

Assumptions Defeat The Purpose—Hazards Analysis

- Delete Recommendations considered unacceptable
- Failure to communicate with management
- Process Hazards Analysis (PHA) process undermined by assumptions

BACKGROUND

During PHA's at a facility, team leaders typically screened the recommendations made by the team for their potential acceptance/reaction by management. They deleted any recommendation thought to be too expensive, time consuming, or difficult. Occasionally, the risk rankings were reassigned so recommendations would not be necessary.

WHAT HAPPENED

During an audit, interviews with some of the team leaders revealed they believed it was their responsibility to make the recommendations addressing problems identified in the PHA go away. When pressed further about why not make the problems go away by truly addressing them, each responded "There's no energy for that here." The team leaders believed management did not want to be the ones to decide not to address a recommendation. Some believed that their performance would be adversely evaluated if they submitted PHA reports with major recommendations.

In several cases, PHA's were re-convened to revise the risk rankings and recommendations to make them less onerous or unnecessary.

Who has the responsibility to choose between implementing recommendations or accepting risk?

SAFETY CULTURE FOCUS

- ✓ Strong leadership clearly defines responsibilities and the priority of safety in the operations.
- ✓ Open, effective communication between management and employees is essential to avoid erroneous assumptions or perceptions about safety.
- ✓ Mutual trust can be established through a questioning environment without fear of reprisal and enhance the safety culture.

****Only 26% of those surveyed indicated communication 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>