

OREGON OCCUPATIONAL SAFETY AND HEALTH DIVISION
DEPARTMENT OF CONSUMER AND BUSINESS SERVICES

PROGRAM DIRECTIVE

Program Directive A-217
Issued November 17, 2006
Revised May 14, 2013

SUBJECT: Guarding: Power Press Brakes

PURPOSE: This instruction provides guidelines the guarding requirements for power press brakes. When guarding by barriers or physical devices is infeasible, guarding by "safe distance" is permitted if the employer meets conditions outlined below.

AFFECTED STANDARDS/

DIRECTIVES: [CPL 2-1.25](#) (Feb. 14, 1997), 1910.147, 1910.333, 1910.212, and 437-001-0760

SCOPE: This instruction applies to all Oregon OSHA.

ACTION: Field office managers must ensure that SCO/HCOs performing inspections at workplaces where power press brakes are used are aware of these guidelines and that they follow them when appropriate.

DISCUSSION: OSHA's machinery and machine guarding regulations (Division 2, Subdivision O) require one or more guarding methods to protect (operating, minor servicing and other nearby) employees from exposure to hazardous machine energy. These methods include guarding by physical barriers, physical devices, and maintaining safe distances.

- A. To protect employees who are not operating or performing minor servicing from exposure to hazardous machine energy, an employer must provide power press brake guarding by physical barriers or by restricting access to power press brakes.
- B. A power press brake must not be "energized" (as defined under paragraph 1910.147(b)) when the point of operation is not guarded by one or more physical barriers or physical devices unless: (1) under the operating control of a trained operator (see paragraph Exposure prevention procedures), (2) the operating control of an employee authorized to perform minor servicing which complies with the note following paragraph 1910.147(a)(2)(ii)(B), or as provided under the servicing and maintenance testing and positioning requirements of paragraph 1910.147(f).

- C. Employees performing minor servicing on machines or equipment during normal production operations must be protected from exposure to hazardous energy by physical barrier guards and when such guarding is not feasible, by alternative measures which otherwise provide effective protection. When machines or equipment are not in normal production operations, servicing and maintenance must be performed under the control (lockout/tagout) of hazardous energy requirements of paragraph 1910.147 or paragraph 1910.333(b).
- D. During normal production operations, the power press brake operators must be protected to the extent feasible by physical barriers or physical devices from exposure to hazardous energy sources not at the point of operation and elsewhere on the power press brake.
- E. Because of constraints imposed by certain manufacturing or fabricating processes, safeguarding by maintaining a safe distance from the point of operation may be acceptable but only when safeguarding by physical barrier or physical devices is not feasible. "Safe distance" means the clearance between an employee (typically his or her fingers holding and supporting a piece part) and the power press brake point of operation.
- F. Safeguarding by maintaining a "safe distance" is acceptable if:
 - 1. The employer demonstrates that physical barriers and physical devices are not feasible to guard the power press brake point of operation. Physical devices typically include: two hand controls, holdouts or restraints and presence sensors.
 - 2. The employer demonstrates that power press brake point of operation guarding by maintaining a safe distance is limited to one-time only fabrication of made-to-order or custom-made piece parts. Small quantity runs, typically performed in job shop or model shop establishments, may be affected by this provision; high volume piece part rates of production will not. A "small quantity run" means fabrication of more than one of the same piece parts over a continuous timeframe of no more than four hours per month.

NOTE: Special feasibility guidelines for small quantity runs: When physical guards and physical devices are not feasible for small quantity runs as defined above, safeguarding by maintaining a safe distance as described in this directive is an alternative to power press brake replacement or major renovation which otherwise could provide employee protection.

3. The employer has a safety program that includes safe work procedures, training, and supervision to ensure that work is performed using "safe distance" alternative measures.
4. The employer has a workplace history of operating power press brakes safely by maintaining a safe distance from the point of operation. Such a history is characterized by absence of injuries related to failure to maintain a safe distance. Safety and health compliance officers will evaluate workplace history by reviewing employer records and interviews or observing employees.

G. Safeguarding of power press brakes is covered by American National Standards Institute standard ANSI B11.3-1982. OSHA recognizes this ANSI standard as the national consensus standard covering power press brakes guarding. Paragraph 6.1.4.3 of the ANSI B11.3-1982 standard specifically addresses safeguarding by maintaining employees at a safe distance when a power press brake is being operated. By specific notation in paragraph 6.1.4.3, "[a] dimension value has not been assigned to the minimum safe distance." For the purpose of maintaining a "safe distance" as discussed in this instruction, the operating employee and helping employees must not approach closer than necessary and in no case, closer than 4 inches (10.16 centimeters) to the power press brake point of operation. The minimum safe distance of 4 inches (10.16 cm) must be measured from the exterior point of contact of the power press brake die closest to an employee.

"Safe Distance"

Safeguarding Program:

An employer who adopts "safe distance" protection must have (and be prepared to demonstrate to Oregon OSHA) an effective program. An employer can meet this obligation by establishing and having employees follow an effective program which includes exposure prevention procedures and training and enforcement of these procedures as delineated in paragraphs Exposure Prevention Procedures, Training, Retraining, Supervision and Periodic Inspection.

Exposure Prevention

Procedures:

A "safe distance" exposure prevention procedure must be developed and documented by the employer and utilized by employees. The exposure prevention procedure must include provisions for maintaining a minimum safe distance as discussed in paragraph G. above.

Training:

Employees must be trained to follow the aforementioned exposure prevention procedures before operating a power press brake covered under the procedures.

- A. Training Content. Employee training must include at least the following:
 - 1. The need for a safety oriented working relationship between the power press brake operator and their helper (when required).
 - 2. The function and purpose of operating controls: operating mode controls; die space height adjustment positions; and other brake controls.
 - 3. The hazards of placing any parts of the body within the point of operation.
 - 4. The hazards and potential exposure related to each specific piece part bending operation particularly with respect to the piece part itself (for example, whipping) and to tooling (including loading and unloading).
 - 5. The function and purpose of hand-feeding tools.
 - 6. The dangers of unsafe work practices, inattention, horseplay, and misuse of equipment.
 - 7. The necessity and importance of reporting immediately to the supervisor any condition concerning the power press brake and its operation that may affect the safety of an employee.

- B. Effectiveness of Training. The employer must ensure that after training, employees perform applicable exposure prevention procedures proficiently. Power press brake operators and helpers must also comply with the safe operating instructions and recommendations of the power press brake manufacturer or industry-recognized safe working practices for power press brakes. [Successful completion of apprenticeship training may be referenced to demonstrate this latter element of employee proficiency.]

RETRAINING:

Retraining must be conducted whenever a periodic inspection (see Periodic Inspection below) reveals, or whenever the employer has reason to believe, that there are deviations from or inadequacies in an employee's knowledge or use of exposure prevention procedures or other work practices required to operate a power press brake safely. This retraining must introduce new or revised control methods and procedures, as necessary, and must reestablish employee proficiency to operate the power press brake safely.

SUPERVISION: The employer must ensure, through effective supervision, that power press brakes are operated only by trained employees and must enforce the work practices on which power press brake operator training is based. This supervision must include periodic inspections as delineated in paragraph Periodic Inspection below. Any deviations or inadequacies in the exposure prevention procedures or work practices must be corrected promptly. Employer measures must include retraining and other appropriate corrective action.

PERIODIC INSPECTION: An employer must conduct a periodic inspection of the "safe distance" exposure prevention procedure at least annually to ensure that this procedure and other provisions in this instruction are being followed. This periodic inspection must be performed by a trained person, that is, an inspector, other than the persons using the "safe distance" exposure prevention procedure. The periodic inspection must be designed to identify any deviations or inadequacies. The periodic inspection must include a joint review by an inspector and each trained employee of that employee's responsibility under the exposure prevention procedure. The employer must ensure that the periodic inspections have been performed. Normally, the employer must be able to identify the power press brake on which the exposure prevention procedure was being utilized, the date of the inspection, the employees included in the inspection, and the person performing the inspection.

ENFORCEMENT: Whether or not safeguarding is provided by maintaining a safe distance, an employer will be cited for violation of paragraph 1910.212(a)(3)(ii) when a physical barrier or a physical device is feasible (except as otherwise allowed under paragraph F above) but not used to protect employees from the point of operation of a power press brake. When physical guards and physical devices are not feasible and safeguarding by maintaining a safe distance is not provided as discussed in paragraph G. of this instruction, an employer will be cited for violation 437-001-0760(1)(b)(C) of Division 1 General Administrative Rules

EFFECTIVE DATE: This directive is effective immediately and will remain in effect until canceled or superseded.