



SAFESTART HUMAN FACTORS CONFERENCE



Edward Stephens

ABB Global Business Services: Health, Safety and Environmental
Human and Organizational Performance (HOP)

Why SafeStart?

Introduction & Overview

The reason this is personal for me.



I commit to:

- Always work safely and I will make sure the people around me also work safely
- Ensure all ABB employees and contractors are properly trained and equipped for safe working, whatever the task or location
- Ensure before we begin any work, a safety assessment shall be completed and a safe way of working agreed
- Never look the other way: I promote safe behavior and conditions for my colleagues and myself. I report and learn from safety incidents
- Recycle everything I can and to conserve resources (electricity, water, natural gas, etc.)

In my roles, I will:

- Exhaust all efforts in providing health, safety, environmental, and sustainability practices that protects employees at all ABB locations.
- Demonstrate that good process, management practices and habits = safety, quality, productivity and on-time performance to our customers.
- Continue to share the techniques of Safe Start teachings with colleagues, family and our community.
- I will always take action on unsafe acts and conditions.

ABB Global Business: Health, Safety and Environmental Human and Organizational Performance (HOP)

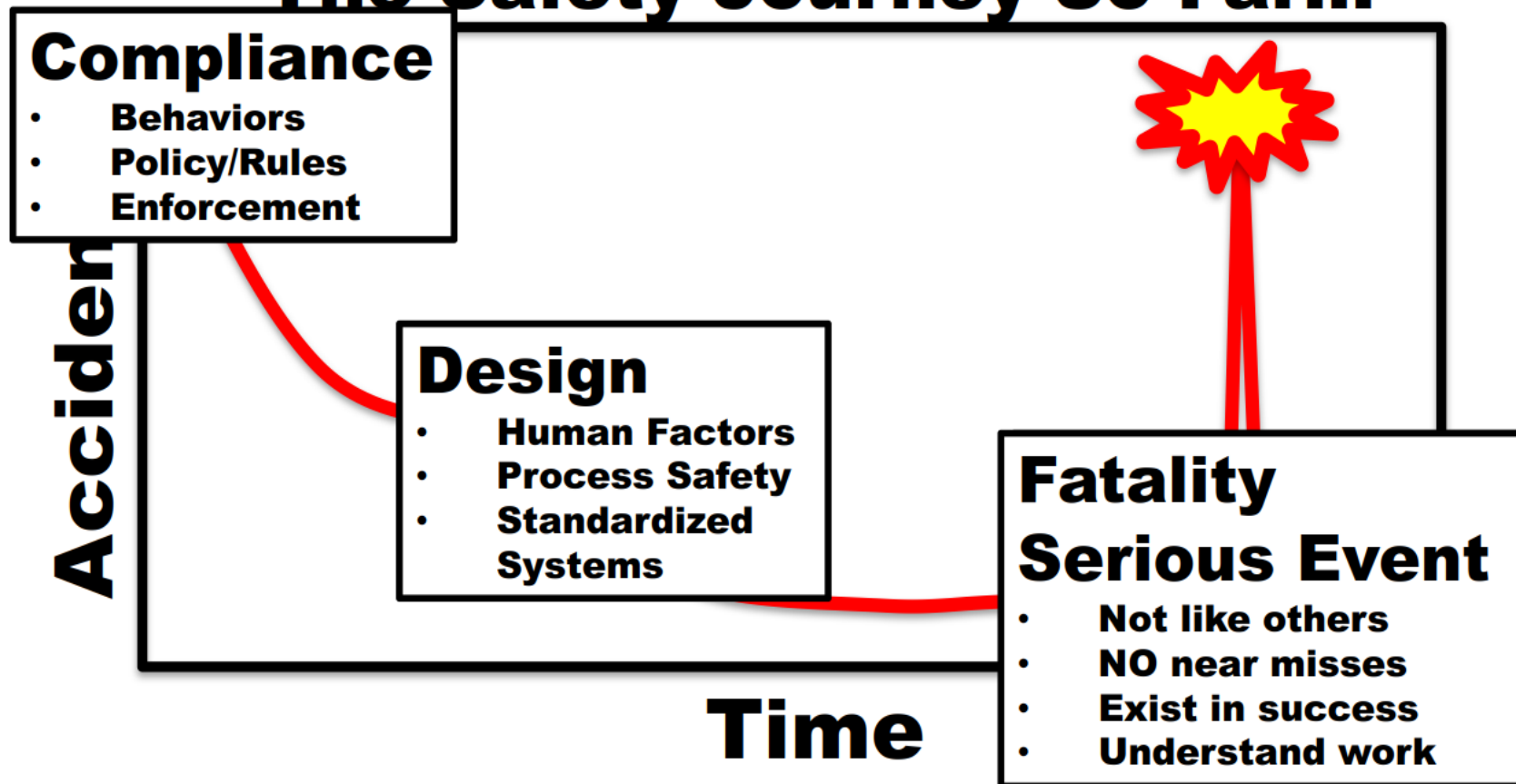
Educational Background:

- B.S Industrial Operations Management (Northeast State University)
- A.S Industrial Operations Technology (Tulsa Community College)
- International Diploma (Health, Safety and Risk Management) EEF UK
- ABB 6 SIGMA Black Belt

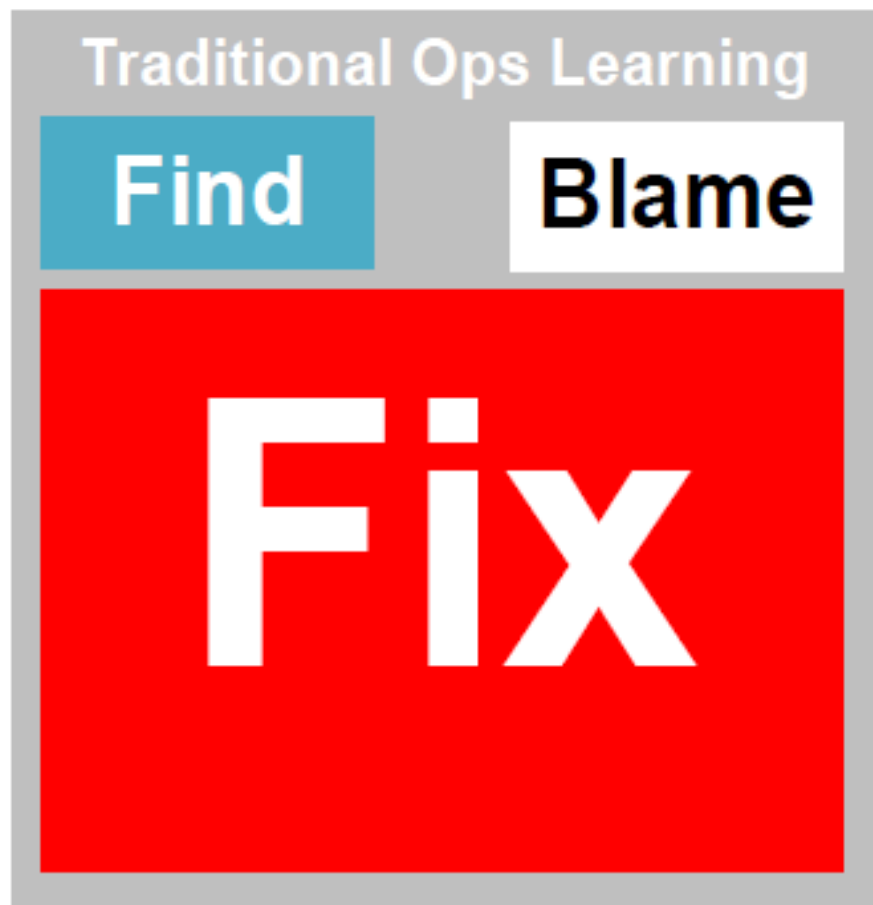
Career Overview:

- ABB Director Health, Safety and Environmental Robotic and Motion - North America
- ABB Operations Manager, Substation Products - North America
- ABB Manufacturing Manager, Transformers – Power Systems
- ABB inside consultant and partner - SafeStart
- Prosci Change Management Practitioner

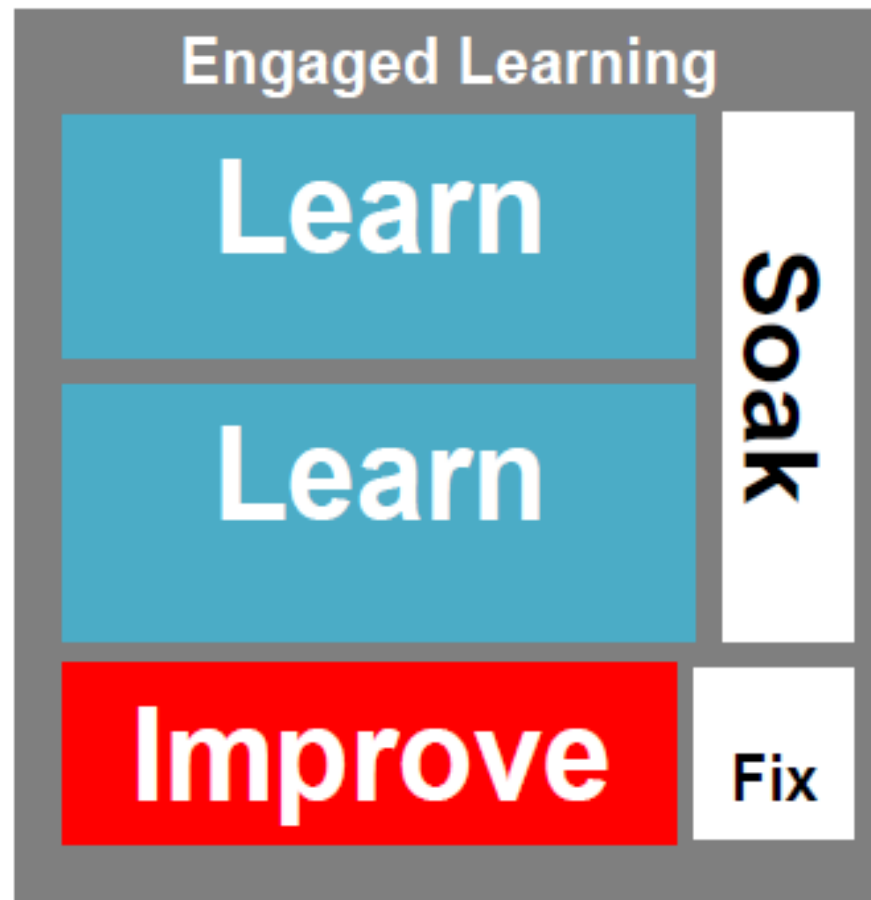
The Safety Journey So Far...



(Todd Conklin)

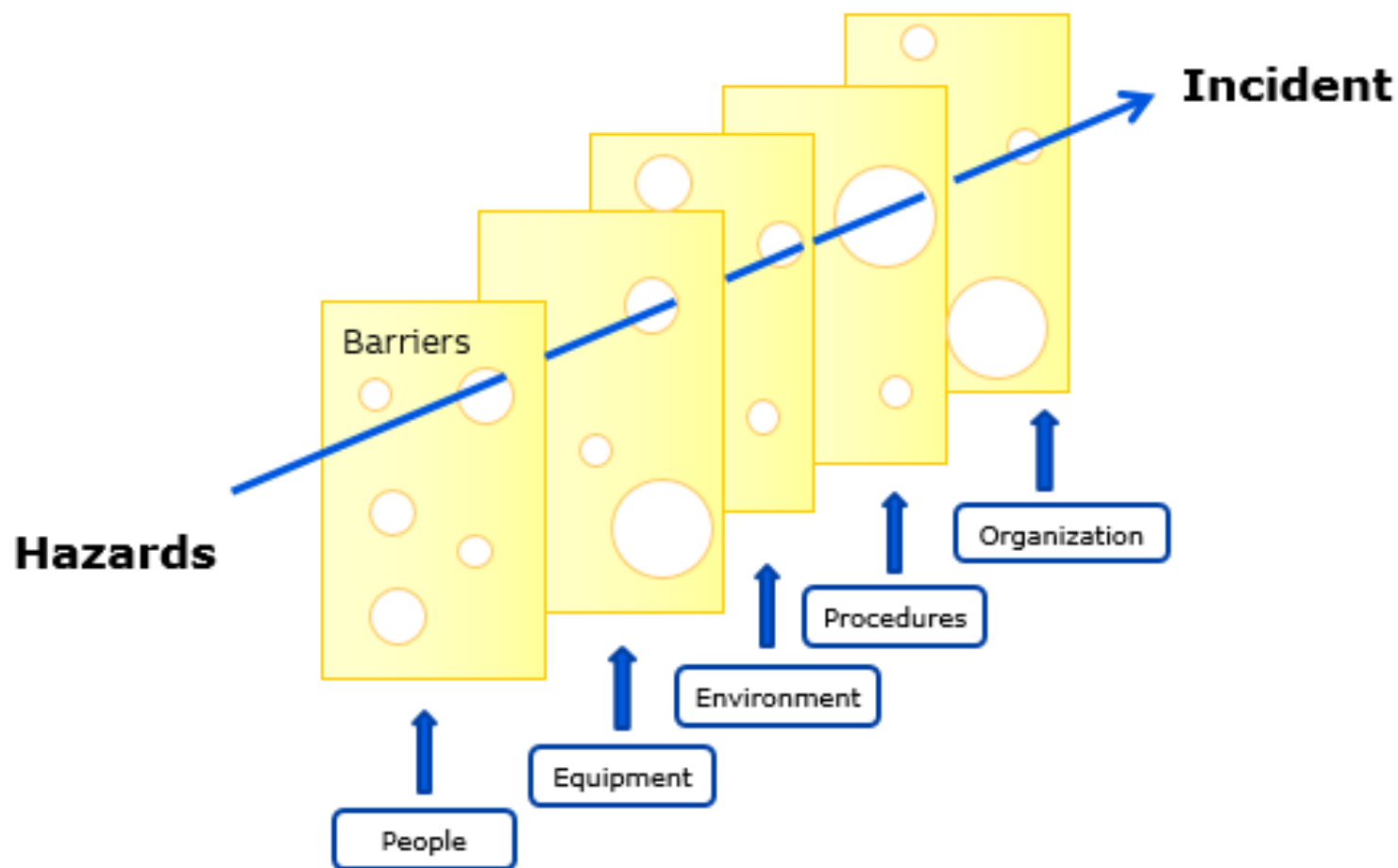


Safety I



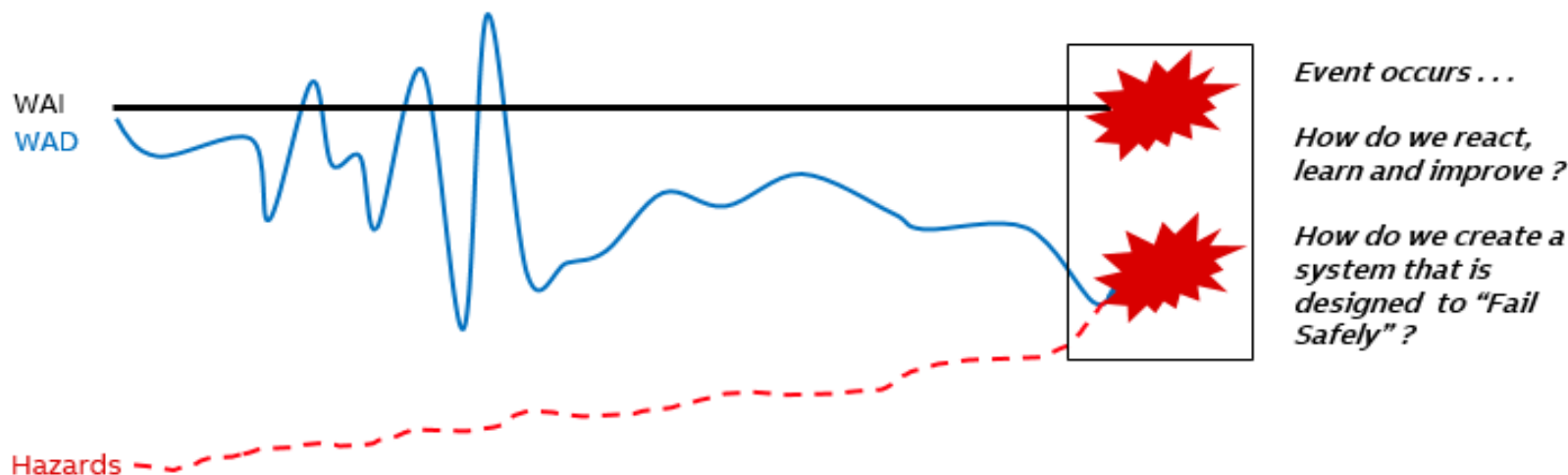
vs.

Safety II



HOP thinking: addressing the “obvious” (. . . and not so obvious)

HOP recognizes that Work as Imagined (WAI) is not typically as Work is Done (WAD)



People do things that **make sense at the time**, otherwise they would not do them (given local context – their resources, direction, goals, mindset, etc.) . . .
The key question to answer during from Learning Process . . .
“Why did what the employee chose to do, **MAKE SENSE** at the time under the circumstances that existed?”



JOHN DEERE



U.S.NRC



GE



ArcelorMittal



MEADWESTVACO



Westinghouse



RioTinto

HEICO®



TESORO



Luminant



Dominion



nyrstar



Chevron



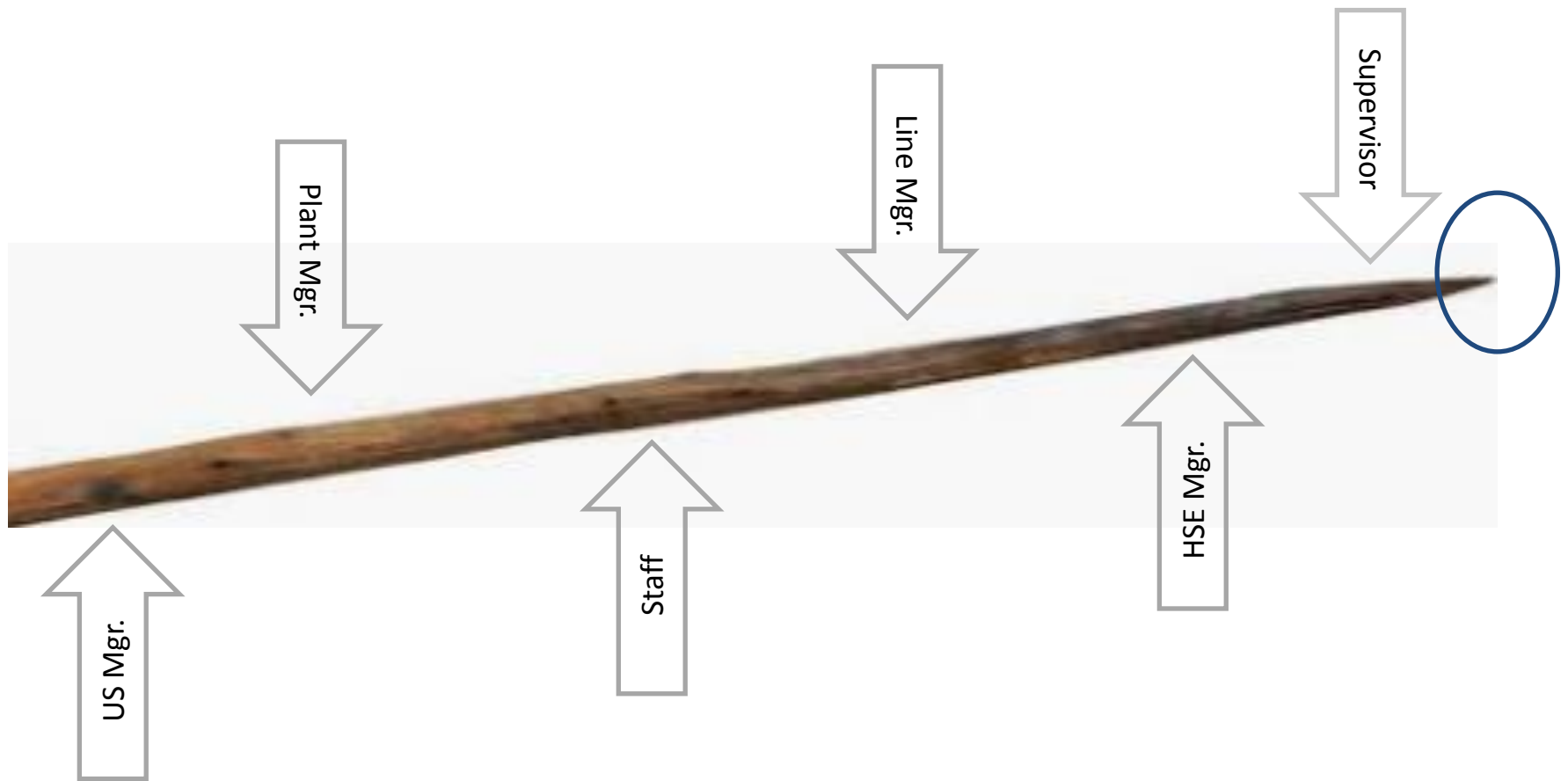
Georgia-Pacific



WORKER DON'T **CAUSE**
FAILURES.

WORKER'S **TRIGGER** LATENT
CONDITIONS THAT LIE DORMANT
IN ORGANIZATIONS WAITING FOR
THE SPECIFIC MOMENT IN TIME.

(Todd CONKLIN)



Employee engaged

Employee participates

Employees trust
Management

Employee co-ownership

Management values
employee input



**Blame & Punish
or
Learn & Improve**

"To understand failure . . . We must first understand our reaction to failure"

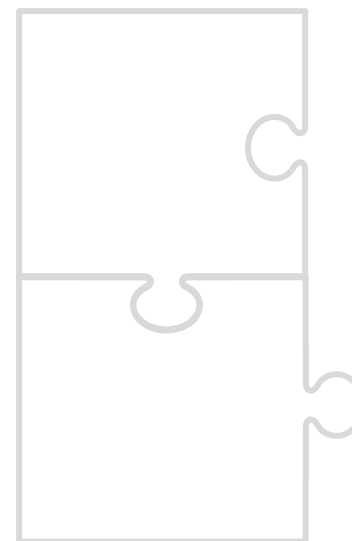
- Sidney Dekker



Safestart is a program designed to help identify and address the human factors issues that are most prevalent within the organization. As we start to recognize these signals, we will start pick these signals up in everything we do, whether its at work, home or play.

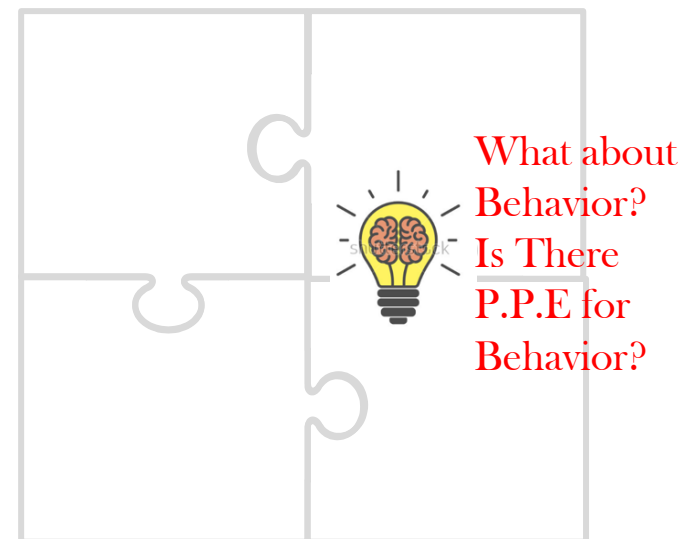


P.P.E last line of defense to
protect against physical harm.





SafeStart is the last line of
defense for behavior.

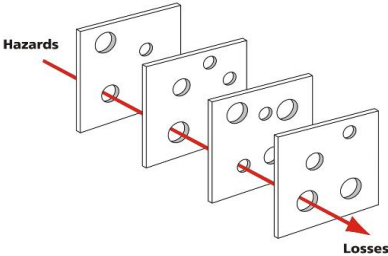




- How do you know when to “Stop and Take “5”?



- When have you ever observed someone “Stop and Take “5”?



95% of the time while working, at home or play, you are in the state of complacency

These four states...

- ☐ Rushing
- ☐ Frustration
- ☐ Fatigue
- ☐ Complacency

can cause or contribute to these critical errors...

- ☐ Eyes not on Task
- ☐ Mind not on Task
- ☐ Line-of-Fire
- ☐ Balance/Traction/Grip

...which increase the risk of injury.

Figure 2a

Sources of Unexpected

Figure 2b

Critical Error Reduction Techniques (CERT)

1. Self-trigger on the state (or amount of hazardous energy) so you don't make a critical error.
2. Analyze close calls and small errors (to prevent agonizing over big ones).
3. Look at others for the patterns that increase the risk of injury.
4. Work on habits.

Figure 2c



First Video Clip



SAFESTART

SafeStart Story

Storyline: **SHORTLE GREEN**

Summary: **TRIPPED ON CURB AND SPRAINED ANKLE**

Elements:

- What activity/What happened?
- What cause or state?
- What critical action?
- What injury or close call/near miss? If have been worse?



Using CERT to Prevent Sprains and Strains



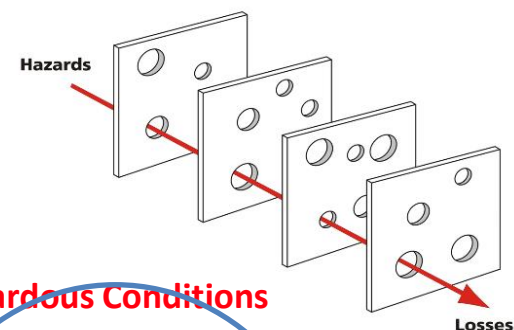
As your organization becomes a high performing organization and your incident rates fall below 1.0 or less your organizations loses all its ability to predict the next incident. (Todd Conklin)



3 Key insights to create a high performing culture.

1. You have to stop the employee blame game.
2. You have to create a world class rewards program
3. You have to develop a program to address the self-triggering issues in real time.
 - ✓ Rushing
 - ✓ Frustrations
 - ✓ Fatigue
 - ✓ Complacency





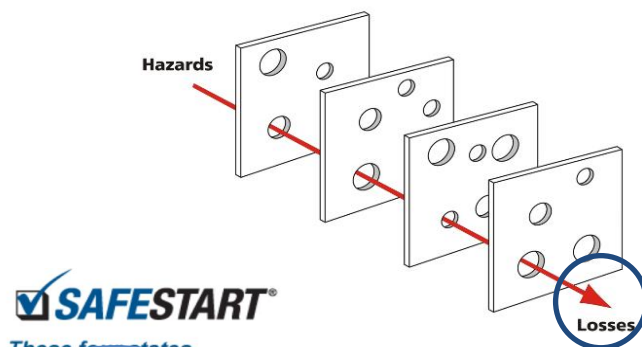
Hazardous Conditions

1. Blocked Exit
2. Uncontained Chemicals
3. Broken tool
4. Poor Lighting
5. Tripping hazard

0-20%

Hazardous Behavior / Actions

1. Walking / looking at mobile
2. Not holding hand rail
3. Safety Glasses on head
4. Driving & Texting
5. Not looking both ways



SAFESTART®

These four states...

- ☒ Rushing
- ☒ Frustration
- ☒ Fatigue
- ☒ Complacency

can cause or contribute to these critical errors...

- ☐ Eyes not on Task
 - ☐ Mind not on Task
 - ☐ Line-of-Fire
 - ☐ Balance/Traction/Grip
- ...which increase the risk of injury.*

20-80%

These states are managed like any other hazard. They must be resolved within 24 hours. By focusing on this we are repairing the performance! "Managements Systems."



- **Ashville Plant** – Zero incident rate and no lost time injuries
- **Athens Plant** - 3 million hours without a lost time injury
- **Belton Plant** – 20 years without a lost time accident zero incident rate
- **Fort Smith Large Plant** – 18 Million hours no lost time injuries
- **Gainesville Plant** - RGG has achieved 9 million hours without a lost time accident.
- **Greenville SC Team** – 7 years with out lost time injury, “Zero Landfill” status (South Carolina Department of Environmental Control’s Smart Business Recycling Program Award).
- **Rogersville Plant** - 6.5 years without lost time injury & 600,000 man-hours without restricted duty incident. They was awarded the Tennessee OSHA Governor’s Award of Excellence.

ABB MOMG

- Athens, GA
- Belton, SC
- Clarksville, AR
- Columbus, MS
- Flowery Branch, GA
- Fort Smith, AR
- Greenville, SC
- Kings Mountain, NC
- Marion, NC
- New Berlin, WI
- Ozark, AR
- Rogersville, TN
- Southwest Diecast, AR
- St. Louis, MO
- Weaverville, NC
- Westville, OK

ELIP & ABB Sites

- Albuquerque, NM
- Byhalia, MS
- Hackettstown, NJ
- Hickory, NC
- Jonesboro, AR
- Memphis, Tn

ABB Sites

- Brunswick, NJ
- Cary, NC
- Kent, WA
- Miramar, FL
- Portland, TN
- Richmond, VA

Pending Sites

- Alamo, TN
- Athens, GA
- Bland, VA
- Crystal Springs, MS
- Jefferson City, MO
- Mount Pleasant, PA
- Ormond Beach, FL
- South Boston, VA
- St. Louis, MO
- Warminster, PA

THANKS FOR
Your Participation!