CENTER FOR Hydrogen SAFETY
Connecting a Global Community

Safety Culture Spotlight

Knowing What You Don't Know—Risk Awareness

- Failure to understand process safety and management systems
- Failure to understand potential risks
- Failure to consult with team experts

BACKGROUND

A new Facility Manager came from a business background. She had no experience or training in engineering or operations, and little working knowledge of process safety technology or management systems. Her facility had a procedure that required the Facility Manager to sign permits approving bypass of critical safeguards, including Safety Instrumented Systems (SISs) and relief devices. The Facility Manager was also required to approve extension of Inspection, Testing, Preventive Maintenance tasks for the same types of equipment.

WHAT HAPPENED

Shortly after taking the job, she received several requests to extend the proof testing of a SIS by 6 months and to bypass a relief device by shutting the inlet and discharge block valves. She did not know what a SIS was, only vaguely understood pressure relief, and was unfamiliar with the process safety ramifications.

The requests were presented at the start of a long operations meeting with a very full agenda. It was clear they represented critical maintenance tasks that were delayed pending her approval. With a full agenda ahead, she signed the permits, even though she did not understand the risks involved. She justified signing to herself thinking that the requesters would not ask if they did not think it was safe.

Non-technical managers do get assigned to senior operations roles. What preparation should they have before assuming those roles? What are some questions the new operations manager could have asked to be more informed when signing the permits? Regardless of background, a new facility manager cannot be expected to know everything about the facility. How can facility managers and their teams bridge this knowledge gap?

SAFETY CULTURE FOCUS

- ✓ Safety is everyone's responsibility and must be considered in all activities (operations, maintenance, process changes, etc.).
- ✓ Strong leadership must make informed decisions to avoid compromising safety.
- ✓ An open, questioning environment is imperative to clearly understanding risks.

****Only 37% of those surveyed indicated management of change 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