



 **SAFESTART[®] FORUM** 

FOR HUMAN FACTORS PRACTITIONERS

2024

**ORLANDO, FL
APRIL 23 & 24**

Moving From Stop Work Authority
to Start Work Authority

Larry Pearlman

My Background

Employed by



B.B.A. University of Iowa. M.A. University of Illinois.

Adjunct Professor at University of Illinois.

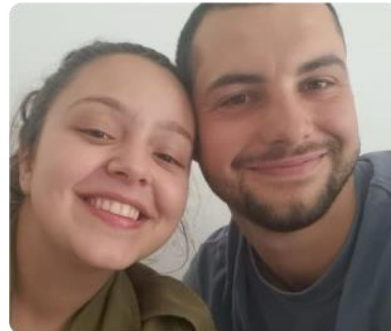
Six Sigma / Lean Master Black Belt.

Clients: Amazon, BP, Canadian National, Comfort Systems, Chevron, Chick-Fil-A, Delta Air Lines, Direct Energy, Entergy, Exxon, FedEx, Fugro, First American Financial, Hess, Hitachi, HSBC, MasTec, National Grid, Northrop Grumman, Pfizer, Shell, Suncor, Terra-Gen, Trinity Rail Car, and Toyota.

Why Safety Consulting?

March 23, 2005

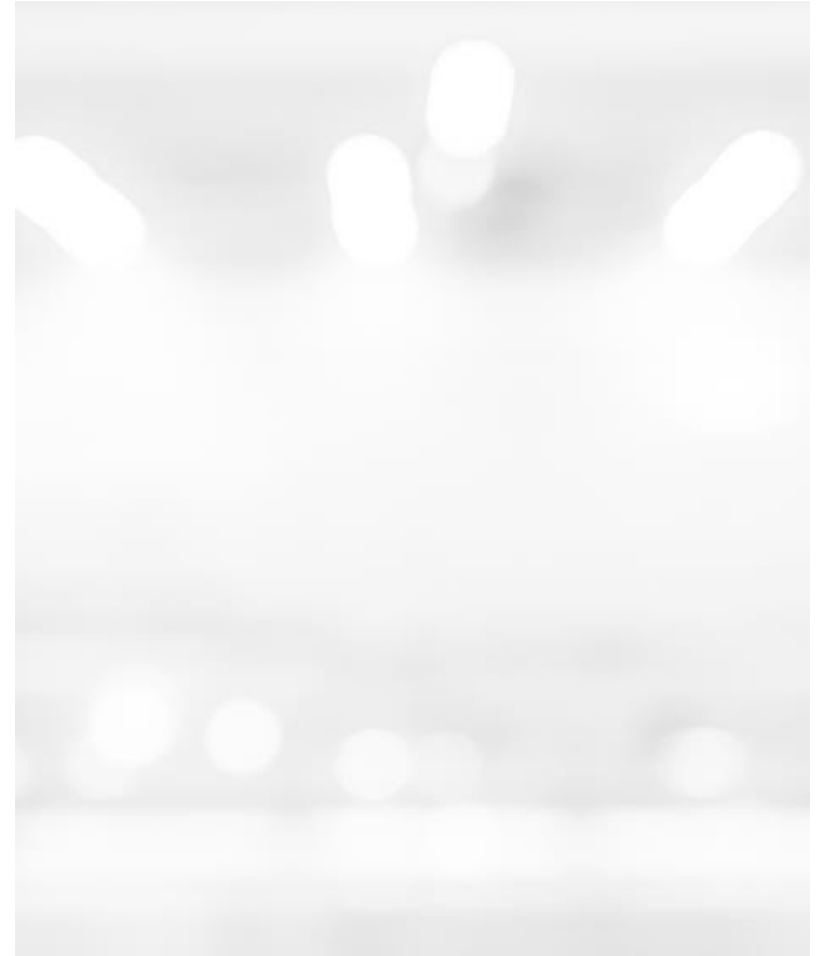
Bolton – Cruz - Herrera – Hogan – Hunnings – King Linsenbardt -
Ramos - Rodrigues -Rowe, J. - Rowe L
Smith – Taylor – Thomas - White



Safety is
About
People

AGENDA

- Acting courageously
- The origins of Stop Work Authority
- Fatalities still happen
- JSAs and JHAs aren't getting the desired results
- A different perspective: Start Work Authority
- Getting Start Work Authority to work



ACTING COURAGEOUSLY

- When facing a risky situation, why won't people speak up?
- When facing a risky situation, why will people speak up?



THE ORIGINS OF STOP WORK AUTHORITY



Piper Alpha
July 6, 1988
167 people did not return home.



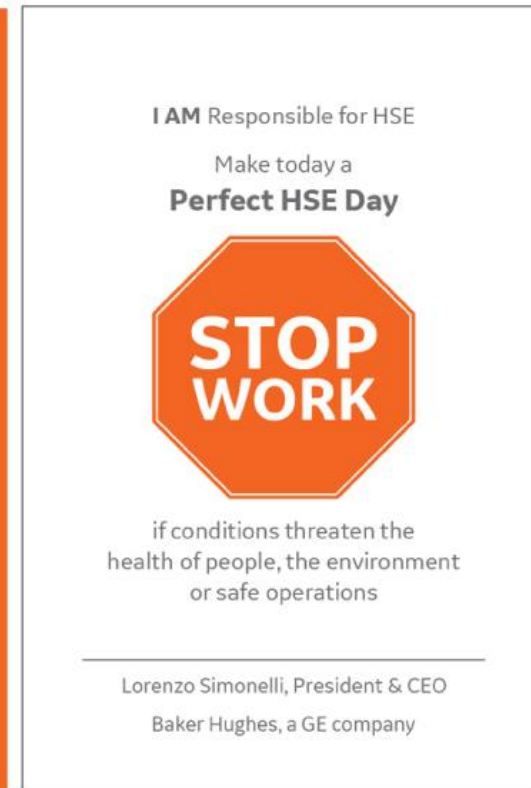
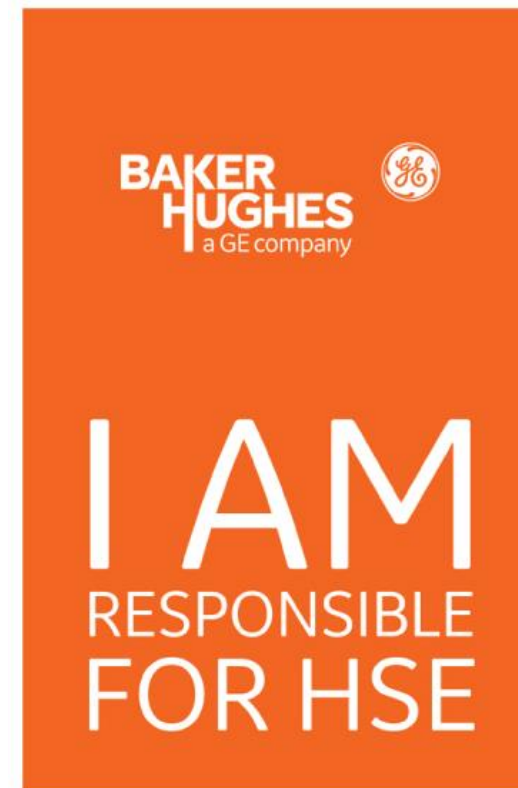
COMMON ISSUES WITH STOP WORK AUTHORITY

- What needs to be working well to have employees use Stop Work Authority?



REQUIREMENTS FOR WITH STOP WORK AUTHORITY

- Trust that their voice will be heard
- Likely to get rewarded (and not punished)
- The leader will thank them and not yell at them
- The issue will be taken seriously, despite production pressures
- The job won't re-start until the issue(s) are resolved
- Even if it wasn't necessary to call a Stop Work Authority, the courageous decision will be celebrated



STOP WORK AUTHORITY EVOLUTION

- Integration with training and onboarding
- Move from anti-retaliation to active encouragement
- Not just a policy, but part of the culture
- Clarity of procedures on exercising SWA
- Technologies making it easier to track and report SWA

Stop Work Authority



As an employee or contractor for Chevron, you are responsible and authorized to STOP any work that does not comply with our Tenets. Your actions to support the Tenets are fully supported by the Chevron Richmond Refinery Management Team.

- All issues will be addressed promptly.
- All levels of refinery management support you.

Using Stop Work Authority is your responsibility. We always comply with the Refining Tenets that are based on the two principles:

- Do it safely or not at all
- There is always time to do it right

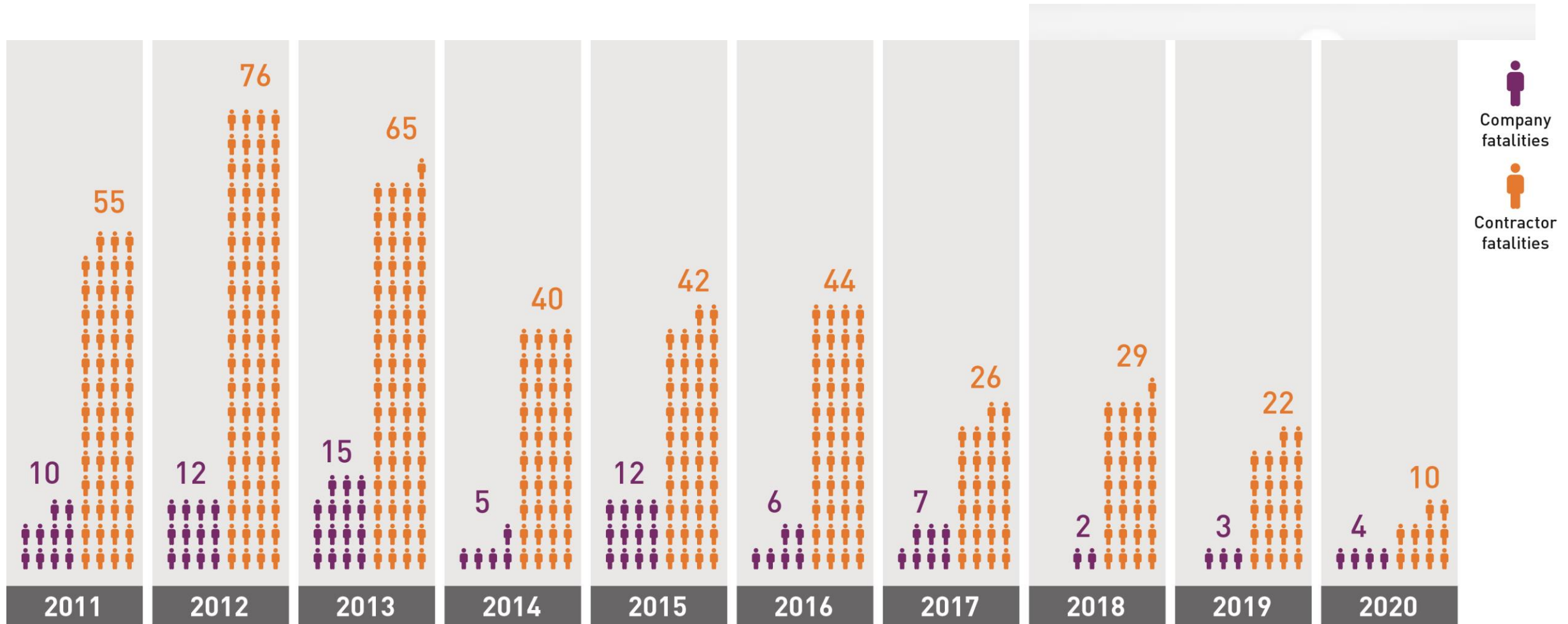
That is our commitment to you.

Kory Judd
Refinery General Manager

The 5 Steps of Stop Work Authority

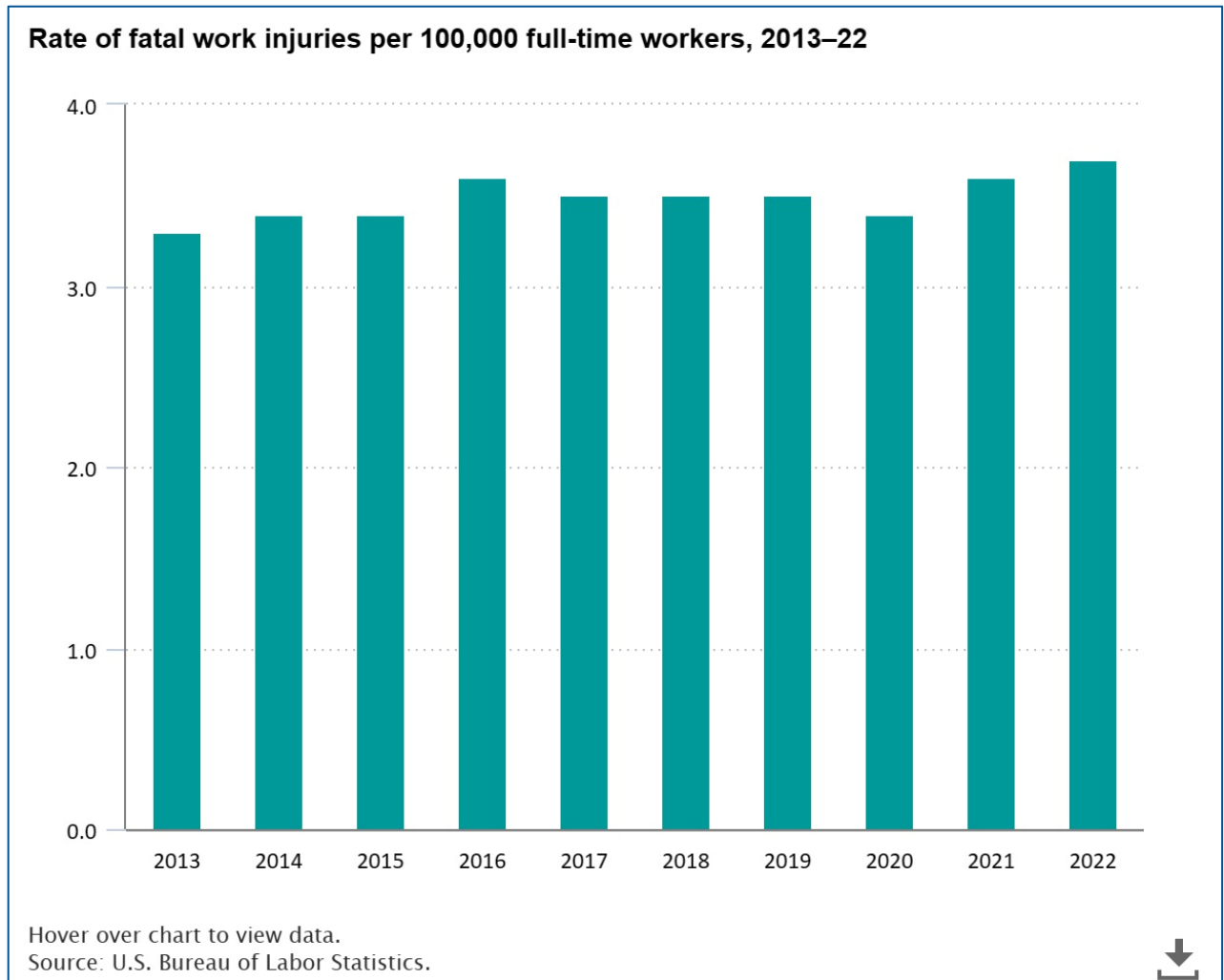
STEP 1	Stop the activity/behavior
STEP 2	Notify the person in charge (i.e., Supervisor, HO, HM to address the issue)
STEP 3	Involve the right people (discuss concerns/correct the issue)
STEP 4	Resume work
STEP 5	Share lessons learned (i.e., potentially impacted employees & contractors)

FATALITIES ARE STILL HAPPENING - ENERGY



FATALITIES ARE STILL HAPPENING - ALL INDUSTRIES

Despite our best efforts to reduce fatalities, rates are staying about the same.



JOB SAFETY ANALYSIS HELPS



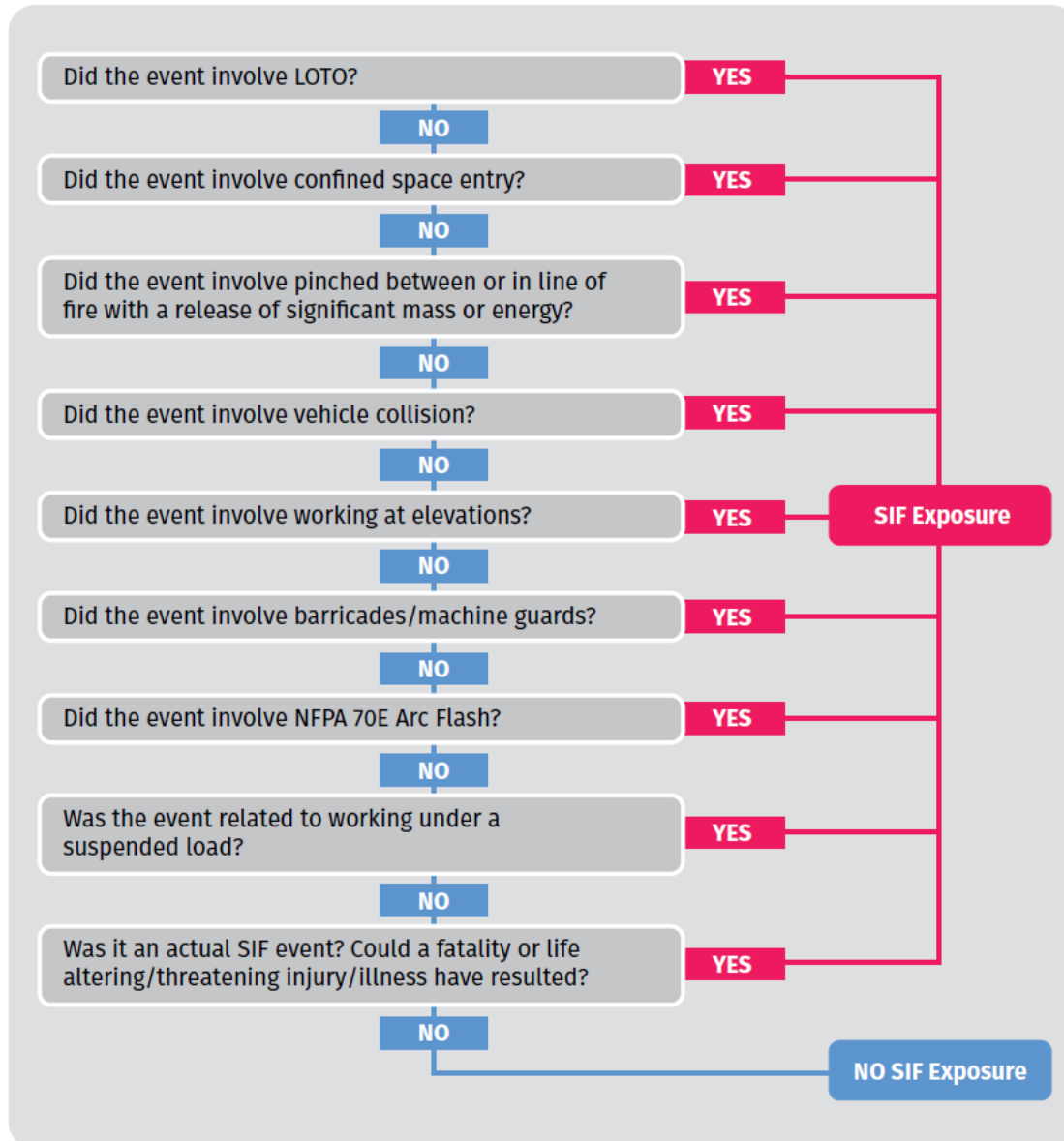
Photo: Larry Pearlman

What needs to be working well to have employees use JSAs correctly?

Do human factors like rushing, frustration, fatigue or complacency contribute to JSA effectiveness?

Are human factors explicitly included in your JSA forms?

A SHIFT TO SIF ELIMINATION



Serious Injury or Fatality (SIF):

An incident or near miss that has the potential to, or does, result in a fatal or life-altering injury or illness.

Sometimes this is called STKY:

The 'Stuff' That Kills You.

USING HOP TO REDUCE STKY

People make mistakes

Failures can occur safely

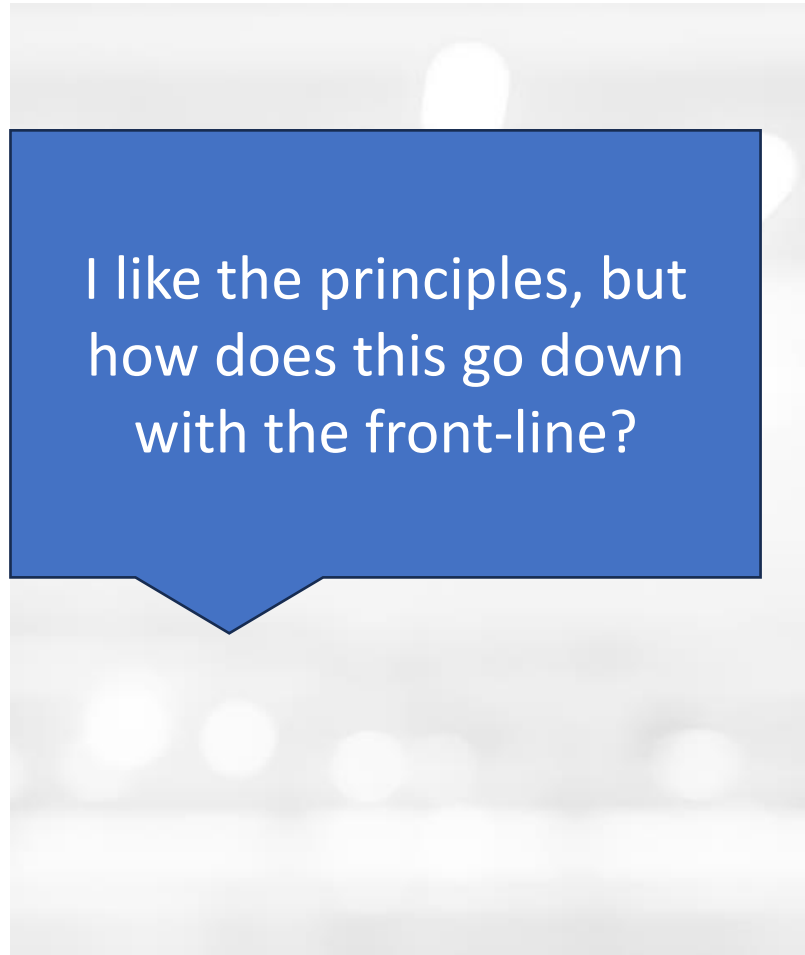
Context influences behavior

Violations are rarely if ever malicious

Incidents can stem from normal deviations

Management's response to failures matter

Learning is a deliberate improvement strategy



I like the principles, but
how does this go down
with the front-line?

TO PREVENT STKY, A NEW PERSPECTIVE IS NEEDED



Move us from



I have the responsibility to stop work when I recognize a problem

to



I have a tool to confirm controls/safeguards before I start work



LET'S START BY LOOKING AT SOMETHING OLD!



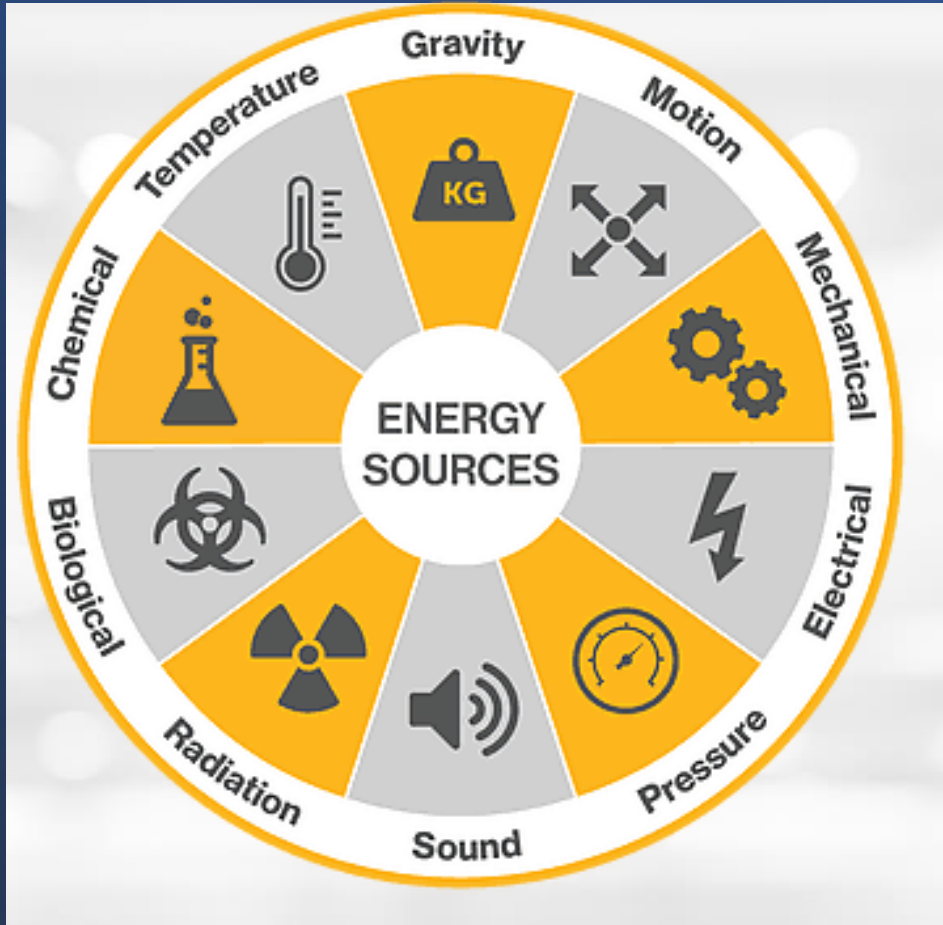
Source: sciencephoto.com
Videoclip: Fandango

<https://youtu.be/IMtWWIs4oas>



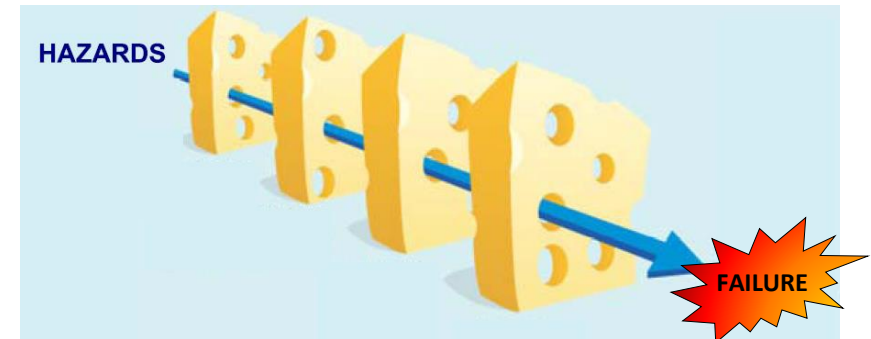
THE ENERGY WHEEL CAN BE APPLIED BEFORE WE START WORK

To prevent injury, a new perspective is needed

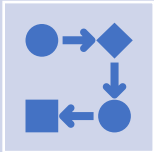


ENERGY SOURCES MUST BE CONTROLLED

- In the Swiss Cheese model, an organization's defenses against failure are modeled as barriers (slices of cheese), along with individual weaknesses (holes in the cheese).
- A failure occurs when all the holes align, allowing an incident to happen.



SHIFT TO START WORK AUTHORITY



Engage the workers to walk through the work plan.



Do this in the field, at Gemba.. where the work is being done.



Make it happen prior to starting work; where the task is being done, with the tools and equipment they will use and while 'rating their states!'

Use Start Work Authority :

- Before work starts
- Upon return from work left unattended
- After a shift change
- If the work crew changes
- When requested by the front-line

It's all about specific communications!

CONFIRM THE PRESENCE & STRENGTH OF BARRIERS

Start Work Authority goes beyond the completion of the JSA by focusing on SIF events and the presence of adequate barriers.

Conversation Based:

1. For this job, what part of the energy wheel could seriously hurt you?
2. What stops you from getting hurt (barriers)?
3. Is the barrier in place and sufficient to protect you?
4. How do you know that's true right now?
5. What are the human factors that might impact us?

Start Work Authority goes beyond the completion of the JSA by focusing on SIF events and the presence of adequate barriers.

CONFIRM THE PRESENCE & STRENGTH OF BARRIERS

Confirmation Based:

- Workers should be asked to review the hazards they already identified and visually inspect and/or describe the barriers that will protect them from the hazards.
- They should verify that the barriers are adequate (strong enough, fast enough, big enough) and that they are working.
- Verify that human factors have been reviewed and addressed.

“The next step is to ensure adequate controls against hazards...”

- Matthew Hallowell (inventor of the energy wheel)

CERTIFY; DO NOT BRIEF

BRIEFING

One person talking.

Hurried.

Fear.

Check the box.

CERTIFICATION

Many people talking.

Thoughtful.

Safe.

Make a decision.

DOCUMENTATION OF START WORK AUTHORITY

Confirm controls are in place before starting work	Guidance	Person doing work	SWA Verifier
I have confirmed:			
Circuit to be re-energized is the one identified in the plan and drawing.	There are tags that identify the circuit, system, and/or equipment to be re-energized.		
Isolation devices are removed per plan and drawing.	Physically inspect and confirm that isolations were removed.		
Notify personnel affected by the re-energizing are notified.	Personnel are aware and confirmed activity Personnel are not in the line of fire		
Circuit is ready to be re-energized per plan.	Circuit is ready to be re-energized per the plan.		
Confirm that the controls are in place and verified prior to start up. Use Stop Work Authority if anything changes			

Verifier:

Signature:

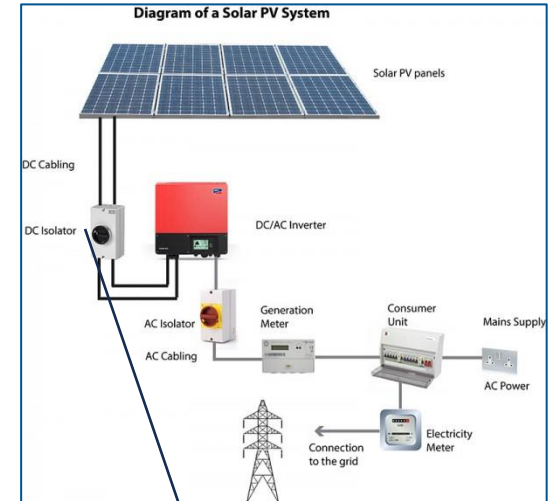
Date & Time:

These are verification points

Guidance Points

Dual Verification

Confirmation all steps are complete



Use diagram if available

ACTING COURAGEOUSLY

What lessons from Stop Work Authority can we apply to make Start Work Authority successful ?



The Workforce:

- Be aware of SIF hazards
- Have a sense of ‘chronic unease.’
- Have the skills and knowledge to recognize hazards based upon the energy wheel.
- Have the skills to verify that controls are in place and working properly to prevent fatal injuries.
- Maintain awareness of human factors affecting the team’s ability to execute work.

Leadership:

- Insist that Start Work Authority is used for work that has SIF potential.
- Confirm that work will not begin until Start Work Authority is verified.
- Engage in conversations while building trust and open lines of communication
- Set the expectation that work will be paused until the controls are in place and working.
- Celebrate when the workforce refuses to start work.
- Tell stories about the success of Start Work Authority.

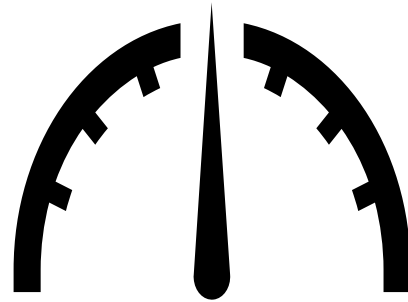
COMBINE THE BEST OF SAFETY



STOP WORK AUTHORITY

Clearly communicate life-saving rules.

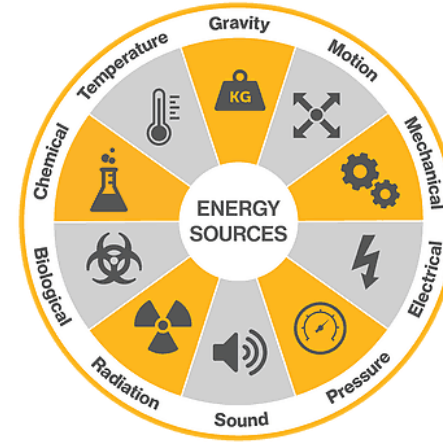
Empower employees to exercise 'Stop Work Authority'



HUMAN FACTORS

Identify the Human Factors that may be present:

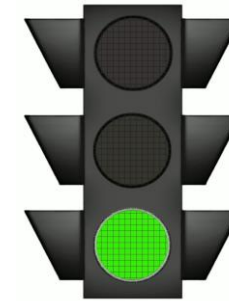
- Rushing
- Fatigue
- Frustration
- Complacency



ENERGY SOURCES

Identify the STKY energy sources

Identify the controls for those sources



START WORK AUTHORITY

Discuss the required controls

Verify the controls are in place and working

Sign off

SUMMARY

1. We've made a lot of progress with Stop Work Authority.
2. However, fatalities continue to occur in the workplace.
3. The energy wheel is a great tool to prevent the Stuff That Kills You.
4. The approach to Human & Organization Performance (HOP) makes sense, and it's hard to implement.
5. Start Work Authority operationalizes HOP.
6. Making Start Work Authority requires active conversation and confirmation.
7. Leaders need to shift their focus to support the conversation and verification steps.

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THANK YOU FOR ATTENDING!