Summary

The initiative was designed for and by high risk/high incident craft personnel and their leaders using a grass-roots approach and internal and external best practices including those of the North America Transmission Forum (NATF) peer utilities across the country, Luminant, and Department of Energy (DOE).

Scope: The initiative will be rolled out across the enterprise to approximately 4,500 high risk/high incident craft personnel and their leaders from Transmission & Distribution, Generation and Transportation Services, as well as Safety personnel.

Stakeholders (220) include Business Line (Executive Sponsors, Managers, Supervisors, Craft personnel), Leads, Co-Leads), Union, Safety, HR and Training Organizations.

Purpose/Vision

Application of principles and practices to proactively and actively prevent injury, system reliability interruption and damage triggered by human errors and/or system errors (organization hidden conditions) at critical/ reversible steps.

Designed as part of a long-term strategy to prevent, detect, and correct human and system errors, and minimize their consequences by building capacity and defenses at all levels of leadership and workers to be fully engaged. Phase 1 will include high risk/high incident classifications and Phase 2 will be designed for knowledge workers (e.g., Planners, Engineers, etc.).

Based on five core principles:

1. We are all fallible (5 errors per hour!)
2. Human and system error likely situations are predictable and manageable
3. The organization’s processes influence behavior
4. Positive and immediate reinforcement supports high levels of performance
5. It is critical to proactively learn from events, looking at context (human and system errors)

Particularly prevalent in High Reliability Organizations such as airlines (crews and air traffic controllers), NERC, DOE, medical, NASA, manufacturing, Navy, NATF, other utilities such as Duke, Dominion, Florida P&L, ComEd, etc. as it builds capacity and defenses.

This initiative is integrated with the Safety Culture Transformation Journey to help create a culture of personal ownership of safety at the individual and organizational level.

Immediate & Long Term Benefits

- Enhanced Error Prevention Practices to proactively and consistently prevent injury, system reliability interruption and damage.
- Build capacity and defenses- what can we do to make it easier to do the right thing and more difficult to do the wrong thing!
- A better understanding of error management to proactively prevent undesired events, minimize the consequences of error and learn from events (accounting for human error and error traps in our system/work environment holistically).
- Clear responsibilities across the organization to support one another to prevent human and system errors and learn from events.

Background

- 2016 NATF HPI/Error Prevention Team formed sponsored by Transmission, Substation and Operations VP
- 2017 T&D Error Prevention/Human Performance Peer Utilities Reviews (NATF/AEC) – ComEd, Duke, Dominion, Florida P&L, etc.
- 2018 Benchmarking internally across SCE and externally across different industries and utilities
- 2018 Strategy developed (grassroots/holistic approach) leveraging industry best practices including DOE, NATF, etc. and close partnership with field SMEs (Distribution, Transmission, Troublemen, Meter Services, SCADA Test Tech, Substation Electrician, Apparatus, Construction, Grid Ops - Substation Operations, Grid Control Center, T&D Training, Safety, Generation and Transportation Services)

Stakeholders Continuous Engagement

- 2018 (25) Sponsors identified by organization including VPs, Directors and Principal Managers
- 2018 (10) Error Prevention Leads identified by organization (attended accredited Shane Bush HPI Certificate and Graduate Course from the University of Idaho based on DOE standards)
- 2018 Standardization of Error Prevention (HPI) Tools by Leads (description, why, when, how, and at risk behaviors)
- 2018 SCE Human & System Error Prevention Course validated by Business Line Leads
- 2018 Union engagement
- Q1 2019 100 Stakeholders and Business Co-Leads attended Industry HPI 8-Hour course by Shane Bush

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