



## Western Refining

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*Thoughts on Workplace Safety*

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MORE PRODUCTION • LESS RISK!



**What do you Think it takes to Eliminate Personal Safety Incidents?**

**What do you Think it takes to Eliminate Process Safety Incidents, Unit Upsets, Vehicle Accidents and other Unwanted Surprises?**



## **Scenario #1: Operator Catching a Hot Oil Sample**

- \* Standard Operating Procedures are in place and are followed**
- \* Special Personal Protective Equipment is used; Insulated Gloves, Goggles with Face shield, etc.**
- \* This “High Risk” Sample is Safely caught without incident in a One Gallon Metal Sample Can**



## **Scenario #1a: Operator Transporting a Hot Oil Sample on a bike to the sample drop.**

- \* Sample Can is placed in the bike basket mounted above the front wheel**
- \* The lid is placed loosely on the can so that when the sample finishes cooling at the sample drop the lid can still be easily removed**
- \* The Bike is ridden to take the Sample to the Sample Drop**
- \* A Steam Hose is laying across the pipe alleyway along the Operator's Route**
- \* While crossing over the steam hose at a 45° angle, the bike wobbles, the sample can pops out of the basket, and the lid pops off of the can**
- \* The Operator is drenched in the Hot Oil from his waist down to his ankles**



**Weekdays from 6 a.m. - 9 a.m. & from 4 p.m. – 7 p.m. are when the highest number of serious traffic accidents occur.**

**Scenario #2: Driving to Work on Monday morning.**

- \* I'm awake, fresh from a weekend of fun & frolic**
- \* I'm alert, ready for the new day**
- \* My mind is focused on the driving and my morning routine at work**
- \* My distractions are few**
- \* The traffic is light**
- \* None of the other drivers are on their cell phone**
- \* I believe most of the other people on the road are in the same frame of mind as I am**
- \* I arrive at work safely**

**Although this is a higher risk time to be driving, it isn't the highest risk driving time**

## **Scenario #2a: Driving Home on Friday afternoon.**

- \* I'm a little tired after a week of boilin' oil**
- \* My mind drifts toward what mischief I can get into over the weekend**
- \* I'm tempted to call home on the cell phone & find out from the spousal unit what I'll really be doing over the weekend**
- \* It appears that many fellow drivers are more than just tempted by the cell phone**
- \* The traffic is much heavier on Friday afternoon; where were all these people Monday morning?**
- \* I make it home ok, but I pass a couple of accidents (sometimes serious ones) on the way**

**Serious & Fatal accidents are >300% more common on Friday afternoon & early evening than any other 3 hour period of the week.**





### **Scenario #3: Monday, March 21, 2005, Reformer S/U**

- \* Start Up Plans were well communicated with all affected parties and adjacent facilities**
- \* Start Up Procedures were reviewed by Operations prior to start up and were rigorously followed throughout the start up**
- \* Operators and Supervisors were well trained, had clear responsibilities, and executed a Safe and effective start up**





**Scenario #3a: Wednesday, March 23, 2005, Raffinate Splitter S/U, on the Isom Unit across the street from the Reformer**

- \* Start Up Plans were Not well communicated with all affected parties and adjacent facilities**
- \* Start Up Procedures were Not reviewed by Operations prior to start up and were Not followed throughout the start up**
- \* The Raffinate Splitter start up was never completed**

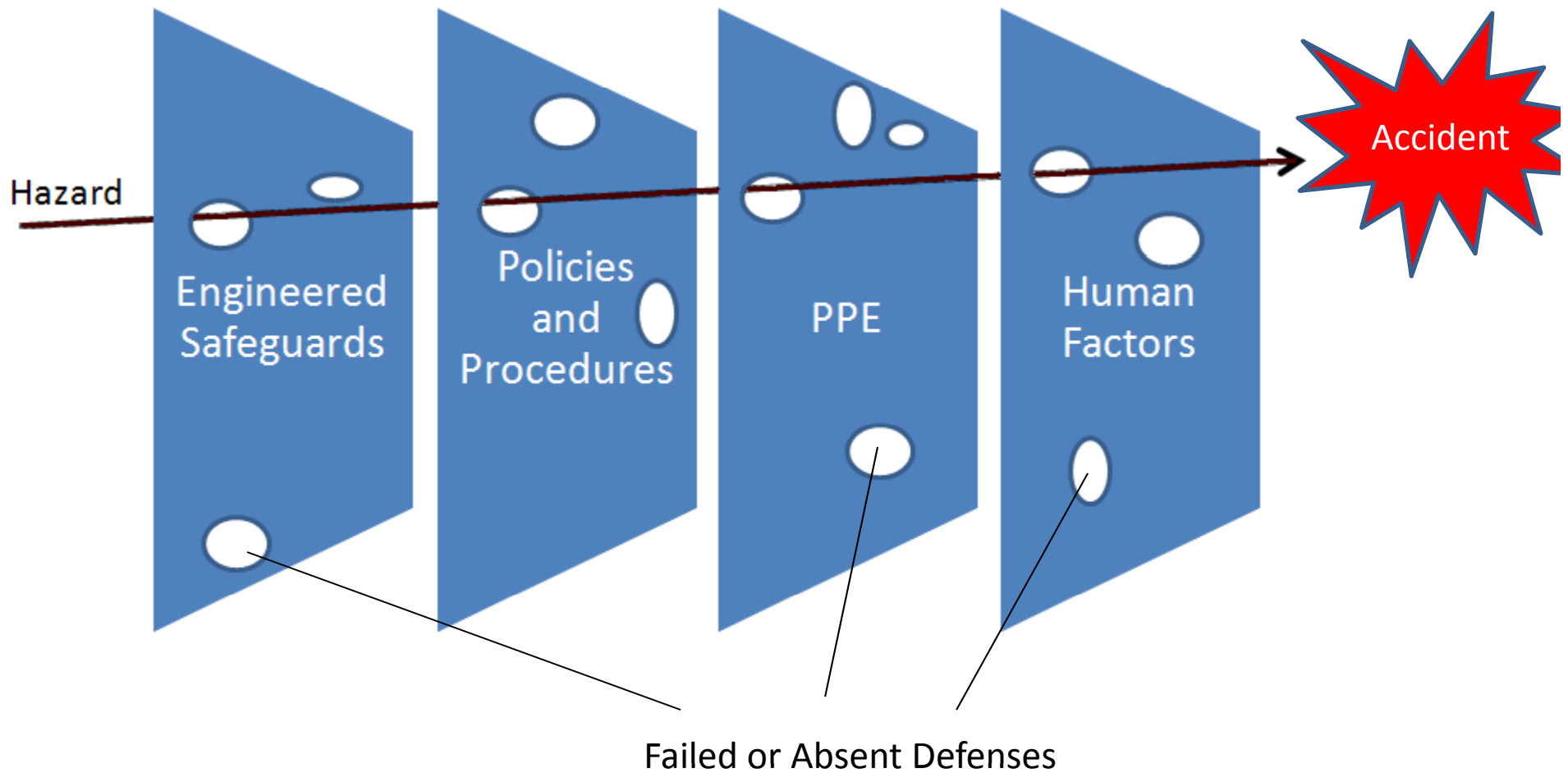






***After an unplanned event occurs we always *Think* “What should I have done to prevent this?”***

## Individual Injury/Illness Barriers



# **Why are we so Awake and Aware of Safety sometimes, and yet Asleep at other times?**

**Complacent?**

**Personal Choice to due Extra Effort Required?**

**Invincible / Bullet Proof?**

**Victims of our own *Success*?**

**Accustomed to taking Safety Risks?**

**Perceived Low Risk jobs vs. High Risk jobs?**

**In a hurry?**

**Someone involved Questions the Necessity of the  
Safe Work Practice?**

**Protected by an invisible shield?**

**Distracted? By what?**

**“No One is Watching”?**

**People Don't do what you Expect, they do what you  
Inspect**



## **Scenario #1a: Operator Transporting a Hot Oil Sample on a bike to the sample drop.**

- \* Can is placed in the bike basket mounted above the front wheel**
- \* A live steam hose is laying across the pipe alleyway in use for steaming out a resid pump for Maintenance preparations**
- \* While crossing over the steam hose at a 45o angle, the bike wobbles, the sample can pops out of the basket, and the lid pops off of the can**
- \* The Operator is drenched in the Hot Oil from his waist down to his ankle, resulting in Large Area of 2<sup>nd</sup> Degree Burns**

***Perceived to be a Low Risk part of the Job  
Success Victim***

## **Scenario #2a: Driving Home on Friday afternoon.**

- \* It appears that many fellow drivers are more than just tempted by the cell phone**
- \* I pass a couple of accidents (sometimes serious ones) on the way**

***Distracted, In a Hurry, Invincible, Accustomed to the Risk, Questions the Necessity of the Driving Rule or Best Practice***

# **Underlying Human Causes for the Texas City Process Safety Incident**

**Complacent?**

**Personal Choice to due Extra Effort Required?**

**Invincible / Bullet Proof?**

**Victims of our own *Success*?**

**Accustomed to taking Safety Risks?**

**Perceived Low Risk jobs vs. High Risk jobs?**

**In a hurry?**

**Questions the Necessity of the Safe Work Practice?**

**Protected by an invisible shield?**

**Distracted?**

**“No One is Watching”?**





# **What Can we do to Make People Think about Working Safely???**

**Safety Slogans?**  
**Safety Posters & Billboards?**  
**Safety Memos & Bulletins?**  
**Safety Meetings?**  
**JSAs?**  
**Hardhat Stickers?**  
**Safety Contests?**  
**Safety Observations?**  
**Safety Conversations?**

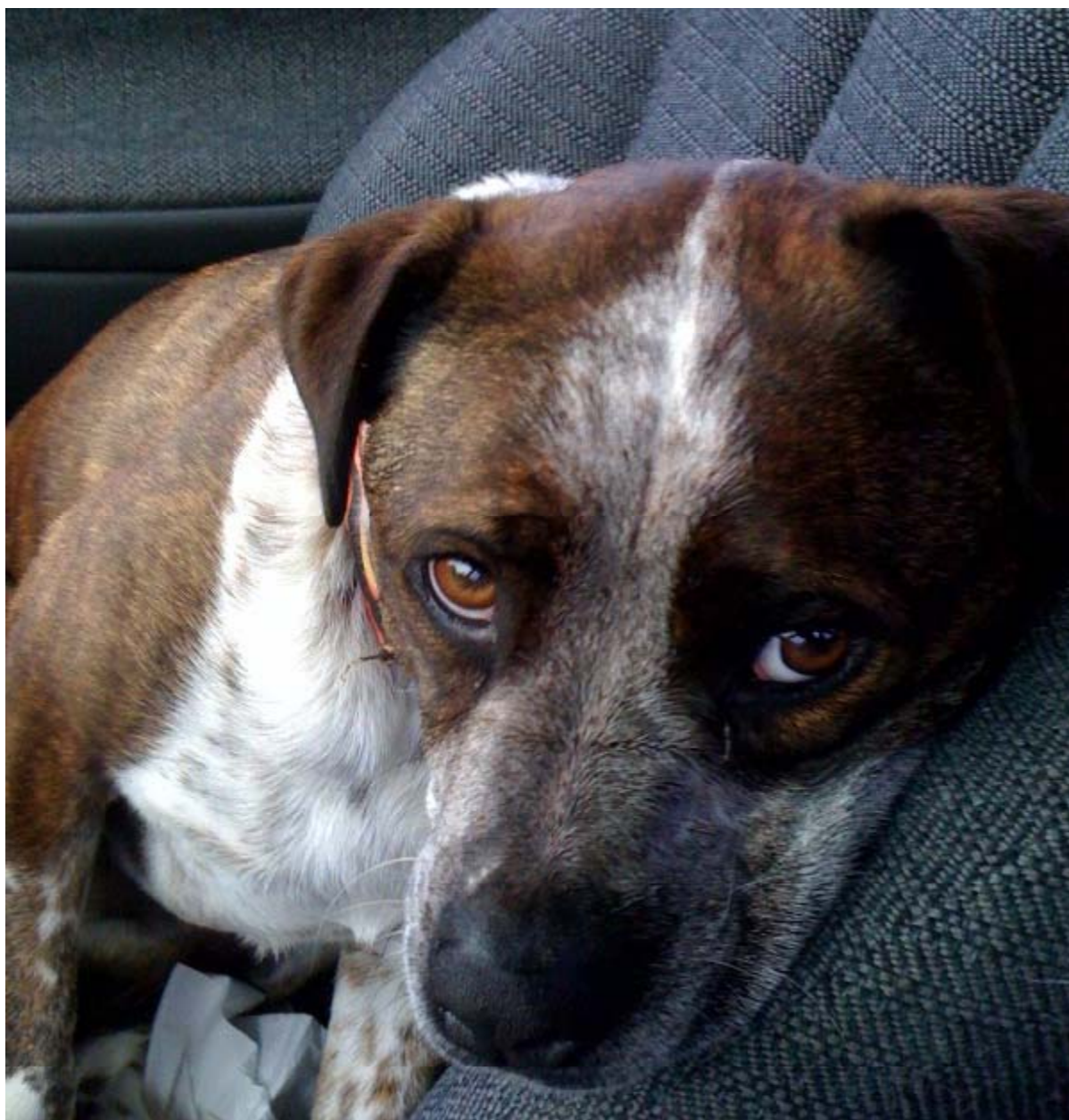
**What Can we do to *Make* People Think about  
Working Safely???**

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Safety Contests?  
Safety Observations?  
Safety Conversations?**

**Answer: All of the Above and More**



**Anything and Everything we can do to Make People Think BEFORE they Act, or Don't Act, to Make them Think about what is Really Important, to Make them Turn Off the Auto Pilot and make Conscious Decisions & take Deliberate Actions: That is What Each of us is Obligated to do, And if what you're doing Quits Working, or gets Routine, put it on the shelf and do something else!!!**







## Individual Injury/Illness Barriers

