

SAFETY / OSHA UPDATE

A Newsletter from High Safety Consulting Services, Ltd.

Information on Safety & Health in Your Workplace



MAY ISSUE

LIGHT IT UP!

One afternoon I took my two boys to an antique market to look at the old stuff. My youngest was intrigued by an old "GE" light meter. I wasn't about to pay the \$20 price tag for the corroded instrument. Instead, I told him, "Dad can build that for less" So, over the next few weeks, we constructed a very simple light meter using a solar cell for about half the price. I explained to my son how we sometimes use a light meter at work to determine light levels. I thought readers of our newsletter might also be interested to know what the OSHA requirements are as they relate to lighting in the workplace. In addition, improper lighting can cause trips and falls as a result of individuals failing to detect obstacles or changes in levels. Good lighting is also needed for proper and quality work performance.

Lighting intensity at the source is measured in candlepower or luminous intensity. Most measurements taken for compliance purposes are in foot-candles. A foot-candle is a measure of illumination per area. Illumination is the amount of light striking the surface. A foot-candle is one lumen per square foot. A lumen is a measure of luminous flux which can be considered as the "flow" rate from a source.

A lux (lx) is metric version of the foot-candle and represents the number of lumens per square-meter. 1 foot candle (fc) is equal to 10 lx, roughly.

Source for lighting requirements in manufacturing are performance-based, in that specific values are usually not given. General statements regarding adequate lighting can be found in the crane rules, electrical work rules and forklift operations. More detailed lighting requirements are specified under the mechanical transmission section of machine guarding wherein OSHA requires specific light intensities around transmission unguarded shafts in basements as specified in ANSI A11.1-1970. This standard can provide a good guideline for lighting levels in various applications.

OSHA also specifies lighting levels in their HAZWOPER standard in table [H-120.1](#). (Page down to .120(m)) While this standard doesn't apply to most operations, it provides guidance like the ANSI standard for lighting levels. In the construction standards we are presented with a much more complete and definitive requirement for lighting in table D-3. (Table D-3 is identical in content to table H-120.1) The lighting requirements for construction apply to ALL aspects of the work, while the requirements in general industry tend to be area or task specific.

STILL MEASURING SAFETY SUCCESS BY COUNTING FAILURES?

Traditional safety practice has always focused on accident rate reduction as the primary means to improve safety performance. Measuring accident rates is an indirect measure of the number of times the safety systems **failed** when the result of the failure was an injury that was severe enough to be "counted". This equates to determining our production by counting the number of parts we failed to produce, rather than those we did! -- Or in baseball counting the number of times we swung at the ball and missed but not the number of hits we made. Doesn't sound right – does it?

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If I slip on a wet floor resulting in a subsequent back surgery in the workplace, this is recordable and results in lost-time. If I slip on a wet floor resulting in a “miss-step” with no injury, this doesn’t get counted! Both represent the same hazard. Hence, we are not really measuring safety in this situation we are measuring the variability of accident outcomes. If we have a big enough population (>200) accident rate monitoring can be helpful late-stage measurement to provide some understanding of the workplace safety performance.

When I conduct performance safety management reviews for companies, I consider if the variability based on the work hours is statistically significant. In other words, a fairly high level of variability can be attributed to the variability of accident outcomes. In other words, you shouldn’t be too concerned or elated if these late-stage measurements change (negatively or positively). There is normal variability in counting accident rates, which may have nothing to do with the actual safety / risk exposure of the facility involved!

This is a difficult concept to explain to management. Too often management attempts to hold the safety manager accountable for these statistical variations! This is a double-whammy! – FIRST, Being held responsible for statistical variation on outcomes just doesn’t make sense! SECOND, management and supervision need to be held accountable for safety performance primarily, NOT THE SAFETY MANAGER!

What I find is that accident rates are generally not well understood by managers who are supposed to be managing them anyway. So where do we go to move to the next stage of performance. Look for opportunities to integrate risk costs into the organization. There are many ways to do this and some can be effective. For one of the best ways to do this, see our product – [The Allocator™](#). This is one tool of many elements that must be used to transform an organization from traditional safety performance to strategic safety performance.

MEANINGFUL MEASURES

So what are meaningful measures? In order to have a meaningful measure we need to have ways to determine risks and hazards within our organization. We need to have ways to measure these risks and quantify them. We then seek to reduce these risks through action plans which include accountability measurements and time-lines. It is not meaningful to tell a supervisor that he should have a 10% reduction in accidents in his department. It is meaningful to tell him that he needs to manage safety in his department and by working with the safety manager as a resource guide, should develop an action plan to address the primary hazards within the department. The “plan” can have measurable objectives and metrics (non-injury objectives – i.e., daily monitoring of use of safety glasses and percent of individuals properly fitted and wearing the protective gear). Many companies have instituted “lean” scoreboards. Measurements of safety should be included in this process. There are countless measurements which are non-injury outcome focused, but will help to reduce the risk of injury. These WON’T get put in place unless top management establishes the VISION for safety and further defines this in a Strategic Plan which is implemented through out the company.

THE FRONT OF THE TRAIN DETERMINES THE DESTINATION FOR THE CABOSE!

I recently developed a “saying” that I modified from a quality statement which I believe conveys the concept of effective safety management: **“Safety Commitment starts at the Top – It can NOT be delegated”**. Nearly every CEO in the country will tell you that they are committed to a safe workplace. But Safety Commitment is not enough! Safety responsibility must be delegated to every individual within the organization through definitive action plans and expectations. This is often the missing lynch pin that makes the difference between “good” and “great” in safety performance.

Need help establishing metrics? Want to take a temperature of how you’re doing? Need help developing strategic planning for safety? Want to get beyond counting accidents? We have many services and programs that can help your organization move from ‘good’ to ‘great.’ Call Steve High, MS, CSP, ARM for more information on safety management assessment, culture surveys, safety planning services, and management development training. (1-877-285-1129)

UPCOMING PROGRAMS OFFERED BY HSCSL

Our complete course listing can be found on our website <http://www.highsafety.com/hsl/resources/courses/>. **Safety and the Bottom Line** (May 10, 2005) This presentation by Steve High will be held as part of the Bureau of Worker’s Compensation Conference at the Hershey Convention Center in Hershey, PA. Contact them at (717) 783-5421 for more information.

Best Practices in Safety (May 20, 2005) Looking for new ways to bolster your safety and health initiatives? Attend this program and learn how The High Companies and other participating firms are handling safety and health management. This is a session which is designed to be interactive. Bring your ideas and questions to share with the group.

Mold Remediation Worker / Supervisor Training (May 23 & 24, 2005) This program is specifically designed for those individuals who will be involved in the remediation of fungal contaminations. This program will review the safety and health precautions to be followed, the means and methods to remediate mold exposures, and the hazards associated with mold growth. Individuals participating in this program will also be offered a respiratory fit-test, provided they have proper medical clearance.

Safety Committee Certification Training (June 3, 2005) Safety committees which are certified by the state are required to attend ANNUAL training presented by a Recognized Accident & Illness Prevention Provider as defined by the State. To date, many safety committees have lost their certified status when they fail to demonstrate that they have obtained the required training for each committee member by a qualified person. This training will assure you continue to be eligible for the 5% insurance discount in PA. Send more than one person at a discounted rate of \$90 each. *(Call us toll-free at 877-285-1129 to receive the multiple-person discount!)*

NOTE: All of our prior newsletters are archived on our website under the "Contact Us"



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