



## **Plant Engineering Shares Timely Safety Articles By Rockwell Automation and ABB**

Insights  
10.31.13

I enjoy articles that I discover in Plant Engineering because one of my (many) goals is to obtain more coordination between the safety, engineering, maintenance and purchasing functions. Management of Change (MOC) affects far more than PSM, combustible dust and guarding and interlocks. We should all try to understand the plant engineers approach and work to better integrate safety and sustainability into those decisions. The following article is one of several on Plant Engineering's site.

### ***Study finds safety is a path to productivity***

*Results of a recent study showed that companies reporting the lowest injury rates also had the best productivity*

*Mark Eitzman, Rockwell Automation  
10/18/2013*

*Good safety is good business. However, this has not always been the case, with many manufacturers generally believing that each investment made in safety had a negative impact on efficiency and productivity.*

*Today, this view has changed with many top performing manufacturers proving that with contemporary safety automation technology, protection of workers on the plant floor can boost productivity, and the bottom line.*

*Results of a study conducted by the Aberdeen Group and sponsored by Rockwell Automation showed that companies reporting the lowest injury rates also had the best productivity. The study found that safety, promoted from the top by senior management, was as an essential element of the workplace culture. The report also showed that best-in-class manufacturers rely on advanced safety technologies and carefully calculated procedures to help maintain high levels of workplace protection. **(CONTINUE READING)***

**Also, please read the following article on the same site:  
*5 things to consider when selecting a safety system***

***Performance requirements now drive the selection process***

Luis Duran, ABB  
10/29/2013

*Safety is among the top priorities in any manufacturing facility, and given the changes in the industry, technology and even standard, there are a lot of concerns starting with the selection of a safety system.*

*The performance based safety standards (IEC61508 and IEC61511/ISA84) have changed the way safety system selection should happen. Gone are the days of simply choosing a certified product, or selecting a preferred architecture; today's system selection is driven by performance requirements.*

#### *1: Hazard understanding*

*Correct, this has nothing to do with the safety system hardware. It is critical in the process to understand the scope of the process hazards and to determine the necessary risk reduction required. This should be done to create the Safety Requirements Specification (SRS) necessary to start a system selection. Even when replacing an existing system, this is critical as the risk profile of the plant may have changed since installation.*

#### *2: The more diverse the better*

*Technology diversity: There has been a long standing requirement that a safety system must be different (or diverse) technology from its process automation counterpart to avoid common cause failures. But most safety systems rely on component redundancy (hardware fault tolerance, or HFT) to meet reliability and availability requirements, introducing a degree of common cause failure directly into the safety system.*

*Rather than redundancy, leading systems now provide diversity of technologies designed into logic solvers and I/O modules, along with a high degree of diagnostics, to allow a simplex hardware configuration to meet SIL3 requirements.*

*Product implementation diversity: The standards are imposing diversity on the way manufacturers deliver the product you buy. Even though most safety systems are manufactured by process automation vendors, organizational diversity between the two product teams is only the first level of separation.*

*Within the safety product team, leading suppliers will also be separating the design group from product development group and then again from product testing group. Ask your potential suppliers how diverse they really are? **(CONTINUE READING)***

Howard

### **Related People**



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