



MIOSHA Fact Sheet

Construction Safety & Health Division

Cranes – Safe Operation

Cranes and other lifting equipment, large and small, are indispensable tools at many Michigan construction worksites. If not maintained and used properly, serious accidents can occur. The MIOSHA Construction Safety and Health Division has investigated at least 14 accidents since 2003 where cranes were involved, resulting in 1 fatality, at least 6 serious injuries and untold hundreds of thousands of dollars in property damage. **MIOSHA Construction Safety Standard Part 10. [Lifting and Digging Equipment](#)**, delineates employer and employee requirements for use of cranes including operator training, operator conduct, signals, crane inspections, wire rope inspection, rating capacities and work platforms used with cranes.

MIOSHA Rules:

Part 10, Rule 1004a (11) defines a “Qualified person” as a person who, through attainment of a recognized degree or certificate of professional standing or by extensive knowledge, training, and experience, has successfully demonstrated the ability to solve or resolve problems relating to the subject matter and work. The employer must designate a qualified person at every worksite to perform all inspections of cranes and derricks and excavation equipment.

Rule 1006a (1) also requires the employer to comply with the manufacturer’s specifications and limitations applicable to the operation of cranes, derricks, and excavation equipment. The employer must have a copy of the crane manufacturer’s manual for each crane on-site. If a manufacturer’s specifications are not available, then the limitations assigned to the equipment must be based on the determination of a qualified engineer who is competent in the field of equipment limitations, and the determination must be appropriately documented and recorded. Attachments that are used with cranes or derricks must not exceed the capacity, rating, or scope recommended by the manufacturer. In addition, a crane must be erected and dismantled in accordance with the manufacturer’s manual.

Crane Inspections:

Rule 1012a requires the employer to conduct frequent inspections (daily to monthly) and periodic inspections (1 to 12 months). A thorough annual inspection must be made of the equipment by a qualified person and the employer must maintain, on the jobsite, a written copy of the latest inspection for each piece of equipment that includes the date and the results of the inspection.

Training:

Rule 1008a requires the employer to assure that a prospective operator, before assignment as an operator of a crane, derrick or excavation equipment, has been trained in all the following areas:

- The capabilities of equipment and attachments
- The purpose, use and limitations of controls
- How to make daily inspections

- Practice in operating assigned equipment to perform the functions necessary for required jobs
- Applicable state standards and company rules and regulations

Rule 1009a requires the employer to ensure that an employee has adequate knowledge of, and is capable of operating, cranes, derricks or excavation equipment before assigning an employee to operate a crane, derrick or excavation equipment.

Employees who work around cranes are also required to have training with respect to hazards they are exposed to under MIOSHA Construction Part 1. [General Rules](#). The employer must develop an Accident Prevention Program (APP). The APP would include inspections specific to a worksite that identifies hazards and training for employees on how such hazards can be reduced or eliminated. This would include hazards associated with cranes such as awareness of moving cranes and staying away from a suspended load.

For additional assistance, please contact the Construction Safety and Health Division at 517-284-7680 or the Consultation Education and Training Division at 517-284-7720. Construction Safety Standards and other information regarding employee safety and health in construction can be viewed on the MIOSHA website at; www.michigan.gov/mioshaconstruction.

LARA is an equal opportunity employer/program.

Auxiliary aids, services and other reasonable accommodations are available upon request to individuals with disabilities.



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