

SECRETARY OF LABOR,  
Complainant,

v.

OSHRC Docket No. 97-523

OHIO CELLULAR PRODUCTS CORP.,  
Respondent.

(EZ)

Appearances:

Heather Joys, Esquire  
U. S. Department of Labor  
Office of the Solicitor  
Cleveland, Ohio  
For Complainant

Scott T. Stirling, Esquire  
DeNune and Killam  
Sylvania, Ohio  
For Respondent

Before: Administrative Law Judge Ken S. Welsch

### **DECISION AND ORDER**

Ohio Cellular Products Corporation (OCP) manufactures polyethylene foam products for use in sports equipment and automobiles at a plant in Wauseon, Ohio. The products include knee pads, hip pads, and kick boxing helmets. To mold the foam used in these products, OCP uses two special ovens referred to as Rotocast #1 and #2.

On October 9, 1996, a relief operator on the Rotocast #2 was fatally injured when her clothing was caught on the oven's rotating arm while she was removing foam from the molds clamped to the arm (Exh. C-11). As a result of an inspection by the Occupational Safety and Health Administration (OSHA), OCP received serious and "other" than serious citations alleging violations of various safety standards. OCP timely contested the citations.

The parties stipulate to coverage and jurisdiction. OCP withdraws its contest to all violations except the alleged serious violations of the blocked exit standard at §1910.36(b)(4) (item 2) and the machine guarding standard at §1910.212(a)(1) (item 4) (E-Z Trial Prehearing Conf. Order; Tr. 3). The parties' partial stipulation and settlement agreement vacates item 2, the alleged violation of §1910.36(b)(4) (Tr. 5).

On July 11, 1997, a hearing was held in Toledo, Ohio. The case was assigned to E-Z trial

proceedings<sup>1</sup> in accordance with 29 C.F.R. § 2200.200, *et seq.* The violation (item 4) remaining in dispute alleges that OCP failed to provide machine guarding (§1910.212(a)(1)) or, in the alternative, failed to properly lockout the Rotocast oven (§1910.147(c)(4)(i)).<sup>2</sup> The citation states that employees were exposed to the “hazard of being struck by, caught in or between the mold arm when it rotated.” OCP contends that the operators of the Rotocast ovens are not exposed to the rotating mold arms because a hinged gate blocks the area and a brake, when fully engaged, prevents the mold arm from rotating. However, these protections are not sufficient to guard the operator from the rotation of the mold arm. A violation is therefore affirmed.

### Background

The Rotocast oven, manufactured in the 1950's, is a unique large rotational molding machine designed for the production of molded products from polyethylene foam. Very few Rotocasts still exist, and parts are impossible to find (Tr. 121). OCP has two Rotocasts which operate the same (Tr. 21). The Rotocast consists of three separate stations: the loading and unloading area, the heat chamber, and the cooling area (Exh. C-3). The cycling time through the three stations is preset depending on the particular product. The time cycle at each station varies from eight to twelve minutes. For example, hip pads take eight minutes at each station, thereby taking a total of twenty-five minutes to complete the molding cycle (Tr. 32-33).

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Effective July 31, 1997, the eligibility criteria for E-Z trial was amended. This case no longer qualifies for E-Z trial because it resulted from a fatality inspection. 62 F.R. 35961 (July 3, 1997).

<sup>2</sup> The Secretary's motion to plead, in the alternative, a violation of §1910.147(c)(4)(i) was granted on July 2, 1997.

There are three separate rotating mold arms capable of holding different size molds (Exhs. C-1, C-6). The polyethylene foam is placed in the molds. Different size molds are used depending on the particular product. For small products such as knee pads, there may be eight molds clamped to the arm. Larger products, such as hip pads, may only have one mold clamped to the arm. While the operator is loading and unloading the molds clamped to one arm, the other two mold arms are continuing to rotate in the heating chamber and cooling area (Tr. 44). The mold arms rotate from 8 to 64 r.p.m. (Exh. C-3). The mold arms move on a carousel through the three stations.

After loading foam into the molds attached to an arm, the molding cycle is started. First, the rotating arm moves up from the loading area into the heat chamber where the molds are heated to a preset temperature. Simultaneously, the other mold arms are moving to their next stations. When the heat cycle is completed, the mold arm moves to the back of the machine into the cooling chamber where water is sprayed on the molds to cool them to room temperature. Once the cooling cycle is completed, the mold arm rotates to the front of the oven where the foam is unloaded from the molds and more foam is then loaded into the molds to restart the cycle (Exh. C-3, R-1; Tr. 88, 114-115).

The operator works in front of the Rotocast at the loading and unloading areas. While the mold arm is moving to the next station, a large mesh gate protects the operator from the rotating mold arm. The gate is hinged and is approximately 8 feet high and 8 feet wide (Exh. C-6; Tr. 30). If the gate is opened, the mold arms stop moving to their next stations. However, unless the brake lever is fully engaged, the mold arm continues to rotate (Tr. 57). During the loading and unloading of the molds, the oven's electric power is not turned off and the mold arms continue to rotate in the heating chamber and cooling area (Tr. 22, 39).

To prevent the mold arm from rotating while the operator is loading and unloading the molds, there are separate brake levers for each arm (Tr. 36). The brake levers are located adjacent to the hinged gate (Tr. 18). To set the brake lever, the operator lifts the lever's black knob with an attached spring-loaded pin. The spring holds the pin into a 3/8-inch hole located in the drive position and the brake position. The operator moves the lever from the drive position down to the brake position and releases the lever to set the pin (Tr. 45, 137-138). If the pin is properly set in the brake position, the mold arm stops rotating and the operator is allowed to load

and unload the molds. According to the Rotocast's operating instructions, the operator is cautioned that "the pin must be fully engaged with the lever in the "down" position to insure that arm rotation does not occur while loading and unloading" (Exh. C-3, p. 13). Once the brake is set, the operator lifts the hinged gate which simultaneously slides a mesh gate in front of the brake (Tr. 45). The operator enters the area to load and unload the molds (Exh. R-1).

The effectiveness of the brake lever to prevent rotation of the mold arm is disputed. Two employees testified that they have problems with the brake holding. They stated that they observed the brake lever slip unexpectedly, and the arm began rotating. The problems with the brake were reported to their supervisor, Barbara Wesley, and the brake was repaired (Tr. 22, 39). Other employees told OSHA during the inspection that the brake repeatedly malfunctioned (Exhs. C-8, C-9, C-10, Tr. 67-70).

Francisco Ramirez, a regular operator of Rotocast #2 since January 1994, testified that he never experienced problems with the Rotocast (Tr. 95-96). However, Ramirez stated that "it's kind of hard to put the brake on, but myself, I never had any problems with that oven or the other oven. Only that it's kind of hard to set it" (Tr. 96). Ramirez told OSHA during the inspection that "sometimes the pin was hard to get into place and that it would slip out of the hole" (Tr. 72).

Barbara Wesley, supervisor of the Rotocast area, testified she also has no problem with the brake pin "popping out." She stated that if the pin was fully engaged, it has not slipped out unexpectedly causing the mold arm to rotate (Tr. 99). However, she was aware that sometimes the brake dragged and the arm continued to rotate slowly. She stated that the dragging was corrected by normal maintenance (Tr. 103, 106). Also, she stated that the pin sometimes was not completely set. In her statement to OSHA, Wesley stated that she complained several times about the brake, and it was not repaired (Exh. C-7). She explained that the brake was difficult to use but that it was not faulty. She stated that parts were repaired and not replaced because of the lack of available new parts (Tr. 100-101).

Michael Rogers, a mechanical engineer hired by OCP to analyze the Rotocast oven after the accident, testified that he was able to fully engage the brake without a problem (Tr. 139). He found that the 3/8-inch hole used to set the pin was more than adequate (Tr. 138). He noted some wear on the steel plate between the brake and drive holes, but he did not consider it a problem (Tr. 138-139). He found some wobble in the gear reduction unit which tended to force

the brake lever into the brake position or drive position. If the pin was not engaged in the brake position, the lever might return to the drive position (Tr. 140-141). Even in the intermediate position between the brake position and drive position, the arm did not stop rotating (Tr. 143). Rogers concludes that the guards in place on the Rotocast are sufficient to safeguard the operator from the oven's point of operation (Tr. 142). He agrees that except for the brake levers, there are no safeguards preventing the mold arm from rotating. The effectiveness of the brake depends on its proper functioning and being fully engaged (Tr. 142).

### Discussion

In order to establish a violation of a safety standard, the Secretary must show by a preponderance of the evidence that (1) the cited standard applies to the alleged condition; (2) the terms of the standard were not complied with; (3) employees were exposed to or had access to the violative condition; and (4) the employer knew or could have known of the violative condition with the exercise of reasonable diligence. *Seibel Modern Mfg. & Welding Corp.*, 15 BNA OSHC 1218, 1221-22, 1991-93 CCH OSHD ¶ 29,442, p. 39,678 (No. 88-821, 1991). The Secretary has the burden of proof.

There is no dispute that operators of the Rotocast work directly at the mold arm while loading and unloading the molds. As noted by OCP, "the Rotocast cannot produce pads unless the finished products are removed from the molds and replaced with new products" (Respondent's Brief, p. 9). OCP also does not dispute that the operator's only protection from the rotating mold arm while loading and unloading the molds is the brake<sup>3</sup> (Tr. 142, 161). The brake must be fully engaged to prevent the arm from rotating. OCP agrees that while loading and unloading the molds, its lockout program is not utilized (Exh. C-2; Tr. 159-160). Further, OCP also does not dispute that guarding or locking out of the Rotocast while loading and unloading the molds is economically or technologically feasible (Tr. 23-24). OSHA recommends abatement by a trip wire or light curtain (Exh. C-12; Tr. 75, 77).

OCP contends it did not violate the guarding or lockout standards, and it lacked

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<sup>3</sup>There is an emergency stop button at the control panel which turns off the oven. The button, however, is not accessible to the operator while loading and unloading foam from the molds (Exhs. C-5, C-9; Tr. 119).

knowledge of a violative condition. OCP maintains that the brake is set without a problem, and the brake prevents the arm from rotating. Also, when the hinged gate to the loading and unloading area is opened, a mesh guard slides in front of the brake, preventing someone from inadvertently releasing the brake. OCP's written lockout program is utilized when its maintenance man changes the molds used in the Rotocast. A lockout is not done when the Rotocast operator is loading and unloading the molds since this is part of the normal production process of the Rotocast.

#### Alleged Violation of §1910.212(a)(1)

The citation alleges OCP failed to provide guarding while loading and unloading the molds "to protect employees from the hazard of being struck by, caught in, or between the mold arm when it rotated." The Secretary contends that the operator is exposed to the mold arm rotation. Section 1910.212(a)(1) requires:

One or more methods of machine guarding shall be provided to protect the operator and other employees in the machine area from hazards such as those created by point of operation, ingoing nip points, rotating parts, flying chips and sparks. Examples of guarding methods are - barrier guards, two-hand tripping devices, electronic safety devices, etc.

The operation of the Rotocast oven is not in dispute. Section 1910.212(a)(1) requires guarding of rotating parts. The mold arms continually rotate at speeds of 8 to 64 r.p.m. During cycling of the mold arms from one station to the next, the operator is protected by the hinged gate. The gate acts as a barrier guard that adequately protects the operator from the rotating mold arms. However, while loading or unloading the molds, the hinged gate is raised and the operator is working directly at the mold arm. The mold arm continues to rotate unless the operator fully engages the brake lever into the brake position. The operator is protected from the rotating arm if the brake is properly set and fully engaged. However, there is nothing to ensure that the brake remains fully engaged (Tr. 124). The operating instructions for the Rotocast warns that "the pin must be fully engaged with the lever in the down position to insure that arm rotation does not occur while loading and unloading." Also, the instruction indicates that proper adjustment and maintenance is required to insure that the mold arm rotation does not occur while the hinged gate is not in place (Exh. C-3, pp. 13, 15-16). No safety device prevents or guards the

operator from mold arm rotation should the brake be improperly engaged or otherwise fail. Proper functioning of the brake is dependent upon it being properly engaged. Furthermore, the evidence shows that even when engaged properly, the brake could malfunction due to a need for adjustment or repair.

The weight of witness testimony, including OCP's expert witness, shows the difficulty in properly setting the brake pin into the brake position. The interview statements taken by the compliance officer are accepted as admissions pursuant to Rule of Evidence 801(d)(2). The statements are consistent with the trial testimony of employees and establish the difficulty in engaging the brake.

Tina Johnson, quality control supervisor, stated that during a three-month period in 1995 while she was working on oven #2, "the break let loose at least 6 times in this time span. One time the pin was completely in and the arm started turning full speed . . . ." (Exh. C-8). She testified the pin and hole were worn and would not hold. Supervisor Barbara Wesley stated in her written interview that she had complained several times that the brake was faulty (Exh. C-7). She testified that she was aware of complaints about the continued rotation of the mold arm (Tr. 106). She was aware prior to the accident that the "brake dragged" (Tr. 103,106).

The guarding standard at §1910.212(a)(1) is intended to eliminate danger from unsafe operating procedures, poor training, or employee inadvertence. Guarding must be provided by a "device" and does not allow reliance upon the skill or attentiveness of employees. *See American Luggage Works Inc.*, 1982 CCH OSHD ¶ 26,072, p. 32,796 (No. 77-893, 1982). As contemplated by the standard, more than one guard may be required. This is such a circumstance. The operator, while loading and unloading the molds, is exposed to the rotating mold arm if the brake is not fully engaged. Unless fully engaged, the mold arm rotates (Tr. 57, 124). The electric power to the oven is not turned off, and the operator is working directly at the mold arm. The Rotocast is more than forty years old. OCP acknowledges that new parts are impossible to obtain. The Secretary recommends trip wires or light curtains. OCP does not dispute feasibility.

OCP's argument that it lacked knowledge of the hazard is without merit. When a supervisory employee has actual or constructive knowledge of the violative conditions, knowledge is imputed to the employer. *Dover Elevator Co.*, 16 BNA OSHC 1281, 1286, 1993-95 CCH OSHD 30,148, p. 41,479 (91-862, 1993). An employer is also responsible to know

conditions which are plainly visible to its supervisory personnel. *A.L. Baumgartner Constr., Inc.*, 16 BNA OSHC 1995, 1998, 2000, 1994 CCH OSHD ¶ 30,554 (No 92-1022, 1994). An employer has a duty to inspect its work area for hazards and is charged with knowledge of conditions that are detectable through an inspection of the workplace. An employer must make a reasonable effort to anticipate the particular hazards to which its employees may be exposed in the course of their scheduled work. *Pace Constr. Corp.*, 14 BNA OSHC 2216, 2221, 1991-93 CCH OSHD ¶ 29,333, p. 39,431 (No. 86-758, 1991).

The loading and unloading of the molds is performed directly at the mold arm. The oven remains energized. The operator's only protection from the rotating mold arm is a fully engaged brake. The operator's exposure to the mold arm is in plain view.

Prior to the accident, OCP's supervisor was aware of problems with engaging the brake. A number of employees complained about the brake. OCP's maintenance man was repeatedly asked to repair the brake. Therefore, OCP has constructive knowledge, if not actual knowledge, of the lack of guarding for the mold arm.

Accordingly, a violation of §1910.212(a)(1) is affirmed.

#### Alternative Violation of §1910.147(c)(4)(i)

The Secretary alleges, in the alternative, that lockout procedures were not developed to prevent the unexpected rotation of the mold arm on Rotocast oven #2 while loading and unloading the molds. Section 1910.147(c)(4)(i) requires:

Procedures shall be developed, documented and utilized for the control of potentially hazardous energy when employees are engaged in the activities covered by this section.

The lockout standards cover the servicing and maintenance of machines and equipment in which the unexpected energizing or start-up of the machine could cause injury to employees. "Servicing and/or maintenance" includes installing, setting up, adjusting, and servicing the machine. Such maintenance activities involve lubricating, cleaning, clearing jams, adjusting, or changing tools in the machine or equipment. See §1910.147(b).

There is no dispute that changing or replacing molds clamped to the mold arm is

performed by the maintenance employee pursuant to OCP's written lockout procedure (Exh. C-2). There is also no dispute that OCP has an acceptable written lockout program for servicing and maintenance of the Rotocast ovens. OCP argues, however, that loading or unloading the molds is not servicing and maintenance work which requires a lockout procedure.

The court agrees. Loading and unloading of foam is performed by the operator as part of the normal production operation of the oven. The lockout standards specifically do not apply to normal production operations. See §1910.147(a)(2). Loading and unloading foam does not involve servicing or maintaining the oven. Polyethylene foam is part of the product manufactured by OCP. The loading and unloading of the molds are routine, repetitive, and integral to the use of the oven. It does not involve changes or adjustments to the oven. "Setting up" is defined as "any work performed to prepare a machine or equipment to perform its normal production operation." §1910.147(b). The loading and unloading of foam is done while the oven is operating and integral to producing finished foam products. Loading foam into the molds is not performed "to prepare" the mold for normal operation; it is the normal operation. See *Westvaco Corp.*, 16 BNA OSHC 1374, 1993 CCH OSHD ¶ 30,201 (No. 90-1341, 1993)(a worker's adjustment of shaft heads on the printer to accommodate customers' specifications is "setting up" or preparing the printer to perform its normal production operation); *Metal Shredders Inc.*, 15 BNA OSHC 1554, 1991-93 CCH OSHD ¶ 29,642 (No. 90-2273, 1992)(accident occurred during normal operation, not during service and maintenance).

Accordingly, an alternative violation of §1910.147(c)(4)(i) is not applicable.

#### *Serious Classification*

In determining whether a violation is serious within § 17(k) of the Occupational Safety and Health Act (Act), the Secretary must show that OCP knew or should have known, with the exercise of reasonable diligence, of the presence of the violation and there was a substantial probability that death or serious physical harm could result from the condition.

OCP presented no evidence refuting the serious classification. OCP knew the loading and unloading the molds exposed operators to the rotation of the mold arm. Barbara Wesley, OCP's supervisor, was aware of the problems with the brake and complained several times to maintenance. OCP agrees that the relief operator involved in the accident did not violate its safety rules and was a competent operator (Exh. C-11; Tr. 103). As demonstrated by the accident, injury from the rotating mold arms could be death or serious injury.

Accordingly, violation of §1910.212(a)(1) is serious.

#### Penalty

The Act requires "due consideration" in determining an appropriate penalty to the size of the employer's business, the gravity of the violation, the good faith of the employer, and the history of previous violations. *J.A. Jones Constr. Co.*, 15 BNA OSHC 2201, 2213-14 (No. 87-2059, 1993). The gravity of the violation is the primary element. *Trinity Indus.*, 15 BNA OSHC 1481, 1483 (No. 88-691, 1992).

The Secretary proposes a \$2,500 penalty. OCP receives credit as a small company with no serious safety violations in the preceding three years (Tr. 74). The loading and unloading of the molds is done regularly. Operators and relief operators are exposed to the rotating arms. An employee was fatally injured when her clothing was caught by the rotating arm. OCP was aware of the recurring problems with the brake lever.

A penalty of \$2,500 is reasonable.

#### **FINDINGS OF FACT AND CONCLUSIONS OF LAW**

The foregoing decision constitutes the findings of fact and conclusions of law in accordance with Rule 52(a) of the Federal Rules of Civil Procedure.

#### **ORDER**

Based upon the foregoing decision, it is ORDERED:

**SERIOUS CITATION NO. 1**

1. Item 1, in violation of § 1910.23(c)(1), is affirmed based on OCP's withdrawal of contest and a penalty of \$750 is assessed.

2. Item 2, in violation of §1910.36(b)(4), is vacated based on the Secretary's withdrawal.

3. Item 3, in violation of §1910.178(p)(1), is affirmed based on OCP's withdrawal of contest and a penalty of \$750 is assessed.

4. Item 4, in violation of §1910.212(a)(1), is affirmed and a penalty of \$2,500 is assessed. The alternative violation of §1910.147(c)(4)(i) is vacated.

5. Item 5, in violation of §1910.215(a)(4), is affirmed based on OCP's withdrawal of contest and a penalty of \$750 is assessed.

6. Item 6, in violation of §1910.215(b)(9), is affirmed based on OCP's withdrawal of contest and a penalty of \$750 is assessed.

**“OTHER” THAN SERIOUS CITATION NO. 2**

1. Item 1, in violation of §1910.22(d)(1), is affirmed based on OCP's withdrawal of contest and no penalty is assessed.

2. Item 2, in violation of §1910.178(q)(7), is affirmed based on OCP's withdrawal of contest and no penalty is assessed.

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KEN S. WELSCH  
Judge

Date: August 25, 1997