

► BY M. CHRIS OSMENT

Keeping OSHA at Bay

Jimmy Weber is an old-fashioned man—his word is his bond, and he seals deals with a handshake rather than a contract. But after what happened last December, he's fortunate to be able to shake hands. Weber's fingers and most of his hand were severed in a workplace accident, one that could easily have been prevented had his company followed proper safety procedures. Eight months and four surgeries later, he has regained much of the function in his reattached hand—and his former employer has been handed over \$120,000 in fines and penalties.

Stories like this (which, apart from the person's name, is a true account) are not as rare as you might think. The Occupational Safety and Health Administration enforces workplace safety regulations through its network of compliance officers and state offices/departments of labor. According to the Bureau of Labor Statistics, companies in the Standard Industrial Classification (SIC) codes served by CUTTING TOOL ENGINEERING were fined more than \$8 million in the 1-year period from October 2000 through September

Metalcutting shops must focus primarily on four OSHA regulations to avoid penalties.

2001 (the most recent data available).

In general, there are eight OSHA standards that repeatedly surface as problematic for this group. And the steps a com-

pany needs to take to ensure compliance with these regulations are straightforward.

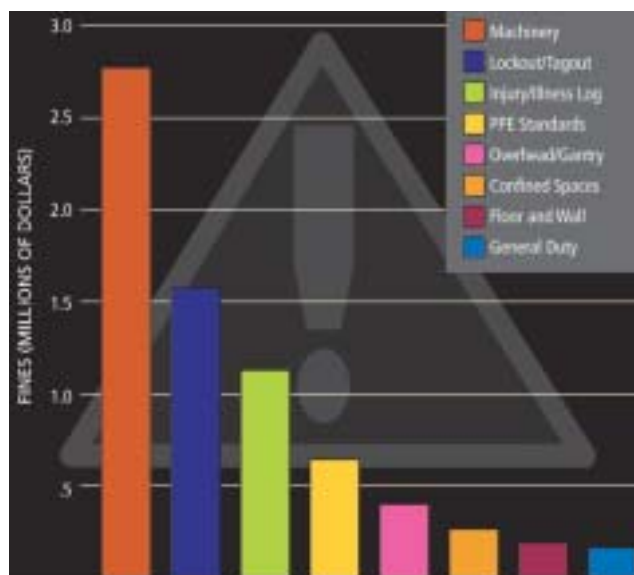
Note: All businesses, regardless of size, must furnish a workplace free of hazards; that is, they must comply with all OSHA regulations. While businesses with ten or fewer employees are not required to follow the requirements of OSHA's recordkeeping standard (see below), they still must report fatalities and multiple-injury accidents.

Machinery Requirements

Since its inception, OSHA has made machine guarding and safety (standards 1910.212, 1910.217 and 1910.219) a primary focus. Every year, these standards account for a high percentage of the citations levied. Among the companies served by CTE, fines totaling \$2.74 million were levied between October '00 and September '01 for lack of compliance. The amount is the highest among this group of manufacturers.

Compliance with the applicable standards is not difficult in theory. It's in the practice and follow-through where problems—and accidents—occur. Generally, firms should ensure that *all* machinery is adequately guarded and that the guards are always in place. Keep in mind that it is OSHA's stance that *every* machine or procedure be guarded.

Standard 1910.212 states, "One or more methods of machine guarding shall be provided to protect the operator



Frequently cited OSHA standards for metalcutting companies.

and other employees in the machine area from hazards such as those created by point of operation, ingoing nip points, rotating parts, flying chips and sparks.” Examples of guarding methods cited by OSHA include barrier guards, two-hand tripping devices and electronic safety devices. Metalcutting equipment specifically noted by OSHA as requiring point-of-operation guards are milling machines and power saws.

In addition, machines should be inspected periodically to check for signs of wear or deterioration of vital components.

It is a good practice to briefly survey the equipment before each shift, with a complete inspection performed by maintenance personnel at least once per month. Such in-depth inspections should be documented, noting the machine inspected, date and name of the inspector.

Controlling Hazardous Energy

It was Jimmy Weber’s company’s failure to implement and follow OSHA’s Control of Hazardous Energy mandate, also known as lockout/tagout procedures, that cost him his hand. OSHA estimates that adhering to the standard prevents 120 worker deaths and over 50,000 injuries each year. This category (OSHA standard 1910.147) accounts for \$1.56 million in fines for CTE’s readership sector between October ’00 and September ’01.

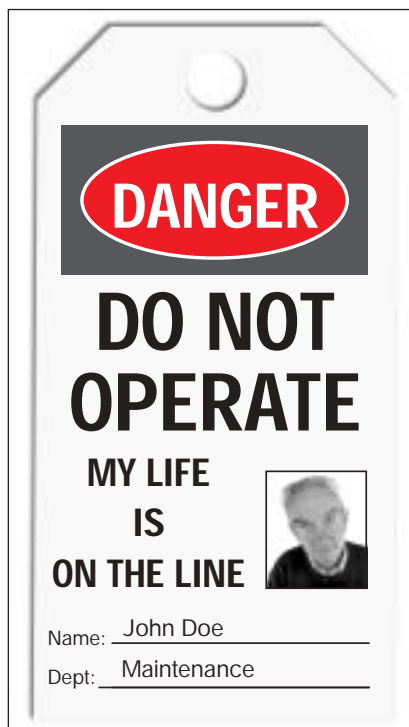
The lockout/tagout standard covers the accidental energization or activation of a piece of machinery or equipment while it is being serviced. This includes, for example, such mundane tasks as clearing a “jam” but also service and/or maintenance processes such as installing, setting up, inspecting and adjusting machinery.

During such operations, the power to the equipment should be off, with “locks” and “tags” employed to prevent the power from being restored except by the proper person(s).

Note that while electrical power applies to nearly all lockout/tagout scenarios, it is not the only source of power covered. For instance, the blades of ventilation fans must be blocked to

prevent errant wind gusts from turning the blades during maintenance. This is the reason Cal-OSHA (California’s branch of OSHA) refers to the standard as “lockout/blockout.”

To comply with this standard, companies must: train all employees to recognize lockout/tagout equipment and understand its significance; have a site-specific lockout/tagout program detailing procedures to be followed for



An example of a tag used to help prevent accidental energization of a piece of equipment.

each item of equipment; obtain and use lockout/tagout hardware. In any program in which “training” is mentioned, documentation of the training performed as well as the date of training, trainer’s identity and signature of the trainees should be maintained. There is no established/required time period, but best-safety practices recommend you keep records going indefinitely on current employees and for at least 10 years after an employee has left the company’s service.

The lockout/tagout standard is not intended to cover minor servicing activities that are necessary to carry out the production process, provided that associated danger zones are properly

guarded. The standard does not cover minor tool changes and adjustments and other minor servicing activities that take place during normal production operations.

This is a good example of OSHA being overly ambiguous. In essence, what OSHA is saying is that a routine procedure that is part of the production process—i.e., clearing scrap materials from the work surface, or clearing a very minor jam—falls under its regulations concerning machine guarding and operation, rather than it being a lockout/tagout situation. “Associated danger zone” means, basically, any area where machinery can cut, crush, catch, nip, etc., a person—that is, all the areas that are to be guarded. Thus, you wouldn’t stick your hand on an abrasive wheel apparatus to clear fragments from around the wheel—an associated danger zone. You’d use a tool instead.

Three specific criteria can determine if the minor servicing exception would apply to a particular activity:

- The activity must be conducted during normal production operations.
- The activity must be routine, repetitive and/or integral to the production process.

- The employer must use alternative measures to provide effective protection from the accidental energization. This could include specially designed tools, remote devices, interlocked barrier guards, local disconnects or control switches that are under the exclusive control of the employee performing the minor servicing.

If the minor servicing exception is not met in full, the lockout/tagout standard is applicable, and the equipment must be de-energized.

Log of Injuries/Illnesses

Failure to comply with the Log and Summary of Occupational Injuries/Illnesses standard (No. 1904) cost companies in CTE’s readership group \$1.12 million between October ’00 and September ’01. It is hard to understand the high amount of the citations levied, considering the requirements of this standard are relatively simple.

In general, employers must record

new work-related injuries and illnesses that meet one or more of the general recording criteria or meet the recording criteria for specific types of conditions. Recordable work-related injuries and illnesses are those that result in one or more of the following: death, days away from work, restricted work hours, transfer to another job, medical treatment beyond first aid, loss of consciousness or diagnosis of a significant injury or illness. Employers must classify each case on OSHA's "300 Log" in accordance with the most serious outcome associated with the case. [The log is one of three forms required by OSHA for recordkeeping: Form 300—the log—Form 300A and Form 301. Anytime there is a workplace injury or illness, an incident report (Form 301) must be filled out regarding the event and a summary line entered onto the log. These forms are available from OSHA.]

The employer must protect the privacy of injured or ill employees when recording cases. In certain types of cases, such as those involving mental illness or sexual assault, the employer may not enter the injured or ill employee's name in the log. Instead, the employer simply enters "privacy case" and keeps a separate, confidential list containing the identifying information.

After the end of the year, employers must review the log to verify its accuracy, summarize the log information on a "300A" form and certify the summary by having a company executive sign the certification. This information must then be posted for 3 months, from Feb. 1 to April 30, in an area conspicuous or readily accessible to all employees. (The employer is under no obligation to make that information accessible to the public at large.) The employer must keep the records for 5 years following the calendar year covered by them.

An employer must orally report within 8 hours work-related fatalities and incidents involving the hospitalization of three or more employees to the nearest OSHA office or the OSHA Hotline at (800) 321-OSHA.

Organizations should be aware that OSHA implemented a new record-

keeping standard that went into effect Jan. 1, 2002. This revised standard incorporates few major changes, apart from implementing the use of new forms.

Personal Protective Equipment

Fines totaling \$638,746 were handed out by OSHA between October '00 and September '01 to companies whose SIC codes correspond with those firms that subscribe to CTE and failed to comply with requirements for possessing protective gear equipment applicable to the category (standards 1910.95, 1910.132, 1910.134, 1910.135). This category includes commonplace protective gear such as gloves and safety goggles, as well as the more "specialized" gear such as hearing/noise protection and respiratory protection.

The best way to ensure compliance with this standard is to perform a job-hazard analysis. This is a survey by which each and every job function is analyzed for safety hazards. This report should list the hazards associated with the functions and suggest means of abating the hazards through the use of personal protective equipment (PPE), when feasible.

Note that if it is determined that respiratory protection is required, the employer must devise a written program and fit-test the respirators to the employees.

In the case of assessing the need for hearing protection, it may be necessary to employ an industrial hygienist to perform the necessary testing. In some areas, the state's Department of Labor may perform this service free of charge.

If it is determined that a hearing protection program is needed, you may want to consider employing a third-party to manage it, as hearing evaluations with oversight from a physician are required.

Overhead and Gantry Cranes

Similar to machinery requirements, overhead and gantry cranes, covered by OSHA standard 1910.179, require frequent inspections (both pre-operational and periodic in-depth checks). Failure to do this cost firms whose specialties coincide with those of CTE

readers \$397,528 over the 1-year period of time covered by this article.

As with the machinery procedures, you should implement an inspection schedule (consult the standard for the specific time intervals) and document the required inspections. In addition, be certain that only trained and authorized personnel work on or around this equipment.

Permit-Required Confined Spaces

As with the lockout/tagout standard, this is a regulation (1910.146) that OSHA takes very seriously, due to the potential lethal consequences of non-compliance.

Generally speaking, you should evaluate any area in your facility in which an employee could conceivably become entrapped. (Don't forget vats and mixing tanks.) You should compare suspect areas of your facility with the flowchart in the confined space standard to see if you have a permit-required confined space. If such an area exists, you must implement a written program dealing with each such space specifically, outlining procedures to be followed when the area is entered, how employees in the area are monitored and rescue scenarios.

OSHA fined companies typical of CTE's readership \$269,992 in the 12 months leading up to September '01 for failure to comply with this standard.

Floor and Wall Openings/Holes

This standard (1910.23) covers a wide variety of physical features of a facility, including stairwells and ladders (especially their openings/landing areas), open-sided walkways, windows, hatchways, trapdoors, manholes and toe boards, just to name a few. This regulation is more design-oriented than performance oriented—that is, compliance entails ensuring your facility is designed in accordance with the standard rather than requiring your employees to be trained to follow certain procedures. The best way to do this is to grab a copy of the standard and go over your facility inch-by-inch, comparing it to the guidelines listed. It's often beneficial to commission a third-party evaluation, either from a private consultant

or the state Labor Department.

Companies in the SIC codes served by CTE were fined \$194,109 from October '00 to September '01.

General Duty Clause

Given that there are dozens of OSHA standards, you might think it would be impossible for OSHA to have a regulation covering every conceivable scenario. While that's a logical assumption to make, it's incorrect—sort of.

Section 5A1 of the Occupational Safety and Health Act requires that each employer furnish "... a place of employment ... free from recognized hazards that are causing or are likely to cause death or serious physical harm." This is the General Duty Clause, OSHA's wild card. In any case where an inspector feels a potentially unsafe situ-

ation exists but for which there is no applicable standard, he can cite the General Duty Clause and levy a fine. Thus, it makes sense for an organization to implement and follow a safety conscious mentality, from the top on down, rather than simply attempt to satisfy the listed requirements of individual standards.

Fines totaling \$167,118 were levied against companies typical of CTE readers for violation of this clause.

Hazard-Free Workplace

The eight areas highlighted accounted for nearly 90 percent of the dollar-value of fines levied against facilities in the metalcutting industry. Thus, it makes sound financial sense to ensure compliance with these standards. Still, you should not lose sight of the variety of other areas that require your atten-

tion; any situation can result in assessment of a fine—or worse.

It's important to keep in mind that the reason these standards came to exist in the first place is to protect the worker. As damaging as a serious fine could be to a company's bottom line, compare that to the impact of having a worker die or be seriously, perhaps permanently, injured due to a simple mistake. Safety makes sense and saves cents. Take steps today to make your workplace as hazard-free as possible.

About the Author

Chris Osment is a freelance writer who has authored numerous articles on safety and OSHA compliance and once served as director of operations of an OSHA and Environmental Protection Agency compliance firm.