

# MIOSHA Fact Sheet

## Oil and Gas Drilling and Service Operations



Oil and gas drilling and service operations are dangerous operations and expose employees to serious injury and death especially during drilling, production, and servicing. Nationally during 2019 – 2020, 155 fatalities occurred in the extraction industry. In Michigan, there was a fatality in 2019 and again in 2021. These two incidents translate to a very high fatality rate for operations in Michigan, which has relatively few employees in this industry. In May of 2021, Bureau of Labor and Statistics counted only 750 workers in the state in these industry operations.

According to the CDC Database 2015 – 2017, the leading causes of fatalities nationally were in decreasing order of prevalence, vehicle accidents, contact injuries (struck by, caught between or crushed), fires and explosions, falls from elevation, and exposures to harmful substances (hydrogen sulfide, hydrocarbons, and carbon monoxide) [Fatalities in Oil & Gas Extraction – FOG Data](#). Two recent fatalities in Michigan were caused by a flash fire and the employee crushed between a service truck and well head.

### How to Protect Your Employees

#### Personal Protective Equipment

All employers in general industry are required to perform a Job Safety/Hazard Analysis (JSA). This is a process that must be performed and certified. This process should cause the employer to evaluate all reasonably anticipated exposures to potentially injurious conditions and products that could cause serious injury or death. This process should cover conditions such as exposure to harmful chemicals, well drilling and processes where exposure to hydrogen sulfide and sulfur dioxide may be present, the footprint of vehicle traffic, as well as the need for Flame Resistant (FR) rated clothing and other personal protective equipment. MIOSHA looks to employers to follow a process where engineering controls should be the first line of employee protection to eliminate or reduce exposure to hazards and would be based on each site operation. Where engineering controls are not feasible, administrative controls and personal protective equipment should be appropriate for the task and provided to employees.

Where employees are working aloft, the employer shall provide and ensure the use of fall protection systems. Fall protection systems must be evaluated and approved by a qualified person as prescribed in [General Industry Safety and Health Standard Part 57. Oil and Gas Drilling and Servicing Operations](#), and [General Industry Safety and Health Standard Part 2. Walking-Working Surfaces](#). Inspection and proper maintenance of safety equipment should be included in the training. The training must also be provided by a person meeting the definition of a qualified person or employee.

“Qualified employee” means a person who, by possession of recognized degree, certificate, or professional standing, or who by knowledge, training, or experience, has successfully demonstrated the ability to perform work relating to the subject matter.

**LEO is an equal opportunity employer/program.**



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## Training

Employers are required to provide training to employees regarding the safe operating procedures, recognized hazards, and safeguards of assigned tasks. The training should include safe handling and use of hazardous substances and the protective equipment required to protect from exposure to hazardous substances. Each site should have readily available, a Safety Data Sheet (SDS) for each chemical that has been identified as having hazardous properties. They should be organized in a readable format for rapid access in the event of emergency. All training should be provided to employees before they are exposed to a task or hazard. It is recommended all training be documented and capable of being verified upon request.

Training for hazards associated with potential exposures to Hydrogen Sulfide, its properties, and byproducts when employees access oil or gas operations is suspected to exist, is required. Training associated with wells drilling and service operations that have, or potentially have, hydrogen sulfide should also have properly rated respiratory protection equipment to include emergency escape packs and alarm systems in place. Where potential respirable hazards may be present, the employer should ensure any employee expected to don a respirator is medically qualified, fit tested and properly trained in the use, maintenance, limitations, and storage of protective devices.

These are just some of the hazards that are present in Oil and Gas Drilling and Service Operations. MIOSHA encourages all employers to work with the Consultation Education and Training Division for assistance to ensure employers can continue to provide a safety work environment.

The Oil and Gas Drilling industry has many MIOSHA standards to follow, including:

- [General Industry Safety and Health Standard Part 57. Oil and Gas Drilling and Servicing Operations](#)
- [General Industry Safety and Health Standard Part 8. Portable Fire Extinguishers](#)
- [General Industry Safety and Health Standard Part 13. Derricks](#)
- [General Industry Safety and Health Standard Part 33. Personal Protective Equipment](#)
- [General Industry and Construction Safety and Health Standard Part 451. Respiratory Protection](#)
- [MIOSHA Safety and Health Standard Part 11. Recording and Reporting of Occupational Injuries and Illnesses](#)
- [General Industry Safety and Health Standard Part 301. Air Contaminants for General Industry](#)
- [General Industry Safety Standards Part 92. Hazard Communication](#)
- [General Industry Safety and Health Standard Part 2. Walking-Working Surfaces](#)

In certain conditions, other related regulations and applicability will be evaluated on a case-by-case basis. All MIOSHA Standards may be viewed through the following link. <http://www.michigan.gov/mioshastandards>

Please visit the MIOSHA website at <http://www.michigan.gov/mioshapublications> where additional information may be available; or contact the Consultation Education and Training Division at (517) 284-7720.

For training and assistance, please contact the Consultation Education and Training Division at [www.michigan.gov/cetrea](http://www.michigan.gov/cetrea).