

INFORMATION MEMORANDUM 97-X-21 (REVISED)

TO: ALL COMPLIANCE PERSONNEL

FROM: W. M. Lybrand, Administrator of OSHA

DATE: September 18, 1997

SUBJECT: Guidelines for Point of Operation Guarding of Power Press Brakes

A. Purpose

To provide guidance to compliance personnel on guarding power press brakes by “safe distance” when guarding by barriers or physical devices is infeasible.

B. Cancellation

Information Memorandum #87-x-21 (Revised), dated May 1, 1981, is replaced by this Information Memorandum.

C. Background

OSHA’s machine guarding regulations (1910.Subpart O) require guarding by physical barrier(s), by physical device(s), or by maintaining safe distance(s).

For employees who are not operating or performing minor servicing on power press brakes the employer must provide power press brake guarding by physical barrier(s) or by restricting access to power press brakes.

During normal production operations, the power press brake operator(s) must be protected to the extent feasible by physical barrier(s) or physical device(s) from exposure to hazardous energy sources not at the point of operation and elsewhere on the power press brake. Employees performing minor servicing on machine(s) 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 machine(s) 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). 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 F), (2) the operating control of an employee authorized to perform minor servicing which complies with the

not following paragraph 1910.147(a)(2)(ii)(B), or as provided under paragraph 1910.147(f) on testing or positioning of machines.

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 employee(s) at a safe distance when a power press brake is being operated, but does not assign a dimension value to the minimum safe distance. "Safe distance" means the clearance between an employee (typically his or her fingers holding or supporting a piece or part) and the power press brake point of operation. For the purpose of maintaining a "safe distance" as discussed in this instruction, the operating employee(s) and helping employee(s) 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 (10.6 cm) shall be measured from the exterior point of contact of the power press brake die closest to an employee.

D. Inspection Procedures

Safeguarding by maintaining a "safe distance" is acceptable if:

1. The employer demonstrates that physical barriers and physical devices (two hand controls, holdouts or restraints and presence sensors) are not feasible to guard the power press brake point of operation.
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 which 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. Workplace history will be evaluated by review of employer records and interviews or observations of employees.

E. “Safe Distance” Safeguarding Program.

An employer who adopts “safe distance” protection must have (and be prepared to demonstrate to OSHA) an effective program which includes exposure prevention procedures and training and enforcement of these procedures as delineated in paragraphs F through G below.

F. Exposure Prevention Procedures.

A “safe distance” exposure prevention procedure, which includes provisions for maintaining a minimum safe distance as discussed in paragraph C above, must be developed and documented by the employer and utilized by employee(s).

G. Training.

Employee training on the aforementioned exposure prevention procedure(s) must be done before operating a power press brake covered under the procedures and must include at least the following:

1. The need for a safety oriented working relationship between the power press brake operator and his or her helper.
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.

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.]

H. Retraining.

Retraining must be conducted whenever a periodic inspection (see paragraph J 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 procedure(s) 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.

I. 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 J 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.

J. Periodic.

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 person(s) 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 employee(s) included in the inspection, and the person performing the inspection.

K. Enforcement.

Whether or not safeguarding is provided by maintaining a safe distance, an employer shall 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 D.2 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 D. of this instruction, an employer shall be cited for violation of the General Duty Clause.

L. Power Press Brake Injuries. Compliance Safety and Health Officers who discover instances in which power press brake-related injuries have occurred, are requested to find out the circumstances of the incident and report briefly to the Compliance Manager. Please provide (to the extent feasible) the following incident information: the name and type of establishment, address and type of accident site, date of the incident, type of work being performed, make and model of the power press brake and a description of the safeguarding being used in the workplace at the time of the incident.