

## DATA SHEET

### **OSHA RULES and SCENIC ARTS**

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The Occupational Safety and Health Administration (OSHA) began writing regulations in 1971. Each of these regulations included in their preface (prerule) an economic statement in which OSHA calculated the estimated cost per employee to initiate each program and to maintain the program annually. This means that budgets for production companies and shops should have allocations for meeting the OSHA regulations. And each year, these allocations should have been steadily increasing. In fact, most good-sized companies and shops should have a full time professional to address safety, OSHA, EPA, and fire regulations.

**TRAINING and PROGRAM WRITING.** The best way to demonstrate the rising cost of safety and compliance is to look at those applicable OSHA regulations which require training and formal written programs or recordkeeping. OSHA expects that employers will not let workers tackle any work for which they are not properly trained. Instead, employers make the false assumption that the workers they hire are already trained. They are not aware that technical schools and universities are not safety training their students. The job falls to the employer.

Many OSHA regulations require employers to provide both initial training at hiring and annual refresher training. A written program, training records, and proof of comprehension are required by most rules. Regulations for which training and/or written programs are required include:

1. Hazard Communication Standard (1910.1200, 1926.59)
2. Personal Protective Equipment (1910.132)
3. Respiratory Protection (1910.134, 1926.103)
4. Head protection (1910.135, 1926.21)
5. Bloodborne Pathogens (1910.1030)
6. Emergency Action & Fire Prevention (1910.38 & .39)
7. Portable Fire Suppression Equipment (1910.157, 1926.150)
8. Fall Protection (1926.500-503)
9. Scaffold regulations (1910.28 and 1926.451)
10. Powered Industrial Trucks (Lifts) (1926.178(l))
11. Welding and compressed gas rules (1910.251-157)
12. Electrical Safety (1910.302-307, 1926.401-405)
13. Occupational Noise Exposure (1910.95, 1926.52.
14. Medical Services and first aid (1910.151).

STANDARDS. Most of the work done theaters and permanent scene shops falls under the General Industry Standards (29 CFR 1900-1910). However, some activities are regulated under the Construction Industry Standards (29 CFR 1926). OSHA's definition of construction work is broad and includes any "alterations or repair, including painting and decorating." This means that any large set construction in shops, locations, or on stage comes under both standards. Both standards will be listed in this data sheet.

I've included the regulation citation numbers so that you can easily obtain the full rule by going to [www.osha.gov](http://www.osha.gov) and searching for the rule by number.

## DESCRIPTIONS OF APPLICABLE LAWS

Hazard Communication (1926.59, 1910.1200). The Hazard Communication Standard is the cornerstone of a facility's health and safety programs. It requires employers develop a program to inform and train all full- and part-time employees about the hazards on their jobs. Failure to train can result in OSHA citations and fines. Required are the following:

- \* A written Hazard Communication Program.
- \* An inventory of all potentially hazardous products.
- \* Material Safety Data Sheets (MSDSs) on all potentially hazardous materials.
- \* Labels on all containers of chemicals in compliance with the rules--e.g. names of substance, hazard warnings, name/address of the manufacturer.
- \* Formal training by a qualified person of all employees who are potentially exposed to toxic chemicals.
- \* Ready access to MSDSs and all written elements of the program to workers during all working hours.

Respiratory Protection (1926.103, 1910.134). Use of respirators, including half-face toxic dust masks, must comply with 29 CFR 1910.134 which requires employers to establish a respirator program. In general, these are:

- \* a written program and risk assessment detailing how the employer will meet the requirements and how respirators will be selected.
- \* Medical certification and an annual check on the employee's medical status to assure that they are physically able to wear a respirator and tolerate the added breathing stress safely. New York members can call Beverly Miller in the USA Office for information on getting free certification.

- \* Fit testing of workers by a qualified person using one of the approved methods done annually.
- \* Procedures for regular cleaning, disinfecting, and maintaining all respirators. Respirators that are shared must be disinfecting after every use.
- \* Procedures for formal, documented training of workers.

Personal Protective Equipment(1926.28,1910.132-133). OSHA requires formal documented training in the proper use of gloves, eyewear, aprons and other protective equipment. For example, I often find that scenic artists use the wrong eye protection such wearing chemical splash goggles for working with machinery when impact glasses with side shields are needed.

Fall Protection (1926.500-503, 1910.23). If people have to work on set from which they could fall more than 6 feet or if they work on a scaffold from which they could fall 10 feet, the height must be guarded with a standard railed or the worker must be tied off and harnessed (belts and boatswains chairs are no longer acceptable). Shops in permanent locations under the General Industry Standard must guard or provide fall protection at heights of 4 feet or more. OSHA requires training about the fall protection equipment.

Scaffold regulations (1910.28 and 1926.451). These rules requires a "competent person" to direct directs erection and use of scaffolds be present. This person also provides training for the other workers on scaffolds. Untrained people are not allowed on the scaffold.

Powered Industrial Trucks (1926.178(l)). This rule requires operators of fork lifts, platform lift trucks, and other powered lifts including Genie truck lifts to be trained. Training must consist of both classroom and practical training in proper vehicle operation, the associated hazards, and requirements of the OSHA standard. OSHA will also cite for any failure to follow recommendations in the manufacturers operator's manual.

Ladders (1910.25-26, 1926.1053). Both wooden and metal ladders of various types must be used for specific purposes. Workers all must be familiar with the many OSHA rules for ladder use.

Emergency Action & Fire Prevention (1910.38-39 & 157(g), 1926.150). Workers must be trained in a facilities alarm and fire suppression systems, exit routes, where to meet for a head count, etc. Workers expected to use fire extinguishers must be trained how to use the equipment, when to fight and when to flee, etc. Training is required at the time of hire and annually thereafter.

Occupational Noise Exposure (1910.95 or 1926.52). The noise produced by machinery, saws, and even loud music or pyrotechnics, must be measured and records kept of the decibels to which workers are exposed. If the noise levels are at or near the permissible noise level, hearing protection is required. The workers must be provided with audiograms and formal training about noise and use of protection such as ear plugs or muffs.

Lead in construction (1926.62). If old paint (applied prior to 1980) is to be removed or disturbed, it must be analyzed for lead. Only trained lead paint abatement worker can remove lead paint. Other workers must be informed about the presence of lead paint or other lead sources at the worksite.

Lead in General Industry Standards (1910.1025). Once it is known that there is lead in the environment that could potentially be airborne (e.g., from soldering), the employer must personally monitor those employees who may be exposed during the work. If the tests show airborne lead above the action level ( $>0.03$  mg/m<sup>3</sup>), then many other expensive provisions take effect including blood lead tests, showers, and changing rooms. If the tests are below the action level there still must be complete record keeping and retesting every time conditions, jobs, or personnel change.

Asbestos in construction (1926.1011). This rule requires employers in older buildings to have an asbestos management plan. Workers must have access to this plan which identifies exactly which insulation, ceiling tiles, vinyl floor tiles, etc., are asbestos-containing. Theaters may have old lighting instruments with asbestos wiring which qualify. Pipes insulated with asbestos must be clearly labeled. Pipe insulation that has not been tested must be labeled "asbestos" and treated as if it were asbestos until and unless testing shows otherwise. And worker potentially exposed to asbestos must be trained in asbestos hazards.

Electrical Safety (1926.401-.405, 1910.302-308). Recently updated, the federal OSHA standard provide great details about their requirements and they reference the National Electric Code (NEC). This means that OSHA may cite for both their own rules and for items that do not meet NEC code.

Common violations seen in shops and locations include non-compliant panels and cabinets, panels without appropriate clear access in front of them (1910.303(g)(1)(i)), and equipment which is not either ground faulted or double insulated, and plugs that have been altered by clipping off the ground. In addition, new rules require all outlets and power sources including extension cords into which power tools will be plugged must be ground fault circuit interrupted (1926.404(b)(1)).

Medical Services and first aid (1910.151, 1926.50). If a worker is expected to provide CPR, first aid or other services they must be trained and certified. Proper eye washes and emergency showers are needed if irritant or corrosive chemicals are sprayed, splashed or dusted. First aid kits must be available and stocked with any special items needed (as indicated by MSDSs).

Bloodborne pathogens standard (1910.1030). This standard protects workers from exposure to blood and other body fluids. Among its provisions, it requires that sharp items that are contaminated with blood or other body fluids be disposed of in a medical biological hazards (sharps) container. A court case already showed that the standard is applicable to workers in the textile industry who use tagging guns and needles. So it would apply to costumers and any other workers who routinely suffer small cuts and accidents such as in prop and scenic work.

Flammable & combustible liquids (1910.106 or 1926.152). Solvent-containing paints, spray cans and other flammable products must be properly stored and dispensed. Large amounts must be stored in appropriate flammable storage cabinets.

Formaldehyde Standard (1910.1048). This rule requires air monitoring and special precautions for employees exposed to formaldehyde. As of 7/08, Locals USA829 and 52, IATSE, agreed that we are going to require that employers follow the monitoring requirements and other provisions of the OSHA Formaldehyde Standard if they insist on using regular MDF. (Ordinary plywood or Medite can be used instead.)

Sanitation (1910.141). This rule applies to bathrooms and general sanitation. Two particular provision in (g)(2) and (g)(4) prohibit employees from eating or storing food in areas where toxic substances are used or stored. Eating lunch or drinking beverages must be done in a sanitary room complete with walls and doors and separate ventilation system to isolate it from work areas.

Housekeeping (1910.22, 1926.25). All places of employment, passageways, storerooms, and service rooms shall be kept clean and orderly and in a sanitary condition. The floor of every workroom shall be maintained in a clean and, so far as possible, a dry condition (e.g. drainage of wet areas by false floors, platforms, mats, or other dry standing places).

To facilitate cleaning, every floor, working place, and passageway shall be kept free from protruding nails, splinters, holes, loose boards, or any materials over which people may trip. Aisles and passageways must be maintained even during set construction.

Machinery rules. There are a number of standards that apply to specific machines in 1910:

.213 Woodworking machinery rules require guards at the point of operation (e.g. the blade), a central cut off switch and lockouts, kickback guards, returns on radial arms, etc.

.215 Abrasive grind wheels must have eye guards, tool rests must be adjusted to 1/8 inch from the wheel, and breakout plates (tongues) must adjusted to 1/4 inch of the wheel. The air contaminants rule (.1000) also applies to the grinding dust from both the material being ground and the wheel itself which must be vented or collected.

.219 Mechanical power transmission apparatus rules require enclosure of drive belts, fly wheels, shafts of certain types, dimensions and sizes.

.242 Hand and portable powered tools and equipment

(a) General Requirements. Each employer shall be responsible for the safe condition of tools and equipment used by employees, including tools and equipment furnished by employees.

(b) Compressed air used for cleaning. Compressed air shall not be used for cleaning purposes except where reduced to less than 30 p.s.i. and then only with effective chip guarding and personal protective equipment ((1910.242(b)).

Welding, Cutting & Brazing(1910.251-.255,1926.350-.351). Welding done in theaters and shops comes under many regulations, not only the standards cited above but rules about compressed gas cylinders, electrical hazards (arc), etc. A common violation seen in theaters and shops is welding less than 35 feet away from combustible materials such as wood dust or Styrofoam, or on wooden floors with cracks between the boards or sections. (1910.252(a)). Welding is also commonly done by uncertified welders who may have no formal training. This puts the employer's liability at risk if a set accident involves failure of a weld.

Hazardous Waste Operations and Emergency Response (1910.120). These rules require training. If our people are expected to deal with disposal of paints, solvents or other hazardous waste, they must be trained. There are also EPA rules that apply to storage, handling, and shipping of waste.

Confined Space (1910.146). This complex rule applies to any container, room, or space large enough to hold a person but which has only one entrance/exit. These spaces are divided into 2 types: permitted and non permitted.

(a) Permitted spaces have only one entrance or very restricted entrances. They are not places where people work except to repair or maintain something. People can only enter these spaces when a formal permit has been issued and another trained person is standing at the entrance in case of emergencies. Examples are manholes, crawl spaces, tanks, etc. Training for these is lengthy and involved. Our workers only need to know enough to refuse to enter any space like this.

(b) Non-permitted spaces are rooms with only one entrance/exit, without ventilation, where people do not work regularly, etc. Examples are closets or storage spaces under eaves, a spaces that only have a single entrance temporarily because of construction or renovation, spaces in theaters such as under orchestra pits, under stages, and crawl spaced in certain lighting areas.

These spaces do not require a permit and all the emergency preparation, but they do require training about the company's confined space program, posting of an individual outside a space when someone is inside one, and notification for people who work near the space (they don't have to go inside to require training).

Biological hazards--may be cited under the General Duty Clause (Section 5(a)(1)). Droppings or nests from animals such as pigeons and rodents, flood damaged materials, moldy materials, and other disease-carrying substances are "recognized hazards" and, as such, can be cited under the General Duty Clause. Clean up of these materials may require professional abatement or training of regular workers in use of protective equipment and disinfectants.

Further Information. These and many other applicable rules can be obtained by contacting your local OSHA office and asking where copies of 29 CFR 1900-1910 and 29 CFR 1926 can be obtained. You can also call your Safety Officer who has copies of all these regulations.