



SAFESTART HUMAN FACTORS CONFERENCE



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Professional Engineer
PLANT MANAGER
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Human Performance as it relates to an Accident free workplace



Alan Metzler, P.E.

Plant Manager, NRG Energy Services, Seward Power Plant, New Florence, Pennsylvania

Educational Background:

- BS – Mechanical Engineering, University of Pittsburgh

Career Overview: (Energy & Power Generation Industries)

- Safety & Human Performance Champion
- Power Generation Engineering, Plant Operations
- Business Planning, Mergers & Acquisitions

Personal

- Married (Elaine)
- Father of 2 Sons - Matt is a Marine Officer, Eric is a West Point Graduate and still serving in Activity Duty
- Recent new Grandfather - Emery



Introduction & Overview

- Background
- Safety Excellence
- Leadership & Process indicators
- How they all tie to Human Performance
- How SafeStart, VPP and Human Performance all support our accident free workplace

Seward Generating Station, New Florence, PA



Background



Seward Generating Station

- 525 MW Generation station burning Waste Coal
- 60 Miles East of Pittsburgh, PA
- Began Operation in 2004
- Operated by NRG Energy Services
- 130 employees on site

Background



Seward's Safety Journey

- Achieved VPP Star Status, July 2008
- Behavior based injuries increased
- *SafeStart* implemented in 2009
- Injuries decreased
- Recertified as VPP Star Worksite in 2011 and 2016

Safety Excellence

Having a Safety Strategy that runs much deeper than words, it includes the ability to have employees' repeated performance and unconscious behaviors result in positive outcomes. In other words, achieving optimal Human Performance.

Human Performance (HuP)

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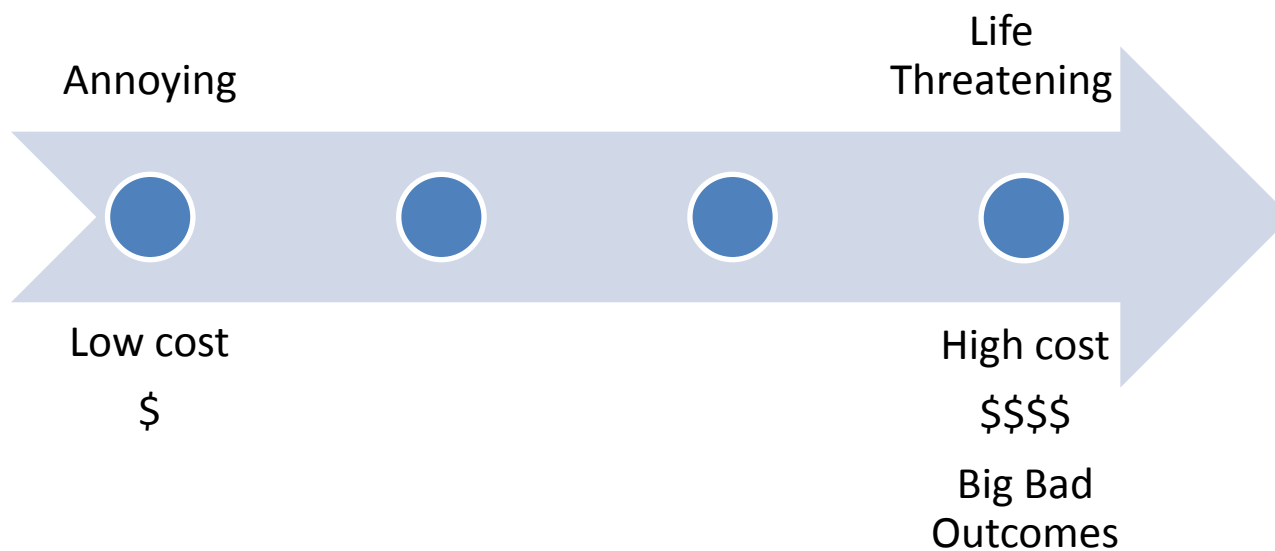
Real life examples

- I'm sorry but the Doctor's office sent your script to Missouri
- I'm sorry, but the instructions should have stated 81 mg
- I'm sorry, you did reserve your rental in Terminal "A" but it was delivered to Terminal "B"





HuP Errors



Big Bad Outcomes due to Human Performance errors in the Power Industry











Partnership with OSHA



VPP

- Voluntary
- Protection
- Program



Certification Process

- Safety Statistic Criteria
- Application
- On-site Evaluation
- Employee Interviews

VPP Stats



Industry Statistics

- 2,200 Worksites across America
- Nearly One Million employees involved

Safer Workplaces, Driving Innovation

50%
Reduction

Injury and illness rates at VPP sites are 50% below industry averages



Improved employee morale, attendance, and productivity

Taxpayer
ROI

Savings through reduced workers' comp and insurance costs



Industry-leading best practices and innovation

Seward Framework



VPP Principles

- Management Leadership & Employee Involvement
- Work Site Analysis
- Hazard Prevention & Control
- Safety & Health Training

Seward Framework

- ✓ **SafeStart reinforces the thought process and preferred actions**





What works?
&
Why?

Why it works



Ground level up – grass roots effort

- Corporate values are the foundation
- VPP Principles are the framework, including continuous improvement
- SafeStart is the method and a HuP Tool
- Helps in more than Safety
- Follow through is key

What we needed in our “Tool”



Characteristics

- Simple
- Fact Based – Statistics
- Inexpensive
- No “Days of Training”
- Common Sense

What we needed in our “Tool” (cont)



Characteristics

- Professionally “Kicked Off” (Train the Trainer)
- Employee Led
- Element of Reinforcement/Follow up
- Works @ work, @ home & on the Road

ENGAGEMENT

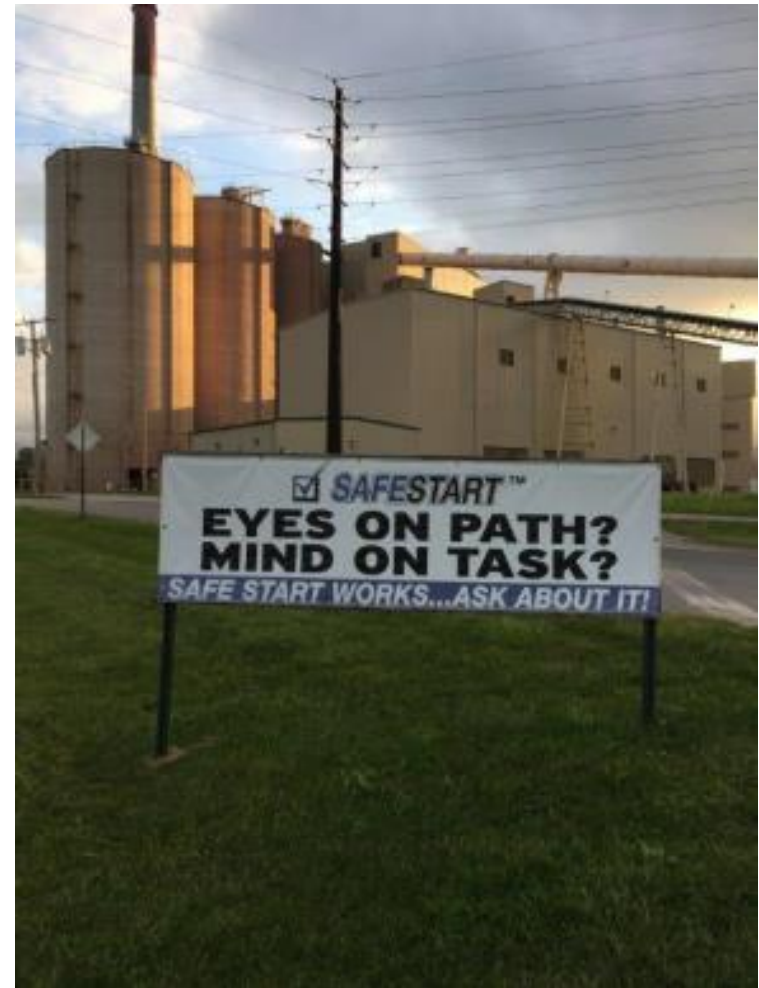


Participation is key

- Make it meaningful to employees
- Error reduction training
- See results
- Commitment
- Have safety in everything you do

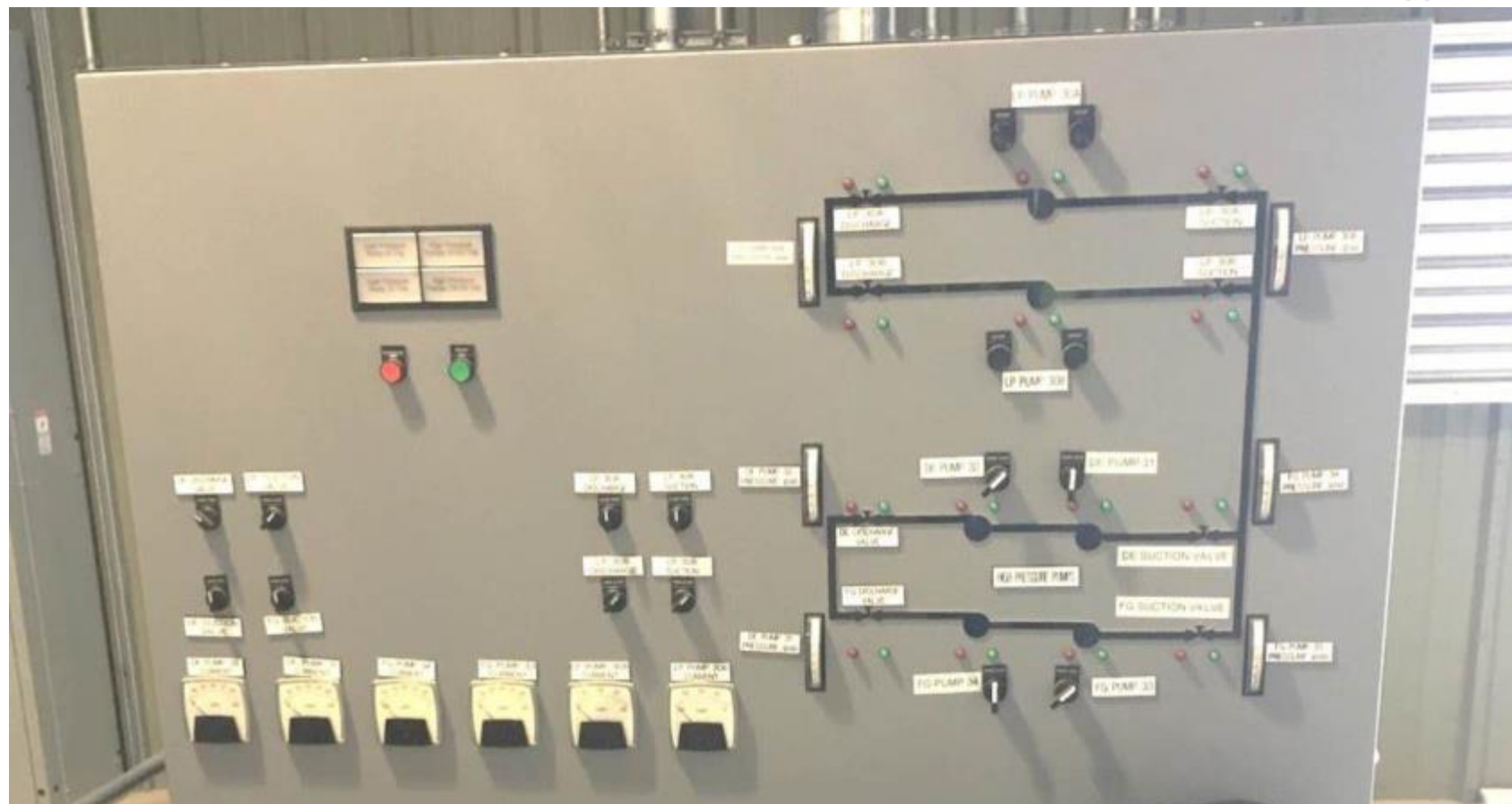
Seward Visual Reinforcement Campaign











perfect practice makes perfect

Contractor Kick Off Meetings



TWO MINUTE DRILL	HUMAN PERFORMANCE
Have I done this task/job before? Do I understand the critical steps in performing this task? Am I at the correct unit/system or component? Am I about to place any part of my body in the Line of Fire? Do I have all necessary PPE, tools, equipment, permits and skills to perform this task/job? Does my "gut feeling" tell me it is okay to proceed? Are there potential air emission or water discharge concerns? Will hazardous or special wastes be generated? Is there potential for a spill to occur? Review the Human Performance instructions on the back of the Two Minute Drill Card before starting task.	Maintain a Questioning Attitude - Be an advocate of your issues or concern - Be open and receptive to being questioned by others Place Keeping - When resuming a work activity that was suspended, confirm the conditions and task requirements are still the same Peer Check - Are all workers on the correct unit, system or component? - All workers agree on the actions to be taken? STOP When Unsure - Stop the activity - Place the job in a safe condition - Notify your supervisor or ask an experienced person for help - Resolve the issue BEFORE proceeding
 When Unsure!	 When Unsure!

Take out the 2 minute Drill Cards



What did you notice?

- Identify Hazards in the room
- Did you see them before?

Contractor Accidents



There are still areas to improve

- 27 foot fall, Fuel Silo
- Material Handling
- Scaffolding
- Steam Burn (Employee)

Corporate Successes / Pitfalls



It can go both ways

- Core value of Safety
- One size does not fit all

As an organization, do we



or



Have To motivation only works to a certain level and will in the long run stifle contributions from the team

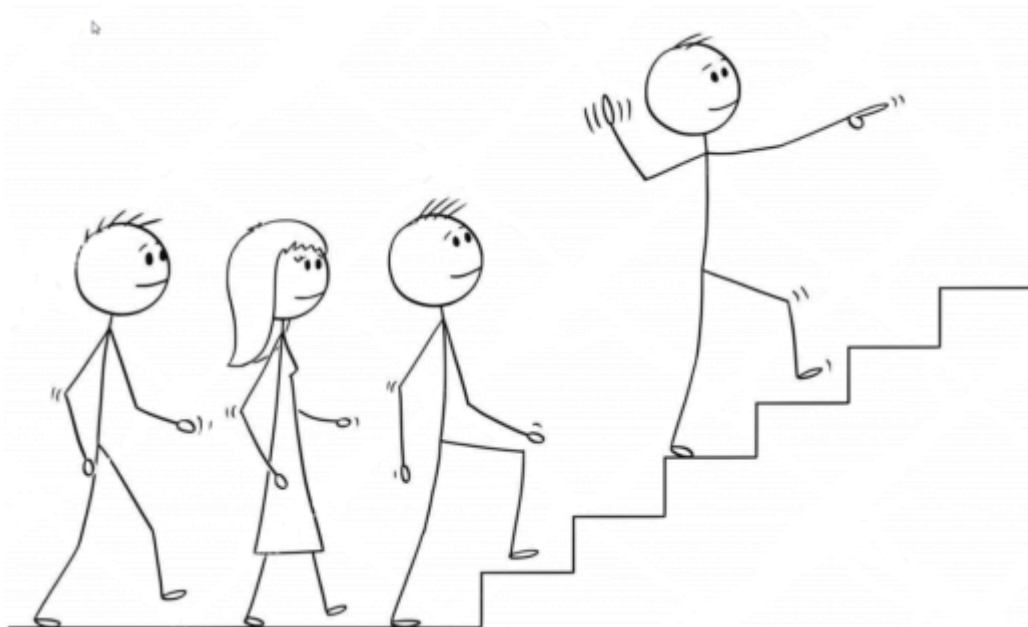
- **Have To** motivation is used to TURN and is mostly associated with COMPLIANCE



Want To Motivation is all about **ATTITUDE**

- The internalization of continually asking “What else can I do to make things better?”
- Taking full responsibility for one’s actions and behaviors

How do you get a worker to consistently do the right thing at 3:00 in the morning when no one else is watching?



A Human Performance Leader MUST:

1. Look out for the well-being of their team
2. Provide guidance, motivation, and role modeling

The success of such an initiative
depends on the direct engagement of
leadership



Using HuP tools such as STAR, 3-part communication and the phonetic alphabet are a few leading process indicators.



Within Management, the Union, and the employee ranks – leadership plays a key role in eliminating accidents.

A true leader has the confidence to stand alone, the courage to make tough decisions, and the compassion to listen to the needs of others. He does not set out to be a leader, but becomes one by the equality of his actions and the integrity of his intent. *-General Douglas MacArthur*



Duty, Honor, Country | Douglas MacArthur | May 12, 1962 | West Point

Leaders instill in their people a hope for success and a belief in themselves. Positive leaders empower people to accomplish their goals. *-Unknown*

LEADERSHIP



VS



Culture eats strategy for Breakfast.

-Peter Drucker

A hallmark of healthy creative culture is that its people feel free to share ideas, opinions, and criticisms. Lack of candor, if unchecked, ultimately leads to dysfunctional environments.

-Ed Catmull, President, Pixar

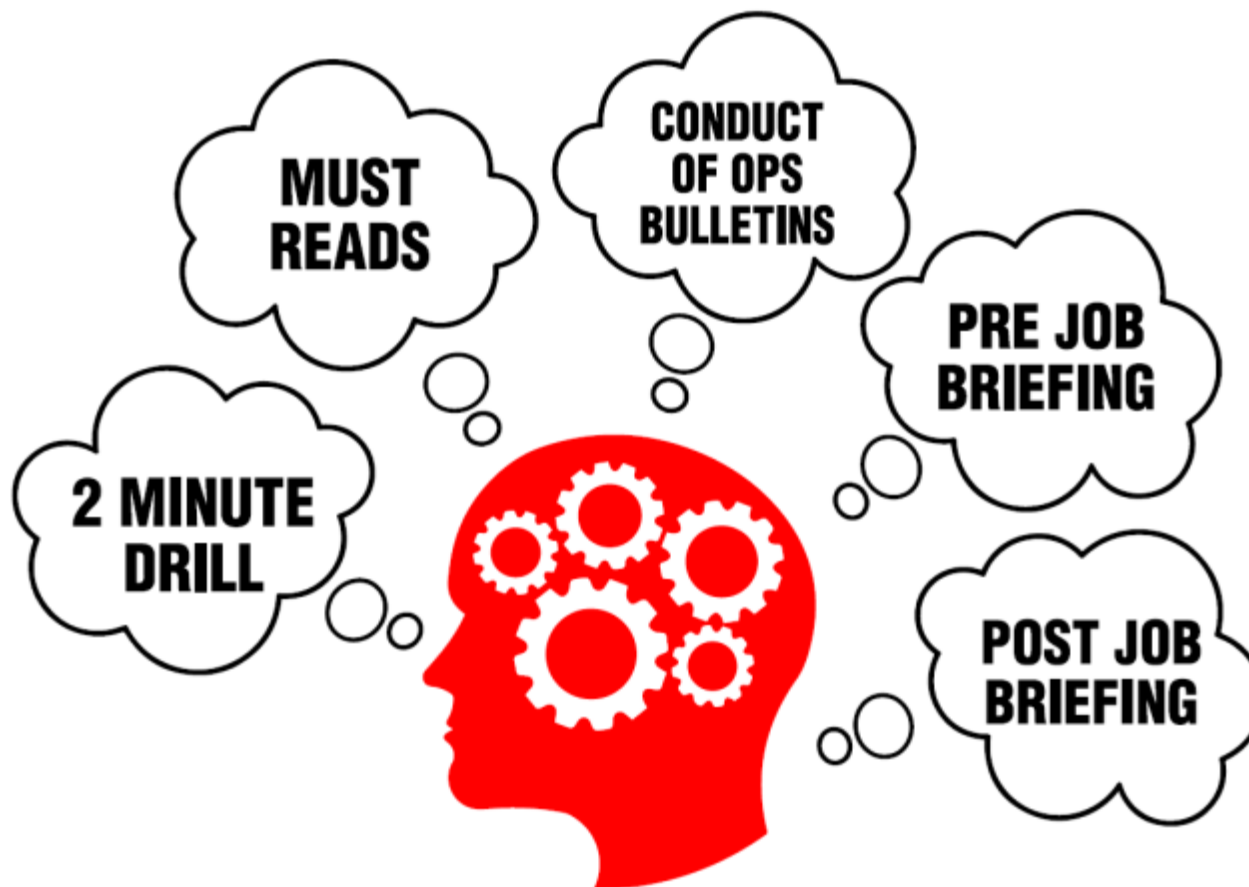
Big Bad Outcomes due to Human Performance errors in the Power Industry



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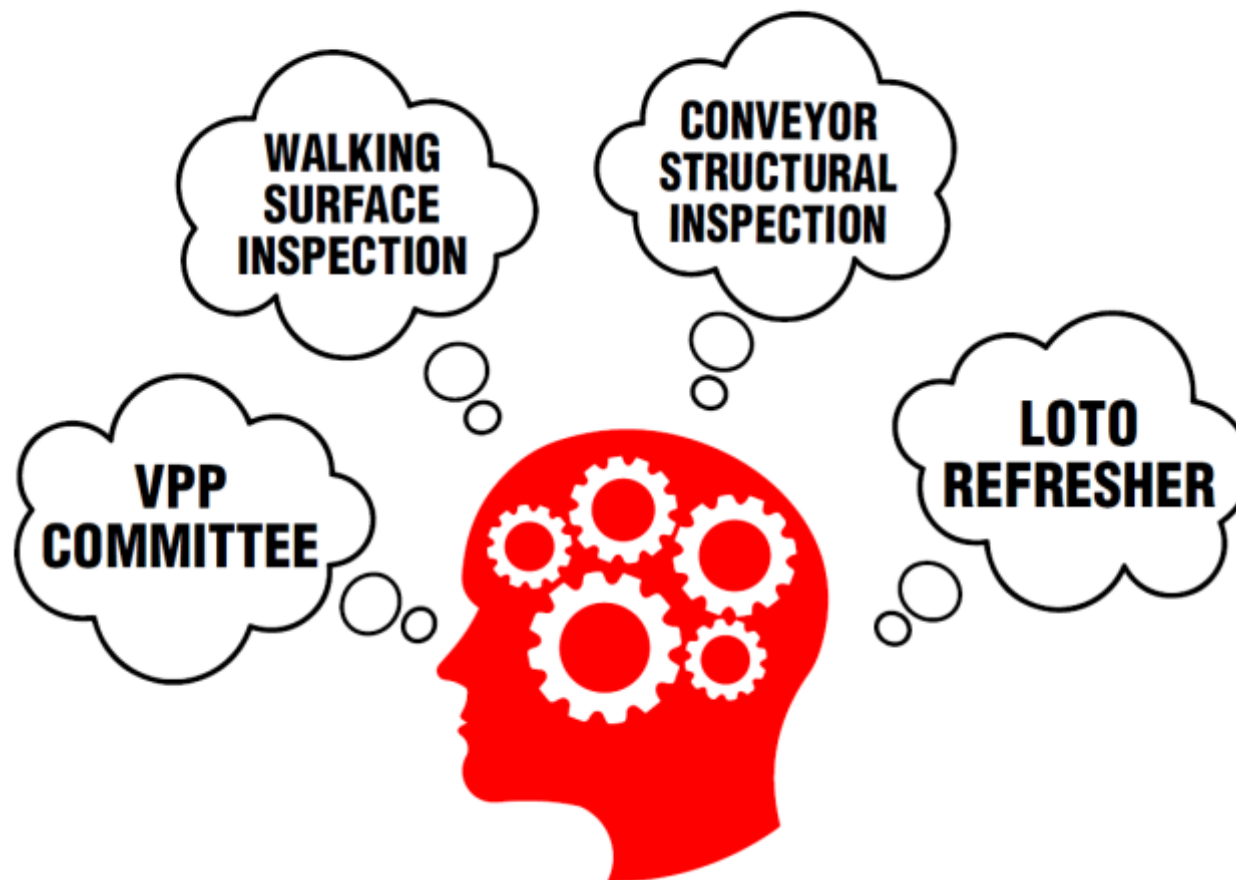
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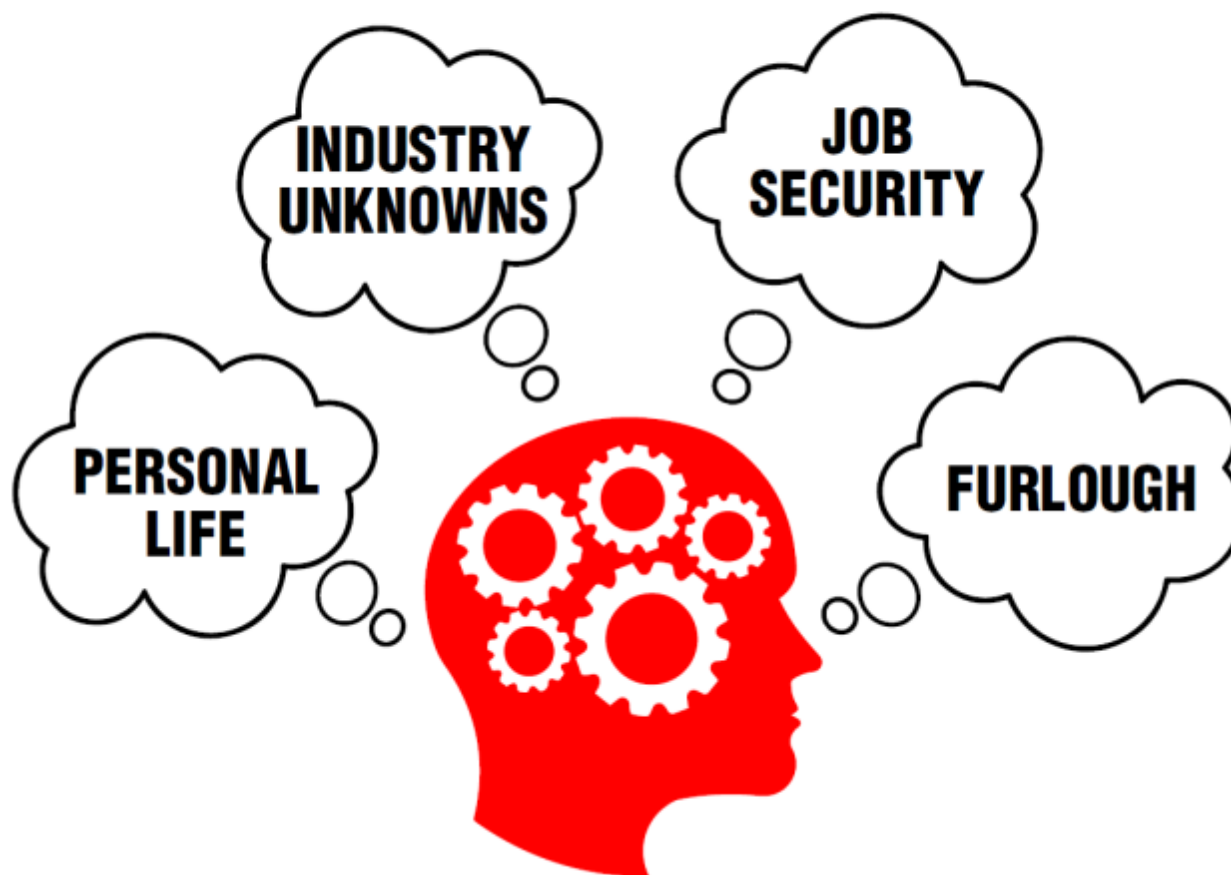
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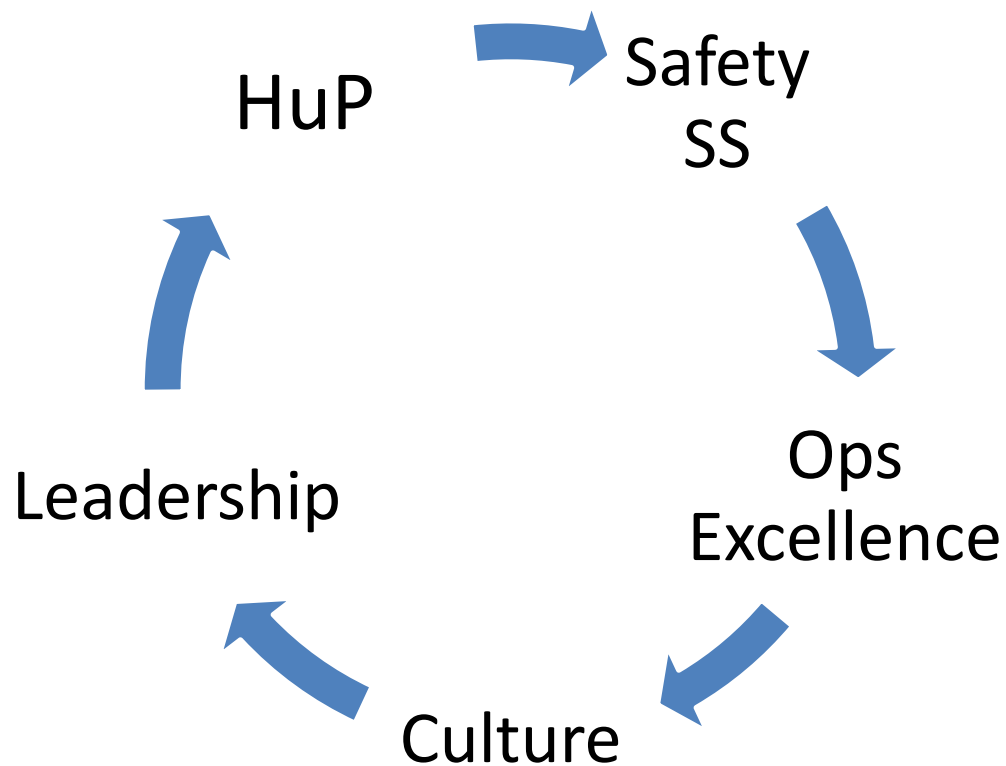


INFORMATION OVERLOAD



States (cause) **Errors** (which cause) **Less Risk** (to become) **More Risk**





THANKS FOR
Your Participation!