

## What is “Process Safety”?

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Not all hazards are the same or can cause equal consequences. Personal or occupational safety hazards, such as slips, falls, cuts, and vehicle accidents, usually affect one individual worker at a time. On the other hand, process safety hazards may cause major accidents involving the release of potentially dangerous materials, fires and explosions, or both. Process safety incidents can have catastrophic effects and can result in multiple injuries and fatalities, as well as substantial economic, property, and environmental damage. Process safety incidents can harm workers inside the plant and members of the public who reside nearby. That is why process safety management focuses on the design and engineering of facilities; hazard assessments; incident investigation; management of change; inspection, testing, and maintenance of equipment; effective process controls and alarms; operating and maintenance procedures; training of personnel; and human factors.



Process Safety



Personal Safety

## An Analogy

Professor Andrew Hopkins of the Australian National Univ. suggests the following example to show the difference between personal safety and process safety. An important safety concern in the airline industry is injuries to baggage handlers from lifting and carrying — for example, back and muscle strains (personal safety). But no airline would ever think that their efforts to reduce these injuries would improve flight safety (equivalent to process safety). Different activities and programs are required to manage these different safety concerns.

### Do You Know?

- Good personal safety performance does not ensure good process safety performance. While there is much in common, such as a good safety culture and attitude, good process safety performance requires a thorough understanding of the specific hazards associated with the chemicals being handled or stored, and the process operations being carried out in a particular plant.
- Traditional safety measures, such as injury rates, lost time accident rates, and days lost from work, may not be good indicators of process safety performance. Next month's Beacon will discuss potentially useful process safety measures.

### What Can You do?

- Understand the specific hazards of the materials in your facility and your responsibility in the safe handling of these materials.
- Understand the specific hazards of the manufacturing, storage, transport, repackaging, or other processing operations conducted at your facility.
- Understand your role in process safety activities, including process hazard analysis, management of change, incident reporting and investigation, maintenance and testing, and following safe work practices and procedures.

***Process safety is everybody's responsibility!***

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