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Psychology of Behavioral Safety

Many companies have spent a lot of time and effort improving safety, usually by addressing hardware issues and installing safety management systems that include regular (e.g. monthly) line management safety audits. Over a number of years these efforts tend to produce dramatic reductions in accident rates.

Often, however, a plateau of minor accidents remains that appears to be stubbornly resistant to all efforts to remove them. Although many of these are attributed to peoples' carelessness or poor safety attitudes, most of these are triggered by deeply ingrained unsafe behaviors. Behavioral Safety addresses these by making use of proven management techniques which almost always results in a positive step change in safety performance and safety attitudes.

Why Focus on Unsafe Behavior?

Although difficult to control, approximately 80-95 percent of all accidents are triggered by unsafe behaviors, which tend to interact with other negative features (termed Pathogens) inherent in workflow processes or present in the working environment. Often inadvertently introduced by the implementation of strategic plans, every organization has its fair share of accident causing pathogens. These pathogens lie dormant and are relatively harmless, until such time as two or more combine and are triggered by an unsafe behavior to produce an accident.

Illustrating this, is a company that installed a new production process that entailed designing and building two new mezzanine floors in an existing plant. A project team had approved plans developed by plant based engineers. Once the construction work was complete, it was found that supporting girders had been installed five foot above the second step of a staircase on both floors, thereby introducing two pathogens into the physical environment. During commissioning of the process equipment, product blockages were frequently found to occur in the related pipe work (a third pathogen) that could only be cleared by going to the top mezzanine floor where the inspection hatch was situated. Due to increased production pressures and reduced manning resulting from a downsizing exercise the blockage required the operator to isolate the equipment at a lower production floor (another pathogen), and ascend the stairs to the mezzanine floors to clear the pipe work. At this point all these pathogens combined to trigger an accident when the operator rushed up the stairs to clear the blockage. He ran into one of the low girders, gashing his head and inflicting whiplash effects on his neck while also knocking himself unconscious. This resulted in a reportable accident, lost production and associated costs, etc.

In this true example, the potential for this type of lost-time accident will always be present until such time as the pathogens are addressed. Given that it is much more difficult to address these resident pathogens, focusing