CENTER FOR Hydrogen SAFETY
Connecting a Global Community

Safety Culture Spotlight

Safety Recognition Before Safety—Process Safety

- Failure to correct known deficiencies
- Failure to recognize potential risk
- Production schedule takes precedent over safety

BACKGROUND

The Voluntary Protection Program (VPP) is a program of the USA,OSHA. Facilities that cooperate with Occupational Safety & Health Administration (OSHA) and meet certain proactive safety management criteria become recognized as "VPP Star."

WHAT HAPPENED

A facility in the USA had several regulated processes. While auditing the Asset Integrity element, an auditor discovered the internal inspections and wall thickness measurements for 5 pressure vessels out of two dozen were overdue, in some cases by a few years. The same recurring maintenance tasks for 3 of 12 low-pressure storage tanks were also overdue, again by a few years.

The Maintenance Manager explained to the auditor the plant was considered a safety model regionally, it was never cited for overdue vessel and tank inspections. He also stated the site has been an OSHA VPP Star site for nearly 10 years, and the relationship with the local OSHA field office was excellent.

The time and effort to quickly perform the overdue vessel and tank inspections would be substantial and would result in some unscheduled down time and late product shipments. The Maintenance Manager and Plant Manager were firmly opposed to incurring these production outages on what they believed to already be a "best in class" operation.

How relevant is special recognition such as VPP Star, OHSA 18001 certification, etc. to the extent to which a facility is managing its risks adequately? How can you segregate recognition that can boost a company's image to the public from KPIs that more accurately define the process safety performance of the facility? Is there any recognition that can serve as a "free-pass" for operational discipline?

SAFETY CULTURE FOCUS

- ✓ Strong leadership recognizes special recognition is not a substitute for process safety performance.
- ✓ Maintaining a questioning environment can help identify and mitigate potential risks.
- ✓ Continuous improvement can not be replaced by special recognition or awards. Past performance is not an indicator of future results.

****Only 37% of those surveyed indicated management involvement was a strength in their organization.****

IMPROVING HYDROGEN SAFETY CULTURE

LEARNING OPPORTUNITIES FROM OTHER'S EXPERIENCES

"Safety culture is how the organization behaves…
…when no one is watching."

Safety Culture Framework

- Safety is everyone's responsibility
- Strong leadership support
- Integrated into all activities
- Open, timely, effective communications
- Questioning/learning environment
- Mutual trust
- Continuous improvement

What are the benefits?

- ✓ Eliminates common weaknesses identified as contributing factors to catastrophic events.
- ✓ Promotes trust in the hydrogen energy industry's ability to deliver safe, reliable, quality products and services.
- ✓ Supports a sustainable legacy for companies and the hydrogen industry.
- ✓ Fosters efficiency and productivity in the workplace.

Resources

- ✓ For further information and resources on safety culture, see: https://www.aiche.org/ccps/safety-culture-what-stake
- ✓ For further case studies on safety culture, see: https://h2tools.org

Keywords: weak, poor, minimum, regulations, flammable, chemical, checklists, compliance