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# Accident Investigation Escape Room

*or*

*Oh, Crap! OSHA  
is on the way!*


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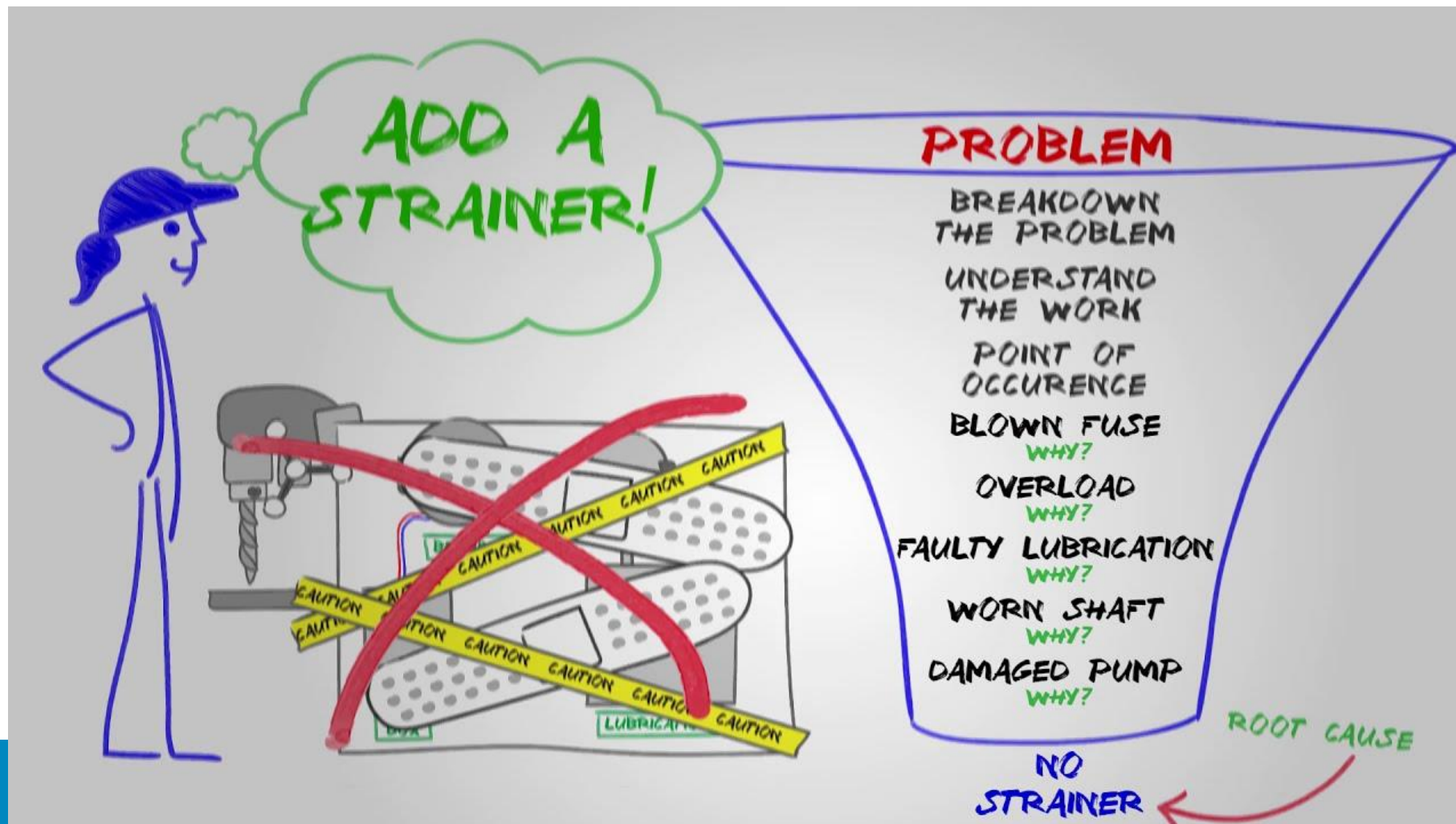


**I'm on the run!**  
**Call me at (949) 123-4567**

# The Five Whys

The background of the slide is a solid blue color with a repeating pattern of white hard hats. Each hard hat has a white plus sign on its front. The hard hats are arranged in a grid-like pattern, slightly offset from each other.

# The history



# Easy answers

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In safety, we can always blame the person:

- He did something stupid (against procedure, he knew better)
- He needs more training
- He should wear more/different PPE

If we ONLY blame the person, we will never get better.

To get better, we need to blame the system and find a way to fix it.

# The five whys

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1. Do your investigation. . . get a team. . . get all points of view
2. Put together the right problem statement
3. Ask WHY five times (or more or less) to get to the root cause of a problem?
4. Determine the Root Cause (or Root Causes)
5. Put together a Corrective Action Plan (Countermeasure) based on your Root Causes.

# The Wrong Ways





# Knowing the answer

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If we have already come to the conclusion, the “facts” will show us we are right:

- The gentleman was standing in the wrong spot – and we had talked to him about situational awareness before

# Knowing the answer



## Five Why's Root Cause Analysis/Corrective Action Plan

<b>Problem Statement</b>	At 0645L PPM plumber installing band on stainless steel pipe cut finger when the band slipped causing a laceration to left index finger.
<b>Why?</b> →	Q: Why did hand slip off band? A: Shield was too tight and was being forced instead of loosening it.
<b>Why?</b> →	Q: Why didn't he loosen it? A: Didn't re-evaluate conditions.
<b>Why?</b> →	Q: Why didn't he re-evaluate conditions? A: He was moving too fast.
<b>Why?</b> →	Q: Why was he moving too fast? A: Trying to get the job done.
<b>Why?</b> →	Q: Why did he cut his finger? A: Did not check for changing conditions wrong cut level glove for the task.
<b>Root Cause</b>	<ol style="list-style-type: none"> <li>1. PPM team should have had proper cut level 3+ gloves and pre-tested prior to conducting work.</li> <li>2. Additionally, PPM personnel was trying to meet a deadline instead of properly loosening the band.</li> <li>3. New material was introduced to the plumbers without proper prior evaluation.</li> </ol>
<b>Corrective Action Plan</b>	<ol style="list-style-type: none"> <li>1. PPM to provide proper cut level gloves for the task per the manufacturer recommendation.</li> <li>2. PPM to remind personnel to slow down and re-think all changing conditions.</li> <li>3. PPM team to evaluate all new material prior to use.</li> </ol>



# The guy knew better

**Problem:** I was late for work

**1 Why?** My alarm didn't go off

**2 Why?** I didn't set my alarm the night before

**3 Why?** I was too tired

**4 Why?** I had had a long day

**5 Why?** Too many things to do and not good planning

**Root Cause:** I do too much stuff in a day and wear myself out

**Corrective action:** Do less stuff



# The guy needs more training

**Problem:** I was late for work

**1 Why?** My alarm didn't go off

**2 Why?** I didn't set the alarm the night before because I was too tired

**3 Why do I have to set my alarm each day?** I don't know how to program my phone

**Root Cause:** My alarm is not programmed

**Corrective action:** Learn to program my alarm and get it set



# Easy problems

**Problem:** I was late for work

**1 Why?** I overslept

**2 Why?** My alarm didn't go off

**3 Why?** We lost power in the night

**Root Cause:** My alarm is dependent on power

**Corrective action:** Use my phone as a secondary alarm



# Multiple answers

**Problem:** I was late for work

**1 Why?** My alarm didn't go off

And

My car battery was dead

And

There was a wreck on the way

And

The elevator was down

**Root Cause:** My life sucks!

**Corrective action:** Have better luck



# Multiple problems

Alarm:

**Why?** Lost power

**Why?** Connected to power grid

**RC:** Alarm is dependent on power

**CA:** Have redundant alarm

Car Battery:

**Why?** Over 7 years old

**Why?** I don't remember

**RC:** Old battery

**CA:** Verify age of battery; replace battery every 7 years

Traffic delayed me:

**Why?** I never plan my route based on traffic

**Why?** Habit

**RC:** Only one route of travel

**CA:** Check Waze before leaving

Elevator:

**Why?** Hate taking the stairs

**Why?** Out of shape

**Why?** Rely on the elevator

**RC:** Out of shape

**CA:** Take the stairs more often



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