



<https://www.biodiversitylibrary.org/>

Animal keepers' forum

Topeka, Kan, American Association of Zoo Keepers,
<https://www.biodiversitylibrary.org/bibliography/125504>

v.48:no.10 (2021:Oct.):

<https://www.biodiversitylibrary.org/item/326131>

Page(s): Page 268, Page 269, Page 270, Page 271

Holding Institution: American Association of Zoo Keepers
Sponsored by: American Association of Zoo Keepers

Generated 7 October 2023 9:59 PM
<https://www.biodiversitylibrary.org/pdf4/1628428i00326131.pdf>

This page intentionally left blank.

A Zookeeper's Guide to Navigating OSHA Regulations

Kathryn Juliano, AAZK Safety Committee Vice Chair

OSHA, the Occupational Safety and Health Administration, was created in the United States in 1970 by Congress when the Occupational Safety and Health Act of 1970 was passed (About OSHA). OSHA is part of the US Department of Labor, making it a government entity. Every worker is covered by the Occupational Safety and Health Act with a few exceptions, including family farms, self-employed workers, and workplaces covered by other laws, including mining and railroads.

OSHA exists to ensure safe and healthy conditions for working men and women. To reach its goal, OSHA has two driving actions; first, they set and enforce standards. Second, OSHA provides training, education, outreach, and assistance on different safety topics. This article will focus specifically on the standards and enforcement of standards by OSHA.

OSHA standards and regulations absolutely apply to zoos and aquariums and their employees. By learning about the details of OSHA standards, facilities can ensure they are following the law, make their workplace safer for their employees, and prepare for inspections. Employees also benefit from learning about OSHA standards. They can take an active role in their own safety and health and ensure that their rights are being met appropriately.

However, it can be difficult for the average person to even find OSHA standards, let alone break down the legal jargon and figure out what applies in a specific situation. This article will explain how to find OSHA standards, understand legal writing, and review common standards that apply to animal keepers.

HOW TO FIND OSHA STANDARDS

OSHA standards are written into the Occupational Safety and Health Act of 1970. This act is a permanent federal statute of the United States and can be located within the United States Code in title 29, chapter 15. Some applicable language is also found in the General Duty Clause, Section 5(a)(1). These designations help organize the OSHA standards and make them easier to find if someone is familiar with the system.

All OSHA standards will be listed on the OSHA website: www.osha.gov/laws-regs. Because every standard is part of the United States Code, they will always begin with 29 CFR, which stands for the 29th title of the Code of Federal Regulations. After that, each standard will be grouped into one of two sections, either Occupational Safety and Health Standards (1910) or Safety and Health Regulations for Construction (1926). Following the section, additional numbers designate further categories. For example, 1910.101- 1910.126 includes all sections about hazardous materials.

Zookeepers may find that the Standards for General Industry in Section 1910 apply to them the most. However, if a keeper is performing construction activities, which can include exhibit renovation or new construction, they should pay additional attention to the Standards for Construction (1926). Additionally, some standards are horizontal and “cross over” disciplines, including fire protection and first aid standards. Check both Section 1910 and Section 1926 to ensure you’re getting the correct information.

Some sections have further designations. For example, 29 CFR 1910.157 includes all legal requirements for portable fire extinguishers. The letter C designates parts of the code that discuss general requirements, while the letter E covers inspection maintenance and testing.

Navigating the OSHA standards is complicated! The standards are legally written documents and understanding how to read legal jargon is complicated by itself. OSHA has many additional resources to help identify standards and learn more about



them. For example, if you look up “heat” on the OSHA website, you will find the standards but also educational materials, graphics, and videos. Hopefully this article can also serve as a quick guide to finding applicable standards when working in a zoo or aquarium.

Looking for further advice on understanding legislation? Always check the definition of a term that is mentioned- something like “exotic animal” can mean that very specific animals are included or not included. Look for action words and exceptions. There’s a huge legal difference between “may” and “must”, and exceptions like “only” and “under” can change the entire meaning of a standard. Finally, be careful when looking at “quick guides” that don’t come directly from OSHA. Someone else could easily be misinterpreting a standard- reference their information with the OSHA regulations whenever you can.

STANDARD VS. GUIDELINE

As previously mentioned, OSHA has two main ways of accomplishing their goal- they create and enforce standards and provide training and education. It can be very easy to mistake their educational materials and training for actual standards. It’s very important to distinguish between what OSHA considers a legal requirement and what they consider a recommendation.

For example, OSHA actually has very few standards for working safely in the heat. The only applicable standard is the General Duty Clause, which requires employers to provide a place of employment free from recognized hazards. Recently, courts have interpreted this standard to include heat-related hazards (OSHA Heat Stress Standards). However, there are no specific criteria for preventing heat-related hazards. There are recommendations created by NIOSH (National Institute for Occupational Safety and Health) that detail ways to minimize the risk of heat-related hazards, including wearing appropriate clothing, providing frequent breaks, using fans, implementing a buddy system, and providing adequate amounts of cool drinking water. Employers are not required by law to institute any of these recommendations.

In contrast, fall protection has many recommendations and many standards. OSHA has created multiple educational materials, fact sheets, posters, videos, and recommendations. However, there are also many standards that exist, including standards related to holes, ramps, excavations, ladders, dangerous equipment, bricklaying, steep roofs, and a standard for training on fall protection. Employers are required to meet all of these standards.

As an employee of a zoo or aquarium, it’s important to know the difference between a standard and a recommendation, because an employer is only required to follow standards. An employer does not legally have to provide you with fans or drinking water, although they could be in danger of violating

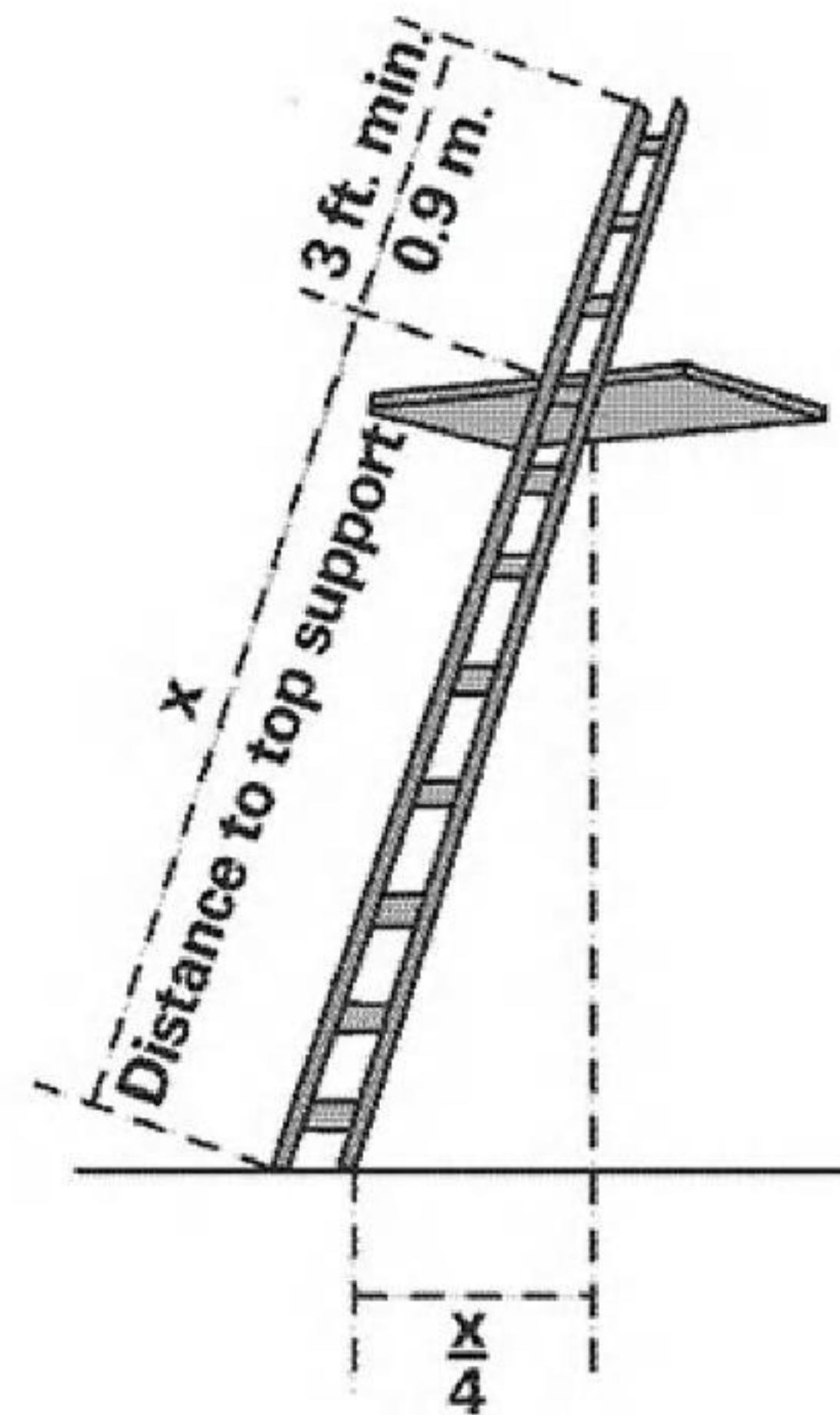


Figure D-1 Portable Ladder Set-up

Example of a figure depicting proper portable ladder set-up from OSHA regulation 29 CFR 1910.21-1910.30.

the General Duty Clause if the environment is extremely unsafe. However, an employer does have to provide appropriate ladders that meet specific criteria. Knowing the standards and recommendations can help you ensure that your working environment is following the law and that you are safe.

FREQUENTLY CITED STANDARDS

The following is a brief list of commonly applicable standards for zoo and aquarium employees- it is not an extensive list. This list should also be considered a brief summary and not a definitive guide. For any specific details, check the standards online at www.osha.gov/laws-regs. This list should simply make it easier to identify and access related standards.

Walking-Working Surfaces: 1910.21-1910.30

This section includes standards for ladders and fall protection systems. Ladders have very specific standards for the distance between rungs, minimum clear width, and general condition of the ladder. There are also very specific standards for how portable ladders must be used. Notably, an individual cannot be over six feet from the ground without fall protection and cannot use portable ladders to perform routine climbing.

Noise: 1910.95

OSHA has specific standards for harmful sound levels and requirements for hearing protectors. If an employee is exposed to noise that measures over 85 decibels for 8 hours on average, their employer is required to provide them with hearing

protection. This standard also includes charts demonstrating what kind of protection is required if the employee is exposed to long durations of higher decibels.

Personal Protective Equipment: 1910.132-1910.140

The employer must provide training for Personal Protective Equipment (PPE) use and test for proper fit. The employer must pay for PPE, except for everyday clothing and skin creams, like sunscreen. OSHA has specific standards for eye protection and eyewear, head protection and headwear, and foot protection and footwear. Respiratory protection has many standards depending on the type of hazard the employee is exposed to, which can include silica and asbestos. Some PPE cannot be used without testing and evaluation by a Certified Industrial Hygienist or Certified Safety Professional to identify the hazard and provide the appropriate PPE.

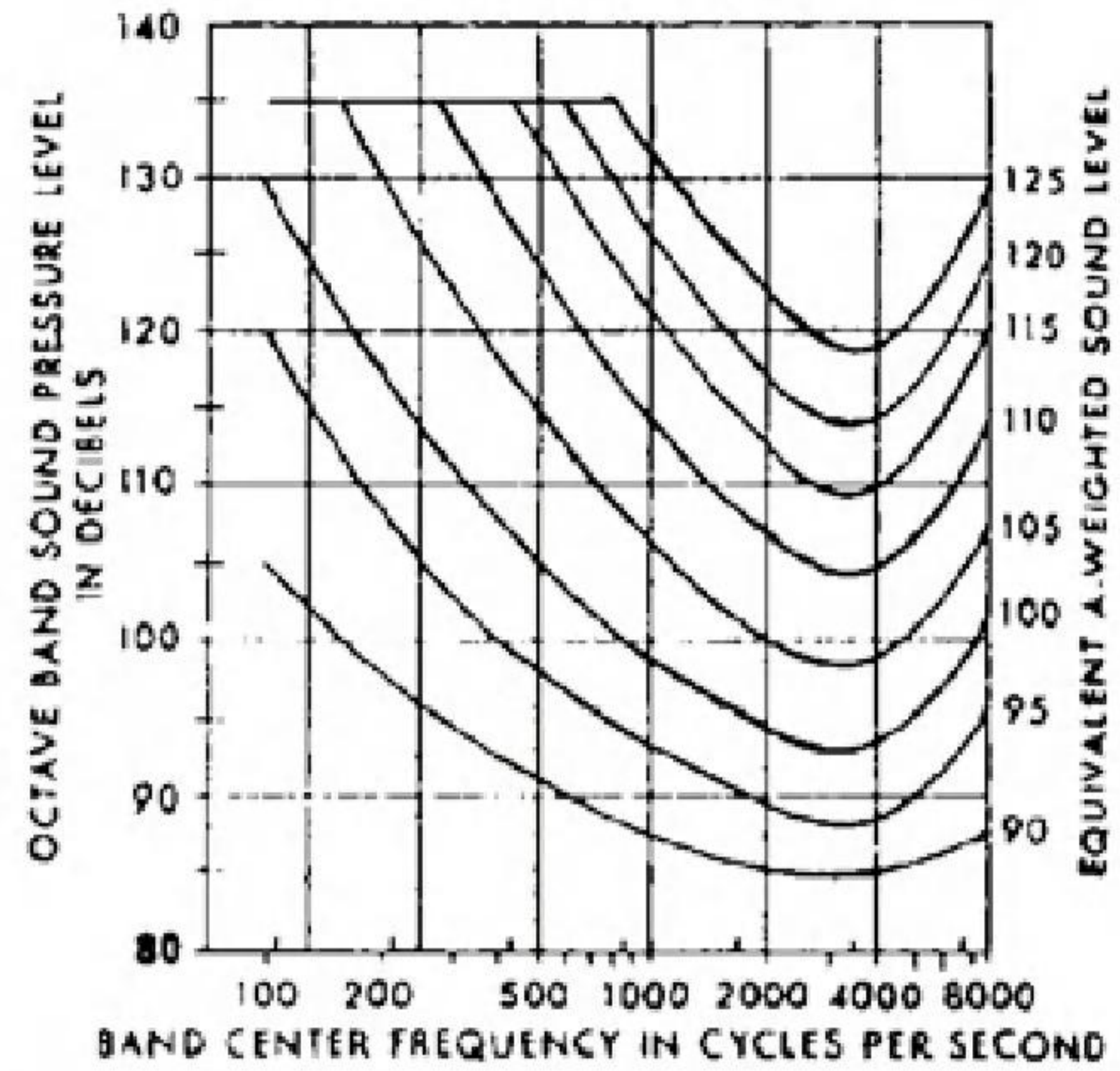
General Sanitation: 1910.141

OSHA has specific standards for toilet facilities in an area, along with waste disposal, potable water, and vermin control. If working clothes are provided by an employer and are washed between shifts, the employee must provide clothes drying facilities. Employers are also required to provide an eating or drinking area and a sanitary food storage area that are away from toxic materials.

Noise Exposure Limits

Exposure Time	NIOSH dB SPL	OSHA dB SPL
8 hrs	85	85
4 hrs	88	90
2 hrs	91	95
1 hr	94	100
30 min	97	105
15 min	100	110
7.5 min	103	115
3.75 min	106	120
> 2 min	109	-
> 1 min	111	-

NIOSH The National Institute for Occupational Safety and Health
OSHA Occupational Safety and Health Administration
dB SPL Decibel sound pressure level



Example of a chart demonstrating different levels of sound exposure from OSHA regulation 29 CFR 1910.95.

Medical Services and First Aid: 1910.151

If an infirmary, clinic, or hospital is not close to the workplace, a person must be trained to adequately provide first aid. Adequate first aid supplies must be available. OSHA offers recommendations for first aid kits but does not have any standards about first aid kits.

Fire Protection: 1910.155-1910.165

OSHA has specific standards for fire extinguishers, fire brigades, sprinkler systems, and fire detection systems. Portable fire extinguishers must be provided based on the classes of workplace fires and must be inspected visually monthly and receive an annual maintenance check unless they are a stored pressure extinguisher, which requires a check every six years.

Electrical: 1910.334

This specific section includes standards for using extension cords, portable fans and heaters, and outdoor fans and heaters. It describes how to properly use extension cords and circuits to avoid overloading and using properly rated equipment.

Diving: 1910.401-1910.440, 1926.1071- 1926.1091

Diving can be classified as commercial diving or scientific diving- the standards are very different between the two. Recently, court cases have decided that many aquarium

employees are conducting “scientific diving”, but employees should check with their employer or with safety officials to learn about the status of diving at their facility. Standards include pre-dive and post-dive procedures, equipment, and recordkeeping requirements.

Hazard Communication: 1910.1200

Hazardous materials and chemicals must be clearly identified, and standards are provided for proper labeling. Safety data sheets must be maintained and readily accessible for any hazardous chemicals. Training requirements for staff that may use or be exposed to hazardous materials are also specified.

OTHER REGULATORY BODIES

Workplace safety does not end at the federal level. While OSHA is a federal program, there are 22 OSHA programs that operate at a state level. States can have separate standards or adopt federal standards with specific addendums. States have different regulations as well, especially about diving, that must be considered. Individual facilities can also have their own safety policies and inspections, especially zoos and aquariums that are part of a government organization on a city, county, state, or federal level. Check with your supervisor, your facility’s safety official, or your government’s safety department to learn more about local policies and regulations.

EMPLOYEE RIGHTS

As an employee of a zoo or aquarium, this information should empower you to ensure that your workplace is as safe as possible. You always have the right to working conditions that do not pose serious harm as stated in the General Duty Clause. Past court cases have shown that this clause is somewhat open to interpretation and is often used to protect employees further than specific standards. You are entitled to information and training about chemical and other hazards. You are always allowed to review records of work-related injuries and



HAZARD COMMUNICATIONS

illnesses. The OSHA 301 Form, or the Injury and Illness Report, is required to be posted in common areas and describes these cases in the past year.

If you suspect that your workplace is unsafe, you can always file a complaint to OSHA to ask for an inspection. You can get copies of test results that were conducted to find and measure hazards in the workplace. For example, many employers are required to conduct tests to detect asbestos, and you are entitled to view those results. Finally, you are always able to use these rights without retaliation.

OSHA and these standards are ultimately made to protect the employee and ensure that they have a safe workplace. You can take an active role in your own safety- reading this article is a great step. Check for more resources online, ask your immediate supervisor to follow up on safety issues, and see if your facility has a safety expert on staff. These guidelines should empower you to ensure you are safe at your zoo or aquarium. 🐘

RESOURCES

OSHA At-a-glance: <https://www.osha.gov/Publications/3439at-a-glance.pdf>

Five Tips for Reading Legislation and Code: https://www.americanbar.org/groups/government_public/resources/public_lawyer_career_center/Career_Articles/gruwell-article-five-tips-reading-legislation/

Eyewash Interpretation: <https://www.osha.gov/laws-regs/standardinterpretations/2009-06-01>

OSHA Noise Limits In Construction

Permissible Noise Exposure Limits (dBA)		
Duration per day in hours	NIOSH (recommended)	OSHA (Construction Standard)
8	85	90
4	88	95
2	91	100
1	94	105
½	97	110
¼	100	115

Source: NIOSH, Occupational Noise, Revised Criteria, 1998, Table 1-1, and OSHA, 1910.95 (b)(2), Table G-16