



*Where Safety is our Main Line\_\_\_\_\_*

# Shaping a *Reliable* Culture of Safety: Our Error Prevention Toolkit

Staff Education

2011

Prepared for Main Line Health by Healthcare Performance Improvement, LLC, with the MLHS Safety Culture Leadership Team, for limited, non-exclusive, non-transferable internal use only.

# Error Prevention

- All of us make mistakes/errors.
- When people in healthcare make mistakes, it can result in great inconvenience, harm or death.
- Not everyone's job at MLH has a *direct* impact on patients but we all make a contribution to the overall experience patients, families, or visitors have.
- What are the **goals of this program?**
  - to give you an introduction to patient safety at MLH
  - Describe the science of safety
  - Introduce you to the MLH safety behaviors and associated error prevention tools

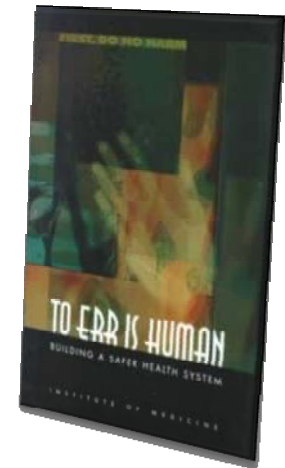


# Harm in Healthcare – “A 747 a Day”

## Why is attention to patient safety important?

1999 IOM report: “*To Err is Human: Building a Safer Health System*”

- Estimates 44,000 to 98,000 Americans die annually from medical errors
- That would equal one plane crashing and killing everyone on board every day of the year!!!
  - $98,000/365 = 268$  people/day (747 capacity)
  - $44,000/365 = 120$  people/day (737 capacity)



# *Safety is our Main Line*

Our *mission* at Main Line Health is to provide a superior patient experience.

Our *goal* at Main Line Health is to be well ahead in patient safety by eliminating preventable harm

2013 Target:

*Reduce serious preventable harm rate by*

**50%**

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# Patient Safety at Main Line Health

1. Thousands of lives are saved every year at MLH yet **patients also are harmed or even die from human errors**
2. Over 100 patient safety events which occurred from 2006 - 2009, *resulting from not using safe practices* were reviewed
3. Majority of errors related to ***breakdown in teamwork and communication***\* (e.g., staff reluctant to speak up about risk or impending mistake; afraid to ask clarifying questions.)
4. A recent safety culture survey (>1,900 MLH responded) pointed out that 50% are ***afraid to speak up to those in authority*** about things that may negatively impact patients.



# Safety is Everybody's Business



We often think that patient safety is the responsibility of doctors and nurses.

There is no professional group in healthcare that has not, through an error of omission or commission, caused harm to a patient.

A hospital is first and foremost a patient care enterprise.

*Every job is important in patient safety.*

Here's one story to illustrate that safety is everyone's job!

Contract elevator maintenance employees drained fluid from elevators into containers used for surgical detergent. The containers were not properly re-labeled or securely stored. They were restocked and shipped as detergent back to Durham Regional Hospital and Duke Health Raleigh Hospital.

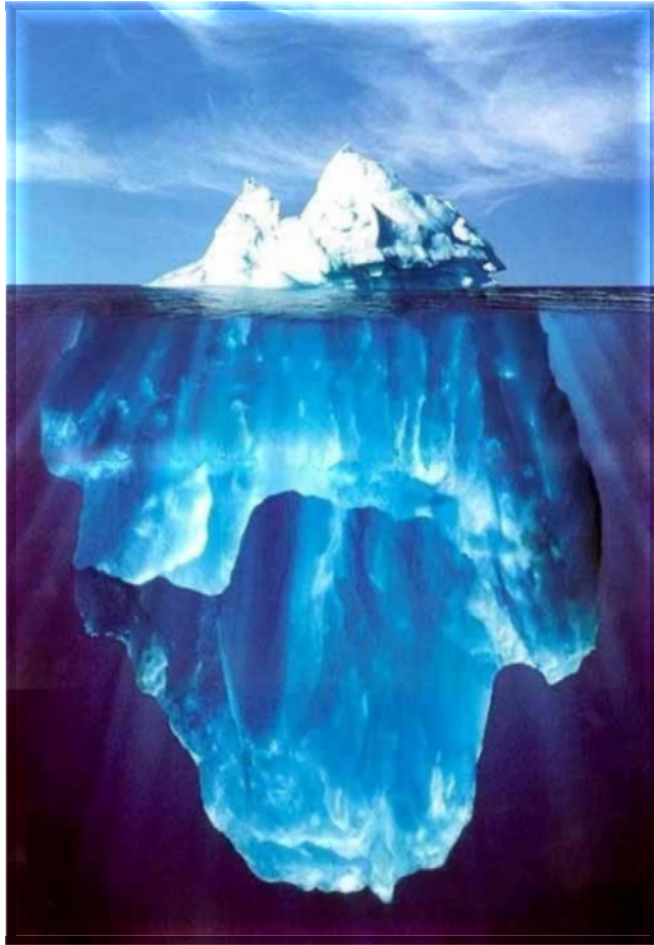
In November and December of 2004, the elevator hydraulic fluid was used as detergent in one step of a multi-step cleaning and sterilization process of surgical tools.



Photo Credit: Duke University Medical Center



# What is Organizational Culture?



**Culture** is defined as the shared values and beliefs of a group. Your family has a culture, and that culture is probably different from the culture of the family that lives next door to you. We have a culture here at Main Line Health also and we all probably have a pretty good idea of what that looks like.

The iceberg demonstrates what we are talking about. What we see above the water-the tip of the iceberg-is like our behaviors. Its those things we can see one another doing that demonstrate what lies beneath- our culture. Culture is like that iceberg – what you see, as well as what you don't see. Changing culture is hard and it takes time. So to start, we're going to focus on the tip of the iceberg – *our behaviors* – what we can see. This will have an immediate impact on Outcomes – fewer events of harm – but over time will also affect our values and beliefs.

**Our Behaviors will literally seep down below the waterline, infusing our culture to where one day they will become “Just the way we do things around here”. That’s when we know lasting culture change is happening!**



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# THE SCIENCE OF SAFETY:

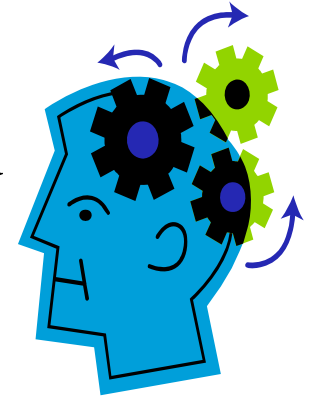
Let's take a few minutes to understand how human performance affects the errors we make. We mentioned earlier that there is “**science**” behind how human beings perform.

Human error is predictable, and when we understand how mistakes are made, we can act to prevent and reduce the probability of human error.



# Three Ways Humans Perform

Human beings experience three different types of errors – *skill-based errors*, *rule-based errors*, and *knowledge-based errors*.

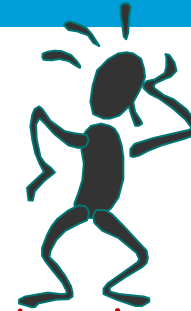


The name of the error type describes the mode that your brain is in at the time you experience the error. Each mode represents a different level of familiarity we have with the task being performed and degree of conscious thought that we apply when performing the task.

Let's talk about each mode of human performance, the types of errors in each, and specific error prevention strategies.



# Skill-Based Errors



## Skill-Based Performance

*A well developed skill pattern exists in your brain, developed through practice and repetition of an act.*

*We are doing tasks so routine and familiar that we don't even have to think about the task while we are doing it!!*

*What are examples? Brushing your teeth, combing your hair, making coffee, starting the car are just a few!*

What is an example of a skill-based error?

Putting the milk in the pantry instead of in the refrigerator is a classic example of a skill-based slip.

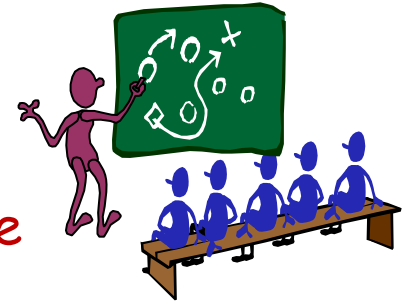
Another example is forgetting to add an attachment before sending an email!



# Rule-Based Errors

## Rule Based Performance

We perceive a situation and our brain scans for a rule - usually learned through education or experience- and we act to apply the rule.



What are examples? Oil and water don't mix, what goes up must come down, or water freezes at 32°F.

What's an example of a rule-based error?

- When asked the capital of Pennsylvania, you answer Philadelphia rather than Harrisburg.
- You may misapply a rule occurs when our thinking becomes confused. This is not a knowledge problem – we know the right answer – but a critical thinking problem. You know to tell your friend to turn right and you say left.
- You may choose not to comply with a rule. You know the rule and thought about at the time, but chose to do otherwise. For example driving over the speed limit, or giving someone your computer password.



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Lack of

# Knowledge-Based Errors

## Knowledge-Based Performance

We're in a new or unfamiliar situation.  
We have no developed skill, and we are not aware of an established rule to apply. This is a problem solving, or a "figuring - it - out" mode.



What are some examples?

Problem 1 – What is  $4 + 4$ ? The answer is 8. This is a rule-based problem, and we're able to respond lightening fast with high accuracy.

Problem 2 – What is the volume of a cylinder 4 meters in diameter and 8 meters tall? The answer is ....???

(By the way, the answer is 100.48)

This is a knowledge-based problem for most of us in which our responses is a very slow, error-prone and relies on good memory!

# Safety Behaviors

Our Safety Behaviors and error prevention tools were selected to help us prevent the types of errors that all humans experience (*skill, rule, and knowledge based errors*) and also to address our most common types of human errors here at MLH...

There are 5 behaviors and 11 tools. The following slide shows you the details.



# Our Error Prevention Toolkit

<i>I Commit to...</i> <b>Our Safety Behaviors</b>	<i>By Practicing...</i> <b>Error Prevention Tools</b>
<b>Attention to Detail</b>	1. <i>Self Checking Using STAR</i> <i>Stop</i> <i>Think</i> <i>Act</i> <i>Review</i>
<b>Communicate Clearly</b>	2. 3-Way Repeat Back & Read Back 3. Phonetic & Numeric Clarifications 4. Clarifying Questions
<b>Handoff Effectively</b>	5. Use SBAR to handoff: <i>S</i> ituation <b>B</b> ackground <i>A</i> ssessment <b>R</b> ecommendation
<b>Speak up for Safety</b>	6. Question & Confirm 7. Use ARCC to escalate safety concerns <i>A</i> sk a Question Make a <b>R</b> equest Voice a <b>C</b> oncern Use <b>C</b> hain of Command 8. Stop the line when there is an immediate threat 9. Crucial conversations
<b>Got Your Back!</b>	10. Peer Checking 11. Peer Coaching

# STAR

STAR is a simple technique for preventing skill-based errors. The four easy steps to this technique are shown on the slide. STAR is an acronym for stop, think, act and review.

The best times to use STAR are when you are going from thought to action such as entering data into a device or computer, sending an email with an attachment, or adding a value on a spreadsheet.



# Self Checking Using STAR

## Stop

Pause for 1 to 2 seconds to focus attention on the task at hand

## Think

Visualize the act and think about what is to be done

## Act

Concentrate and perform the task

## Review

Check for the desired result

### Self Checking

The most effective way to avoid slips and lapses.  
It takes **only seconds** to do and reduces the probability of making  
an error by a factor of 10 or MORE!





## *Count the F's*

*Read this sentence:*

**FINISHED FILES ARE THE RESULT  
OF YEARS OF SCIENTIFIC STUDY  
COMBINED WITH THE EXPERIENCE  
OF YEARS.**

Now count the F's in that sentence. Count them only once, **ONLY ONCE: DO NOT** go back and count them again.



# Count the F's Answer

**FINISHED FILES ARE THE RESULT  
OF YEARS OF SCIENTIFIC STUDY  
COMBINED WITH THE EXPERIENCE  
OF YEARS.**

**Correct Answer:            6**

The most common “F” that is missed is the word “of”. There are three “of’s”. Some people miss the F in the word scientific.

It’s usually because they go quickly through things: miss the small things – like the word “of”.



## *Safety Behavior #2: Communicate Clearly*

# Communicate Clearly

This behavior is about making sure that we give and receive accurate and complete information. We act on information that others give us, and our coworkers act on information that we give them. When we communicate poorly, inaccurate and incomplete information can lead us to make decision-making errors, or poor choices.

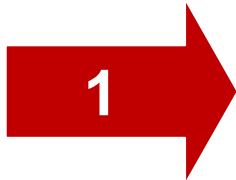
There are four error prevention tools for this safety behavior.

- 1) **3 – Way Repeat Backs**
- 2) **3 Way Read Backs**
- 3) **Clarifying Questions**
- 4) **Phonetic & Numeric Clarifications**

## Safety behavior # 2: Communicate Clearly

# 3 -Way Repeat Backs

When information is transferred... **Use 3-Way Communication!**



**Sender initiates** communication using Receiver's Name. Sender provides an order, request, or information to Receiver in a clear and concise format.



**Receiver acknowledges** receipt by a repeat-back of the order, request, or information.



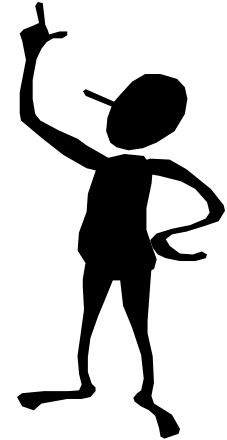
**Sender acknowledges the accuracy** of the repeat-back by saying, **That's correct!** If not correct, Sender repeats the communication.



## **3- Way Read Back**

**The same thing as a 3-Way Repeat Back, BUT...**

Receiver **writes** the  
information, request or order  
and **reads it back**.



***Don't rely on your memory...***

Write it down whenever you receive critical information that might be difficult to remember.

**On the clinical side, this is so *critical* that The Joint Commission requires this for communication of critical test results, verbal orders and telephone orders.**

## Safety behavior #2: Communicate Clearly

# Ask Clarifying Questions

Asking questions probes for understanding. Questions can be asked by the sender or by the receiver. Do you always have to ask clarifying questions? No. Pick your spots. Most certainly ask clarifying questions in these situations.

- When in high-risk situations
- When information is incomplete
- When information is not clear

**Asking clarifying questions can reduce the risk of making an error by 2½ times!**

### **Why...**

To make sure that you really understand what's being communicated so that you don't make a decision based on a wrong assumption.

### **How...**

Phrase your questions in a manner that will give an answer that improves your understanding of the information.

**A MLH Safety Phrase:  
"I have a clarifying question..."**



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# Phonetic Clarifications

Phonetic clarification is a good practice to use for sound alike words. When communicating verbally say the letter and follow it with a word that begins with the letter.

*It's not that important that you memorize a particular phonetic alphabet!*

It doesn't matter whether your "D" is Duck, David, or Delta. What's important is that you use a phonetic clarifier.

It is critical that we use phonetic clarification when we are communicating important information.

**For example:**

**A** = Alpha  
**B** = Bravo  
**C** = Charlie  
**D** = Delta  
**E** = Echo



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## Numeric Clarifications

The next recommended best practice in oral communications is *Numeric Clarifications*. This is where we say the number and then say the digits to avoid confusion with the sound-alike numbers like 15 (fifteen) and 50 (fifty).

Additionally, we need to commit to using those leading zeros where the decimal point is a place holder. This situation is so important because if we mess this one up we automatically get an order of magnitude error in our communications.

So the correct way to say this example, **0.9**, is “zero-point-nine”





# Now Let's Do a check in!



- Human error is not predictable. True or False
- Humans experience 3 different types of errors: knowledge, skill, and rule. True or False
- We can prevent errors by using various error prevention tools. True or False
- STAR is an acronym for *start, think, act, and redo*. True or False

## Handoff Effectively

*Handoff tasks by giving appropriate information and ensuring understanding and ownership.*

**A handoff happens when one individual who has responsibility for something- a project or an issue – transfers that responsibility to another individual.**

**Our behavior expectation to hand off effectively is designed to prevent errors that we experience when we pass something from one person to another.**



## SBAR Briefing Format

*When communicating about a problem or issue that needs resolution...*

### **Situation**

- Who you're calling about, the immediate problem, your concerns

### **Background**

- Review of pertinent information: environment, procedures, employee status, etc

### **Assessment**

- Your view of the situation: *"I think the problem is..." or "I'm not sure what the problem is"*
- Urgency of action: *"the situation is deteriorating rapidly - we need to do something"*

### **Recommendation**

- Your suggestion to or request of the other person

**Don't Forget - "Say the Words"!**

**(The situation is.....the background is.....my assessment is.....my recommendation is.....)**



# Let's Practice Creating an SBAR

You are a housekeeping associate who is working today up on 5 East. Although you haven't worked on this floor more than a week, you do know that the maternity unit is around the corner from 5 East.

You notice that there is a woman who is dressed in scrubs, although they don't look like the scrubs that the rest of the nurses in the hospital wear. She also doesn't have an ID badge on. She has walked back and forth along the hallway several times and once you thought she was turning toward Maternity.

You decide to contact Security to let them know about your concerns.



# COMPLETED SBAR

**Situation:** Hi, this is Jane in Housekeeping. The situation I am calling about a suspicious looking person walking around the floor on 5 East.

**Background:** The background is I noticed a woman dressed in scrubs, but not ones our staff wears. She doesn't have any identification badge. She has walked up and down the hall a few times and once she turned the corner to Maternity.

**Assessment:** My assessment is that I'm concerned that this is a potential patient safety risk.

**Recommendation/Request:** I'd like to request that you send a Security Officer. Do you have any questions for me?

# Speak Up for Safety

**Critical thinking** requires a questioning attitude. People who lack critical thinking skills make errors because they ....

- **Make wrong assumptions**
- **Fail to note a condition that is unusual**
- **Use information that is obviously incorrect**
- **Misinterpret correct information**

This behavior is intended to help prevent errors due to a failure to use critical thinking skills. It means that we need to have our antennae up so that we are aware of the things going on around us.

If something doesn't seem right, it probably isn't.

Having a questioning attitude helps ensure that we correctly perceive the conditions around us and that we correctly choose the right response for the situation.



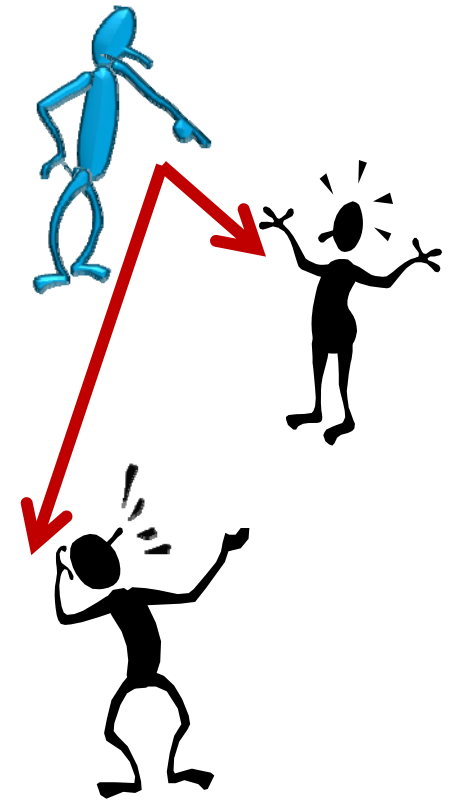
# Speak Up for Safety

**Crucial Conversations** is a course that is directly connected to promoting a culture of safety and is being offered to MLH employees in a separate format.

It is currently being offered to all employees at MLH, ask your manager about it.

## Power Distance & Authority Gradient

- There are a number of reasons why people don't speak up – even when they are concerned about something.
- Why? Well one important reason is the perception that the person they need to ask questions of has more “authority” or “power” than they do, because of experience, position or other reasons. That's what power distance is about.
- **POWER distance** is the extent to which someone who perceives they have less power expect and accept that power is distributed unequally and that therefore they can't speak up against authority.
- ***Our message to you is that when the safety of a one of our co-workers, visitor, or patient is at risk, we MUST speak up and ask questions.***





## ***Safety Behavior #4: Speak Up for Safety***

# **Question & Confirm**

Does it make sense to me?

Does it fit with what I know?

Is it what I expected to see?

Having a questioning attitude is the single most effective critical thinking tool. Recall that critical thinking is the disciplined process of applying Thought to a specific situation.

*Questioning attitude is not just about asking questions; it is also about questioning the answer.*

In the simplest form, questioning attitude is detecting incorrect information and incorrect assumptions. Question and confirm all information used on the job. It only takes seconds.

What does it look like?

A housekeeper questioning whether or not a patient is still on isolation because the sign they saw an hour ago is gone. An engineer questioning equipment that doesn't seem to go with the patient in that room.....



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Remember it's not just asking questions...It's also questioning the answers...

**The "Question" :**

*A maintenance worker (with six years experience at another hospital) had just recently started working at St. Elsewhere. He noticed that work was being done in the area right outside the cafeteria but there was no protective barrier up and the contractor told him none was needed when he inquired.*

***What should he do?***

**"Confirm"**

The first thing he did was to go check the policy but it wasn't clear.

Next he contacted his supervisor who confirmed that, yes, indeed a protective barrier was needed and the ICRA process was to be followed.



## Safety Behavior #4: Speaking Up for Safety

# Use ARCC to Escalate Safety Concerns

Use the lightest touch possible.

- Ask a question
- Make a Request
- Voice a Concern

If no success...

Use Chain of Command

**ARCC is a communication technique that can help us escalate a concern in a non-threatening way to avoid coming on too strong when a simple question would have sufficed. ARCC helps us to advance the concern if it is not addressed in a respectful way.**

**In the case where you see a situation that concerns you, or you're asked to do something that concerns you, the ARCC technique exists to resolve that concern without creating offense.**

**ARCC can be especially helpful if we feel hesitant or intimidated to raise a concern to someone we perceive to be in a position of higher authority. This tool together with skills learned in Crucial Conversations will assist you in feeling more confident to speak up.**



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# An Example of Speaking Up using ARCC

An employee was telling a “joke” that had inappropriate content, and an assistant, Brenda, stopped the person and asked the question: “Do you mean to tell that joke here?” (**ASK** a **QUESTION**)

- The employee responds “*I don’t know think there is anything wrong with it.*”
- Brenda: I am asking that you not tell jokes of that nature in the workplace. (**Make a Request**)
- The employee says – “*I don’t have to listen to you.*”
- Brenda: I have a concern that by telling inappropriate jokes you set up a hostile environment in our workplace. (**Voice a Concern**)
- The physician brushes by her giving her a smirk.
- What should Brenda do now? Contact the employee’s supervisor. (**Use Chain of Command**)

# Stop the Line for Safety

Anyone at MLHS has the authority to *STOP THE LINE* any time that an immediate threat (real or perceived) to patient or staff safety is identified.

**A MLH Safety Phrase**  
***"PLEASE STOP THE LINE, I NEED CLARITY"***



## ***Our Goal:***

A quick and specific request to stop any action and reassess the situation so that everyone is on the same page before continuing.

Stopping the line should always be done in a calm and respectful voice

# Got Your Back!

*This behavior is all about helping others and expecting that others will help us.*



*What should we do?*

*Monitor the actions of other team members for the purpose of sharing the workload and reducing or avoiding errors*

*Why should we do this?*

- A way of “watching each other’s back”
- To keep a colleague from doing an unsafe act

*There are two important Error Prevention Tools for this behavior:*

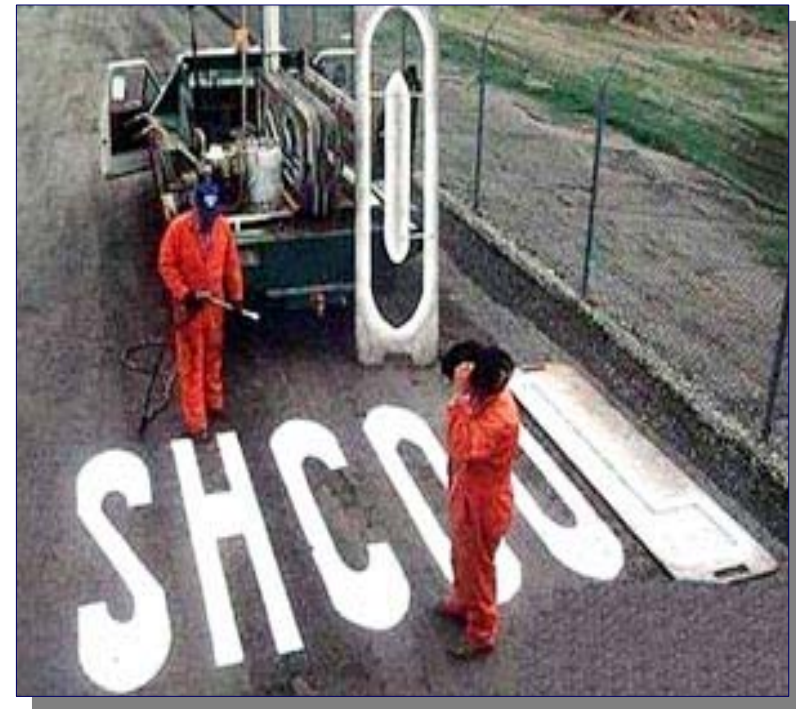
**Peer Checking**  
**Peer Coaching**



# Peer Checking

## Take advantage of working together!!

- Check the accuracy of each other's work
- Identify slips and lapses
- Point out unusual situations or hazards



## Peer Coaching

*Peer Coaching is different from checking. Coaching follows observation of behaviors and performance of our coworkers.*

**Encourage** and praise others when they use safe and productive behaviors

**Discourage** and give advice to others when they use unsafe and unproductive behaviors

Correcting unsafe and unproductive behaviors- can be challenging because it requires approaching a coworker about something they are not doing right.

We don't want to miss the opportunity to address an unsafe or unproductive behavior. "Letting it go" can send the message that the behavior is okay, and we don't want to positively reinforce unsafe or unproductive behaviors!





# Why do we need to continually use these tools?

One of the most important things for you to take away is that our safety initiative does not end with training!! It's about practicing the behaviors to help prevent errors AND develop those behaviors into habits.

Steps to an effective error prevention program:

1. Awareness: we've taught you the behaviors and tools.
2. Skill acquisition: Practice these behaviors and use the tools.
3. Habit formation: "Practice makes....habits!"
4. Performance: As these behaviors become habits you will see a reduction in the number of errors individuals make. With practice, we can expect an 80% reduction of harmful errors within 2 years!!

# Reminder: Our Error Prevention Toolkit

<i>I Commit to...</i> <b>Our Safety Behaviors</b>	<i>By Practicing...</i> <b>Error Prevention Tools</b>
<b>Attention to Detail</b>	<ul style="list-style-type: none"> <li>▪ <i>Self Checking Using STAR</i>  <i>Stop</i>  <i>Think</i>  <i>Act</i>  <i>Review</i> </li> </ul>
<b>Communicate Clearly</b>	<ul style="list-style-type: none"> <li>▪ 3-Way Repeat Back &amp; Read Back</li> <li>▪ Phonetic &amp; Numeric Clarifications</li> <li>▪ Clarifying Questions</li> </ul>
<b>Handoff Effectively</b>	<ul style="list-style-type: none"> <li>▪ Use SBAR to handoff:  <i>S</i>ituation  <b>B</b>ackground  <i>A</i>ssessment  <b>R</b>ecommendation         </li> </ul>
<b>Speak up for Safety</b>	<ul style="list-style-type: none"> <li>▪ Question &amp; Confirm</li> <li>▪ Use ARCC to escalate safety concerns  <i>A</i>sk a Question            Make a <b>R</b>equest            Voice a <b>C</b>oncern            Use <b>C</b>hain of Command         </li> <li>▪ Stop the line when there is an immediate threat</li> <li>▪ Crucial conversations</li> </ul>
<b>Got Your Back!</b>	<ul style="list-style-type: none"> <li>▪ Peer Checking</li> <li>▪ Peer Coaching</li> </ul>

# Summary

- All human beings make errors and so we must consciously work at *preventing* errors.
- There are 5 expected safety behaviors each employee needs to commit to using:
  - Pay attention to detail
  - Communicate clearly
  - Handoff effectively
  - Speak up for safety
  - Got your back
- There are 11 error prevention tools to assist employees on the journey to a more reliable safety culture.

