

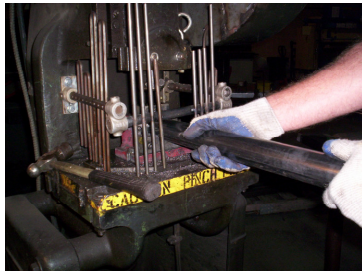
# The Costs of Safety Errors in the Metal Fabrication Industry

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Last year, OSHA issued nearly 8000 citations in the Metal Fabrication Industry, totaling almost \$5 million in penalties. Avoiding costly OSHA citations requires that you provide a safe workplace and understand what OSHA might focus on in your business. Looking at last year's most frequent and costly OSHA citations can give you insight into where to focus your compliance activities.

Emphasis Area	Total Cost	# of Citations	Rank of Frequency
Machine Guarding	\$1,950,175	719	4
Materials Handling Equipment	\$ 484,854	705	6
Lockout/Tagout	\$ 438,479	715	5
Facility/Work Environment	\$ 436,205	758	3
Electrical	\$ 392,133	820	1
Personal Protective Equipment	\$ 277,624	761	2
Hazardous Materials	\$ 210,569	333	8
Toxic and Hazardous Substances	\$ 134,139	162	10
Recordkeeping	\$ 107,078	215	9
Permit-Required Confined Space	\$ 106,807	109	11
Hazard Communication	\$ 105,998	537	7

*SIC 3400 (Fabricated Metal Products, except Machinery and Transportation Equipment) for October 2005 - September 2006, www.osha.gov.*



## Machine Guarding and Safe Equipment Use

Not surprisingly, machine guarding and safe equipment use took front and center stage as the most costly citation area, costing the industry nearly \$2 million. It is critical that employers be aware of the OSHA regulations that pertain to the specifications, use, and maintenance requirements of their tools and equipment. The safe condition and use of all equipment, including that furnished by employees, is the responsibility of the employer. Leaving manufacturers' guards in place is one simple way to stay in compliance in this area.

## Materials Handling

Use of materials handling equipment was the second most costly citation area, totaling nearly half a million dollars. This includes use of powered industrial trucks, overhead and gantry cranes, slings, etc. It is essential that your employees have the training and knowledge to use materials handling equipment properly and that you have safe work procedures established at your facility.



## Lockout/Tagout

Failure to follow safe Lockout/Tagout procedures followed closely behind materials handling citations, also totaling nearly half a million dollars. OSHA's Control of Hazardous Energy (Lockout/Tagout) Standard is designed to protect personnel when maintenance or repairs are being performed on equipment. This regulation: (1) identifies the practices and procedures necessary to shut down and lockout or tagout machines and equipment; (2) requires that employees receive training in their role in the lockout/tagout program; and (3) mandates that periodic inspections be conducted to maintain or enhance your lockout/tagout program.

## Facility, Facility Maintenance, and Use of Facility

These issues were another frequent and costly citation area. This type of citation includes violations in: guarding floor and wall openings; safe walking and working surfaces; use of ladders; portable fire extinguishers; exits and exit routes; medical services and first aid; emergency action plans; labeling of hazards and safety color coding; accident prevention signs and tags; sanitation; alarm and sprinkler systems; and other similar issues. OSHA regulations clearly spell out requirements for emergency preparedness and the provision of a safe work environment; the key here is to understand these regulations.



## Electrical

Electrical hazards were the most frequently cited area. By far the most costly specific violations were wiring methods and components, and general use. Also cited were use of equipment, safeguards for personnel protection, selection and use of work practices, and inadequate training.

**Personal Protective Equipment (PPE)** was the second most frequently cited regulation. Specifically, citations were issued, in order of frequency, on the following:

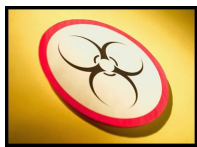


- Respiratory Protection
- PPE – General Requirements
- Eye and Face Protection
- Hand protection
- Foot Protection
- Head Protection

OSHA found that employers were either not providing necessary equipment based on the job hazards, not providing employees with the proper training, or not ensuring that employees were wearing the required equipment. Even when the employee furnishes his or her own protective equipment, it is the employer's responsibility to assure its adequacy on an on-going basis.



**Hazardous Materials** violations include storage and use of flammable and combustible liquids, improper environments and operations for spray finishing, safety management of hazardous chemicals, dipping and coating operations, hazardous waste and emergency response, storage and use of compressed and liquefied petroleum gases, and management of anhydrous ammonia, acetylene and oxygen.



**Toxic and Hazardous Substances** violations include exposure to dangerous airborne contaminants and other substances such as bloodborne pathogens, lead, methylene chloride, asbestos, cadmium, vinyl chloride, inorganic arsenic and formaldehyde.

The first step in avoiding OSHA citations is to understand what OSHA requires you to do. Obviously, then you must develop safety programs accordingly, and train your employees so that they understand their hazards and what they must do to protect themselves. Developing a safety program may seem like a daunting and expensive task, but studies have shown a \$4-6 return on every \$1 spent on safety and health. TechneTrain has a full line of easy-to-understand reference materials for the metal fabricating industry to help you keep your business current and in compliance with OSHA Regulations and also training programs to facilitate the required employee training.

