Lean Safety – Improving your Safety Culture with Lean Management Tools

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Participants must:

1. Sign in using attendance sheet in the back of the room.

2. Attend at least 95% of the session.

3. Complete the session and post-program evaluation.

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AGC 2021 THE CONSTRUCTION ASSOCIATION CONVENTION

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1.0 CM-Lean CE Credit | AGC of America recognizes the Annual Convention as qualifying for continuing education hours towards the renewal of AGC's Certificate of Management-Lean Construction (CM-Lean).

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Learning Objectives

By the end of this session, participants will be able to:

1. Discuss how a Lean Safety Culture can make employees safer, happier, healthier, and more productive.

2. Use the Lean tool "5-Why" to find the true Root Cause Analysis of an accident.

3. Employ Gap Analysis to identify the difference between a safety problem and a safety result.

4. Examine the difference between "fact finding" and "fault finding" and how this difference affects a company's ability to solve root cause problems.

Lean Safety

Improve Your Safety Culture with Lean Tools

Safety

- *Definition: freedom from the occurrence or risk of injury, danger, or loss*
- Safety Slogans
- Can "SAFETY" be a goal?
- OSHA
  - Compliance Program
  - How do you go from Compliance to Desire?

Beliefs

- Do you believe all your employees show up every day to work safely, be productive, and produce a quality product?

"The truth is that most people want to be successful and will work hard to get there. Good leaders recognize this and collaborate with them, knowing if their people succeed they will as well." -Lee Ellis

Lean   Improving customer value by eliminating waste

Defects

Over Production

Over Processing

Excess Inventory

Accidents

Unused Employee Creativity

Unnecessary Transportation

Unnecessary Motion

Waiting

Eight Wastes
- Who is the "customer?"
- Where does "Safety" fit in?

Lean Safety

- It is a **Culture** not a set of tools
  - *Lean is a culture of continuous improvement that is focused on increasing the value for the customer and developing employees to resolve process issues.*

- It is a **Mind Set** not a program

- Based in the desire to be a **World Class Safety Organization**

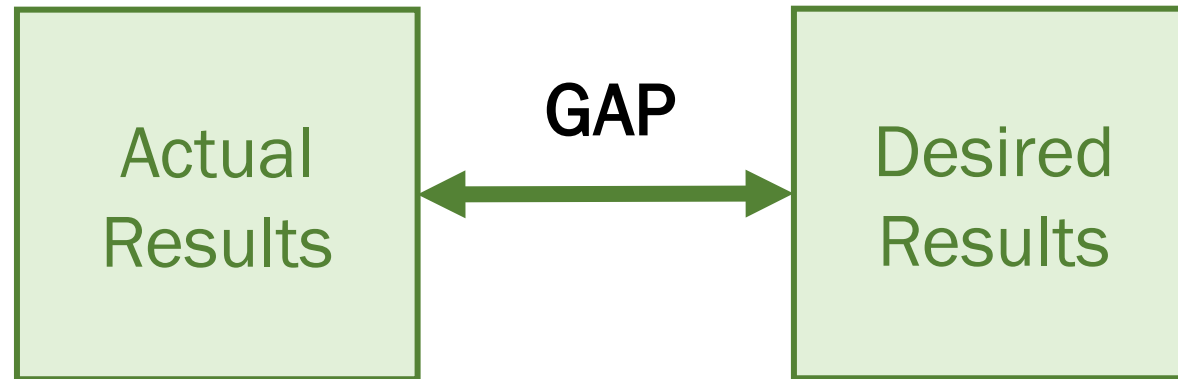 "World class organizations do not tolerate preventable accidents."

  -Secretary of Defense Donald Rumsfeld

Accident – Is This a Problem?

Accident

The problem is not the result.

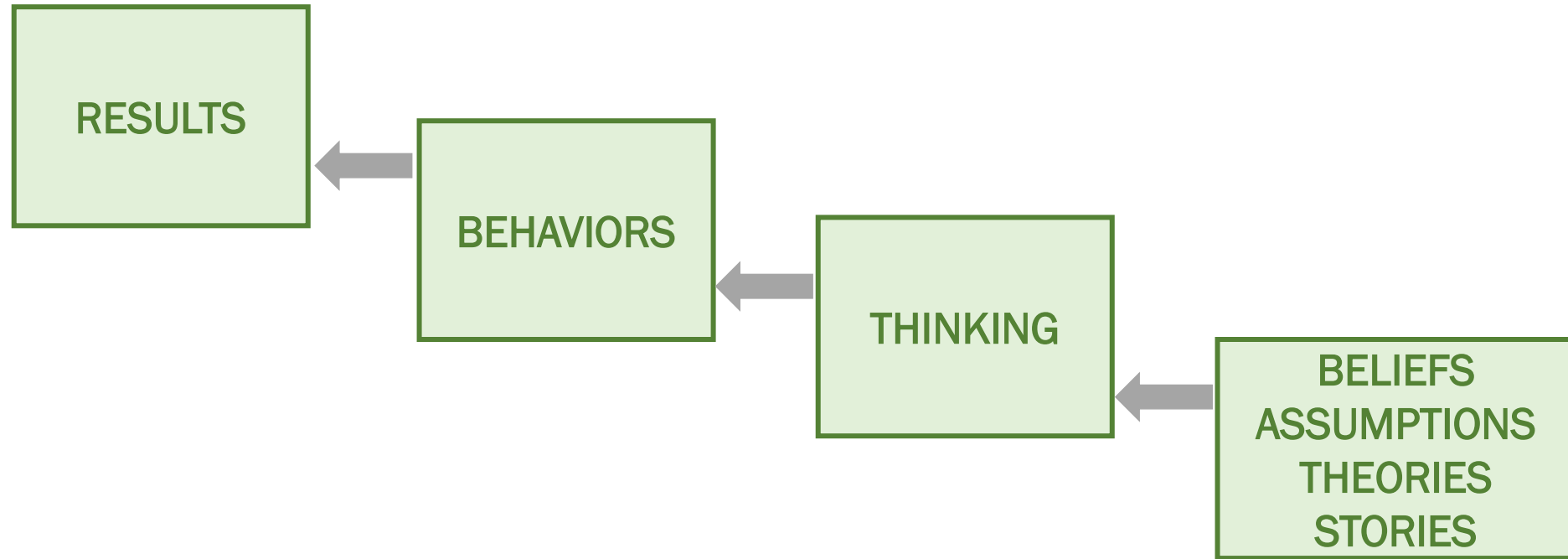| Actual Results | GAP → ← | Desired Results |

The **Real Problem** is in the **Gap** between Actual Results and Desired Results

Definition: an undesirable event that usually results in harm, injury, damage or loss

Process to Find the Problem (Reflection)

Beliefs affect Results

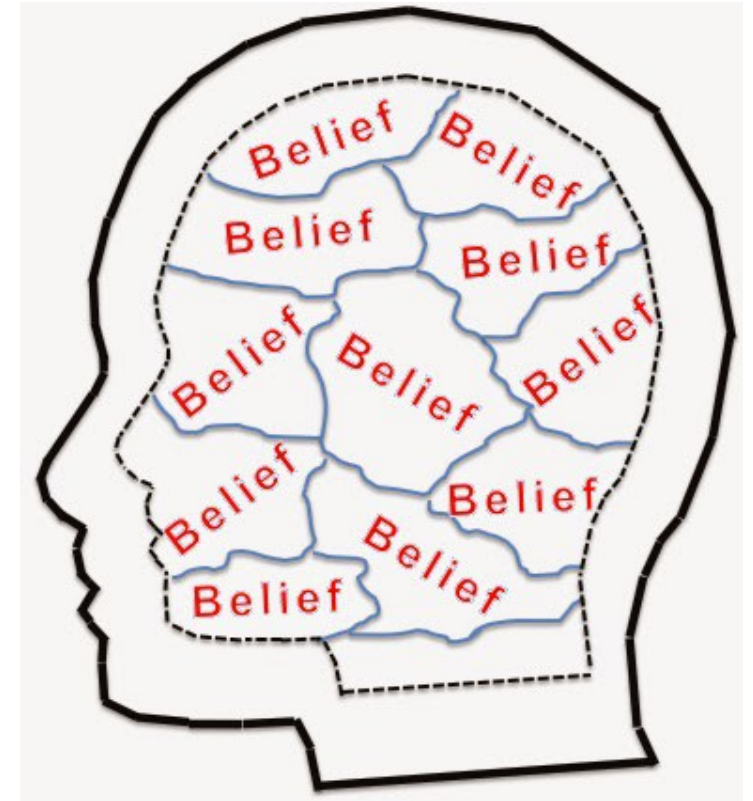| Results	Behaviors	Thinking	Beliefs
• Fall from the top step of a step ladder	• Stands on the top step of a step ladder and reaches	• I only need to reach one item and then I'm done • The right ladder is back in the trailer – It will take too long to bring it here • I want to improve production, so I don't have time to go back and get the right ladder	• I have stood on the top of a step ladder before and not been hurt • The "warning" on the top step is for clumsy people – I am not clumsy • I am expected to get the job done • Getting the job done justifies taking a safety shortcut

What Do You Believe?

- Employees come to work to be **Productive** and **Safe**

- **People** are the key to your company success

- Which is most important:
  Safety, **Cost (Productivity),** or **Quality**?

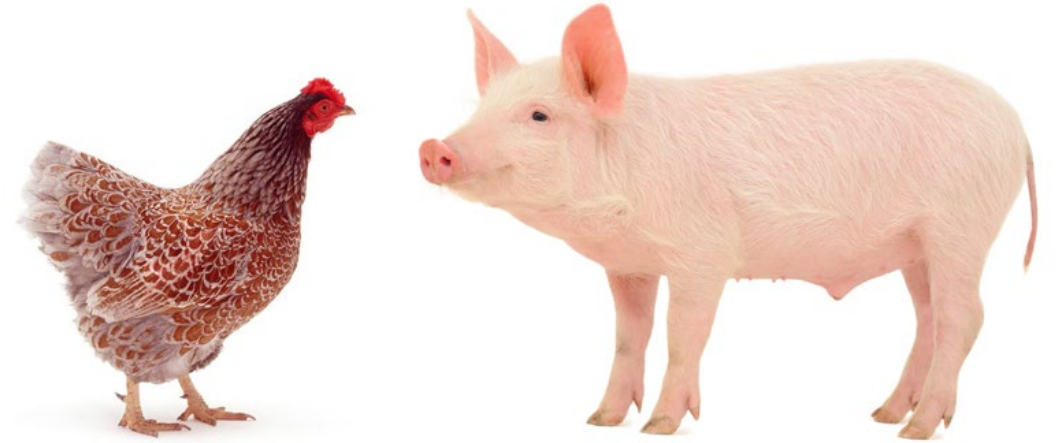- <u>**ALL**</u> jobsite accidents are preventable

Accident Investigation

- Incidents , Near Misses & Accidents are **Opportunities to Learn**!

- Root Cause Analysis
    - Utilize 5-Why

- Behavior is *NOT* a root cause
    - It is the **Process** not the Person

- Key Question:
    - *"What happened in our Process that caused the accident to occur?"*

Building a Lean Safety Culture

- Start with **Trust**
  - Engaging employees requires **Trust**
  - Earn Trust by giving **Trust**

- See employees as **People**

- Change from focus on employees as a **Cost** to focus on **Engaging People** as a **Resource**

- Management must be **Engaged** and **Committed,** not just participate

Building a Lean Safety Culture

- Impacting People
  - <u>Never</u> take *Safety Risks*
  - <u>Plan</u> for quality, safety, and productivity
  - <u>Never</u> put productivity or customer needs ahead of *Working Safely*
  - <u>Stop and Think</u> before taking *Non Standard Actions*
  - Guard against <u>Complacency</u> when completing *Routine Tasks*
  - The <u>Words</u> we use are *Important*
  - **Caring about employee safety is 24-7**

People don't care how much you know about Safety until they know how much you care about their Safety

Lean Tool Box

P – D – C – A
- **PLAN**
  - Objectives – Expectations – Metrics
- **DO**
  - Implement the Plan
- **CHECK**
  - Study actual results – Look for deviation
- **ACT**
  - Adjust and reset the plan if results vary from expected

Adjust your plan to the circumstances.

Ask the front line workers for their opinion.

Deming Cycle

Lean Tool Box

A3

- Define the Problem

- Describe the Current State

- Discover the Root Cause (5-Whys)

- Discuss the Solution (PLAN)

- Implement the Solution (DO)

- Assess the Results (CHECK)

- Adjust as needed (ACT)

The A3 Report

THEME: "What are we trying to do?"

To:_____
By:_____
Date:_____

Background
- Background of the problem
- Context required for full understanding
- Importance of the problem

Target Condition
- Diagram of proposed new process
- Countermeasures noted as fluffy clouds
- Measurable targets (quantity, time)

Current Condition
- Diagram of current situation (or process).
- Highlight problem(s) with storm bursts.
- What about the system is not IDEAL.
- Extent of the problem(s), i.e., measures.

Implementation Plan

What?	Who?	When?	Where?
Actions to be taken	Responsible person	Times, Dates	

Cost:

Cause Analysis
- List problem(s)
- Most likely direct (or root) cause:

Why? Why?
Why?
Why? Why?

Follow-Up

Plan	Actual Results
- How will you check the effects? - When will you check them?	- In red ink/pencil. - Date check done. - Results, compare to predicted.

Questions & Comments

THANK YOU!

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