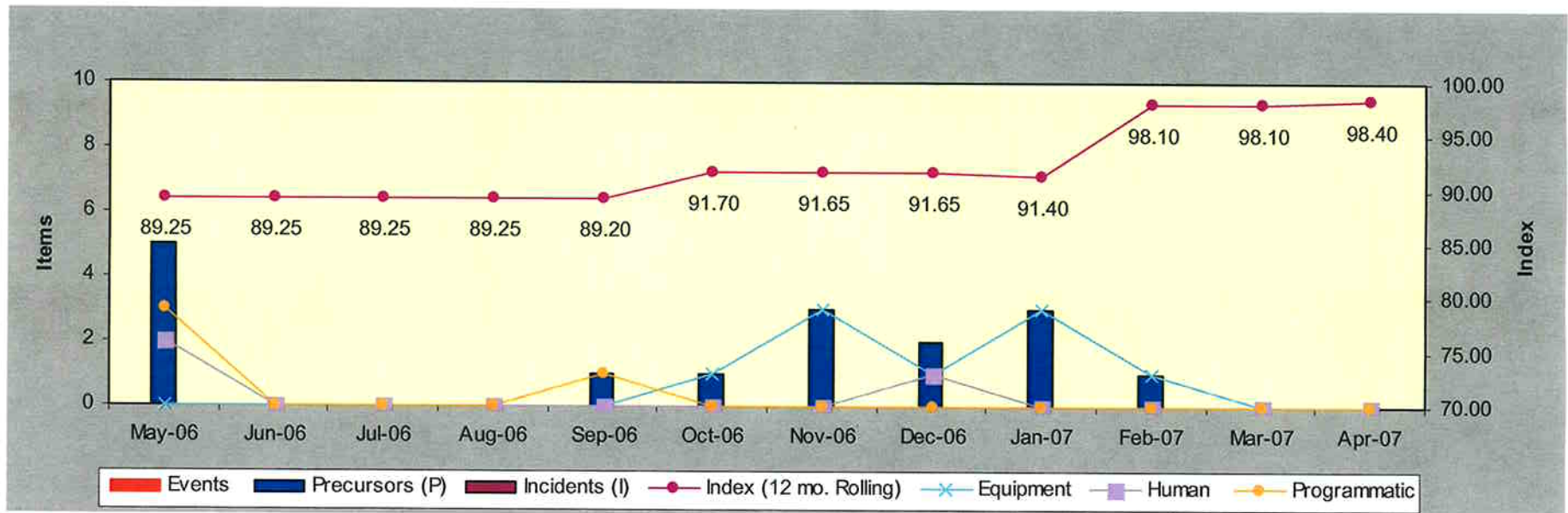
Response to Loss of All AC Power

Results to Date



- Human Performance
 - 178 Human Performance Success Days
 - Department Clock Reset trend unchanged
 - Stable Operations Performance
 - Reactivity Management indicator - Green
 - Daily focus on risk significant work and appropriate human performance tool application
 - Significantly improved station labeling
 - Improved Procedure quality and adherence

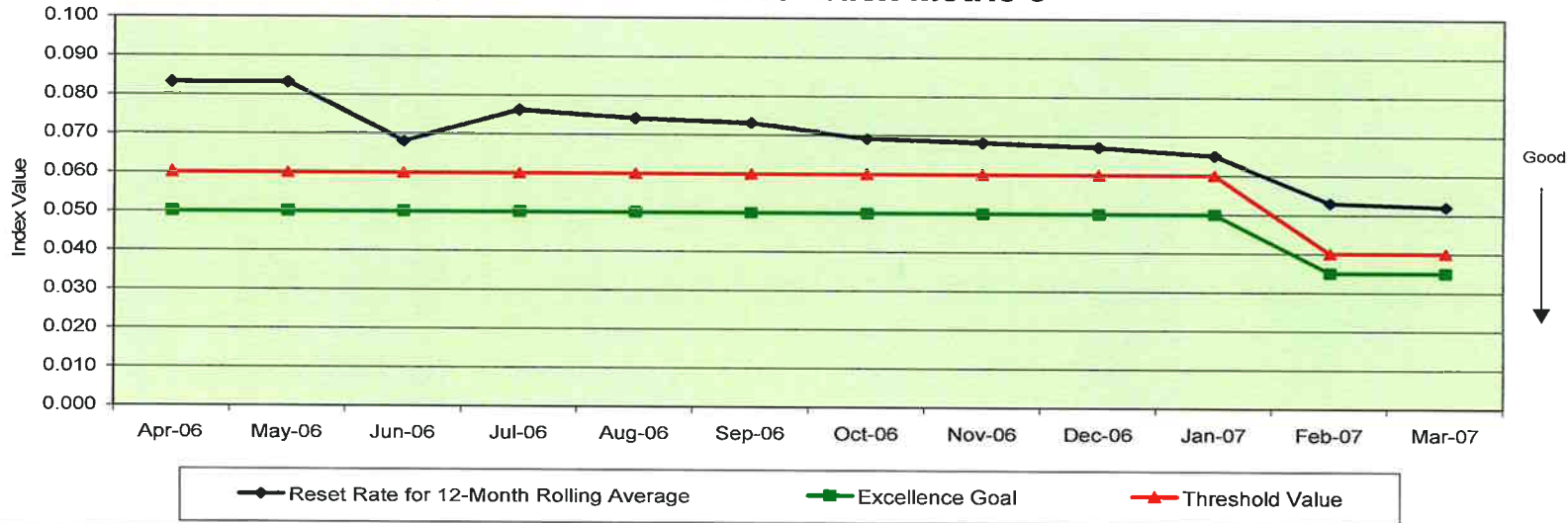
Results to Date



Human Performance Event-Free Day Clock



Station Human Performance Event-Free Day Clock Reset Rate
Human Performance Index Metric 3



Area	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07
Reset Rate for 12-Month Rolling	0.083	0.083	0.068	0.076	0.074	0.073	0.069	0.068	0.067	0.065	0.053	0.052
Excellence Goal	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.035	0.035
Threshold Value	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.040	0.040

CURRENT PERFORMANCE ANALYSIS :
 The last event occurred on November 11, 2006. KPS completed 140 days without an HU Event at the end of March. The performance goal has been changed from 0.06 to 0.04. With continued performance, KPS is projected to achieve the threshold value by the end of April and excellence by July.

PERFORMANCE IMPROVEMENT ACTIONS (include timeframe):

	Improvement Action	Mechanism	Owner	Due Date
1				

Data Source: S. Graczykowski x8560 | Analysis by: B. Castiglia x8354 | Owner: M. Hicks x8646



Protection Services Department Clock Reset



What Happened: Copies of the hourly fire watch inspection lists were edited incorrectly resulting in Security Force Members (SFM) checking the incorrect fire watch penetration during six fire watch tours.

Event Criteria Used to Determine Clock Reset: PI-AA-HU-1001 (Attachment 5-2a)

How Did It Happen? At 1511 on 03/22/07, while editing the fire watch inspection list, the Central Alarm Station (CAS) operator, removed two penetrations (#s 443 & 552) from the 1400-2200 fire watch inspection list, per the Fire Protection Group. This was done correctly. Three copies of the Fire Watch Inspection List and the master Fire Watch Inspection List were also hand edited at this time, but on these lists penetration #460 was removed instead of #552. At 2200, an incorrectly edited Fire Watch Inspection Lists was implemented for use between the hours of 2200 and 0600. Proper turnover was not performed and the SFMs performing the fire watch tour saw two penetrations on the list, but failed to notice the changed penetration number, did not read the description of the penetrations, and performed the fire watch tour as they did on previous tours, before the editing error occurred. Another incorrectly edited copy of the list was initiated at 0600 on 03/23/07. At this time, the penetrations on the incorrectly edited list were reviewed and inspected as listed, which resulted in the wrong penetration being checked for six tours. A cleaned up (CPU generated - no write ins or cross offs) master list and copies were brought to CAS by the Fire Protection Group and initiated at 1400. These copies had the correct penetrations on them. The SFM performing the 1600 fire watch tour noticed that the penetration numbers were different from their previous tours, and immediately reported this to Security Supervision.

How Could This Event Have Been Prevented? If all SFMs, to include both officers and supervision, had performed proper turnover this incident could have been prevented. This event was a complete breakdown of the use of human performance tools. Use of any of the following tools could have identified the error and prevented the event: Self-Checking, Peer Checking, Clear Communications, Situational Awareness and a Questioning Attitude.

What Are The Lessons Learned? Ensure proper turnovers are performed at *each* turnover. This includes verbal turnover and a review of the written pass on logs. In the performance of all duties, use the tools provided.

Interim Corrective Actions: The event was discussed at security shift briefings.



Maintenance Department Clock Reset



What Happened: On 4/11/07 a Furmanite leak repair was performed on Main Transformer Phase A Circulating oil pump. The fieldwork was completed by using the vendor procedure in the work order package. A review of the procedure and injection pressure limits was performed at the start of the work. The procedure had been annotated as Continuous Use with sign offs incorporated for step completion. The technicians did not sign off the procedure steps during the installation activity. It was noticed at the end of the activity after receiving Shift Manager signoff for the installation that the procedure steps had not been signed off.

GNP-03.01.03 (Procedure Use and Adherence) step 6.1.1.6 states; Incorporated placekeeping aids (such as sign-off spaces) shall be used. Initial/signature shall be the physical method of marking the step as complete for placekeeping instead of using the circle/slash method.

Event Criteria Used to Determine Clock Reset: PI-AA-HU-1001, Attachment 3, criteria 3.c. "Failing to follow procedures."

How Did It Happen? The vendor procedure was discussed in the pre-job brief, but the discussion did not include the requirement for signing off steps upon completion of each step.

How Could This Event Have Been Prevented? This event could have been prevented by ensuring that the vendor technician was aware of the site requirement to sign off steps upon completion when sign off spaces are provided in conjunction with procedure steps. This discussion should have occurred during the pre-job brief when covering the use of Human Performance Tools.

What Are The Lessons Learned? Procedure use and adherence is a site expectation, regardless of whether the work is being performed by site or vendor personnel.

Interim Corrective Actions: The vendor technician was questioned and the work verified to have been performed properly. The procedure was verified completed prior to the vendor technician leaving the site.



Continuing Actions

- Continued Reinforcement of standards
- Procedure Upgrades
- Training and Qualification
- Labeling Project
- High Intensity Training





DominionSM

Closing Comments

