

# The Cost of Accidents

By Dallas Babcock

Statistically speaking, if something is possible, then eventually it will happen. This seems to imply that accidents are inevitabilities. This may be true, but the severity of accidents and the frequency of accidents can be controlled to an extent. Several studies on accidents have been conducted by numerous Federal, Industrial, and private institutes, and the general consensus (though not the only theory) is that accidents are the culmination of a chain of events. As we have all been taught since grade school playground activities, a chain is only as strong as its weakest link. Breaking one of the “links” in the chain leading up to an accident is an effective way of avoiding, or at the very least minimizing, the accident.

Sadly, many industries rely on OSHA and other government agencies rules and regulations and believe they have done “as much as we could” to avoid accidents. It is important to remember that OSHA’s goal is the protection of employees, not the prevention of accidents. These would seem to go hand in hand, and often, but not always, do.

In 2000, the National Safety Council released figures for the year of 1999 on costs to the industrial complex of worker related accidents. In total, accidents cost industry \$123 Billion dollars in 1999 in quantifiable losses. These figures do not take in to account lowered moral, the cost of re-training individuals to take the place of absent workers due to accidents, etc. The \$123 Billion dollars is broken down into 4 categories, 1) wage and productivity loss = \$64 Billion, 2) Medical costs = \$20 Billion, 3) Administrative = \$34 Billion, and 4) Fire and Motor Vehicle Damage = \$4 Billion. Add into these numbers the cost to industry of lost time days of \$124 Million and you can see how staggering these numbers are.

On the average, according to the National Safety Council, accidents cause 3.5 million disabling injuries and 6,120 workplace fatalities a year. What’s even more surprising is the average cost of a worker related accident to industry. The average cost of an accident involving a death was \$940,000. The average cost of an accident involving a disabling injury was \$28,000. It’s important to note that these figures don’t take into account the more subtle costs of non-injury accidents or close calls.

Another very important cost of industrial accidents is insurance premiums. According to the Business Continuity Group Survive, a United Kingdom Consortium, compulsory coverage for workplace accidents continues to increase, in some cases by as much as %1,000. Public Liability Cover, which is not mandatory, but will cover slips, trips, and other injuries to members of the general public, is also increasing at an alarming rate.

The National Safety Council reports that human error underlies a full 80% of all industrial accidents and injuries. Some quick math then tells us that (according to the National Safety Council) human error was responsible for a full \$98,400,000,000 in accident related costs in 1999.

The National Board of Boiler and Pressure Vessel Inspectors reports that 83% of the 23, 338 accidents in the last 10 years, or 19, 371 accidents, were due to human oversight or lack of knowledge. Some Academicians estimate the percentage of accidents contributable to unsafe acts by employees as high as 88%.

In statistical process control, we are taught to go after the “big rocks” first, the things that will make the biggest immediate impact on the process. It appears to be the general consensus of the professionals, that our first big rock to go after would be employee training, thus breaking the “chain” of events leading up to industrial accidents.