

Development of a Process Safety Culture for a Newly Graduated Chemical Engineer

Max Mckay

Jean-Paul Lacoursière

Context

Process safety culture is a fundamental element of an engineer training. This training must start in class. This year, we had a reflection on that subject. Max will present his reflection. He represents his class mates in this endeavour.

Introduction

- The idea is not to fear danger, but to be aware of it and of its potential impacts.
- Process safety culture in individuals and organizations proved to be a determinant way to help improve safety performance. ¹

Introduction

- Understand what is process safety culture;
- Think of how to develop, manage and improve it;
- Find a way to make it a main concern and a top priority for the organization .

The Culture

- Process Safety:
 - A blend of engineering and management skills focused on preventing catastrophic accidents, particularly explosions, fires, and toxic releases, associated with the manufacturing of chemicals and petroleum products. ²
- Process Safety Culture:
 - The complete set of those values and attitudes toward safety and to the level of commitment both the group and its members are demonstrating.

The Culture

- The culture requires:
 - Coordinated work of the entire workforce;
 - Understanding and application of all written procedures;
 - Open and effective communications;
 - Maintenance of a sense of vulnerability;
 - Eradication of deviation normalization;
 - Continuous development.

Management and development of the Culture

- Everyone is responsible;
- Every area of the organization is involved (administration, operation, management, etc.)
- All must act voluntarily and deliberately to maintain the culture;

Management and development of the Culture

- Must pay attention to workers comments and needs;
- Risks must be reevaluated and recommendations taken into the practical;
- Past experiences should provide learning;
- Safety culture should be considered a competitive advantage.

How to take over the challenge?

- Start talking about process safety culture at school;
- Demonstrate and transmit the culture by making use of our credibility;
- Make use of our leadership to keep process safety to a top level priority;
- Make everyone understand their own advantages.

How to take over the challenge?

- Raise awareness toward safety culture among workers and show that their security is important;
- Implement safety culture without reducing production rate;
- Show the probabilities of hazards and the cost and impacts related with them;
- Make people understand that accidents will lead to less stable and enhancive work environment;
- “Walk your talk”.

Let's recap everything

- Always maintain a sense of vulnerability;
- Fight against normalization of deviation;
- Grant safety more importance than any other value.

Works Cited

- [1]: W.L. Frank, “Process Safety Culture in the CCPS Risk Based Process Safety Model”, Process Safety Progress, Vol. 26, No 3, September 2007, p. 203-208.
- [2]: CCPS, Get Smart About Process Safety, American Institute of Chemical Engineers, 2005. Online Available:
<http://www.aiche.org/CCPS/Students/GetSmart.aspx> 29 september 2007