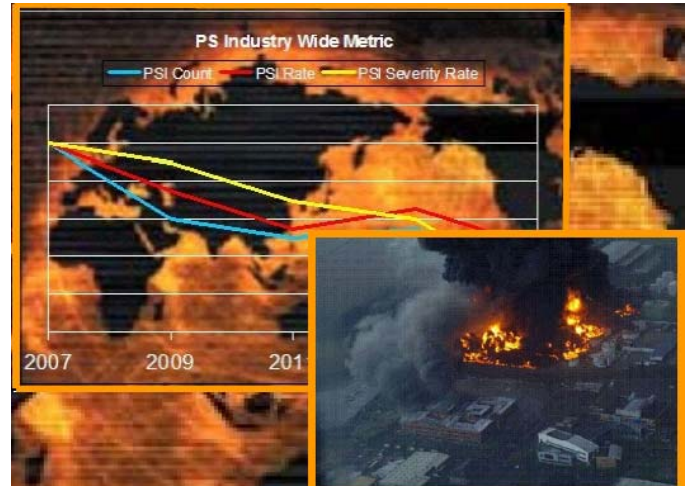


Measuring Process Safety Performance

August 2008

The July 2008 Process Safety Beacon discussed the meaning of “Process Safety”, and also said that traditional measures of safety performance such as injury rates, lost time injuries, etc., are not good measures of how good a job we are doing on process safety. So, how can we tell whether or not our process safety management activities are effective? How can we tell if our performance is improving over the years? How do we know how one plant, or unit in a plant, is performing compared to others? How will we decide where to focus our attention so we can get better? If the traditional safety measures are not good for monitoring process safety performance, we need to invent new measures that will. Many industry organizations, including CCPS, are actively working to develop new ways to measure process safety performance. But these tools cannot be effective unless everybody in the process industry workforce understands what these tools are, and why they are needed. And, most important, we all have to understand what our role will be in using any new process safety measurement tools. We need to understand what types of events we need to report, and how to report them in our organization.



Do you know?

- CCPS, working with a number of industrial, labor, and government organizations, has developed tools for measuring process safety performance. The report recommending specific measurement tools was issued in December 2007, and can be found at the CCPS web site, <http://www.aiche.org/ccps/>.
- Two types of measurements proposed – *lagging indicators*, which measure actual *outcomes* and *past performance* (the number of process safety incidents which have occurred), and *leading indicators* which measure process safety management *activities*, and which are believed to be useful in predicting *future performance*.
- *Lagging indicators* will measure, for example, the number of releases of hazardous material or energy from plant equipment, fires and explosions, and process related injuries.
- *Leading indicators* will measure, for example, plant mechanical integrity, action item follow up, management of change, and process safety training.

What can you do?

- Understand what your company is doing to measure process safety performance. Learn and understand the specific measures that your company is using.
- Know what kinds of incidents need to be reported under your company’s process safety measurement program.
- Be familiar with how to report process safety incidents in your plant.
- Be diligent in reporting incidents. Remember that a company cannot improve process safety performance if it does not know about incidents that occur in the plant.
- Understand leading indicators of process safety performance for your plant and how to report them.
- Download and read the CCPS report on measuring process safety performance.

How does your organization measure process safety performance?