



 **SAFESTART[®] FORUM** 

FOR HUMAN FACTORS PRACTITIONERS

2024

**ORLANDO, FL
APRIL 23 & 24**

How to Turn Recordables Into
Rewardables for Long-Term Success

Paul Thompson

HOW TO TURN RECORDABLES INTO REWARDABLES FOR LONG-TERM SUCCESS



Check-the-box compliance can feel so satisfying but once you've fulfilled your regulatory requirements it can be hard to get people within your organization to recognize that human factors training is necessary to not only improve but sustain safety.

Hear how a plant of close to 100 employees went from 8 lost time injuries to 0 recordable injuries by introducing and embracing human factors.



HOW TO TURN RECORDABLES INTO REWARDABLES FOR LONG-TERM SUCCESS



Participants will be taken beyond just the recordable injury reduction to analyze how the company maintained a positive safety culture by implementing techniques and tools that led to increased levels of near-miss reporting, improved employee safety performance and a high level of leadership support to keep everyone safe not just at work, but at home and on the road as well.

Participants will engage in a Rate Your State activity and Anticipating Error exercises with safe work permitting and procedure execution scenarios.





WHO AM I?



EPS Operator for 8 years
(Huntsman Chemical &
Flint Hills Resources)

Shift Supervisor for 6 years
(Flint Hills Resources)

Currently the Site Training &
Development Specialist

SS Steering Committee
Chairperson & Trainer
(2016 to Present)

Medical First Responder

Confined Space Rescuer

Hazmat Operations level

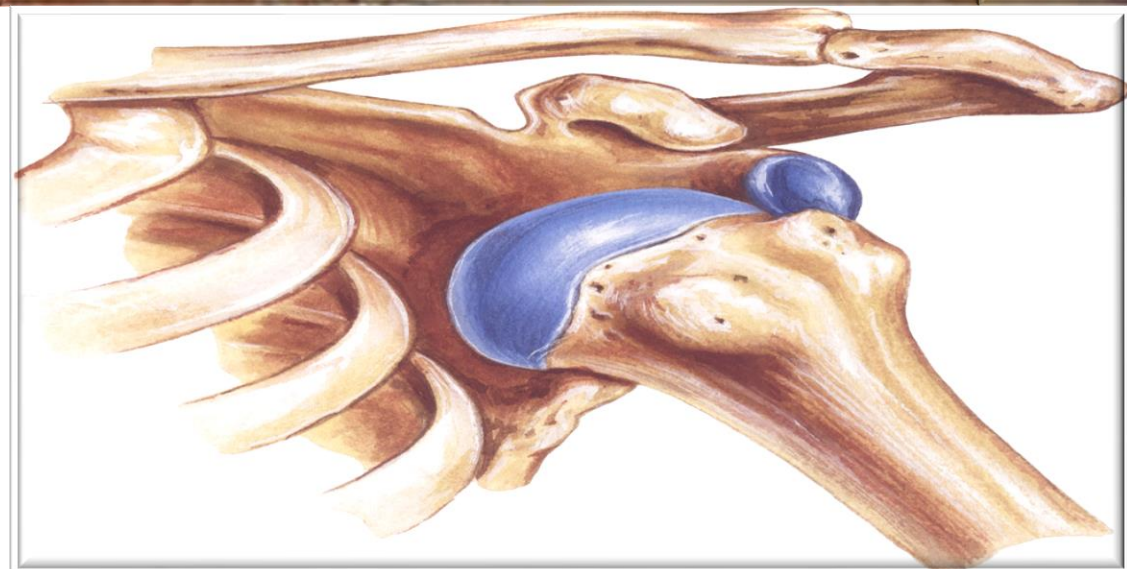
Incident Commander



Raw Beads

Expanded Beads

WHY I AM WHO I AM



WHY I AM WHO I AM



WHO I WAS

- Prior to SafeStart I was a C.A.V.E.MAN
- Not sure what a caveman is?

Citizen

Against

Virtually

Everything

“I was perfectly fine with the way things were!”



SHALL WE BEGIN

- Peru Illinois
- 92+ Employees
- Half Union
- Half Company
- Average seniority 20 or more years



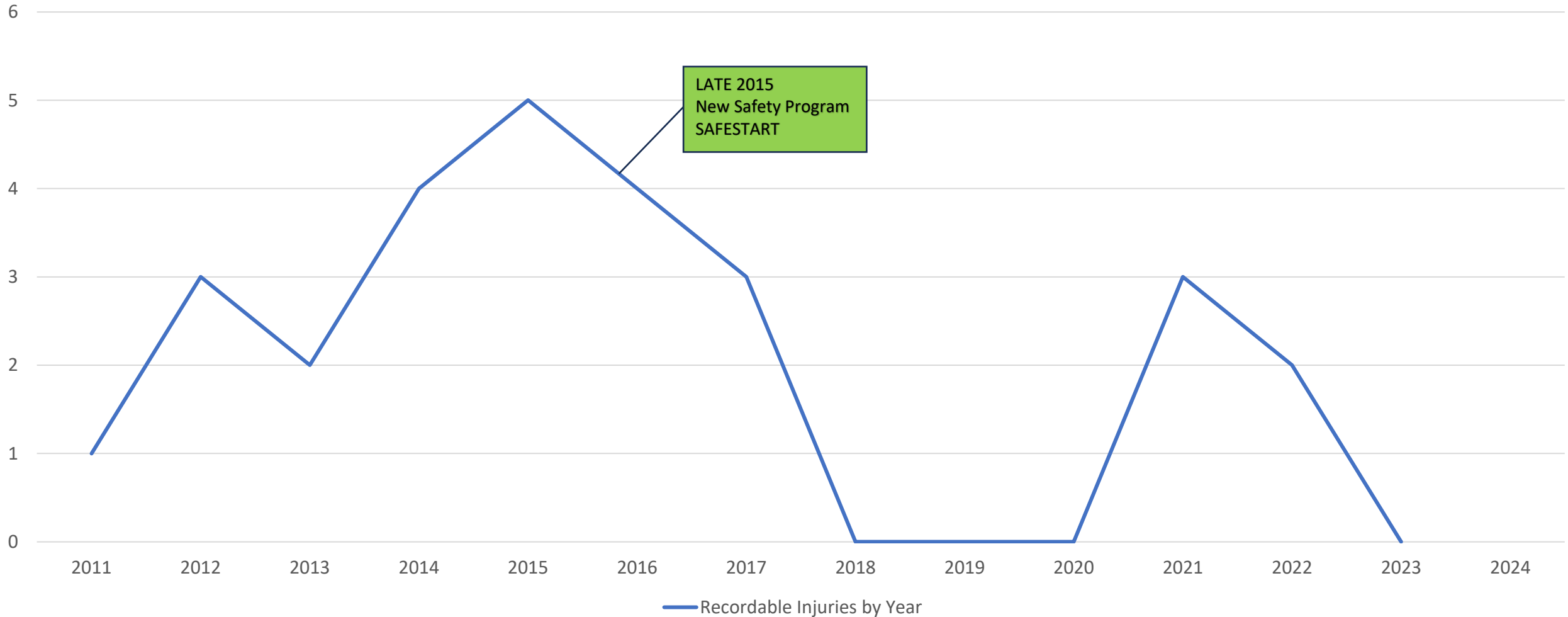
SHALL WE BEGIN

- VPP Star Site
- Traditional Safety Training
- Safety & Compliance #1
- Target 0 injuries
- Set safety records many times



HISTORY

Recordable Injuries by Year



HISTORY

Consultant visit Late
2015 – SAFESTART

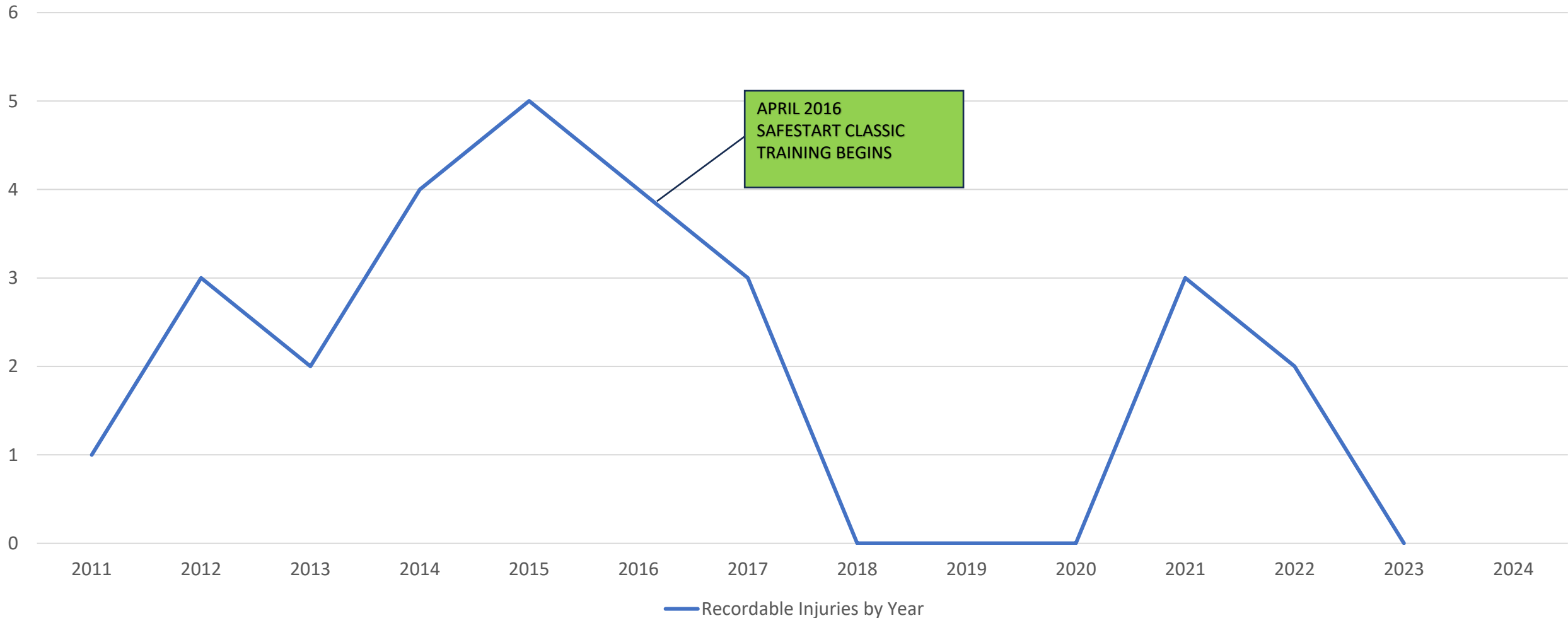
Build and Train the
SafeStart Team

Schedule and Deliver
Training



HISTORY

Recordable Injuries by Year



SAFESTART (CLASSIC)

- FULL LEADERSHIP SUPPORT and PARTICIPATION
- Team had a generous budget
- Site was branded
- Communications sent

“HERE WE GO!”



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SAFESTART (CLASSIC)

- * INCENTIVIZE
- * TEACH
- * PRACTICE/MENTOR
- * REWARD
- * CELEBRATE

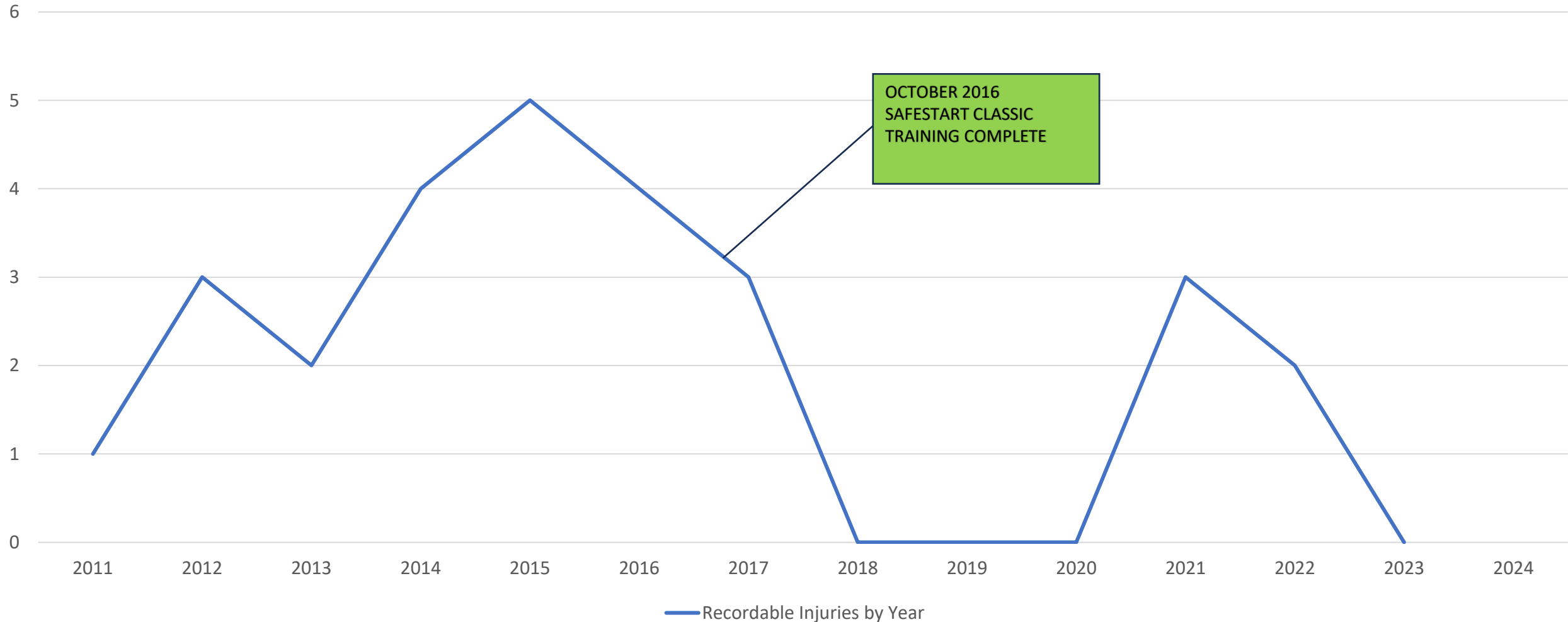
REPEAT X 4

(Units 1 & 2 were done together)



SAFESTART (CLASSIC)

Recordable Injuries by Year



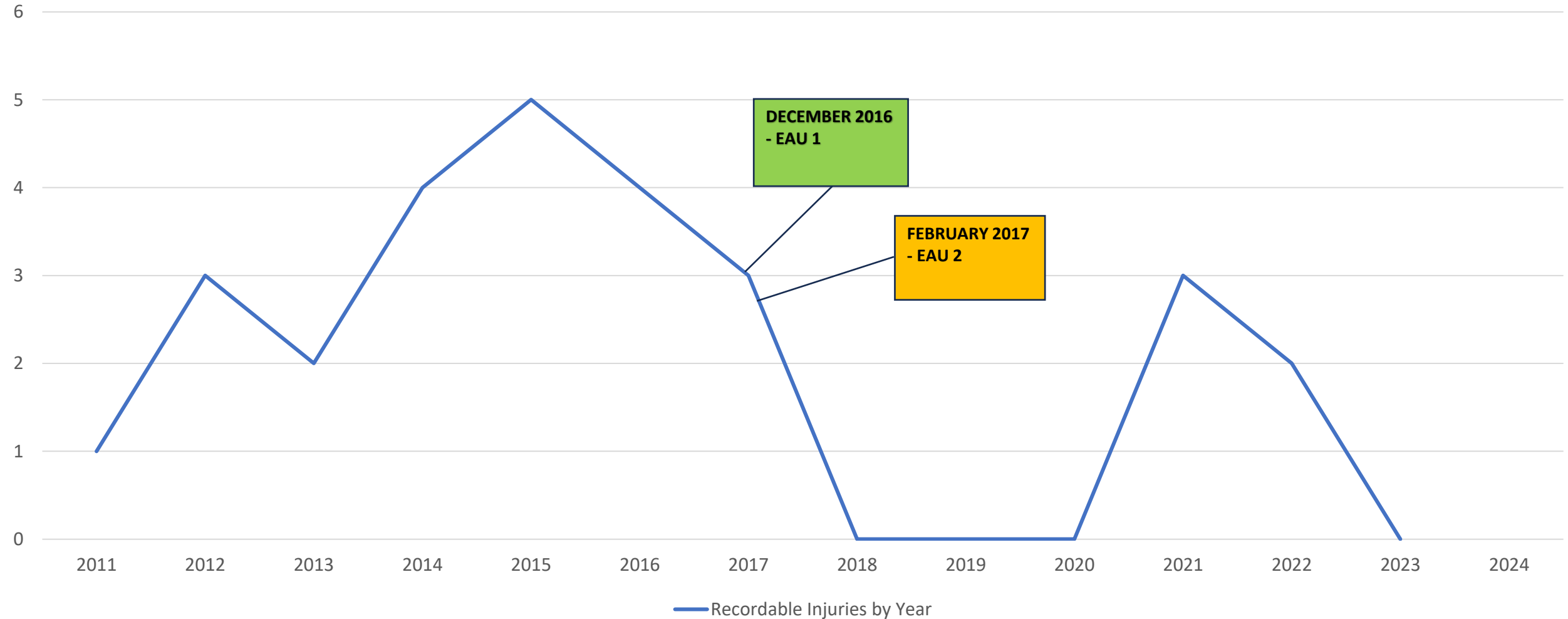
■ Extended Application Units

- Incentives
- Teaching
- Practicing
- Rewarding

EAU1/EAU2



Recordable Injuries by Year



SOMETHING NEW

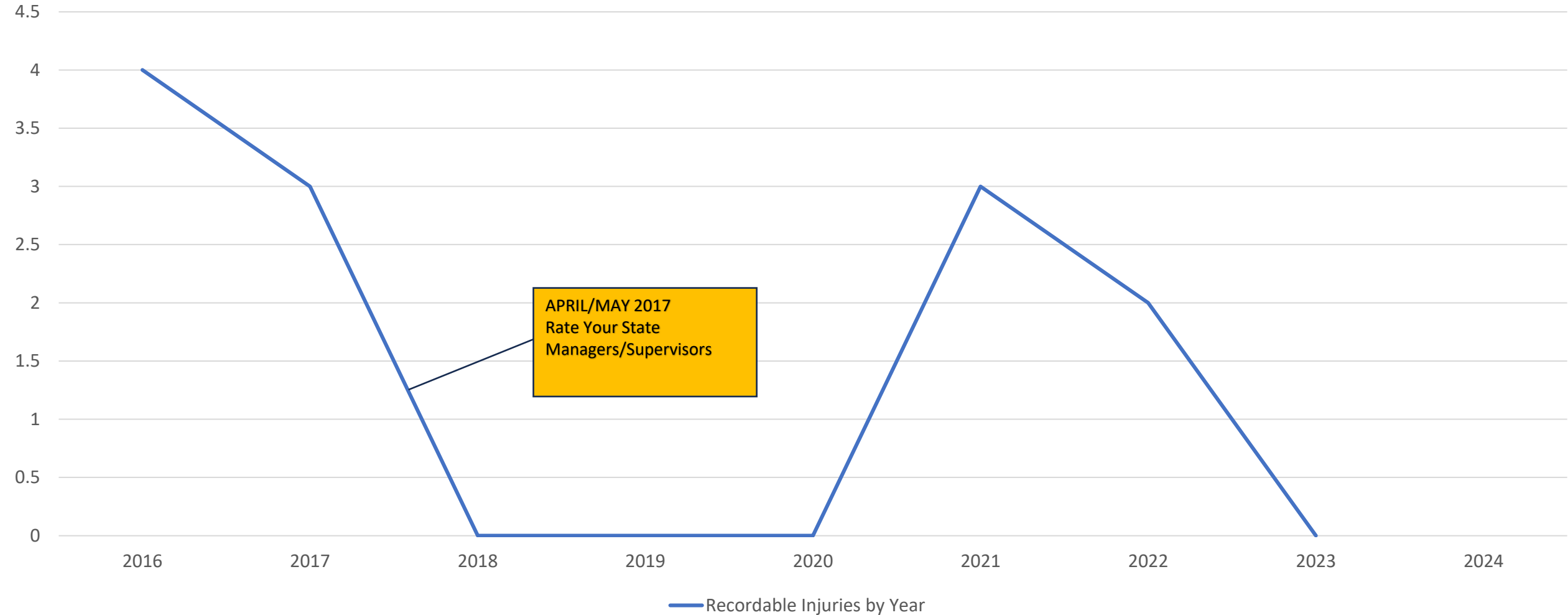
- Things were going well
- Human Factors Review(OFIs)
- Managers/Supervisors Rate Your State program

“We needed just a little bit more”



SOMETHING NEW

Recordable Injuries by Year



SAFESTART (CLASSIC)

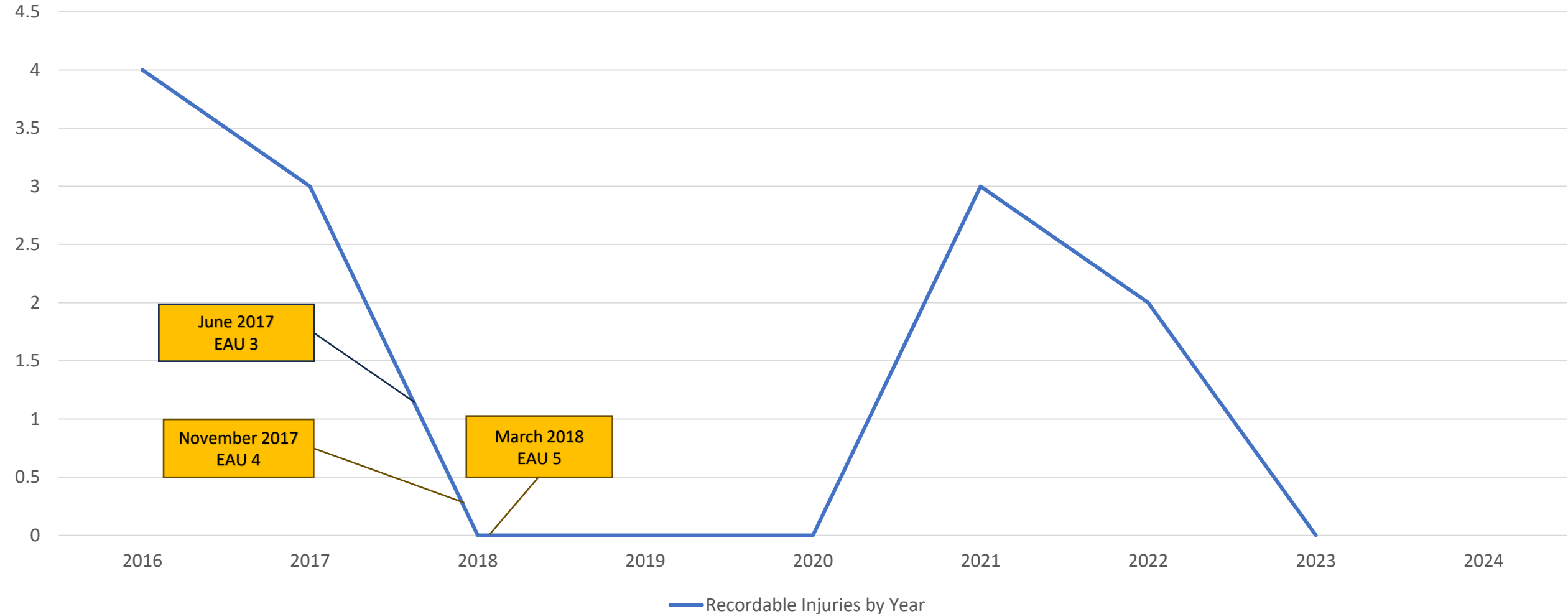
- Continued from the Steering Committee guide – Extended Application Units

- Incentives
- Teach
- Practice
- Reward

EAUs 3, 4, & 5



Recordable Injuries by Year



SOMETHING NEW AGAIN?

- Rate Your State was an awesome bridge between Leaders and Employees
- Plan to train all employees - Rate Your State



SAFESTART®
Rate Your State
How much are these states affecting you today?
(Circle a number from 0 to 10 for each state.)

None 0 1 2 3 4 5 6 7 8 9 Max 10
Rushing

None 0 1 2 3 4 5 6 7 8 9 Max 10
Frustration

None 0 1 2 3 4 5 6 7 8 9 Max 10
Fatigue

None 0 1 2 3 4 5 6 7 8 9 Max 10
Complacency

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What critical error(s) would it be easy to make given the state(s) affecting you?

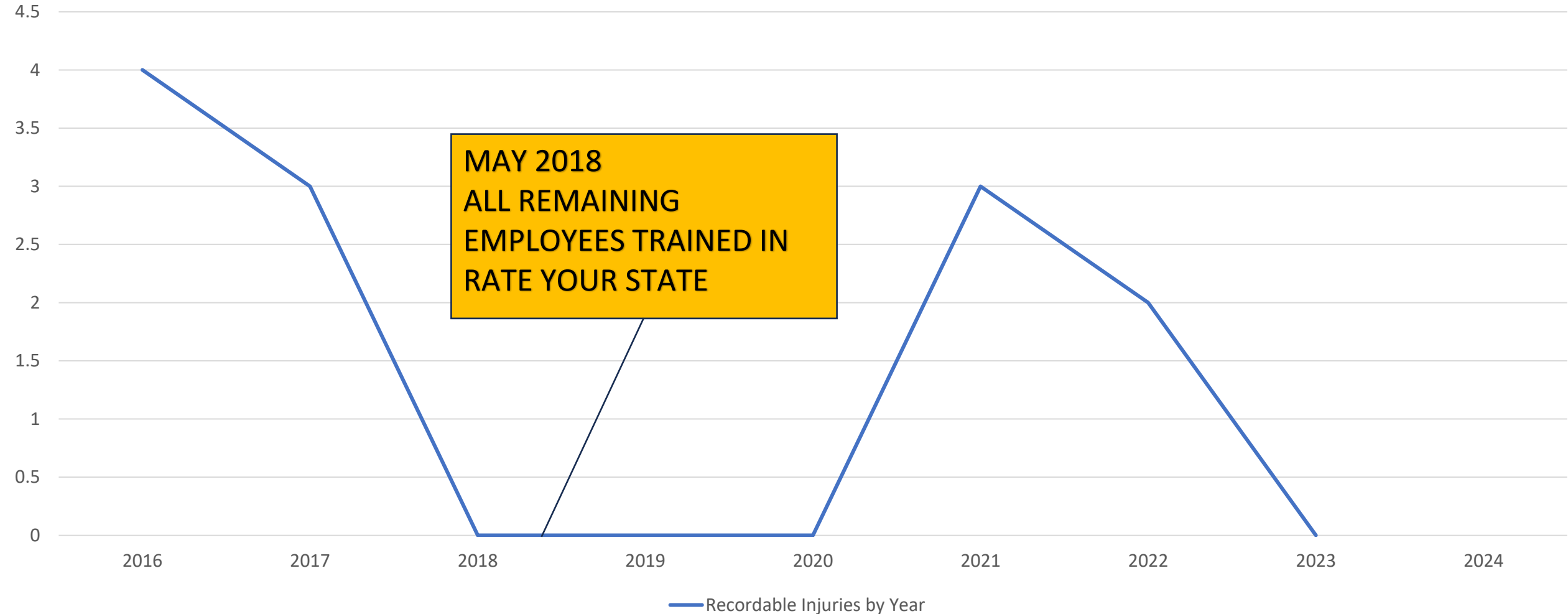
- Eyes not on Task
- Mind not on Task
- Line-of-Fire
- Balance/Traction/Grip

What critical error reduction technique(s) could help you prevent making these critical error(s)?

- Self-trigger on the state or amount of hazardous energy
- Analyze close calls and small errors
- Look at others for the patterns that increase the risk of injury
- Work on habits

SOMETHING NEW AGAIN?

Recordable Injuries by Year



CONTINUED EDUCATION

In August of 2018 we did our own spin on a SafeStart Review

Revisited all topics

Focused on the CERTS

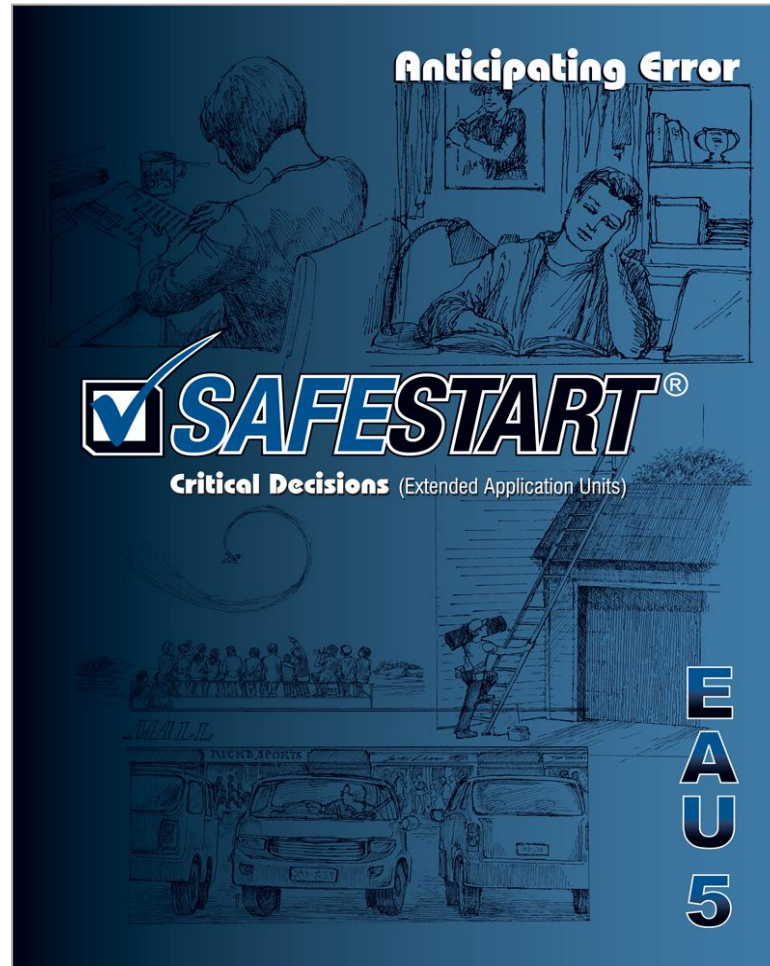
Played SafeStart JEOPARDY!

The SS team decided to look closer at that Anticipating Error thing from EAU 5



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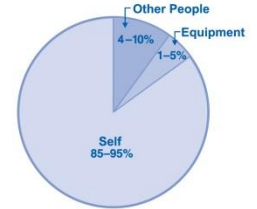
- Things were moving along well so we took a break from the EAUs
- EAU 6 was delivered as scheduled in July 2019
- But what did we do between Aug. 2018 to July 2019?



Anticipating Error

So, provided we pay attention to what's going on around us, we can even anticipate the critical errors other people could make. However, as we learned early on with SafeStart, the other guy making mistakes and getting us hurt hasn't been a big problem for most of us—compared to making critical errors ourselves.

But it's not hopeless. Even though we will all still continue to make mistakes (nobody will ever be perfect), that doesn't mean we can't anticipate when and where we'll be the most likely to make serious critical errors and prevent them. We just have to give it a bit of thought in advance. Just ask yourself, "If I could win \$1,000 for predicting my next (big) problem in terms of critical errors and hazardous energy: when and where would it happen? What would I most likely be doing?"



20. Granted, nobody's going to give you \$1,000 if you're right. But some critical errors or combinations of critical errors can cost you your life, which for most people is

- worth more than \$1,000
- worth taking a few seconds for

If you actually could win \$1,000 for predicting your next (big) problem with critical errors and hazardous energy, what would the problem be and which states and critical errors would be involved?

What would you be doing?	What states(s)?	What critical error(s)?
_____	<input type="checkbox"/> rushing	<input type="checkbox"/> eyes not on task
Where would it happen?	<input type="checkbox"/> frustration	<input type="checkbox"/> mind not on task
_____	<input type="checkbox"/> fatigue	<input type="checkbox"/> line-of-fire
What time of day/night?	<input type="checkbox"/> complacency	<input type="checkbox"/> balance, traction, grip

21. Ironically, now that you've thought about it, what does that do to your chance of actually making that mistake and winning \$1,000?

- decreases the chance of winning \$1,000
- increases the chance of winning \$1,000

22. What do you need to think about?

- when and where rushing, frustration, fatigue or complacency is going to meet with hazardous energy
- what activity, job or tasks I will be doing, and whether there were any problems the last time

SAFESTART® 23

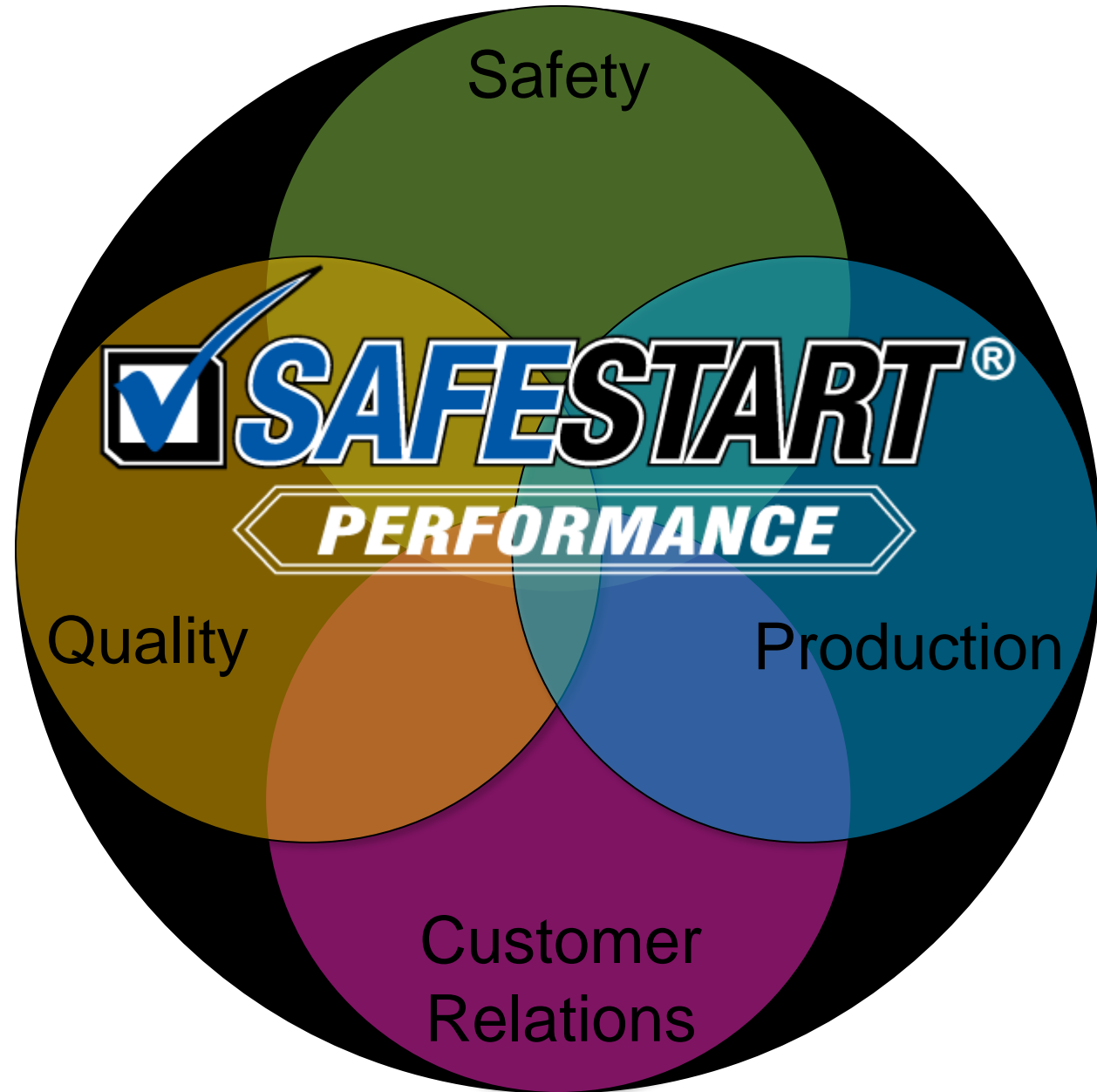
WE WANT MORE

- There had to be more to this Anticipating error thing
- With a little help from our consultant we discovered



- With Injuries down to 0, let's see what else we can improve
- Included was:
 - More Rate Your State
 - More Anticipating Error

Just to highlight a few and just what we were looking for!



PERFORMANCE

- SafeStart Performance went beyond Safety
- It was able to bridge a gap for employees that never left the office
- And then there was those 2 big things we wanted the most



Anticipating Error™

(conversation record)


If something was to go wrong or if you made a critical error, what do you think would be the most...

expensive?

time consuming?

damaging to relationships?
(inside and outside)

serious accidental injury?



Rate Your State™

How much are these states affecting you right now?

(Circle a number from 0 to 10 for each state.)

None	Rushing										Max
0	1	2	3	4	5	6	7	8	9	10	

None	Frustration										Max
0	1	2	3	4	5	6	7	8	9	10	

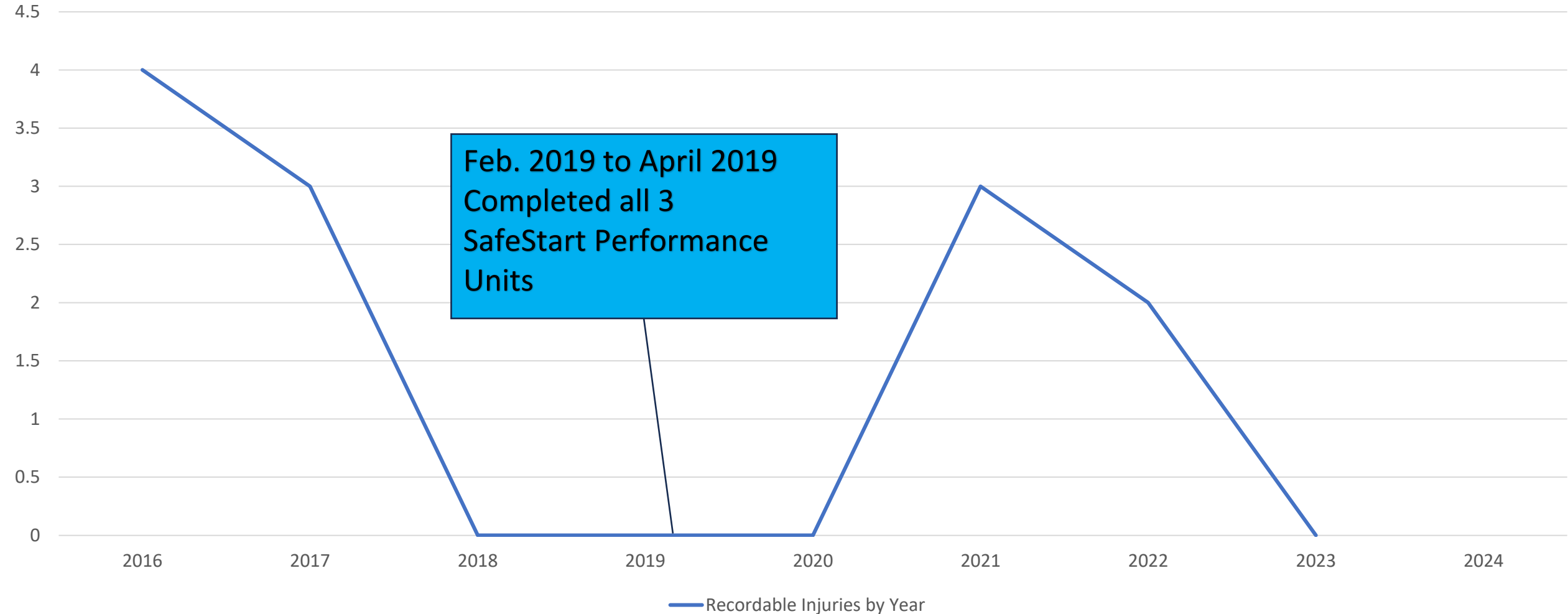
None	Fatigue										Max
0	1	2	3	4	5	6	7	8	9	10	

None	Complacency										Max
0	1	2	3	4	5	6	7	8	9	10	

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PERFORMANCE

Recordable Injuries by Year



- Timeline Gaps
 - SafeStart Monthly Training Topics (Many provided by SafeStart)
 - Winter Driving
 - Holiday Hazards
 - Summer Safety
 - CERT Review
 - Hand Safety
 - Daylight Savings Time

Reach out to a Client Success Manager for more information

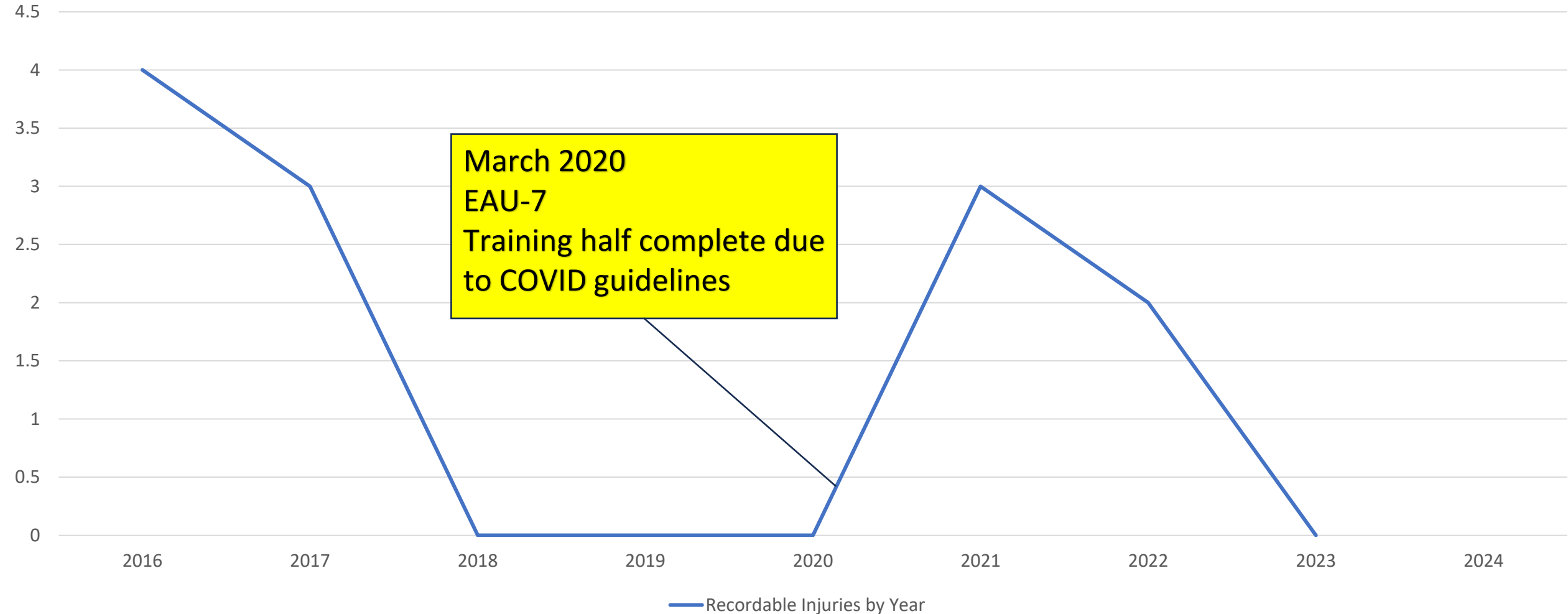


- Injuries still at 0
- EAU 7 scheduled
 - Teach
 - Practice
 - Recognize/Reward



CONTINUED EDUCATION

Recordable Injuries by Year



THE COVID PERIOD

- New Challenges arose with COVID
- Injuries started to occur
- SafeStart field presence was gone

“So.... What do we do now?”



WHAT TO DO

We had some ideas that we just didn't implement yet

They didn't require field presence

They only required using tools we already learned



SAFESTART[®]
PERFORMANCE

Anticipating Error™
(conversation record)

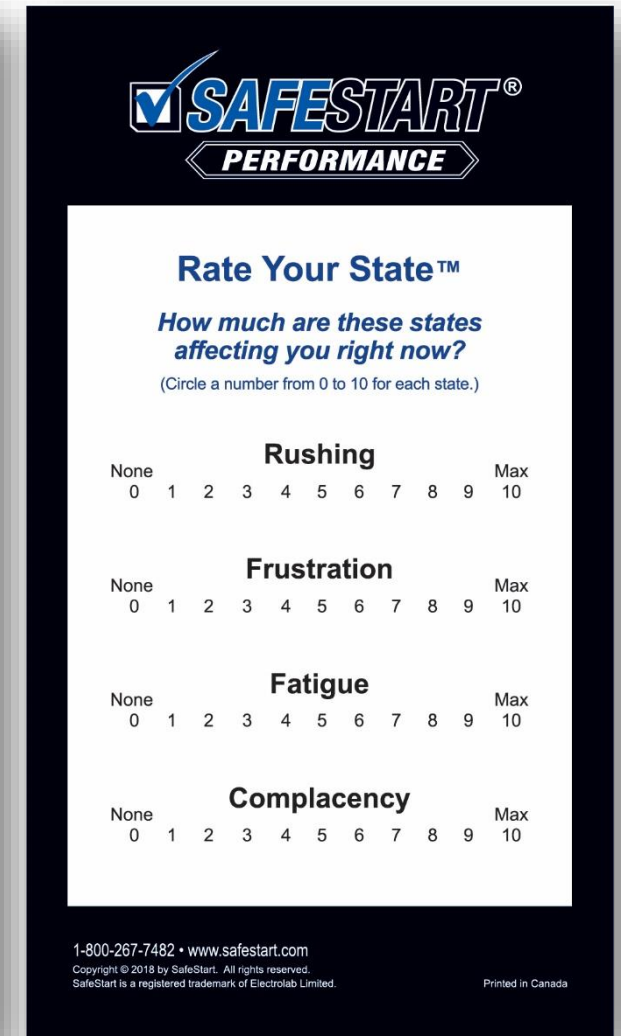
If something was to go wrong or if you made a critical error, what do you think would be the most...

expensive?

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serious accidental injury?



SAFESTART[®]
PERFORMANCE

Rate Your State™
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(Circle a number from 0 to 10 for each state.)

Rushing

None 0 1 2 3 4 5 6 7 8 9 10 Max

Frustration

None 0 1 2 3 4 5 6 7 8 9 10 Max

Fatigue

None 0 1 2 3 4 5 6 7 8 9 10 Max

Complacency

None 0 1 2 3 4 5 6 7 8 9 10 Max

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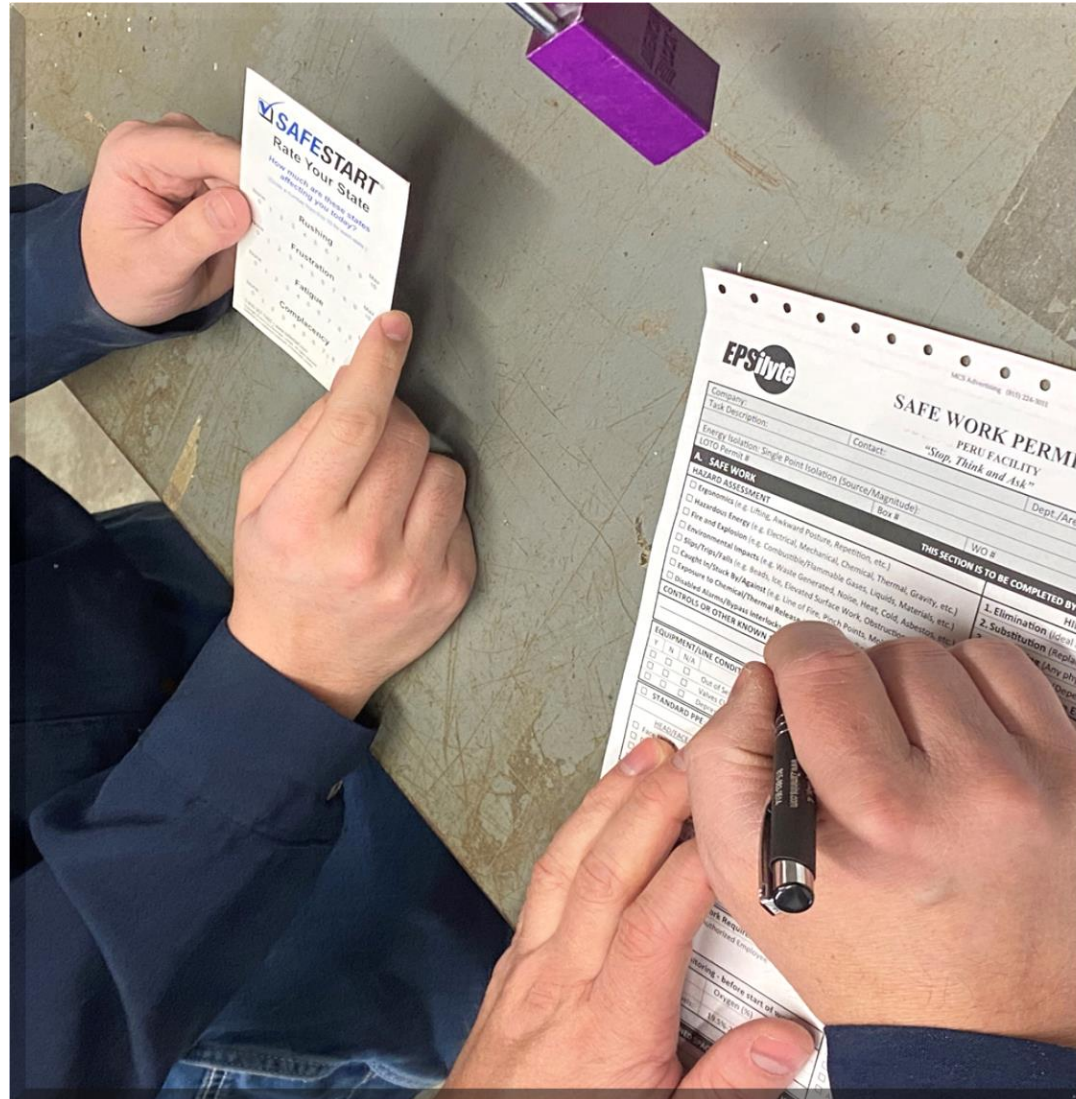
- January 2021
 - (2 THINGS)
- Requested, Rate Your State or Anticipating Error sessions while permitting work
- Requested, 1 be done before In-Hand Procedure execution

(Some employees were already doing this)



WORK PERMITTING-EXERCISE

- 1 Employee
- 1 Maintenance craft
- 1 Work Permit
- 1 SafeStart moment (Rate Your State)



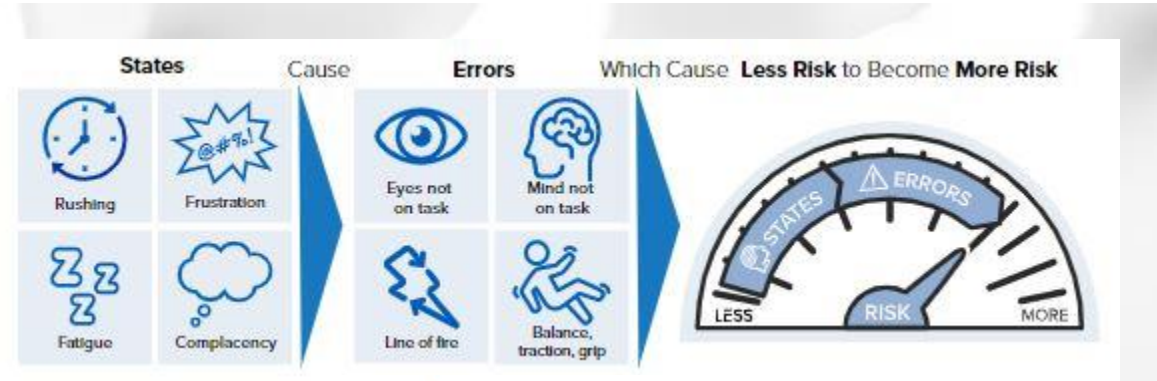
WORK PERMITTING

SAFE WORK PERMIT

PERU FACILITY
"Stop, Think and Ask"

PERMIT #

Company:	Contact:	Dept./Area:	Unit Radio Channel:												
Task Description:															
Energy Isolation: Single Point Isolation (Source/Magnitude):															
LOTO Permit #	Box #	WO #	MOC #												
A. SAFE WORK THIS SECTION IS TO BE COMPLETED BY THE PERMIT ISSUER AND PERMIT ACCEPTOR															
HAZARD ASSESSMENT		HIERARCHY OF CONTROLS													
<input type="checkbox"/> Ergonomics (e.g. Lifting, Awkward Posture, Repetition, etc.) <input type="checkbox"/> Hazardous Energy (e.g. Electrical, Mechanical, Chemical, Thermal, Gravity, etc.) <input type="checkbox"/> Fire and Explosion (e.g. Combustible/Flammable Gases, Liquids, Materials, etc.) <input type="checkbox"/> Environmental Impacts (e.g. Waste Generated, Noise, Heat, Cold, Asbestos, etc.) <input type="checkbox"/> Slips/Trips/Falls (e.g. Beads, Ice, Elevated Surface Work, Obstruction, Debris, etc.) <input type="checkbox"/> Caught In/Stuck By/Against (e.g. Line of Fire, Pinch Points, Mobile Equipment, etc.) <input type="checkbox"/> Exposure to Chemical/Thermal Release (e.g. Unloading/Loading Chemicals, Opening Process Lines, etc.) <input type="checkbox"/> Disabled Alarms/Bypass Interlocks – If yes, notify Supervisor		1. Elimination (Ideal and most effective) 2. Substitution (Replace the hazard with a lower risk solution) 3. Engineering (Any physical means of controlling the hazard) 4. Administrative (Dependent on appropriate human behavior) 5. Personal Protective Equipment (Worn as the final barrier)													
CONTROLS OR OTHER KNOWN POTENTIAL HAZARDS (ANY INFORMATION THAT IS APPLICABLE TO A SAFE EXECUTION OF THE TASK(S))															
EQUIPMENT/LINE CONDITION (CHECK A BOX FOR EACH CONDITION)															
Y	N	N/A	Y	N	N/A	Y	N	N/A	Y	N	N/A				
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Out of Service			Emptied			Lines Blinded			Nitrogen Purged						
Valves Closed			Drained			Water Washed			Other:						
Depressurized			Vents Open			Lines Disconnected									
<input type="checkbox"/> STANDARD PPE: HARD HAT, EAR PLUGS, SAFETY GLASSES, GLOVES, SAFETY TOED SHOES, AND FIRE RESISTANT CLOTHING (FRC)															
ADDITIONAL PPE: TASK SPECIFIC – NOT INCLUDING STANDARD PPE															
HEAD/FACE:			RESPIRATORY:			HAND:			BODY:			OTHER:			
<input type="checkbox"/> Face Shield			<input type="checkbox"/> PAPER			<input type="checkbox"/> Kevlar Gloves			<input type="checkbox"/> Tyvek Suit			<input type="checkbox"/> Hex Chrome			
<input type="checkbox"/> Dust Goggles			<input type="checkbox"/> Full Face			<input type="checkbox"/> Chemical Gloves			<input type="checkbox"/> Chemical Suit			<input type="checkbox"/> Electrical PPE			
<input type="checkbox"/> Chemical Goggles			<input type="checkbox"/> Half Mask			<input type="checkbox"/> Other_____			<input type="checkbox"/> Other_____			<input type="checkbox"/> SRL/Harness			
<input type="checkbox"/> Shaded Eye Protection			<input type="checkbox"/> Supplied Air												
ADDITIONAL DOCUMENTS (APPLIES TO PERMIT AND AVAILABLE FOR REVIEW FOR DURATION OF TASK)															
<input type="checkbox"/> High Risk Approval Form (EHS-F-206)				<input type="checkbox"/> Excavation (EHS-F-332)				<input type="checkbox"/> Crane Lift (EHS-F-331)				<input type="checkbox"/> Blind Risk Mitigation Form (EHS-F-222)			
<input type="checkbox"/> Electrical Task Hazard Analysis (EHS-F-317)				<input type="checkbox"/> Energy Control Plan / LOTO Permit (EHS-F-009)				<input type="checkbox"/> Interlock Bypass Authorization (EHS-F-237)							
B. HOT WORK IS HOT WORK APPLICABLE TO THIS JOB? <input type="checkbox"/> Yes – Complete this section <input type="checkbox"/> No – Skip to Confined Space															
(Task Description/ignition Sources):															
Low Energy Hot Work Requirements:						High Energy Hot Work Requirements:									
<input type="checkbox"/> Initial 4-gas meter testing by an Authorized Employee						<input type="checkbox"/> Initial 4-gas meter testing by an Authorized Employee									
<input type="checkbox"/> Continuous 4-gas monitoring						<input type="checkbox"/> Documentation of continuous 4-gas monitoring of area (EHS-F-309)									
<input type="checkbox"/> Ongoing AVO monitoring						<input type="checkbox"/> Fire watch responsibilities reviewed									
						<input type="checkbox"/> Extinguisher / fire suppression equipment is operable and at job site									
Initial Atmospheric Monitoring – before start of work						<input type="checkbox"/> Hot work blinds verified <input type="checkbox"/> N/A									
Meter #	Time	Oxygen (%)	LEL (%)			<input type="checkbox"/> Equipment vented to prevent overpressure (i.e. Line, Tank) <input type="checkbox"/> N/A									
						<input type="checkbox"/> 100% Spark containment									



SAFESTART® Rate Your State

How much are these states affecting you today?

(Circle a number from 0 to 10 for each state.)

Rushing
None 0 1 2 3 4 5 6 7 8 9 10 Max

Frustration
None 0 1 2 3 4 5 6 7 8 9 10 Max

Fatigue
None 0 1 2 3 4 5 6 7 8 9 10 Max

Complacency
None 0 1 2 3 4 5 6 7 8 9 10 Max

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WORK PERMITTING-EXERCISE

- 1 Employee
- 1 Maintenance craft
- 1 Work Permit
- 1 SafeStart moment (Anticipating Error)



WORK PERMITTING

Lockout/Tagout/Work Permit		Permit 145402	
Equipment/System to be locked out _____		Date _____	
Start Time: From _____ Dept. _____		Lock Box Number: _____	
ECP(s) _____			
Reason for Lockout _____			

General Procedure Review for Energy Isolation	YES	NO	By (Initials)
Have affected employees been notified	<input type="checkbox"/>	<input type="checkbox"/>	
Has equipment been shut down?	<input type="checkbox"/>	<input type="checkbox"/>	
Have lockout points been identified?	<input type="checkbox"/>	<input type="checkbox"/>	
Has equipment been decontaminated? (purged, washed, drained)	<input type="checkbox"/>	<input type="checkbox"/>	
Have lockout/tagout devices been installed at all lockout points?	<input type="checkbox"/>	<input type="checkbox"/>	
Has all potential energy been eliminated	<input type="checkbox"/>	<input type="checkbox"/>	
Equipment has been tested and verified as de-energized?	<input type="checkbox"/>	<input type="checkbox"/>	

Pre-Job Safety Review	Craft Initials		
Job Scope Discussed?			
Energy Isolation Procedure Reviewed?			
Energy Isolation Procedure Verified (Physically checked all isolation points)			
Hazards associated with the job discussed?			
Personal Protective Equipment (PPE) requirements discussed?			
Location of emergency equipment identified? (Eyewash, Fire Extinguishers, etc.)			
Emergency alarms and evacuation requirements discussed?			

Equipment Release & Pre-job Safety Review Completion
I have reviewed this equipment/system and believe that potential energy sources have been controlled and the system is ready for maintenance. In addition, all items applicable as defined by the pre-job review have been explained (if applicable). **Peru Facility and Contractor personnel should be vigilant of changing work conditions. If these changing conditions create an unsafe work environment, stop the job and reassess.**

- Operations _____ Date: _____ Time: _____
- Reviewed/Accepted By _____ Date: _____ Time: _____
- Supervisor (or designee) _____ Date: _____ Time: _____

Equipment Acceptance & Permit Closure
I have reviewed this equipment/system and believe that the repairs/replacement are completed and may be returned to normal operations.

- Maintenance/Contractor _____ DATE: _____ TIME: _____
- Operations Walk-Down _____ DATE: _____ TIME: _____



SAFESTART® PERFORMANCE

Anticipating Error™
(conversation record)

If something was to go wrong or if you made a critical error, what do you think would be the most...

expensive?

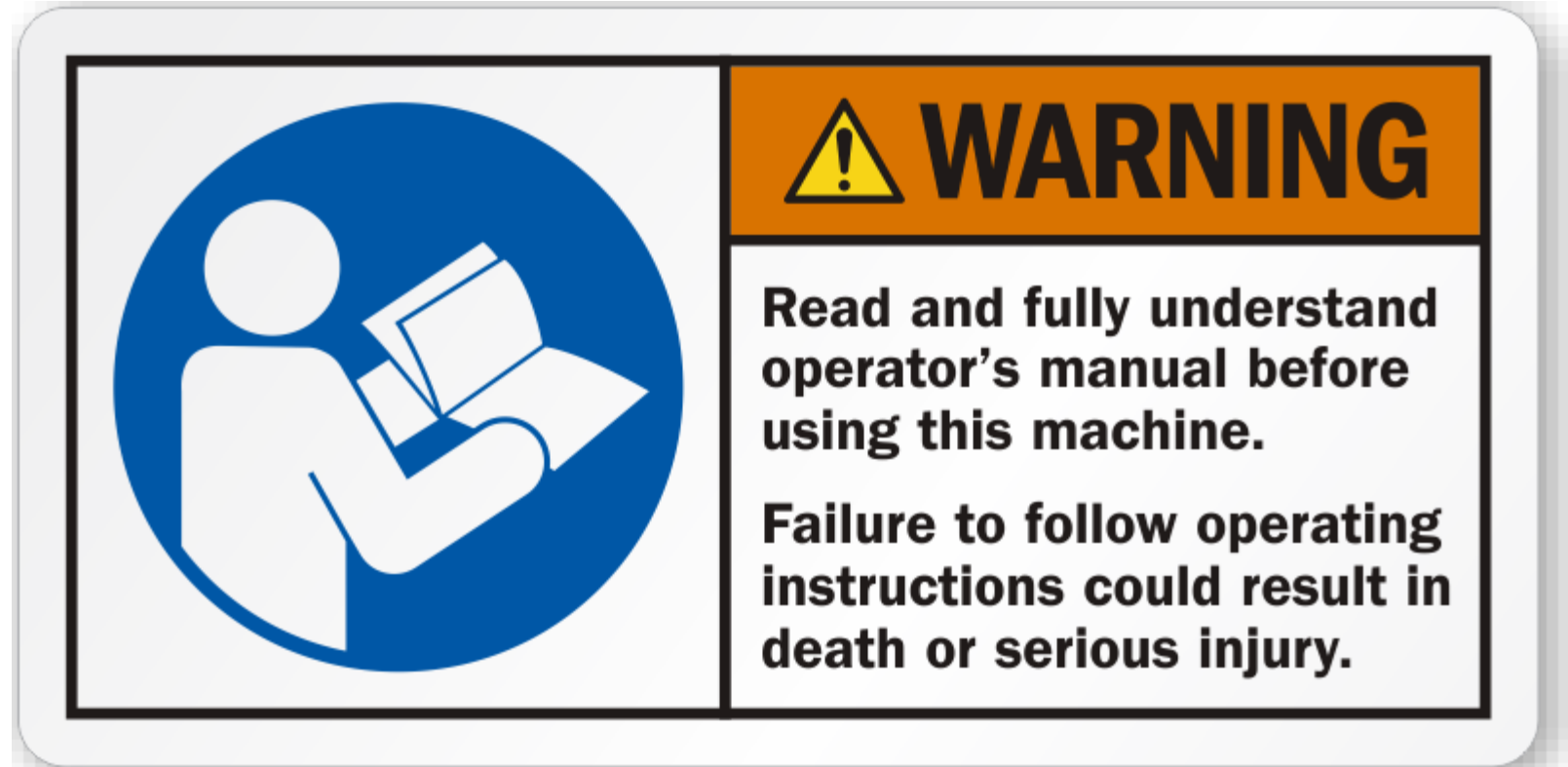
time consuming?

damaging to relationships?
(inside and outside)

serious accidental injury?

IN-HAND PROCEDURE-EXERCISE

- 2 Operators
- 1 In-Hand Procedure
- 1 SafeStart moment (Anticipating Error)



IN-HAND PROCEDURE USE

Epsilyte LLC General
Utilities Winterization
UTL-GOP-900
This procedure has been designated "Procedure in Hand"

Role Initials

PROCEDURE

INSULATION SURVEY

Note

Insulation must be present in good condition with banded metal covering. Must be dry and free from banded, deformation, frayed/torn or noticeable gaps.

- | | | | |
|----|-----|--|-------|
| UO | 1. | PERFORM critical insulation survey per list: | |
| UO | 2. | Condensate return line from Extrusion to Boiler House | _____ |
| UO | 3. | Waste Water from #001 Outfall to Surge Tank | _____ |
| UO | 4. | Process Water supply line to Bldg. 4 | _____ |
| UO | 5. | City Water line to Tank Farm Safety Showers (including BA Truck Unloading) | _____ |
| UO | 6. | Bldg. 4 Effluent line to Surge Tank | _____ |
| UO | 7. | Brine Tank fill and Brine line | _____ |
| UO | 8. | E-Cell/RO Reject line to Boiler House | _____ |
| UO | 9. | PO/QC/FW sump line to Surge Tank | _____ |
| UO | 10. | Bldg. 4 Condensate return line to Boiler House | _____ |
| UO | 11. | City water surge tank and piping | _____ |

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Anticipating Error™
(conversation record)

If something was to go wrong or if you made a critical error, what do you think would be the most...

expensive?

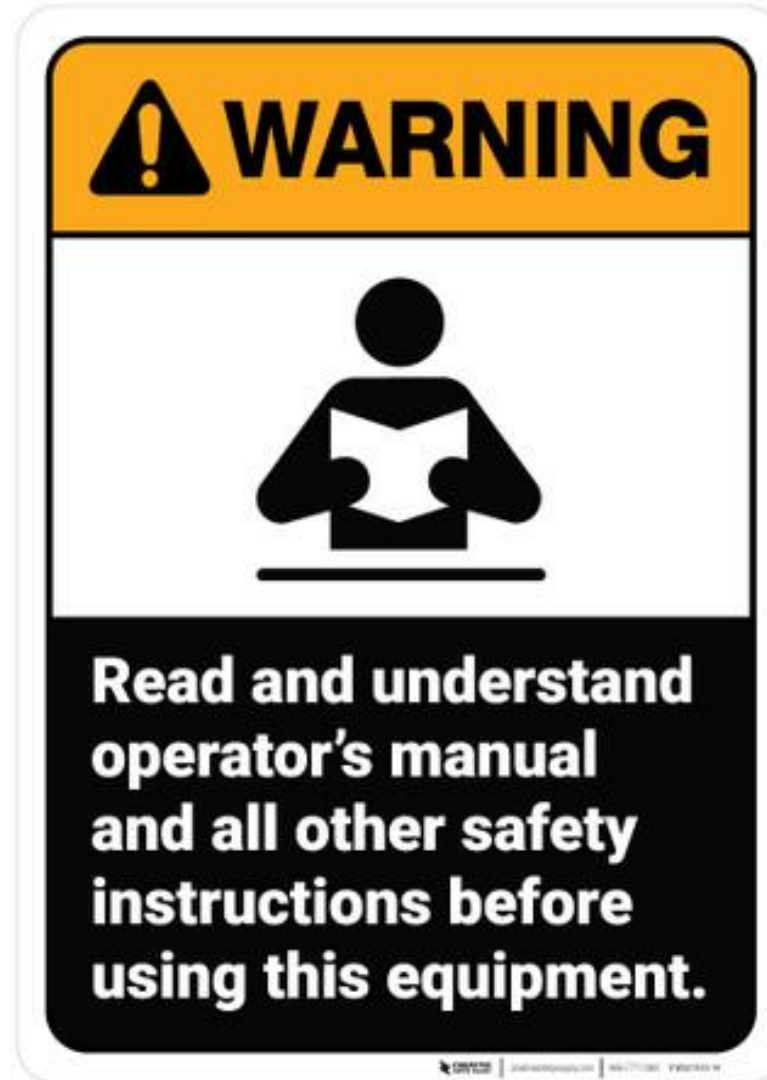
time consuming?

damaging to relationships?
(inside and outside)

serious accidental injury?

EMERGENCY PROCEDURE-EXERCISE

- 1 Crew of Operators
- 1 Supervisor
- 1 In-Hand Procedure
- 1 SafeStart moment
(Rate Your State)





BACK IN THE GAME

We adopted SafeLead in July 2021

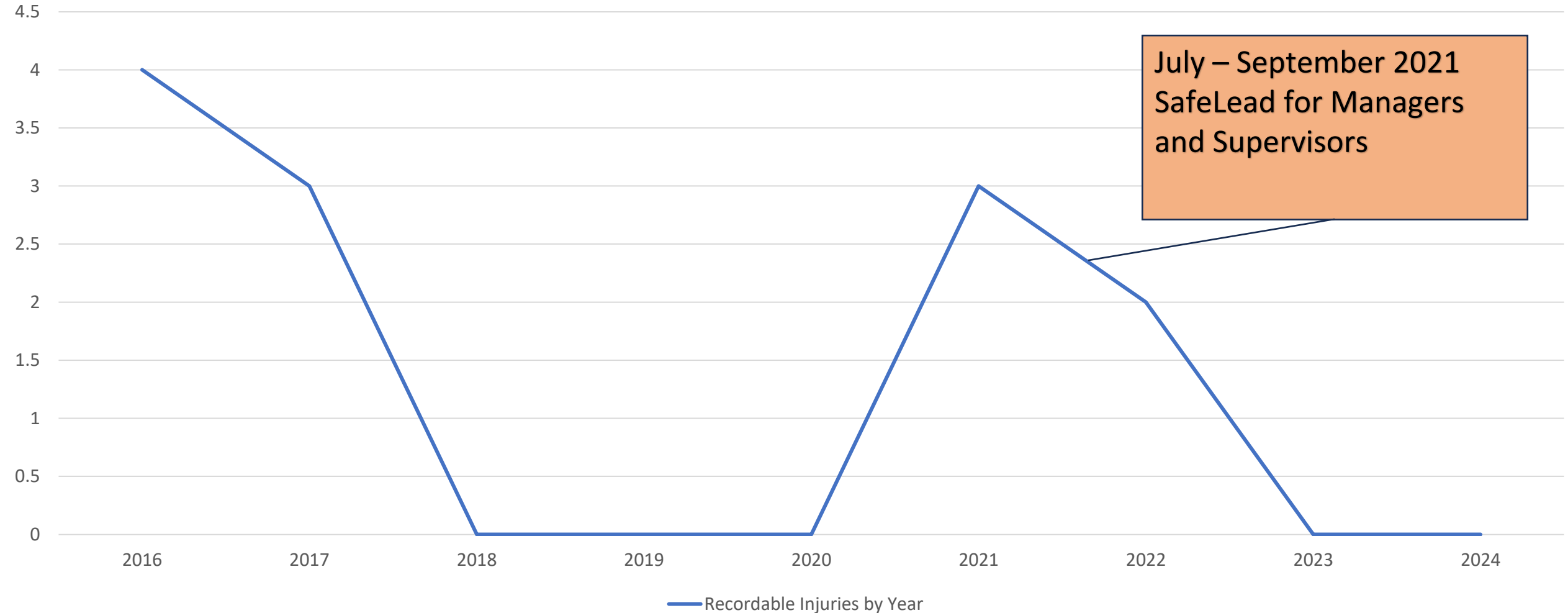
Needed to get Supervisors back in the front lines

For more info on SafeLead – See a Client Success Manager or sign up for Deric Ostrum’s workshop here at the SafeStart Forum



CONTINUED EDUCATION

Recordable Injuries by Year



SAFESTART – AGAIN?

 SAFESTART[®]  NOW



A Re-Introduction to SafeStart

SAFESTART NOW

Needed a Re-Vamp of the program

- New/Old Trainers
- New Steering Committee
- New Material

Plus, we had a lot of New faces we hadn't trained yet

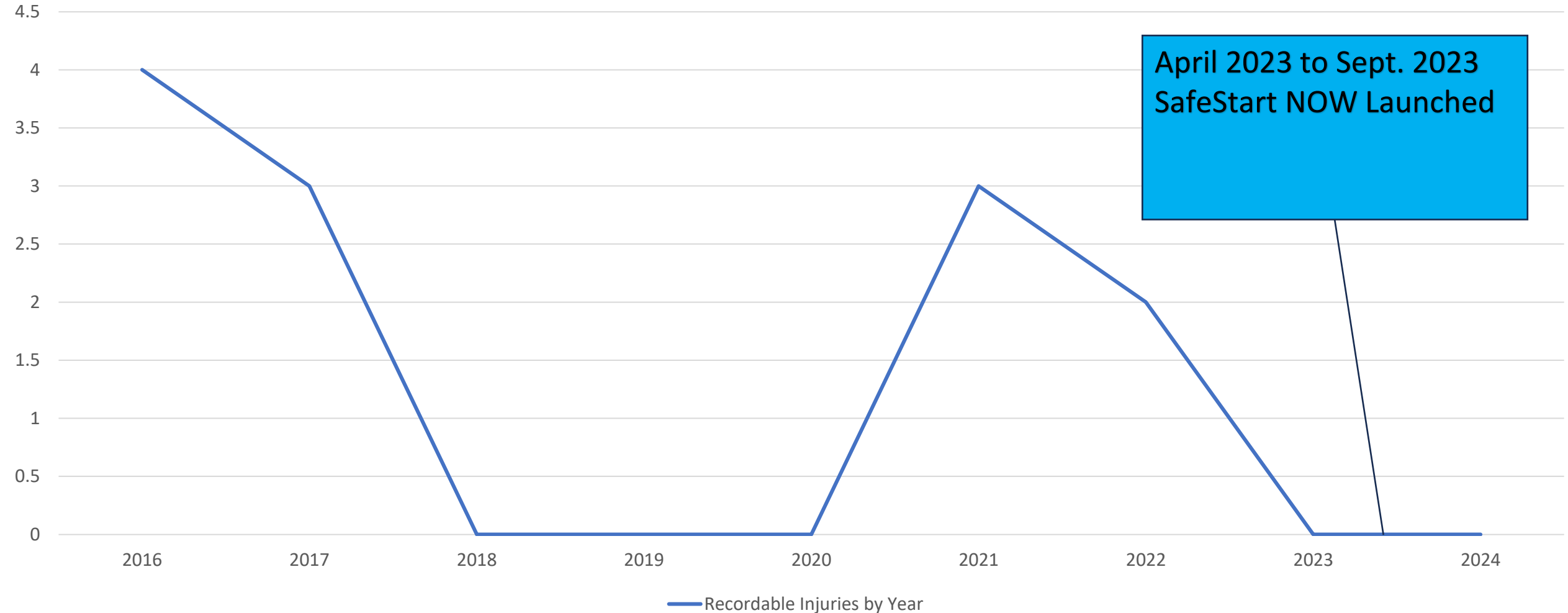
Brought about a new energy!



In this case, the paint was BLUE 😊

CONTINUED EDUCATION

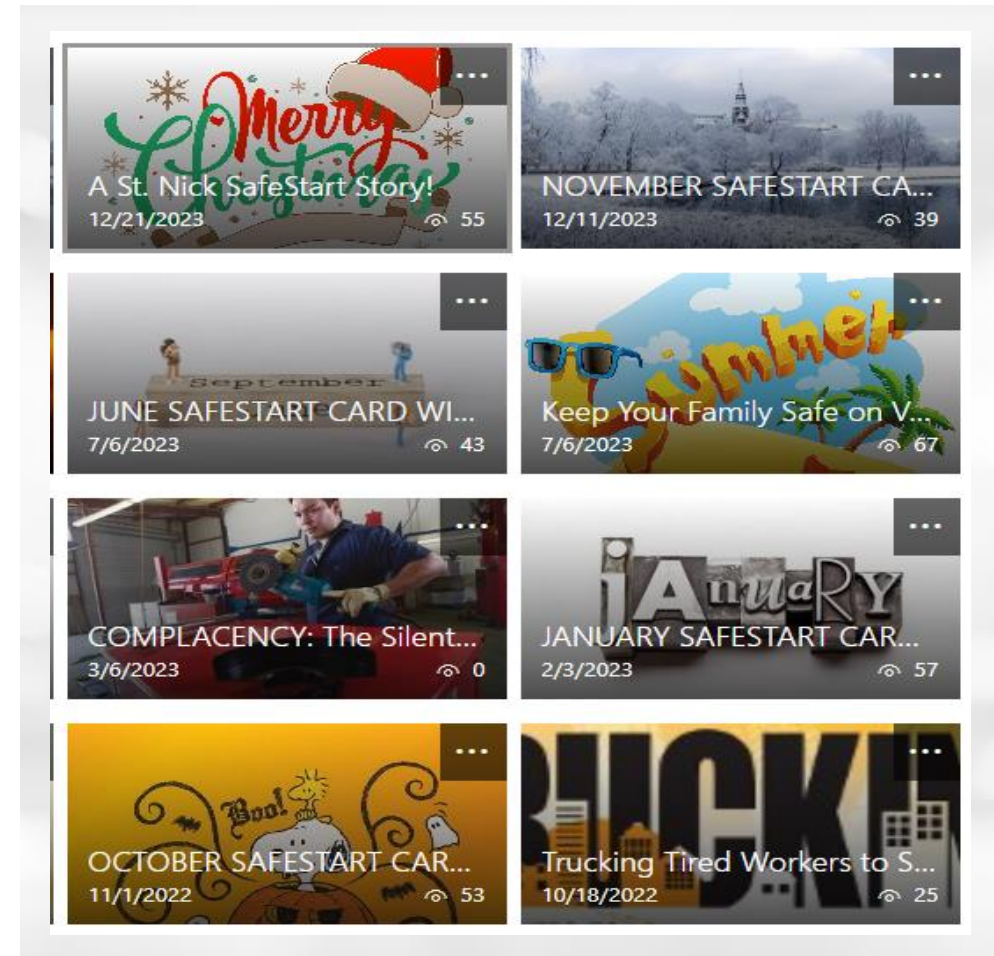
Recordable Injuries by Year





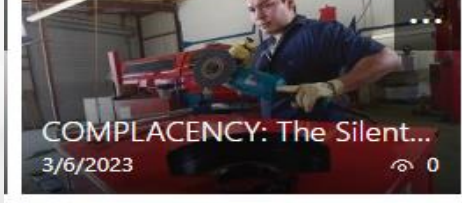


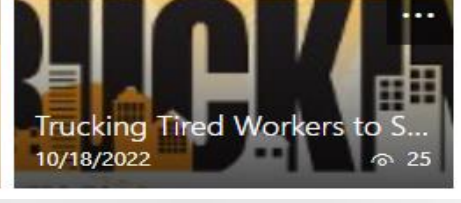


SAFESTART NOW



SAFESTART Digital Cards
EPSilivte
Feb 28, 2024
All of the SafeStart Practice cards you will need in one place!
Start now



 <p>A St. Nick SafeStart Story! 12/21/2023 55</p>	 <p>NOVEMBER SAFESTART CA... 12/11/2023 39</p>
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 <p>COMPLACENCY: The Silent... 3/6/2023 0</p>	 <p>JANUARY SAFESTART CAR... 2/3/2023 57</p>
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SAFESTART NOW

Digital SafeStart card options

Microsoft Sways – Communication

Client Portal Resources

Family Events/Contests

Improved Data flows

And as always Incentives



CONCLUSION

Finished 2023 with 0 Injuries

Re-Delivered SafeStart

Polished old items

Created new tools

Used feedback from employees

Continued family focus

Multi-site Program

SAFESTART[®] FORUM

FOR HUMAN FACTORS PRACTITIONERS



2024

ORLANDO, FL
APRIL 23 & 24

THANK YOU FOR ATTENDING!