Industrial Safety
By Clif Ericson

Recently, I was asked the question, "Should system safety be for individuals and small retail companies, or just large companies and organizations such as aerospace, military, nuclear power, NASA and the FAA?" This is an interesting question because, in theory, system safety is applicable at every level of life and industry; a safety program can be tailored to size, cost and product safety-risk level. On the other hand, is it reasonable? Should an automotive parts retailer have a safety program to handle safety-critical parts that it sells, which may cause an accident if the part is unqualified or defective, or should it assume the parts it receives are safe? Should a toy retailer have a safety program for safety-critical toys that can poison or choke children? Should parents have a safety program for their home and family? Is safety self-evident enough that everyone can do it, or is it too specialized for untrained individuals and small businesses?

The new Safety Management System (SMS) concept seems to embrace the system safety approach for safety of operations, including small businesses. It replaces the old Operational Risk Management (ORM) approach for applying safety risk management to all types of operations. Some example SMS applications include process plant, airport, airline and trucking operations. SMS should be directly applicable to all sizes of business and organization.

This issue of eJSS enters into the world of system safety in industrial applications. The first major article in this issue is titled "Application of System Safety to Prevention of Falls from Height in Design of Facilities, Ships and Support Equipment for Weapons Systems" by Mark Geiger from Washington DC. In this article, Mark discusses hazards and system safety in large ship construction.

The second major article in this issue is titled "A Software Tool for Domino Effect Risk Assessment in Industrial Plants" by Antonio C. Caputo from Italy. This article is a special reprint of one of the four best papers presented at the International System Safety Conference (ISSC) in Baltimore in August 2007. In this article, Antonio discusses how cascading failures can result in major process plant mishaps, and he presents a model for analyzing cascading failures and their effects.

Another theme of this issue is that of evaluating and improving our safety process. In his column "TBD," Charles Hoes discusses what it takes to recognize a potential safety engineer with good hazard-analysis skills. He presents an interesting concept on hazard visualization. I can personally relate to what he is saying because I tend to have the same approach.

In the President's Message, Jim Wiggins discusses working to make safety more of a science than an art. Ludwig Benner, in an opinion article, stresses the idea that we ought to develop a lessons-learned plan, both personal and for programs, as part of our process improvement. In another opinion article, Ira Rimson broaches the interesting idea of attaching a warning label to numerical
risk assessments.

I hope you enjoy this issue, and please send me your thoughts for process improvement in JSS. ☺️

Until next time,
Clif