



# **HUMAN ERROR REDUCTION**

Introductory Seminar

October 24, 2019

PDA Pacific Northwest Chapter

Presented by Virginia Andreotti-Jones

# ACKNOWLEDGEMENTS

Thank You for Your Support

PDA PNW Chapter

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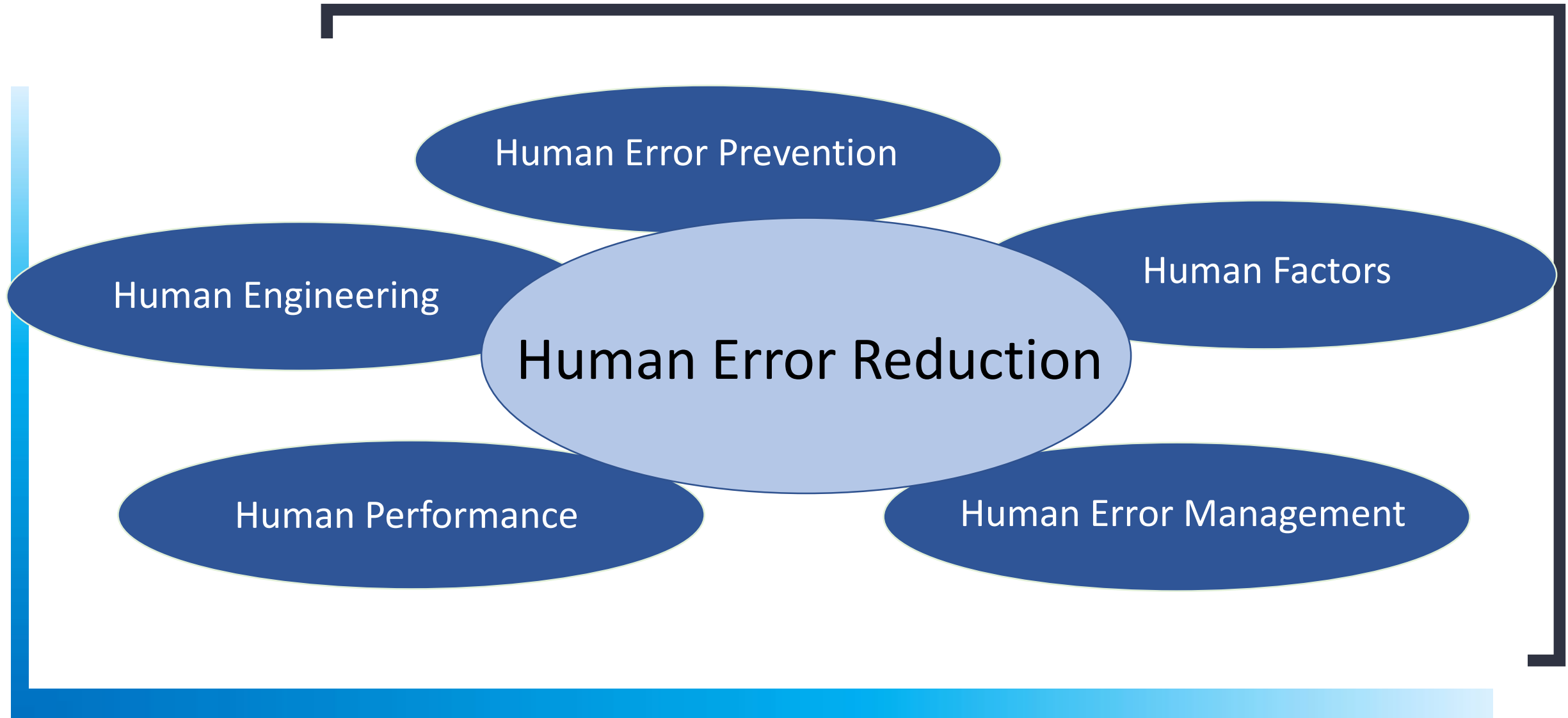


# OBJECTIVES

Give you a place to start

Learn foundations of Human Error Reduction

Take away tool(s) you can use tomorrow



Human Error Prevention

Human Engineering

Human Factors

Human Error Reduction

Human Performance

Human Error Management



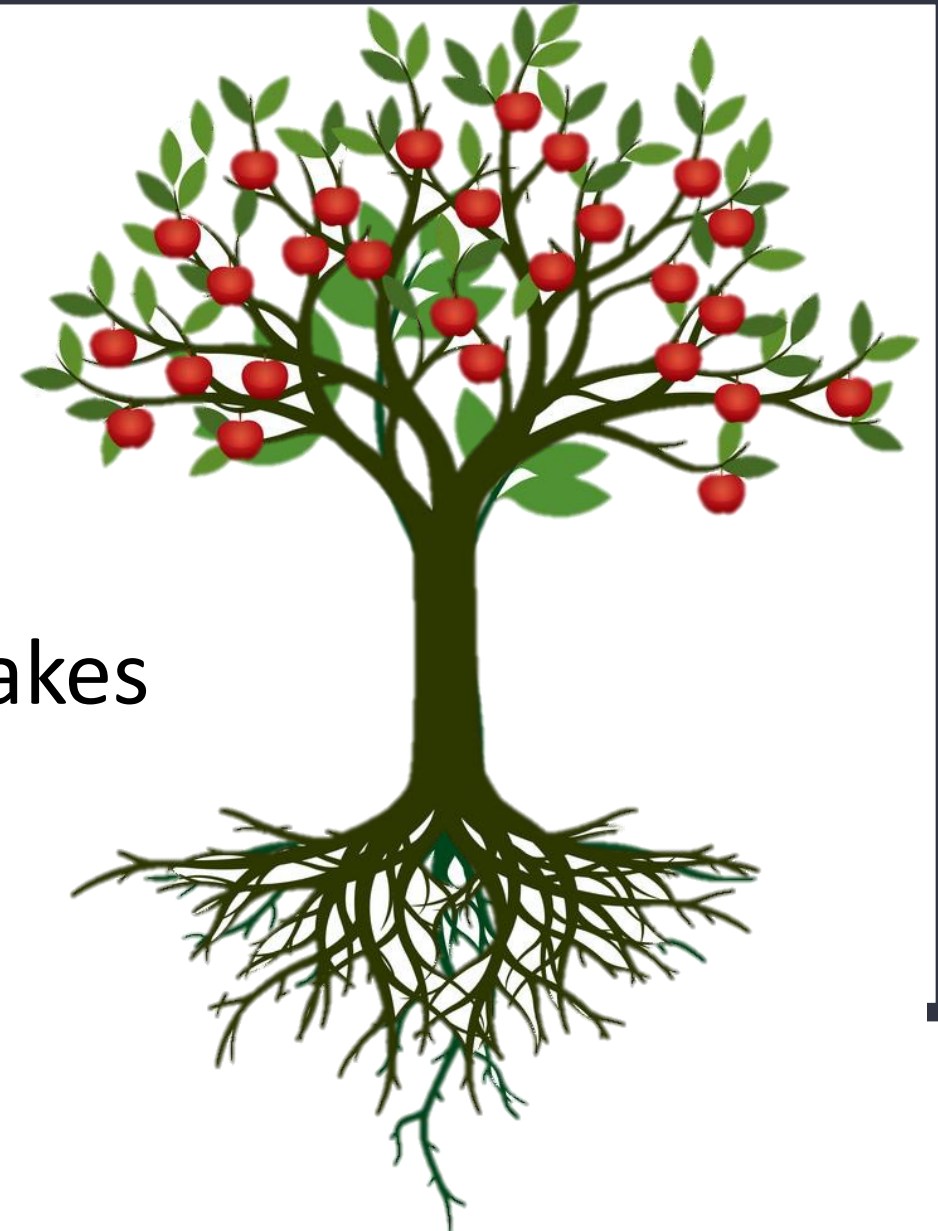
# FOUNDATION



# FOUNDATIONS OF HUMAN ERROR REDUCTION

HER Culture

Understand Why People Make Mistakes





# HER CULTURE

Accept All Make Mistakes

Assume Positive Intent

Blame Free

Open Communication

Focus on System Approach



# START WITH LANGUAGE

## Blaming Language

“They should have seen that”

“You need to focus more”

“Add another review step to catch that”



## HER Language

“Is the SOP clear, concise, and easy to follow”

“Change the process to prevent...”

“What tools can we implement to fix...”



# WHY DO PEOPLE MAKE MISTAKES?

Brains are Built for Survival

Strongest Habit Prevails

External Stressors

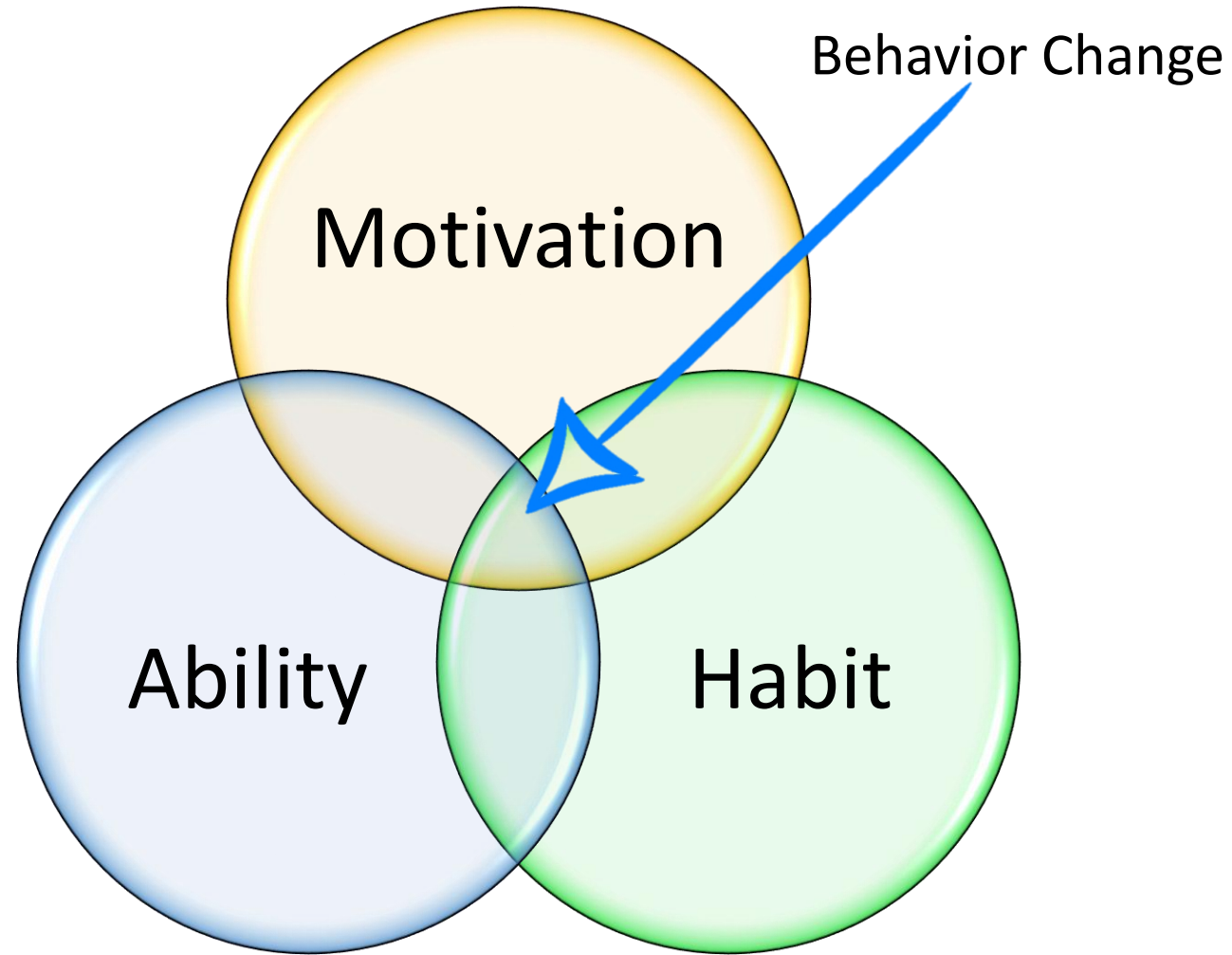


# CHANGE BEHAVIOR

$$B = M + A + H$$

Educate vs Train

Build New, Stronger Habits



# ELIMINATE MISTAKE OPPORTUNITIES

## ERROR PROOFING

Eliminate Opportunities

Engineering Controls



## ERROR PREVENTION

Attention Activators

Check Points

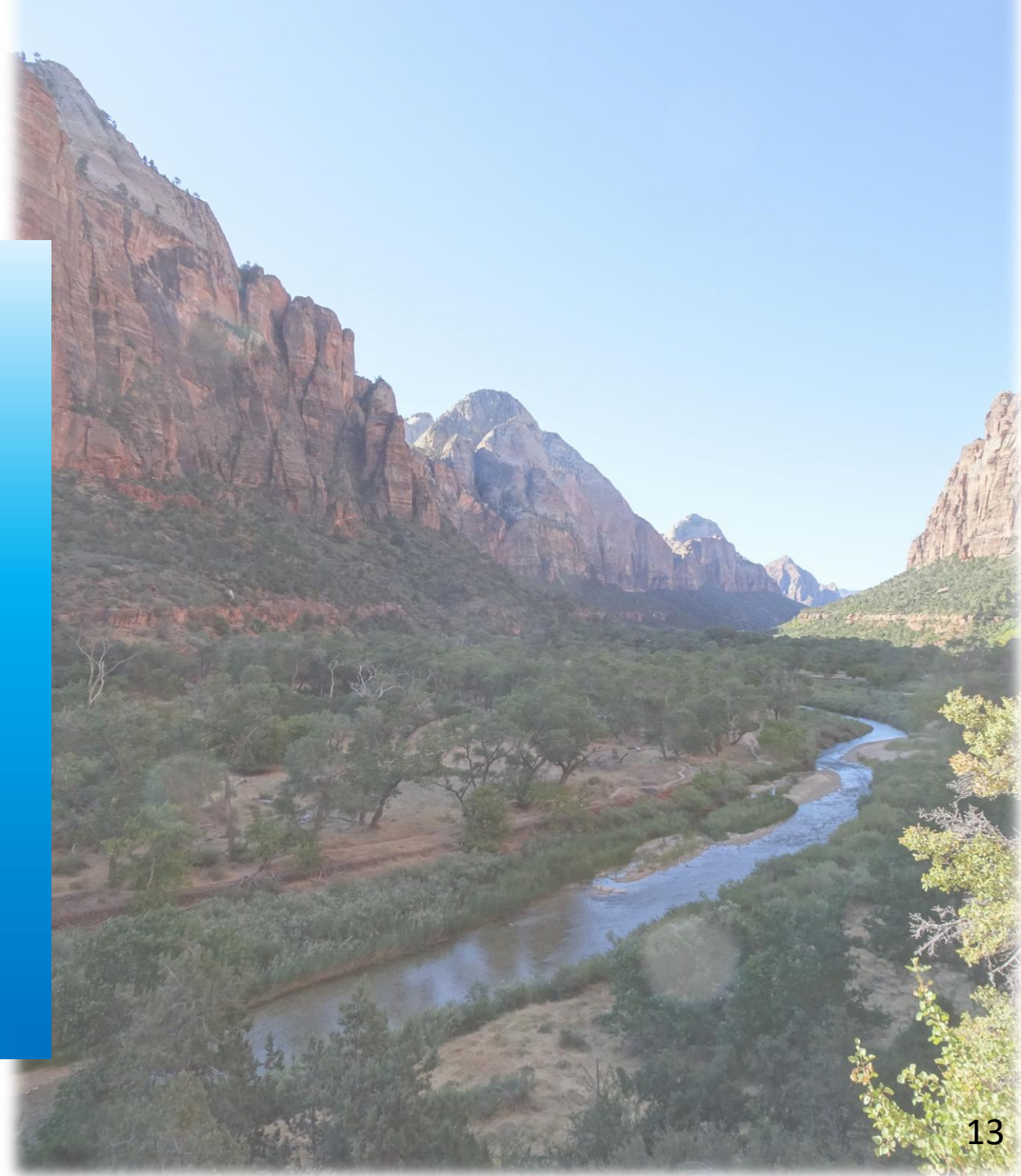


# TWO SIMPLE TOOLS





# PRE JOB BRIEFING



## PRE JOB BRIEFING

Extremely adaptable

Focus & prepare before task

Led by Front Line Personnel

Supervisors Support

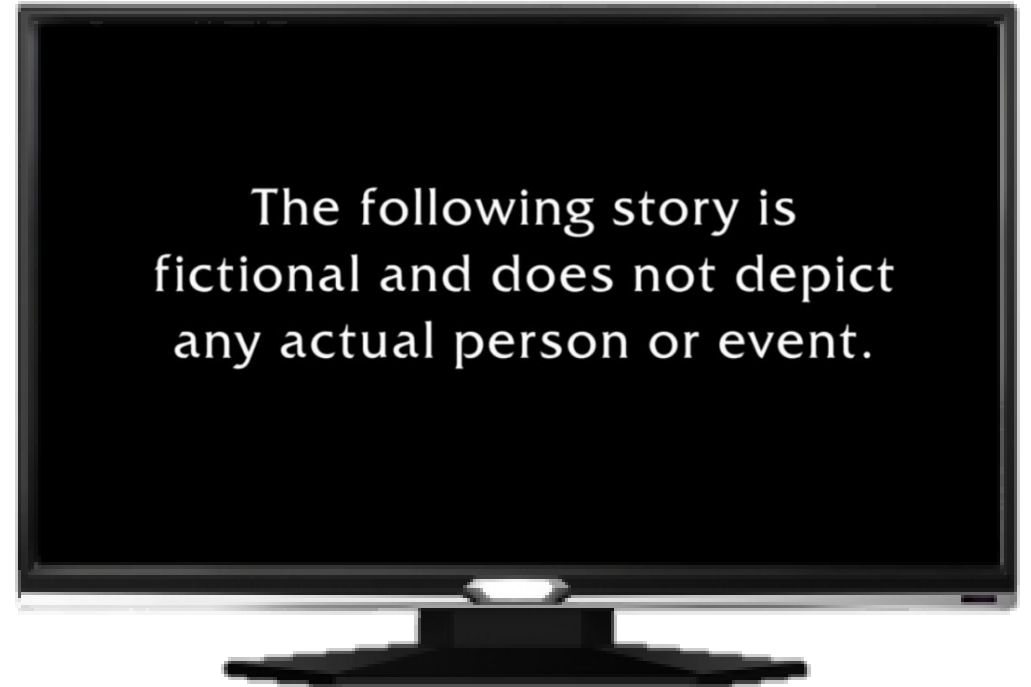
Brief (10-15 min)

Discuss:

- Task
- Documentation
- Roles, Responsibilities
- Critical Steps
- Potential Errors and Mitigation
- Operator Tips
- Trouble Shooting
- Stop Work Point

## BRIEF CASE STUDY

### Product Filtration





# ROOT CAUSE DECISION TREE



## Assess Systems:

- Materials
- Machine
- Maintenance
- Measurement
- Environment
- Method
- Training

## ROOT CAUSE DECISION TREE

Use if "manpower" RC is identified

Ensures systems are assessed

Eliminate other causes

Leads to Meaningful CAPA

## BRIEF CASE STUDY

Operator over-laid wrong  
compressed gas

**DO ~~NOT~~ TRY THIS  
AT HOME!**



**MORE  
COMPLEX  
TOOLS**

# MORE HER TOOLS

Human Error Reduction Team

Value Stories

SOP Writing

Leader Coaching

Trending & Analysis

Employee Suggestions



# GETTING STARTED

Resources



# WHERE TO START

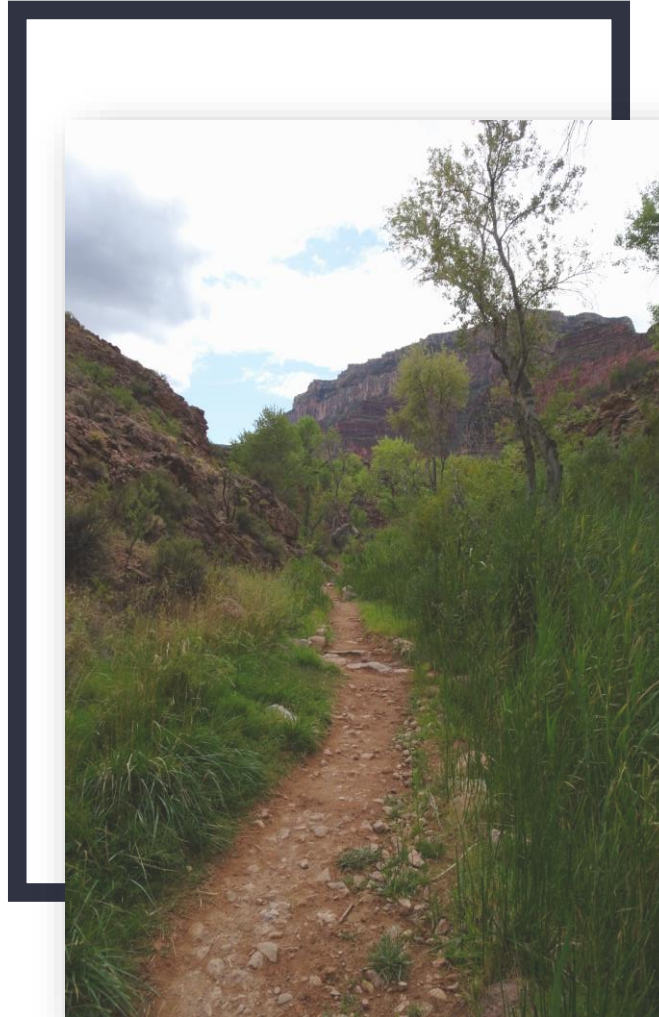
## Resources

BioPhorum (BPOG)

NSF International

ASQ

PDA



## Key Word Search

“Human Error Reduction”

“Human Performance”

“Human Factors”

“Error Proofing”

“Mistake Proofing”

“Error Reduction”

# CONCLUSION

Build an HER Culture

Focus on System Approach

Start Simple

Start Tomorrow

Reach Out





A photograph of a natural rock archway with layered, reddish-brown rock formations. The sky is blue with light clouds. In the foreground, there are green bushes with yellow flowers.

**THANK YOU!**

Any Final Questions?