What's the Real Hazard?—Emergency Response

- Failure to know the hazard yields fatalities
- Good intentions lead to casualties
- Failure to learn from lessons learned

BACKGROUND

Unfortunately, this case history involves a lot more than one fatal incident, and may number in the hundreds, thousands, or more. It proceeds like this. First, there is a release of some toxic or asphyxiant, either noticed or unnoticed. A worker becomes exposed, and collapses. Another worker, all too often a close friend or relative, sees the person down and rushes to help, only to be overcome and collapse also. Then, sometimes, comes a third, a fourth…

WHAT HAPPENED

Clearly it is possible that a worker could collapse from heart attack, stroke, illness, or dehydration. But we who work in hazardous material industries know deep down that if we are in a hazardous material facility, toxic or asphyxiant exposure was more likely to cause a person down. We know we should pull the alarm and notify the emergency responders. We know that the situation must be assessed wearing respiratory protection. But the person down is our friend or our family member, and they need help. How can we make sure we do the right thing? How can culture help us overcome this problem?

Is there a gap of trust that the proper emergency response can be done on time? How can we ensure this trust? Is there a gap in vulnerability? Do we dismiss the possibility that toxics or asphyxiants could be released, and therefore ignore that possibility when we react? Do such incidents occur without warning? Do we see warning signs before they ever occur, but do not feel a sufficient imperative for safety to prevent them in the first place?

This type of incident happens often enough to suggest that we are not learning from it and advancing our ability to prevent it. How can we learn and implement learnings more effectively?

SAFETY CULTURE FOCUS

- ✓ Strong leaders promote hazard awareness among the workforce.
- ✓ A questioning environment is critical to identifying and changing risky protocols.
- ✓ Open and effective communication can promote mutual trust among organizations.

Only 33% of those surveyed indicated emergency response 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