A Human Performance Initiative

- An effective error-reduction strategy
  - Less experienced employees
  - Managing older assets
  - Increased work volume

- Organizations that have successfully established a robust human performance culture report a safer work environment and improved product quality, efficiency and productivity

- HPI.......is not so much a program as a distinct way of thinking – culture change
Human Performance

- Where were we in 2010
- Where are we in 2012
- Where are we headed in 2013 and beyond
Human Performance Event Time Line

- Tracking HPI Incidents monthly
- Developed HPI tools and Introduced HPIs to PSCo
- Initiated guidance from outside consultant
- Introduced “Train the Trainer” program in SPS
- Introduced “Train the Trainer” program in NSP
- Bi-monthly review of HPI’s with Leaders and employees involved.
- Developed action plan to reduce HPI's
- Introduced HP to NSP
- Hired Terry Varn as HPI consultant. Designated internal HPI trainers
- Introduced “Train the Trainer” program in PSCo
- Started “Tool of the Month” program in all OpCo
- Introduced HPI Trans/Subs training group/programs

SUBSTATION O&M OSHA RECORDABLE INCIDENT RATE VS. HUMAN PERFORMANCE INCIDENT RATE

- HPIR
- ORIR

MONTH/YEAR

RAGE

Human Performance Initiative

Where We Are in 2012

- Leadership support for phase II
- Expand HPI to all of the Transmission organization and control centers by YE – FB from the field
- Enlist natural field leaders to effect culture change component
- Customize HP tools to work functions and tasks (FB from field)
- Provide additional support for groups with multiple HPIs

Continued
Human Performance Initiative
Where We Are in 2012

- Continue to participate, engage and learn from industry HP initiatives such as NERC seminars, industry forums (NATF) and R&D organizations (EPRI)
- Set and clearly communicate expectations for HPI tool use and accountability
- Strengthen the HPI message and its link to safety
- Clearly define for all employees what's in it for them
- Provide additional support for groups with multiple HPIs
Human Performance Initiative
2013 & Beyond

- Continue to engage our employees
- Improve communication of HPI’s
  - Improve tracking
- Increase participation in industry HP initiatives
  - NATF, EPRI, NERC
- Practicing Perfection Institute
  - Leadership training
  - Mastery training
- Expand the Human Performance process to Transmission
  - HP Summit
Human Performance Initiative
Improvement Process

Every Day, Every Job, Every Time
With RIGOR
Questions?
OVERVIEW

• A Fable
• Experiences from Aviation
• A Real-World Example
• Lessons Learned
ONCE UPON A TIME

• When I was young ...  
• When I had spare time ...  
• When I had disposable income ...  
• When I had HAIR ...  
• I flew recreationally as a private pilot  
• One of the most enjoyable experiences of my life
CHALLENGES IN AVIATION

- Pilots often find themselves in less-than-optimal situations
- Uncertain of Location
  - Aka “Lost”
- Lack of Necessary Supplies
  - Aka “Low on Fuel”
- Deteriorating Weather
  - Aka “Continued VFR into IMC”
"GET-HOME-ITIS"

• A commonly-used term in flying

• Refers to the pressures that pilots feel to complete a flight in conditions that are less-than-optimal
  • “I have a meeting tomorrow …”
  • “The aircraft is due back this afternoon …”
  • “I have to get there before dark …”

• Many a pilot has flown an aircraft into the ground due to the pressures of “get-home-it is”
IS “GET-HOME-IT IS” APPLICABLE TO US?

- Have you ever heard:
  - “I don’t care what you do, just get XYZ done ...”
  - “If we don’t get XYZ back up, we’re all toast ...”
  - “We’ve got to get Project XYZ back on track ...”

- All of these express valid concerns, but if not properly analyzed and bounded, bad things can happen
  - Cutting corners
  - Taking unnecessary and uneducated risks
  - Damage, injury or worse
A REAL-WORLD EXAMPLE

- A simple equipment upgrade
- A low-impact change
- A real no-brainer
- However ... “get-home-itis” got us
AN UNEXPECTED OUTCOME

IT'S NEVER DONE THAT BEFORE.
LESSONS LEARNED

• Improper Classification of Potential Impact
• Inadequate Work Plan
• Inadequate Review of Procedures BEFORE Work Began
• Continued VFR into IMC
  • aka Continuing When Unexpected Results Occur
PROCESS IMPROVEMENTS

• Improvements to Change Management Process
  • More detailed work plans
  • Greater review of impact before work begins
  • Stricter definition of low, medium and high impact changes
  • Staff has freedom to declare a halt at any time
CONCLUSION

• While this event had no reliability impact, a similar event on a Critical Cyber Asset could have

• It is important that human performance be factored into any process

• Any chain is only as strong as its weakest link
  • Process/Procedure
  • Equipment
  • People
QUESTIONS

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