

OSH INFORMATION MEMORANDUM 89-X-78

TO: All OSH Personnel

FROM: William M. Lybrand

SUBJECT: Guarding of Forming Rolls

DATE: February 7, 1989

PURPOSE.

This memorandum provides guidelines to be followed when inspecting forming rolls. There has been some confusion on the requirements concerning the guarding of nip points on forming rolls as specified under Sections 1910.212(a)(1) and 1910.212(a)(3)(iv)(i). This memorandum clarifies acceptable guarding means.

BACKGROUND.

Forming rolls normally are relatively slow moving but to require protection for the operator and/or helpers at the ingoing nip point area. There are a number of acceptable means of guarding the nip points which are described below.

GUIDELINES.

The most positive means of safe guarding the operation of the forming roll is to cover the nip point between the feed rolls. One effective guarding device utilizing a feed table is shown on the attached sheet in Figure 1-1. The guard is a solid metal plate covering the nip point for the full length of the rolls. This plate, equipped with a stud welded to each end, is attached to slotted vertical brackets by means of nuts and washers, so that it is adjustable vertically. The bracket can be either welded or bolted to the feed table. If desirable, the horizontal member of this bracket also can be slotted to give further adjustability.

The feed table may be made adjustable vertically by making the legs of pipe of different diameters to achieve a telescopic effect. The larger or base section would be equipped with a setscrew of sufficient size to ensure stability when adjustment has been made. Further stability can be given to this feed table by welding footplates to the base section of the leg.

Special-purpose feeding devices for narrow stock may be easily installed, as shown on the attached sheet in Figure 1-2.

A cylindrical guard used in conjunction with an apron guard is shown on the attached sheet in Figure 1-3.

Although less effective, there are two other guarding methods that are acceptable:

1. An emergency tripping bar or wire connected to the electric cutoff switch or to an electric reverse switch may be acceptable. Such emergency bars or wires must be installed at knee level in front of the operator or directly in front of the bottom feed roll, and run the entire length of the feed rolls. The bar or wire must be far enough below the feed point to avoid accidental tripping.
2. A single foot pedal which is the sole means of operating the forming roll coupled with an unobstructed view of the entire length of the feed rolls by the foot-control operator is another acceptable method. The raising of the foot from the foot pedal shall automatically stop the forming roll. No other means shall be allowed to operate the forming roll, such as a handle lever control or a pushbutton station, if this method of protection is used. The foot pedal mechanism must be protected to prevent unintended operation from falling or moving objects, or by accidental stepping onto the foot pedal (see attached Figure 1-4).

EFFECTIVE DATE.

This memorandum is effective upon receipt and will remain in effect until cancelled or superseded.