

Environmental, Safety and Health Management System



An Update on Our Company's Efforts Towards Creating a Environmental, Safety and Health Management System...

Spring Occupational Safety and Health Committee Conference
Presented by: Kenneth Frazier

A History Lesson

- In 2004 AEP had just begun to implement a Safety and Health Management System
- We did this for a lot of reasons:
 - Safety and Health program was separate from production
 - Statistics were flat
 - Increase in serious accidents
 - Lack of emphasis in the health issues
 - Lack of quality near miss and incident reports
 - Overall frustration with the program

Our answer to these *Drivers for Change* was to create a system to truly manage *Safety and Health* like we manage production and quality and to integrate *Safety and Health* into all jobs at work and at home.

Current Reality

- **Environmental has been added to our management system**
- **We have been challenged internally to comply with OHSAS 18001 and ISO 14001**
- **The effort is moving beyond generation to include the entire company**
- **Prevention (proactivities) is the key. We are moving away from using results measures exclusively to judge ESH performance. Examples:**
 - **Incentive Plans and Reward and Recognition**
 - **Promotions**
 - **S&H Scorecard**

Current Reality (cont.)

- **JHA's and JSA's are being used and quality checked**
- **Near misses and minor injuries are being reported and analyzed as our first opportunity to prevent**
- **Accountability is shared**
- **We no longer investigate accidents, we are using incident analysis**
- **Focusing on reducing severity and not just recordable cases**
- **The "Luck Factor" is being measured**

“Luck Factor”

Actual Severity - 1

Potential Severity - 4

Luck Factor - 4.0

Level 1 First-aid only, not restricted duty (RD)/close call/equip. failure

Level 2 RD \leq 2 days, prescription medication, minor pain injuries, minor rashes (e.g. typical OSHA recordable)

Level 3 RD \leq 10 days, serious bruises or abrasions, real pain, i.e. cuts that require stitches

Level 4 RD \leq 30 days, fractures, other significant pain injuries requiring surgery or hospitalization, typically OSHA lost time

Level 5 RD $>$ 30 days, multiple serious injuries, amputations, life-threatening injuries or partial long term disability

Level 6 Complete disability, e.g. unable to return to work, or fatality

“Luck Factor”

Background: Unit 5 east ash hopper bottom inspection door blew out while ash hopper was leveling.

What went wrong? The bolts (carbon steel) which mounted the ash hopper door (two bolts that hold the hinge) were rusted and wore.

What this resulted in? The door broke free of the ash hopper and struck the east wall of the ash hopper pit. The force of the door punched a small hole in the concrete wall. Potential struck by hazard//Incident factor of 4.

How could the situation be prevented? Visual inspection of the bolt(s) and replacement. Both the hinge bolts and the frame bolts and nuts were replaced with Stainless. The last replacement of the bolts and nuts was December 2003 (two year failure). Minimum annual inspection based on two year failure.

Actual Severity - 1
Potential Severity - 4
Luck Factor - 4.0

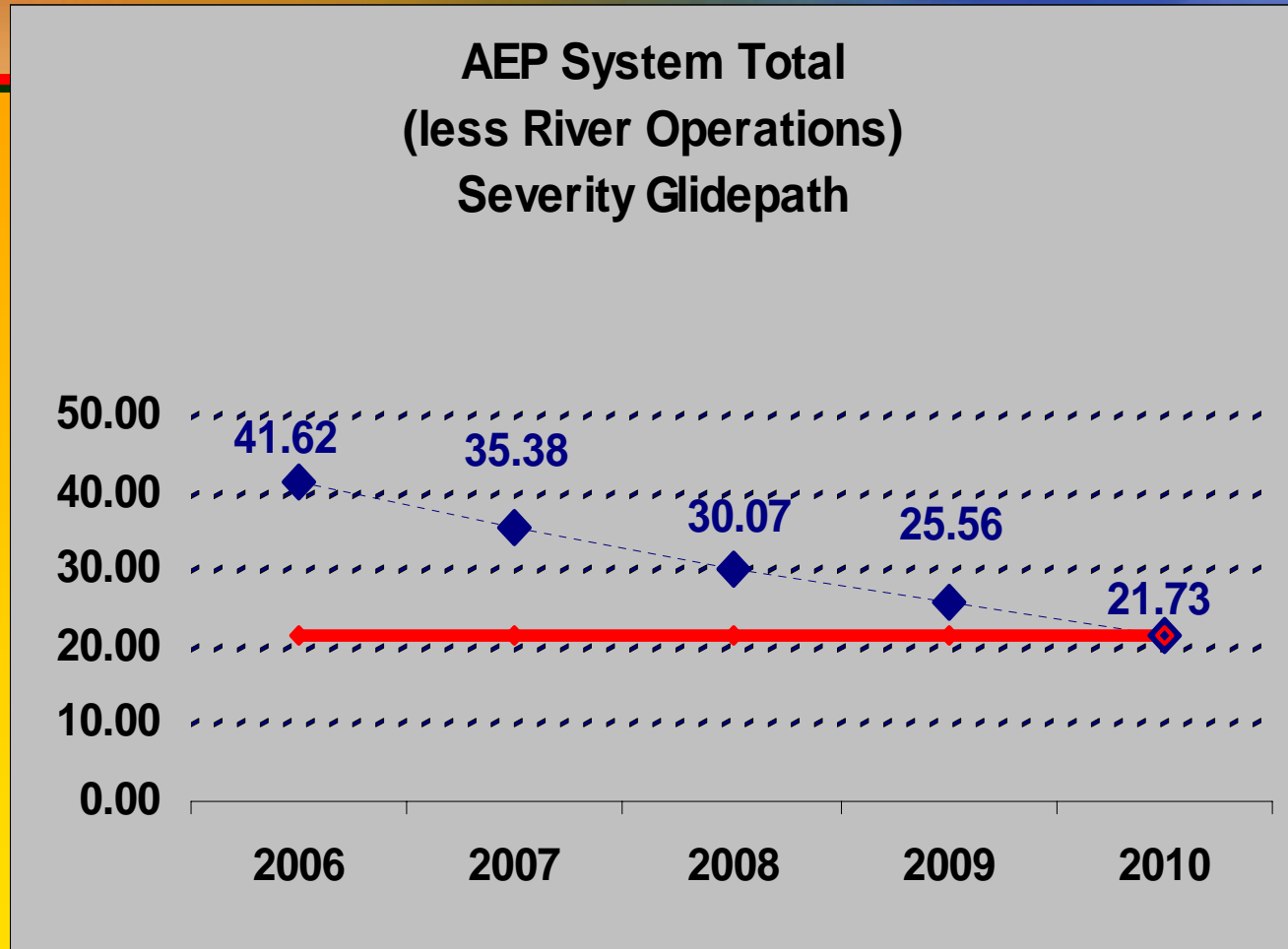
Severity Table	
Severity Scale	Description
Level 1	First-aid only, not restricted duty (RD)/close call/equip. failure
Level 2	RD \leq 2 days, prescription medication, minor pain injuries, minor rashes (e.g. typical OSHA recordable)
Level 3	RD \leq 10 days, serious bruises or abrasions, real pain, i.e. cuts that require stitches
Level 4	RD \leq 30 days, fractures, other significant pain injuries requiring surgery or hospitalization, typically OSHA lost time
Level 5	RD > 30 days, multiple serious injuries, amputations, life-threatening injuries or partial long term disability
Level 6	Complete disability, e.g. unable to return to work, or fatality

For additional information,
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Current Reality (cont.)

- **Visibility of the program has improved**
- **Influence has increased, reporting to the highest level of the organization**
- **Health and Wellness program has expanded and vastly improved**
- **Incentive Programs based on “Define, Measure, Reward principles”**
- **Auditing process changes to look like auditing process in the rest of the company**
- **Glide path to success**

Continuous Improvement



Environmental, Safety and Health Philosophy

Before:

No operating condition or urgency of service can ever justify endangering the life of anyone.

After:

No aspect of operations is more important than the health and safety of people. Our customers' needs are met in harmony with environmental protection.

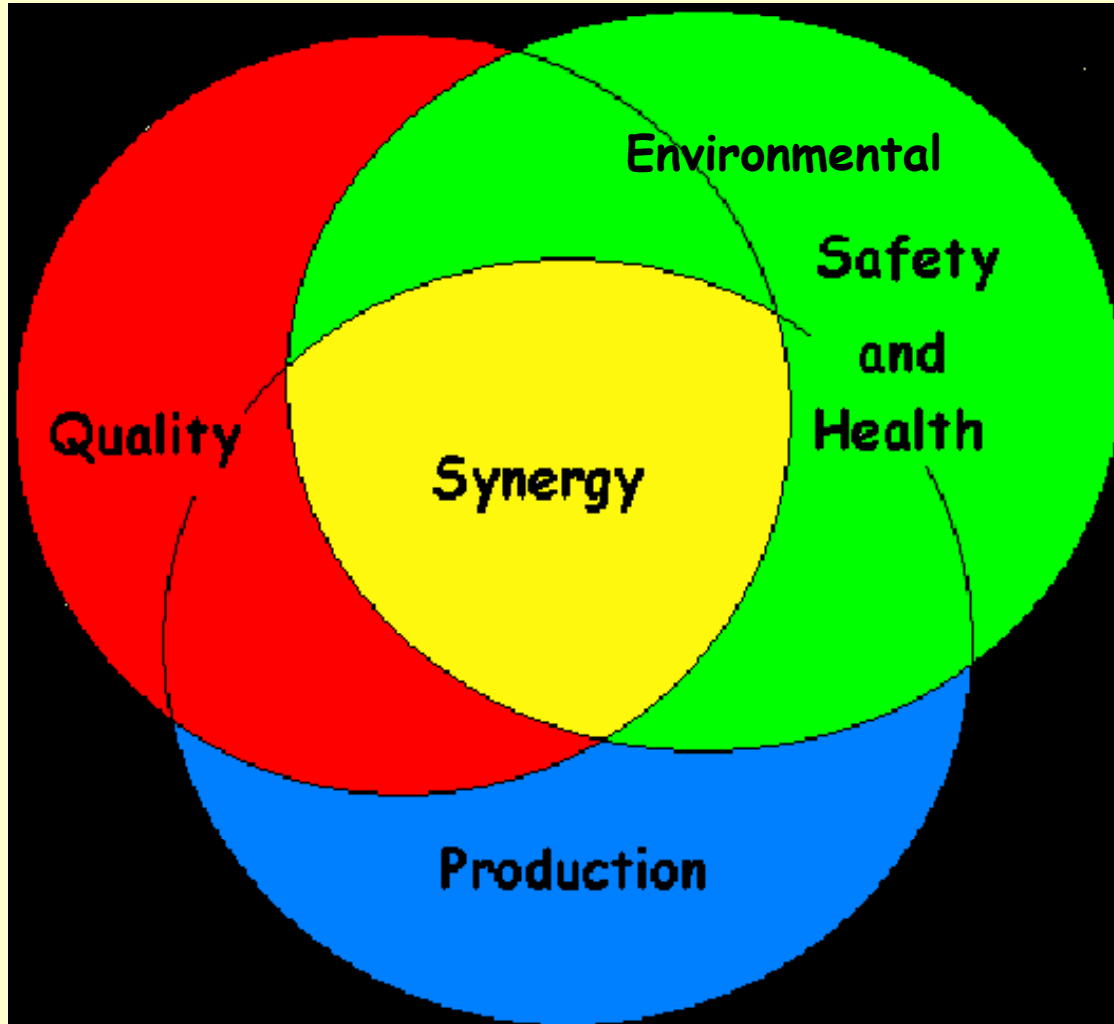
Key Steps in the Process

- **Managing Environmental Safety and Health (MESH) to conform to OHSAS 18001 and ISO 14001 standards for management system**
 - 2006 – Four plants began process to conform
 - 2007 – Eight more plants to start the process
- **Continuous improvement built into the MESH elements**

The Conclusions

- Our *Safety and Health Culture* is a **reflection** of our *Safety and Health Management System*... no more, no less
- *Safety and Health* should be **managed** just like the rest of the business
- *Safety and Health* as a part of **everything** we do, 24/7/365...
- Leadership key to success

The Circles Merging into One



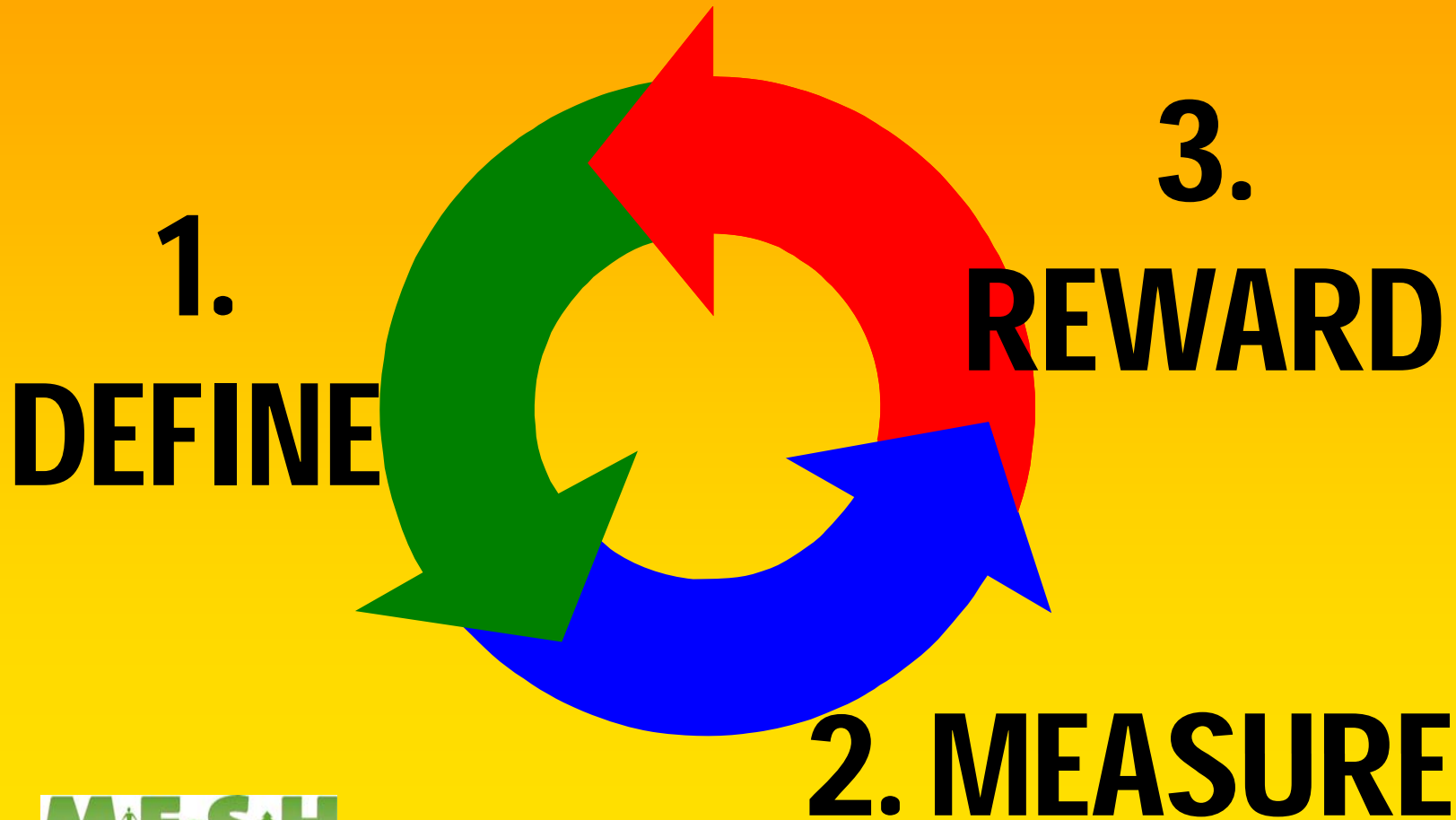
Synergy = Morale
↑
Morale = Attitude
↑
Attitude = Step Change
↑

“Environmental, Safety and Health” is part of everything we do.

The Conclusions

- ***Safety and Health*** has greater **visibility and clout** in the corporate structure
- Include **behavioral** issues: “Why don’t people work safely when it’s obviously in their best interest not to get hurt?”
- **Measure** and **reward** what you want to happen
- **Proactive** measures need to replace the autopsy measures used in the past

Three Steps to Accountability



Accountability Continued

- 5 – R Principle
- “If you **Regularly Recognize and Reward**, then you will **Rarely** have to **Reprimand**”
- Praise or correct on the spot (PICNIC)
- Compliance v. Commitment
- Shared accountability

Future Challenges

- **We are still seeing “knee jerk” reactions and new rules with new incidents**
- **The size of the task and the existing culture**
- **Getting commitment and resources from key leaders**

Future Challenges

- **Engaging skeptical employees and supervisors... “How do I know this isn’t another program of the month?”**
- **Sustaining the changes**
- **Achieving the right level of detail on JHA’s**
- **MESHing Environmental with Safety and Health**
- **Hazard Recognition is a learned skill not an instinct**

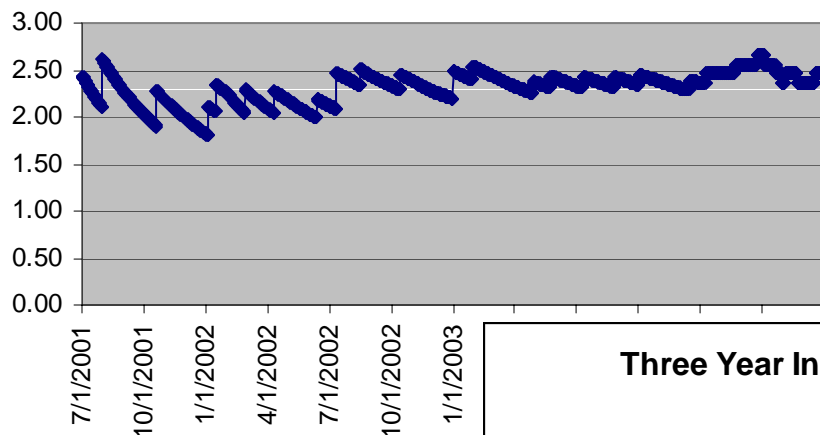
Where to from here?

- **Take the ESH Management System to T&D, Shared Services and Public Safety**
- **Continue MESH (Conformance with ISO 14001, OHSAS 18001) implementation**
- **Address overtime and attendance issues**
- **Improve on our “systems” thinking**
- **Advocate for a “Just Culture”**

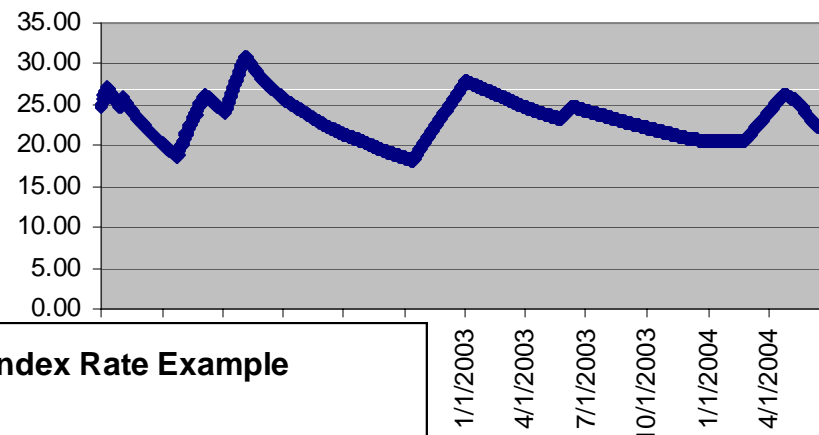
Questions??

The Three Year Rolling Average

Three Year Recordable Rate Example



Three Year Severity Rate Example



Three Year Incident Index Rate Example

