UNITED STATES OF AMERICA
OCCUPATIONAL SAFETY AND HEALTH REVIEW COMMISSION
One Lafayette Centre
1120 20th Street, N.W. — 9th Floor
Washington, DC 20036–3419

PHONE:
COM (202) 606–5100
FTS (202) 606–5100

FAX:
COM (202) 606–5050
FTS (202) 606–5050

SECRETARY OF LABOR, Complainant, v. GENERAL MOTORS CORPORATION, DELCO CHASSIS DIVISION, Respondent.	OSHRC DOCKET NOS. 91-2973, 91-3116 & 91-3117

DECISION

BEFORE: WEISBERG, Chairman; FOULKE and MONTOYA, Commissioners.

BY THE COMMISSION:

At issue is whether former Commission Judge Edwin G. Salyers erred in vacating citations that alleged failure by General Motors Corp., Delco Chassis Div. ("GM") to deenergize and lockout machines under the lockout/tagout standard, 29 C.F.R. § 1910.147.[1]

[1]In each of these cases, GM was cited for failure to require its employees to lockout electrically-powered machines prior to servicing or maintenance. The machines were used to manufacture automotive parts at GM's plants at Vandalia and Dayton, Ohio. In Docket No. 91-2973, the cited standard is section 1910.147(d)(4)(i). That section provides:

> (d) *Application of control.* The established procedures for the application of energy control (the lockout or tagout procedures) shall the cover the following elements and actions and shall be done in the following sequence:
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> . . . .
>
> (4) *Lockout or tagout device application.* (i) Lockout or tagout devices shall be affixed to each energy isolating device by authorized employees.

(continued...)

We find that, by its plain meaning, the standard applies only to those machines and pieces of equipment for which energization or start up would be *unexpected* by employees. The Secretary has argued for an interpretation that would have the Commission ignore this requirement. We agree with the judge, however, that the standard requires the Secretary to establish that a cited piece of equipment or machinery presents the hazard of unexpected energization, and that he failed to do so in each of the three cases here. We thus affirm the judge's decision.[2]

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[1](...continued)
Section 1910.147(b) defines an "energy isolating device" as a "mechanical device that physically prevents the transmission or release of energy." Examples are "a manually operated circuit breaker [or] a disconnect switch." That definition also provides that "[p]ush buttons, selector switches and other control circuit type devices are not energy isolating devices." A "lockout device" is a lock or other positive means that holds an energy isolating device in a safe position so that a deenergized machine or equipment remains deenergized. *Id.* In Docket Nos. 91-3116 & 91-3117, the cited standard is section 1910.147(c)(4)(i). That section provides:

> (c) *General*--(1) *Energy control program*. . . .
> . . . .
> (4) *Energy control procedure.* (i) Procedures [including a lockout procedure] 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 Secretary has withdrawn the other alleged violations that were directed for review. Those items alleged deficiencies in GM's written lockout program under section 1910.147(c)(4)(ii), in Docket Nos. 91-3116 and 91-3117. We accept the Secretary's withdrawal of those items.

[2]The pre-enforcement challenges to the validity of the lockout/tagout standard recently were rejected. *International Union, UAW v. OSHA*, 37 F.3d 665 (D. C. Cir. 1994) (*"UAW v. OSHA II"*). The court found "that OSHA's current interpretation of its statutory authority to issue safety standards is consistent with the nondelegation doctrine and that its explanations of the other disputed decisions are adequate[.]" *Id.* at 668. In 1991, the court had remanded the standard to OSHA for a supplemental statement of supporting reasons, on the ground that the agency's interpretation of its authority was not consistent with the nondelegation doctrine. *International Union, UAW v. OSHA*, 938 F.2d 1310 (D. C. Cir. 1991) (*"UAW v. OSHA I"*).

DISCUSSION

I. The application of the standard

The lockout/tagout standard begins with a scope provision, the first sentence of which reads as follows:

> This standard covers the servicing and maintenance of machines and equipment in which the *unexpected* energization or start up of the machines or equipment, or release of stored energy could cause injury to employees.

29 C.F.R. § 1910.147(a)(1)(i) (emphasis in original). The Secretary's case is premised upon his "official interpretation" of this sentence. Transposing the operative language, the Secretary frames the applicability inquiry as follows: "whether injury could occur in the event of an unintended energization, start up, or release of stored energy." Having thus interpreted the scope provision, the Secretary reasons that the lockout/tagout standard applies regardless of "how likely or remote the chances of" unexpected energization are and argues that any other conclusion "constitutes nothing less than a prohibited challenge to the wisdom of the standard."

Like all other Commission judges whose decisions have been cited to us,[3] Judge Salyers concluded that the language in question renders the standard inapplicable whenever employees are given sufficient notice of energization to allow them to vacate the zone of danger. In situations where the meaning of regulatory language is "not free from doubt," the Commission, like any reviewing court, must give effect to the Secretary's reasonable interpretations of his regulatory language. *Cf., e.g., Martin v. OSHRC (CF & I Steel Corp.)*, 499 U.S. 144, 150 (1991).

In determining whether the language of a standard is ambiguous, we first look to its text and structure. When the statute speaks with clarity, in all but the most extraordinary circumstances, judicial inquiry is ended. *E.g., Estate of Cowart v. Nicklos Drilling Co.*, 112 S. Ct. 2589, 2594 (1992). Only if we can make no initial determination need we refer to contemporaneous legislative histories of the standard. If the question remains unsettled, we

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[3]*Armco Steel Co.*, OSHRC Docket No. 93-641 (December 20, 1993) (ALJ Loye); *Caterpillar, Inc.*, 92 OSAHRC 67/C8 (Docket No. 92-127, 1992) (ALJ Barkley). *See also Metal Shredders, Inc.* 92 OSAHRC 17/A2 (Docket No. 90-2273, 1992) (ALJ Burroughs) (work that was not performed under lockout in that case was not servicing or maintenance, and all affected employees expected equipment to start up).

look to the reasonableness of the interpretation of the agency that administers the challenged standard. *Kiewit Western Co.*, 16 BNA OSHC 1689, 1693, 1993 CCH OSHD ¶ 30,396, p. 41,940 (No. 91-2578, 1994) (citing *Unarco Commercial Prods.*, 16 BNA OSHC 1499, 1502-03, 1993 CCH OSHD ¶ 30,294, p. 41,732 (No. 89-1555, 1993)).

Examining further the text of the standard, not only does the very first provision emphasize that its scope is limited to "*unexpected*" energization, startup, or release of stored energy, but the definition of covered maintenance and servicing contains the same limitation:

> *Servicing and/or maintenance.* Workplace activities such as constructing, installing, setting up, adjusting, inspecting, modifying, and maintaining and/or servicing machines or equipment. These activities include lubrication, cleaning or unjamming of machines or equipment and making adjustments or tool changes, where the employee may be exposed to the *unexpected* energization or startup of the equipment or release of hazardous energy.

Section 1910.147(b) (emphasis in original).[4] OSHA literally underscored the importance of the standard's limitation to "unexpected" energization, etc., by italicizing that word in those two provisions--a form of emphasis that OSHA rarely uses. The same limitation is restated in the general requirement for an energy program, section 1910.147(c)(1), which the Secretary describes as "[p]erhaps the clearest summary of the requirements of § 1910.147."

> The employer shall establish a program consisting of energy control procedures, employee training and periodic inspections to ensure that before any employee performs any servicing or maintenance on a machine or equipment *where the unexpected energizing, start up or release of stored energy could occur and cause injury*, the machine or equipment shall be isolated from the energy source, and rendered inoperative.

(Emphasis added.)[5]

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[4]GM has not conceded that its employees were engaged in "servicing and/or maintenance" within the meaning § 1910.147(b), because in its view that definition is limited to activities where inadvertent activation of the machine or equipment could occur and cause injury.

[5]Other provisions are to the same effect. The stated purpose of the standard is as follows:

> This section requires employers to establish a program and utilize procedures for affixing appropriate lockout devices or tagout devices to energy isolating devices, and to otherwise disable machines or equipment *to prevent unexpected energization, start-up or release of stored energy in order to prevent injury to employees*.

(continued...)

We find that the standard clearly and unambiguously applies only where the Secretary shows that unexpected energizing, start-up or release of stored energy could occur and cause injury. Under these circumstances, we find it unnecessary to look outside the standard itself for guidance as to its meaning. *E.g., Brown v. Gardner*, 115 S. Ct. 552, 556 (1994) (long-standing Veterans' Affairs Department interpretation of statute overruled--"the text [of the statute] and reasonable inferences from it give a clear answer against the Government, and that, as we have said, is 'the end of the matter'") (quoting *Good Samaritan Hosp. v. Shalala*, 113 S.Ct. 2151, 2157 (1993)); *Unarco*, 16 BNA OSHC at 1503 & n.3, 1993 CCH OSHD at p. 41,732 & n.3. *See generally* 2A Singer, *Sutherland Stat. Const.* § 46.01 (5th ed. 1992) (citing *Caminetti v. United States*, 242 U.S. 470 (1917) ("[i]t is elementary that the meaning of a statute must, in the first instance, be sought in the language in which the act is framed, and if that is plain [and if the statute is constitutional], the sole function of the courts is to enforce it according to its terms")).

However, even if we were to look beyond the standard's terms, we find any ambiguity is clarified in the legislative history and that the Secretary's interpretation is unreasonable. The preamble to the standard expressly limited its applicability to situations where "unexpected energization," etc.,[6] is a hazard. For example, the opening summary of the preamble states:

> This standard addresses practices and procedures that are necessary to disable machinery or equipment and *to prevent the release of potentially hazardous energy while maintenance and servicing activities are being performed.*

Control of Hazardous Energy Sources (Lockout/Tagout): Final Rule, 54 Fed. Reg. 36,644 (1989), as corrected by 55 Fed. Reg. 38,677 (1990) (emphasis added). The preamble explains the standard's scope as follows:

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[5](...continued)

Section 1910.147(a)(3)(i) (emphasis added). Similar language appears in certain other provisions: sections 1910.147(a)(2)(iii)(A), (c)(4)(i) (exception to requirement of energy control procedure), (f)(4), and Appendix A.

[6]The term "energization, etc.," is our shorthand for the separate concepts of "energization, startup, or release of stored energy."

> The standard covers servicing and maintenance in general industry where the unexpected energization or start-up of machines or equipment or the release of stored energy could cause injury to employees.

54 Fed. Reg. at 36,659. There are many other statements to the same effect in the preamble. As we read it, the preamble can only support the plain language of the standard that limits its application to machines or equipment where an unexpected energization could cause injury to employees.

In addition to the preamble, other contemporaneous documents make clear that the standard is limited to risks of unexpected energization, etc. For example, OSHA Publication No. 3120, *Control of Hazardous Energy (Lockout/Tagout)* 2 (1991), states that if employees are performing servicing or maintenance tasks that do not expose them to the unexpected release of hazardous energy, the standard does not apply. The 1994 edition of that publication makes the same statement. OSHA's internal instructions for administering section 1910.147 use comparable language. OSHA Instruction STD 1-7.3, *Control of Hazardous Energy Lockout-Tagout)--Inspection Procedures and Interpretive Guidance*, § I.1.b., d., e. (September 11, 1990). Thus, the Secretary's contemporaneous publications and the statements therein consistently reaffirm that the Secretary meant what he said in the standard--it applies only where unexpected energization, etc., could occur and cause injury to employees.

The plain and unambiguous terms of the standard, and the support of the legislative history, is so overwhelming that the Commission need not even consider the Secretary's current interpretation. We note, however, that the Secretary's interpretation is inconsistent with the standard's terms. He interprets it to apply to every piece of machinery and equipment regardless of whether it could start up unexpectedly. The Secretary would require lockout/tagout even if the record shows there is no possibility of "unexpected" energization, etc. As GM states, the Secretary would "inquire only into whether an employee could be injured *if* unexpected energization [etc.] were to occur (even if, in fact, it could not)."

This interpretation fails to give effect to the entire clause that defines the standard's application. We cannot ignore the term "unexpected" as a limitation on the application of the standard. Regulations are to be read so as to give effect to all their terms, if possible. *E.g., United States v. Menasche*, 348 U.S. 528, 538-39 (1955). *See Brown v. Gardner*, 115 S.

Ct. at 556 (maxim of statutory interpretation held relevant to whether agency had properly interpreted its governing statute) (citing *Russello v. United States*, 464 U.S. 16, 23 (1983)). Again, the Secretary not only emphasized that limitation, but wrote it in repeatedly and purposely.

The Secretary may change his standard, but his interpretation of his current standard could only be "reasonable" if it "sensibly conforms to the purpose and wording of the regulations." *CF & I*, 499 U.S. at 151 (citing *Northern Indiana Pub. Serv. Co. v. Porter County Chapter of Izaak Walton League of America, Inc.*, 423 U.S. 12, 15 (1975)); *Martin v. American Cyanamid Co.*, 5 F.3d 140, 144 (6th Cir. 1993). Here, the Secretary's interpretation is plainly inconsistent with the wording of the regulations. His reading would essentially remove all limits to the standard's applicability.

The Secretary's interpretation in this case also contrasts sharply with portions of his supplemental statement of reasons supporting the standard. In that document, which the D.C. Circuit required during the pre-enforcement challenge to the standard, *see supra* note 2, the Secretary sought to reassure the court that he interpreted the standard to contain a common-sense limit to situations where unexpected energization, etc., could cause injury to employees.

> The standard [does not apply] to servicing and maintenance that present minimal and readily controlled risk . . . . *[E]ach covered employer's burden is determined by the frequency and complexity of servicing actually undertaken. . . . Machines and equipment that present no hazard are excluded from coverage.*

Final rule: supplemental statement of reasons, 58 Fed. Reg. 16,612, 16,621 (1993) (emphasis added). The Secretary further emphasized before the D. C. Circuit that the standard applies only to machines and equipment that pose a significant risk of harm and to employees exposed to that risk. *See UAW v. OSHA II, supra* note 2, 37 F.3d at 670 ("[i]f, as OSHA asserts and NAM [the National Association of Manufacturers] appears not to dispute, the regulation applies simply to *machines* that pose a significant risk and to workers subjected to that risk, we see no reason why OSHA should be concerned with industry classifications that appear essentially irrelevant to its task") (emphasis in original).

Yet, in this enforcement action the Secretary contends that GM should not be allowed to prove that its machines and equipment present no hazard or no significant risk of harm. The Secretary essentially argues that he alone may decide whether such machines

and equipment present a hazard of unexpected energization, etc., or a significant risk of harm, and that employers and the Commission may not question that determination. We again do not believe that the standard can be reasonably read to require the result the Secretary seeks.

Finally, we find no merit in the Secretary's claim that Judge Salyers's reading of the standard: (1) violates the requirement that the authorized employee have exclusive control over his/her safety, and (2) rewrites the definition of "energy isolating device." That claim presumes that there always is a hazard of unexpected energization, etc., on every industrial machine and piece of equipment during servicing and maintenance. The terms of the standard clearly place the burden on the Secretary to *show* that there is such a hazard as to the cited machines and equipment. The Secretary must show that there is some way in which the particular machine could energize, start up, or release stored energy without sufficient advance warning to the employee. However, the Secretary seeks to disallow reliance on even the most failsafe control circuit devices--even where the employees as well as employers favor them. We find that this unreasonable approach is flatly inconsistent with the unambiguous terms of the standard, as well as the preamble and the Secretary's other contemporaneous explanations of the standard.[7]

II. Whether the Secretary proved that unexpected activation could occur and cause injury

It is undisputed that the machines had extensive precautions to protect servicing and maintenance employees. An electronically interlocked gate surrounded the machine area in each case. Once an employee opened that gate or pushed an emergency stop button, a time-consuming series of eight to twelve steps were required before any hazardous movement of the machine could occur. The evidence indicated that the restart procedures would provide plenty of warning to the employees, in the form of alarms and visible motions, so that they could avoid any hazardous movement of the machinery.

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[7]The standard contains certain specific exceptions to lockout/tagout requirements, as the dissent notes. However, the Secretary must show that the standard applies before the exceptions become relevant. Because the Secretary failed to show that *unexpected* energization, etc., could occur on the cited machines, he has not shown that the standard applies, and thus we need not consider the exceptions.

The Secretary presented testimony at the hearing, however, that unexpected activation (startup or release of stored energy) actually could occur on GM's machines because they were not routinely deenergized or locked out. The judge found the Secretary's evidence insufficient. On review, the Secretary does not specifically contest the judge's factual findings or present an argument for finding unexpected activation on the particular facts of these cases. In fact, the Secretary does not dispute GM's assertion that he has abandoned any objections to the judge's factual findings. On the other hand, the Secretary summarizes the facts and relies on the injury described in Docket No. 91-3116 as evidence of the *general* risk of injury from failure to lockout.

We affirm the judge's factual findings and his conclusions. GM's expert witness, engineer Richard Parry, testified convincingly that unexpected activation could not occur on any of the machines under GM's procedures. The judge properly relied on Parry's testimony. He did not discredit the contrary testimony of OSHA's compliance officers ("CO's"), but found that Parry had "superior knowledge and experience" regarding the machines at issue. Thus, he concluded that in each case, "Parry's testimony is entitled to greater weight."

Parry testified that the machine involved in each case would shut down immediately if the employee first: (1) opened the interlocked barrier gate around it, as the employees were trained to do, or (2) pushed an emergency stop button. In either event, there could be no *unexpected* activation. The basic reason is that a time-consuming startup procedure of at least eight steps, most of them obvious to the servicing or maintenance employee, would be required before any hazardous activation of the equipment could occur.

The restart procedures could be performed by an employee other than the one performing servicing or maintenance, but the latter could not help being aware that they were taking place. In Docket No. 91-2973, eight to eleven startup steps were required, and numerous warning bells would sound during the process. In Docket No. 91-3116, twelve startup steps were required and were all performed within 4 feet of the servicing or maintenance employee. In Docket No. 91-3117, eight startup steps, including many movements by the robot arm that would be obvious to the servicing or maintenance

employee, would be required before any hazardous movement could occur.[8] As a result, the servicing or maintenance employee would know of, and have plenty of time to avoid, the hazards. Parry's testimony about the multi-step startup procedure completely disposes of the alleged hazards in Docket No. 91-2973. We vacate the citation in that case accordingly.

The CO's testified in Docket Nos. 91-3116 & 91-3117 that one of the hazards was inadvertent activation of the equipment in the event of a short circuit or ground. However, Parry contradicted that testimony. He testified that the electrical model on which the CO's relied, a 2-wire, 110-volt system, was not used by GM. He further testified that a short circuit or ground in GM's system (using 3-wire, 220-volt connections) would result in shutting the machinery down, not starting it up. Parry's testimony establishes that no hazard existed in either case due to possible electrical failure. We vacate the citation in Docket No. 91-3117 based on Parry's testimony regarding that issue and regarding the multi-step startup procedure in that case.

Finally, in Docket No. 91-3116, the Secretary relies on the fact that an employee actually was injured while servicing the machine.[9] The union safety and health

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[8]The startup process in Docket No. 91-3117 was typical of the others. The judge summarized it as follows:

> (1) All interlock gates would have to be closed;
> (2) The start button on the control console would have to be pushed, which activates the robot system and instructs it to orient itself as to location. This takes some time and, if not in the home position, the robot returns to the home position;
> (3) The robot then proceeds to the conveyor area where the bushings are located and picks one up;
> (4) The robot then rotates to the press area;
> (5) The robot places a bushing into a funnel;
> (6) The robot next picks up a dog bone [metal piece into which bushings are inserted] and the other bushing;
> (7) The robot returns to the funnel, drops a bushing, and places the dog bone into a fixture; and
> (8) Only after the above sequence of tasks is completed will the solenoid valve be signaled to activate the compressed air power to initiate movement of the press.

[9]GM employee Kaye Lowe was injured by a robot while servicing the A-7 module. It is undisputed that Lowe's injury happened when she was at the dial table servicing the (continued...)

representative at the plant, Thomas Ashburn, testified that based on his investigation of the incident, the employee had followed proper procedures. However, Parry testified that the employee could not have followed proper procedures and must have entered the machine area without using the interlocked barrier gate as required. He testified that GM thoroughly investigated and that its engineers could not cause any movement of the machinery to occur once the barrier gate was opened. Parry testified that once that gate was opened or an emergency stop button was hit, there could be no startup of any equipment until another time-consuming, multi-step startup procedure was completed, which inevitably would alert the servicing or maintenance employee.

Again, the judge credited Parry's expert testimony about the machine. The judge found that a preponderance of the evidence failed to show that there was a hazard of unexpected energization, etc., in Docket No. 91-3116 because: (1) if the employee had used the barrier gate as required, the 12-step restart procedure would be necessary and would alert the employee in time to avoid any activation of machinery, and (2) if the employee did not use the barrier gate as required, he or she would know that activation could occur at any time--hence, it could not be unexpected. We find that the evidence supports the judge's finding and thus we vacate the citation in Docket No. 91-3116.

Accordingly, we vacate the citations to GM in each of these cases.

Edwin G. Foulke, Jr.
Commissioner

Velma Montoya
Commissioner

Dated: April 26, 1995

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[9](...continued)
machinery. She was attempting to release a ball joint that had become jammed at the point where they are greased. Apparently her movement triggered the grease unit on the dial table and it cycled. Lowe was struck on the back of her forearm with grease and had to be taken to the hospital to have it all removed.

Weisberg, Chairman, dissenting:

My quarrel with my colleagues in this case is fundamental. After extensive research, review and comment, OSHA promulgated a standard reflecting its finding that, with certain enumerated exceptions, it is necessary to deenergize machinery and equipment, and to lock or tag it out, prior to servicing or maintenance to effectively protect employees from the hazards of the unexpected energization, startup, or release of stored energy. Locking or tagging out the machinery or equipment is mandatory under the standard if the energy involved is strong enough to result in injury if released unexpectedly. It is undisputed that the energy involved here was sufficient to be considered hazardous if released. Further, GM acknowledges that in the cited instances it has not adhered to the lockout or tagout procedures required under the standard but claims such devices are unnecessary because it has devised a better way of protecting employees. GM does not claim that compliance with the standard would have been infeasible. Nor does GM claim that it lacked fair notice of the Secretary's interpretation of the standard.

In vacating the instant citations my colleagues, through myopic reliance on the so-called "plain meaning" of the term "unexpected" energization, reject the Secretary's interpretation of his own standard in favor of their own interpretation, one that negates the required use of lockout/tagout procedures where the employer has devised an alternative means of protection.[1] Additionally, my colleagues would require that the Secretary prove a negative in every case for each cited machine or equipment, *i.e.*, that in myriad circumstances alternative measures fashioned by the employer would not be completely effective in preventing unexpected energization. The majority's action will encourage a lack of conformity with this important standard, which Elizabeth Dole, President Bush's

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[1]Nothing in the standard, however, prevents an employer from adding whatever warning mechanisms it feels will further protect employees. Nor does the standard discourage employers from doing so.

Secretary of Labor, considered "one of my top safety and health priorities."[2] This will place more workers in danger for, as my colleagues well know, OSHA lacks the resources to inspect even a respectable fraction of the workplaces subject to this standard much less to evaluate all of the alternative measures employers may devise under the exception to the standard the majority creates today. Accordingly, I must dissent.

I find the Secretary's interpretation of his standard to be reasonable and consistent with the protective intent of the standard as explained in the preamble. The Secretary's reasonable interpretations of his standards are entitled to deference. *E.g., Martin v. OSHRC (CF & I Steel Corp.)*, 499 U.S. 144, 150 (1991)), *cited in Hackney, Inc.*, 16 BNA OSHC 1806, 1808, 1994 CCH OSHD ¶ 30,486, p. 42,113 (No. 91-2490, 1994); *Martin v. American Cyanamid Co.*, 5 F.3d 140, 144 (6th Cir. 1993) (reviewing court is to uphold Secretary's interpretation of his standard "unless it is arbitrary, capricious, an abuse of discretion or otherwise not in accordance with law.") Therefore, I would find a violation in each of the three cases. In addition, the facts surrounding the serious injury to the employee who was performing servicing on the energized machinery in Docket No. 91-3116 demonstrate to me that unexpected activation is a hazard in such operations.

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The intent of this standard is to reduce, so far as possible, the severe toll of death and injury to servicing and maintenance employees by requiring the most complete control of hazardous energy that is feasible. Some 7.1 percent of all fatalities occurring in general industry relate to failures to adequately control hazardous energy, according to the standard's preamble. *Control of Hazardous Energy Sources (Lockout/Tagout): Final Rule*, 54 Fed. Reg. 36,644, 36,652, as corrected by 55 Fed. Reg. 38,677 (1990).

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[2]BNA Occupational Safety and Health Reporter, Sept. 6, 1989, at 620.

The required level of control includes, at a minimum, deenergizing the machine or equipment whenever feasible and locking or tagging it out, before servicing or maintenance work begins:[3]

> OSHA believes that the safe performance of activities such as repair, maintenance and servicing, requires the deenergization of machines or equipment *whenever feasible*. Further, in order to ensure that maintenance or servicing activities are conducted [safely], a lockout or tagout procedure must be utilized.

Id. at 36,654 (emphasis added).[4] Where the energy is insufficient to result in injury if released unexpectedly, the energy is not considered hazardous and the machine or equipment

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[3]The term "control of hazardous energy" in the standard means lockout or tagout. The very title of the standard is "[t]he control of hazardous energy (lockout/tagout)." The preamble states:

> It should be noted that locks and tags by themselves do not control hazardous energy. It is the isolation of the equipment from the energy source and the following of the established procedures for deenergization and reenergization of the equipment that actually controls the energy.

54 Fed. Reg. at 36,655. Control circuit devices, on which GM relied here, do not *control* hazardous energy as the Secretary requires, because they do not isolate the equipment from the energy source. *See* § 1910.147(b), which defines "energy isolating device" and states that "control circuit type devices are not energy isolating devices."

[4]The Secretary's intent is clearly stated in the opening summary of the standard:

> This standard addresses practices and procedures that are necessary to disable machinery or equipment and to prevent the release of potentially hazardous energy while maintenance and servicing activities are being performed. *The standard requires that lockout be utilized for equipment which is designed with a lockout capability except when the employer can demonstrate that utilization of tagout provides full employee protection.*

54 Fed. Reg. at 36,644. *See also, e.g.*, 54 Fed. Reg. at 36,656:

> [This standard] requires that the employer develop and implement an energy control program and procedure for servicing and maintenance of machinery and equipment, using lockout or its equivalent on the great majority of energy isolating devices, namely those which are currently capable of being locked out.

need not be locked out or tagged out. Otherwise, lockout/tagout is mandatory, absent the specific exceptions set forth in the standard.

Reliance on push buttons and other control circuit devices, however ingenious, is not acceptable under the standard. The reason is that the electrical or other power circuits remain connected (or can be reconnected by someone other than the servicing or maintenance employee). Such circuits are capable of transferring power and causing machine movement, however remote the possibility may seem. As the preamble to the standard makes clear,

> OSHA believes that the *least desirable situation* is to allow employees to perform maintenance, repair, or service activities while the machine or equipment is energized and capable of performing its normal production function. . . .
>
> *The vast majority of servicing or maintenance activities can safely be done only when the machine or equipment is not operating and is deenergized*; therefore, these activities are covered by this standard.
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> . . . .
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> [S]hutting down a machine or equipment usually is not the total solution to the problem. *Once the machine or equipment has been stopped, there remains the potential for employee injury* from the unanticipated movement of a component of the machine or equipment, or from movement of the material being handled.
>
> . . . .
>
> *The generally accepted best means to minimize the potential for inadvertent activation* is to ensure that all power to the machine or equipment is isolated, locked or blocked and dissipated at points of control, using a method that cannot readily be removed, bypassed, overridden or otherwise defeated.

54 Fed. Reg. at 36,647-48 (emphasis added).

GM's machines were neither deenergized nor locked out, although it would have been feasible to do both. Thus, the machines remained capable of performing their normal production function while employees performed servicing or maintenance. That is a situation the Secretary seeks to avoid. The serious injury to the employee who was servicing

the robot module in Docket No. 91-3116, due to unexpected activation of a robot illustrates the problem and shows that GM's control circuit devices and procedures were not failsafe.

The majority decision is based almost exclusively on the so-called plain meaning of the term "unexpected" energization as used in the standard. The majority appears to read the word "unexpected" as meaning "without warning." Yet Roget's Thesaurus lists the following words as synonyms for "unexpected": unusual, sudden, chance, unanticipated, and unforeseen. R. Chapman, ed., *Roget's Int'l Thesaurus* (4th ed. 1977). The majority fails to explain how it arrived at its meaning of "unexpected" and why that interpretation is not free from doubt. I do not view the terms "unexpected" and "without warning" as being the same. In the instant cases, for example, while the employees may receive a warning, nevertheless they are exposed to an unanticipated or chance startup. While the employees may be given a momentary "heads up" or warning, they are not necessarily protected against the hazards that the standard is aimed at.

To the extent that a literal reading of the standard by itself suggests that an employer can forego lockout/tagout on a particular machine unless "unexpected energization," as my colleagues define that term, appears to be a realistic possibility, such an interpretation is squarely at odds with OSHA's intent as expressed in the preamble. "[D]efects in . . . a regulatory warning may be cured by authoritative judicial or administrative interpretations which clarify obscurities or resolve ambiguities." *Diebold, Inc. v. Marshall*, 585 F.2d 1327, 1338 (6th Cir. 1978). A standard's preamble "is the best and most authoritative statement of the Secretary's legislative intent." *E.g., American Sterilizer Co.*, 15 BNA OSHC 1476, 1478, 1991-93 CCH OSHD ¶ 29,575, p. 40,016 (No. 86-1179, 1992).

The preamble passages quoted above illustrate the Secretary's rulemaking finding that unexpected energization, etc., always is a hazard in servicing and maintenance work on power machinery and equipment unless employees follow lockout/tagout procedures. The Secretary's supplemental statement of reasons supporting the standard makes the same basic point. It states that "workers face a significant risk of material harm every time they perform

service or maintenance work on powered industrial equipment." *Final Rule: supplemental statement of reasons*, 58 Fed. Reg. 16,612, 16,620 (1993) (citing 54 Fed. Reg. at 36,647-48, 36,652-53).

Thus, that supplemental statement is consistent with the preamble. They both find a significant risk of harm where the employer fails to use the energy control procedure the standard requires. Machines and equipment that *in the Secretary's view* present no hazard are not regulated, and risks that *in the Secretary's view* are "minimal and readily controlled" are not subject to lockout/tagout requirements. Numerous specific exceptions to the lockout/tagout requirements are provided in the standard. Examples are: (1) certain routine, minor tool changes and adjustments during normal production operations, where effective alternative protection is used (section 1910.147(a)(2)(B)--exception); and (2) work on cord- and plug-related equipment, where the protections mentioned in section 1910.147(a)(2)(iii)(A) exist. Thus, the Secretary's approach does not "essentially remove all limits to the standard's applicability," as the majority states. Rather, it provides a general requirement of lockout or tagout protection with specific, prudent exceptions.

All employees in occupations that perform servicing or maintenance on powered industrial equipment in general industry must use lockout/tagout. *E.g.*, 54 Fed. Reg. at 36,684 ("OSHA classified 'at-risk' *occupations* in the Final Rule as those being held by individuals who would actually perform lockout or tagout") (emphasis added). OSHA estimates that about 3 million employees in the affected industries will service or maintain powered industrial equipment (2 million in high-impact industries and 1 million in low-impact industries).[5] The decision whether to follow lockout/tagout procedures does not rest

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[5]The Secretary's complete analysis, on which his comments in the preamble are based, so states.

> OSHA has estimated that about 2 million workers in 340,451 high-impact establishments and almost 1 million workers in 291,034 low-impact

(continued...)

on whether the employee, supervisor, or compliance officer can think of a way that the particular machine could activate unexpectedly. The only question is whether the energy is strong enough to cause injury if released.

The majority would allow GM to forego lockout/tagout in favor of control circuit devices, even though the Secretary has made clear that those devices do not actually *control* energy as he requires. *See supra* note 3. Furthermore, GM's reliance on control circuit devices meant that the safety of the servicing employee was not fully in his or her own control, contrary to the purpose of the standard. The protections provided by those control circuit devices could be removed by another employee, whereas "[l]ockout or tagout shall be performed only by the authorized employees who are performing the servicing or maintenance:" section 1910.147(c)(8).[6]

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[5](...continued)

> establishments are employed in *occupations* that are at risk when equipment servicing and maintenance tasks are performed. This risk appears to be the greatest for those workers employed as craft workers, machine operators, and laborers. Moreover, packaging and wrapping equipment, along with printing presses and conveyor belts, are associated with a high proportion of accidents.

OSHA, *Regulatory Impact and Regulatory Flexibility Analysis of 29 CFR 1910.147*, II-13, II-15 (August, 1989) (emphasis added). That document also states flatly that "[u]nder the final rule, an employee must lock or tag machinery and equipment during servicing operations and equipment maintenance." *Id.* at III-20.

[6]The term "authorized employee" is defined as follows:

> A person who locks out or tags out machines or equipment in order to perform servicing or maintenance on that machine or equipment. An affected employee becomes an authorized employee when that employee's duties include performing servicing or maintenance covered under this section.

Section 1910.147(b). The term "affected employee" is defined in that section as follows:

> An employee whose job requires him/her to operate or use a machine or

(continued...)

> These [authorized employees] are the only employees who are required to be trained to know in detail about the types of energy available in the workplace and how to control the hazards of that energy. Only properly trained and qualified employees can be relied on to deenergize and to properly lockout or tagout machines or equipment which are being serviced or maintained, in order to ensure that the work will be accomplished safely.

54 Fed. Reg. at 36,676. Thus, the standard did not contemplate that the servicing employee would be subject to having to get out of the way because another employee could begin a restart procedure.

The majority states, however, that "we find it unnecessary to look outside the standard itself for guidance as to its meaning." I believe that the majority errs in that regard. First, the standard's meaning is "not free from doubt," especially in light of the preamble. *See, e.g., CF & I*, 499 U.S. at 150 (where meaning of regulatory language is "not free from doubt," reviewing court should give effect to Secretary's interpretation so long as it is reasonable) (citing *Ehlert v. United States*, 402 U.S. 99, 105 (1971)).

Second, even if the standard's language seemed "free from doubt," the Supreme Court has made clear numerous times recently that, particularly where, as here, the employer cannot claim lack of fair notice of the agency's interpretation, it is the actual *intent* of the regulator that controls, not necessarily the common meaning of the words used. "The circumstances of the enactment of particular legislation may persuade a court that Congress did not intend words of common meaning to have their literal effect." *Watt v. Alaska*, 451 U.S. 259, 266 (1981).

That the regulator's *intent* controls is clear from the following summary of the Supreme Court's requirements--relied on by the Commission in *Unarco Commercial Prod.*, 16 BNA OSHC 1499, 1502-03, 1993 CCH OSHD ¶ 30,294, p. 41,732 (No. 89-1555, 1993).

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[6](...continued)

> equipment on which servicing or maintenance is being performed under lockout or tagout, or whose job requires him/her to work in an area in which such servicing or maintenance is being performed.

> Under the familiar principles enunciated by *Chevron U.S.A. Inc. v. NRDC, Inc.*, 467 U.S. 837, 842, 104 S. Ct. 2778, 2781, 81 L.Ed. 2d 694 (1984), we first ask "whether Congress has directly spoken to the precise question at issue." We independently examine the language and, if necessary, the legislative history to determine whether the *intent* of Congress is clear. If congressional intent is unclear, we then inquire whether the agency's interpretation is "permissible," *id.* at 843, 104 S. Ct. at 2782, i.e., "rational and consistent with the statute." *NLRB v. United Food & Commercial Workers Union, Local 23*, [484 U.S. 112, 123], 108 S. Ct. 413, 421 [(1987).]

Securities Indus. Ass'n v. Federal Reserve Sys., 847 F.2d 890, 893-94 (D.C. Cir. 1988) (emphasis added). The analytical steps for interpreting an OSHA standard are the same as for a Congressional statute, as *Unarco* noted. 16 BNA OSHC at 1502-03, 1993 CCH OSHD at p. 41,732. Thus, the Commission's job is to discern the *intent* of the Secretary in issuing the standard, not to decide independently what the language means. The Court cautioned judges "not to make a fortress out of the dictionary; but to remember that statutes always have some purpose or object to accomplish, whose sympathetic and imaginative discovery is the surest guide to their meaning." *Public Citizen v. Department of Justice*, 491 U.S. 440, 454-55 (1989), (citing *Cabell v. Markham*, 148 F.2d 737, 739 (2d Cir.), *aff'd*, 326 U.S. 404 (1945)).

Third, the legislative history of a standard always may be consulted to determine its meaning. "When aid to construction of the meaning of words, as used in the statute, is available, there certainly can be no 'rule of law' which forbids its use, however clear the words may appear on 'superficial examination.'" *Public Citizen* (quoting *United States v. American Trucking Assn.*, 310 U.S. 534, 543-44 (1940) (citations omitted)). Thus, reference to the preamble is always appropriate where the meaning of a standard is in dispute.[7] In my

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[7]The cases the majority cites do not warrant a different result. *Estate of Cowart v. Nicklos Drilling Co.*, 112 S. Ct. 2589, 2594 (1992), acknowledges that in certain circumstances the inquiry goes beyond the text of a statute despite its seemingly plain meaning. *Cowart* and the other recent Supreme Court cases modify the effect of the statement the majority quotes from *Caminetti v. United States*, 242 U.S. 470 (1917).

(continued...)

view the preamble here shows clearly that the Secretary intended to avoid, wherever feasible, having employees perform servicing or maintenance on powered industrial machinery while it is energized.

The burden the majority places on the Secretary by superimposing its own interpretation on the standard likely will prove quite difficult and burdensome to meet. Putting aside the evidence of a recent injury on one of the machines during servicing (discussed below), two experienced OSHA compliance officers ("CO's") testified to specific ways in which they believed GM's machines could activate unexpectedly. They testified that the machines in question in Docket Nos. 91-3116 and 91-3117 could activate if a short circuit occurred in the line. The CO further testified in Docket No. 91-3117 that the press could stroke if an employee manually tripped the solenoid, or if the solenoid failed.

The judge did not discredit that testimony. Still, he found it insufficient based on strong expert testimony to the contrary by GM's engineer, Richard Parry. As the majority

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[7](...continued)
Brown v. Gardner, 115 S. Ct. 552, 556 (1994), involved no positive legislative history on the disputed interpretation issue. That case did not mention, much less overrule, the Court's oft-repeated precedent that legislative history always may be consulted if it is available. Further, *Brown* concerned the meaning of a veterans benefit statute, and the Court noted that interpretive doubt is to be resolved in the veteran's favor, not the Government's, in such cases. *Id.* at 555 (citing *King v. St. Vincent's Hosp.*, 502 U.S. 215, 220-21 n.9 (1991)).

The quotation in *Brown* from *Good Samaritan Hosp. v. Shalala*, 113 S. Ct. 2151, 2157 (1991), which the majority notes, supports my position strongly. The Court's full statement actually was, "[t]he starting point in interpreting a statute is its language, for '[i]f the *intent* of Congress is clear, that is the end of the matter,'" quoting *Chevron*, 467 U.S. at 842 (emphasis added). The *intent* of the lockout/tagout standard is what the Secretary says it is. The preamble clarifies that intent.

The treatise which the majority cites also supports my position. 2A Singer, *Sutherland Stat. Const.*, § 48.01 (5th ed. 1992) (citing *Train v. Colorado Public Interest Research Group, Inc.*, 426 U.S. 1, 9-10, 23-24 (1976) (plain meaning rule is not to be used to thwart or distort intent of Congress by excluding from consideration enlightening material from legislative history)).

notes, the judge found that Parry had "superior knowledge and experience" regarding the equipment in question and thus that his testimony is entitled to greater weight. Parry testified that these particular machines were not subject to the specific hazards that the CO's raised. The majority fully affirms the judge's findings. There is no gainsaying that it will be difficult for the Secretary to prevail in hotly contested cases such as these involving sophisticated control circuit devices. In effect, the Commission is requiring the Secretary to reestablish in every case his reasonable rulemaking finding--that with the specific exceptions spelled out in the standard, unexpected energization, etc., poses a significant risk of harm if powered industrial machinery is not deenergized and locked out before servicing or maintenance is performed on it.

II

The evidence clearly shows that a hazard of unexpected startup was present on the machinery involved in Docket No. 91-3116, no matter which version of the accident one accepts. That injury occurred while an employee was performing servicing inside a robot module. She was attempting to unjam a ball joint when the adjacent grease unit cycled and struck her arm, injecting grease into it which had to be removed at a hospital.

The CO and the union's safety and health representative testified that, based on their investigations, the employee had followed proper procedures, including opening the electronically interlocked barrier gate before entering the module. GM's expert witness Parry testified, however, that based on his investigation, the employee must have circumvented that gate because when opened, it would shut down the power to the machinery in the module, and would necessitate a time-consuming, 12-step restart procedure before the machinery could activate again.

Even assuming Parry was correct, the employee's injury resulted from "unexpected" activation. The gate could be circumvented--an employee could readily climb through its horizontal rails without opening it. There is no basis in the record to conclude that the

employee *expected* the machine to activate, even if she failed to follow GM's procedures by circumventing the gate. Nor did GM expect the machine to activate.

Employees do not forfeit the protection of the standard merely by making a mistake (such as failing to follow a set procedure). The standard clearly aims to protect such employees by requiring the deenergization of machines or equipment wherever feasible and locking or tagging them out, before the servicing or maintenance is performed. Commission and court precedent recognizes that employees sometimes attempt to circumvent control circuit devices on industrial machinery, and it holds that such employees do not thereby forfeit the protections of the standards. *E.g., MRS Printing, Inc.*, 6 BNA OSHC 2025, 2026, 1978 CCH OSHD ¶ 23,102, p. 27,920 (No. 76-3113, 1978) (to comply with section 1910.212(a)(3), the general point of operation guarding requirement for machines, "an employer must install a guarding device that cannot be easily circumvented by his employees.") *See also, e.g., Long Mfg. Co., N. C., Inc. v. OSHRC*, 554 F.2d 903 (8th Cir. 1977) (Commission finding of machine guarding violation upheld where employer had installed recognized control circuit safety device (dual hand controls) but it could be and was being circumvented). Thus, I would find a violation in Docket No. 91-3116, even under the majority's interpretation of the standard.

Accordingly, I respectfully dissent.

Stuart E. Weisberg

Stuart E. Weisberg
Chairman

Dated: April 26, 1995

UNITED STATES OF AMERICA
OCCUPATIONAL SAFETY AND HEALTH REVIEW COMMISSION
One Lafayette Centre
1120 20th Street, N.W. — 9th Floor
Washington, DC 20036-3419

PHONE:
COM (202) 606-5100
FTS (202) 606-5100

FAX:
COM (202) 606-5050
FTS (202) 606-5050

SECRETARY OF LABOR,	:	
Complainant,	:	
v.	:	Docket Nos. 91-2973
	:	91-3116
GENERAL MOTORS CORP., DELCO CHASSIS DIVISION,	:	91-3117
Respondent.	:	

NOTICE OF COMMISSION DECISION

The attached decision by the Occupational Safety and Health Review Commission was issued on April 26, 1995. **ANY PERSON ADVERSELY AFFECTED OR AGGRIEVED WHO WISHES TO OBTAIN REVIEW OF THIS DECISION MUST FILE A NOTICE OF APPEAL WITH THE APPROPRIATE FEDERAL COURT OF APPEALS WITHIN 60 DAYS OF THE DATE OF THIS DECISION.** See Section 11 of the Occupational Safety and Health Act of 1970, 29 U.S.C. § 660.

FOR THE COMMISSION

Ray H. Darling, Jr.

April 26, 1995
Date

Ray H. Darling, Jr.
Executive Secretary

Docket Nos. 91-2973 & 91-3116 & 91-3117

NOTICE IS GIVEN TO THE FOLLOWING:

Daniel J. Mick, Esq.
Counsel for Regional Trial Litigation
Office of the Solicitor, U.S. DOL
Room S4004
200 Constitution Ave., N.W.
Washington, D.C. 20210

Benjamin T. Chinni
Associate Regional Solicitor
Office of the Solicitor, U.S. DOL
Federal Office Building, Room 881
1240 East Ninth Street
Cleveland, OH 44199

Brian W. Scovill, Esq.
General Motors Corp.
New Center One Building / PO Box 33122
3031 West Grand Blvd.
Detroit, MI 48232

Robert C. Gombar, Esq.
Frank A. White, Esq.
Arthur G. Sapper
McDermott, Will & Emery
1850 K Street, N.W., Suite 500
Washington, DC 20006

Thomas D. Ashburn
United Rubber Workers
Local Union No. 87
21 Abbey Avenue
Dayton, OH 45417

Edwin G. Salyers
Administrative Law Judge
Occupational Safety and Health
Review Commission
Room 240
1365 Peachtree Street, N.E.
Atlanta, GA 30309-3119

UNITED STATES OF AMERICA
OCCUPATIONAL SAFETY AND HEALTH REVIEW COMMISSION
One Lafayette Centre
1120 20th Street, N.W. — 9th Floor
Washington, DC 20036–3419

FAX:
COM (202) 606–5050
FTS (202) 606–5050

SECRETARY OF LABOR Complainant, v. GENERAL MOTORS CORPORATION, DELCO CHASSIS DIVISION, Respondent.	OSHRC DOCKET NOS. 91-2973 91-3116 91-3117

NOTICE OF DOCKETING OF ADMINISTRATIVE LAW JUDGE'S DECISION

The Administrative Law Judge's Report in the above referenced case was docketed with the Commission on May 7, 1993. The decision of the Judge will become a final order of the Commission on June 7, 1993 unless a Commission member directs review of the decision on or before that date. ANY PARTY DESIRING REVIEW OF THE JUDGE'S DECISION BY THE COMMISSION MUST FILE A PETITION FOR DISCRETIONARY REVIEW. Any such petition should be received by the Executive Secretary on or before May 27, 1993 in order to permit sufficient time for its review. See Commission Rule 91, 29 C.F.R. 2200.91.

All further pleadings or communications regarding this case shall be addressed to:

Executive Secretary
Occupational Safety and Health
Review Commission
1825 K St. N.W., Room 401
Washington, D.C. 20006-1246

Petitioning parties shall also mail a copy to:

Daniel J. Mick, Esq.
Counsel for Regional Trial Litigation
Office of the Solicitor, U.S. DOL
Room S4004
200 Constitution Avenue, N.W.
Washington, D.C. 20210

If a Direction for Review is issued by the Commission, then the Counsel for Regional Trial Litigation will represent the Department of Labor. Any party having questions about review rights may contact the Commission's Executive Secretary or call (202) 634-7950.

FOR THE COMMISSION

Ray H. Darling, Jr. /dkw

Date: May 7, 1993

Ray H. Darling, Jr.
Executive Secretary

DOCKET NOS. 91-2973 & 91-3116 & 91-3117

NOTICE IS GIVEN TO THE FOLLOWING:

Daniel J. Mick, Esq.
Counsel for Regional Trial Litigation
Office of the Solicitor, U.S. DOL
Room S4004
200 Constitution Ave., N.W.
Washington, D.C. 20210

William S. Kloepfer
Assoc. Regional Solicitor
Office of the Solicitor, U.S. DOL
Federal Office Building, Room 881
1240 East Ninth Street
Cleveland, OH 44199

Brian W. Scovill, Esq.
General Motors Corp.
PO Box 33122
New Center One Building
3031 West Grand Blvd.
Detroit, MI 48232

Thomas D. Ashburn
United Rubber Workers
Local Union No. 87
21 Abbey Avenue
Dayton, OH 45417

Edwin G. Salyers
Administrative Law Judge
Occupational Safety and Health
Review Commission
Room 240
1365 Peachtree Street, N.E.
Atlanta, GA 30309 3119

00103031274:05

UNITED STATES OF AMERICA
OCCUPATIONAL SAFETY AND HEALTH REVIEW COMMISSION
1365 PEACHTREE STREET, N.E., SUITE 240
ATLANTA, GEORGIA 30309-3119

PHONE:
COM (404) 347-4197
FTS (404) 347-4197

FAX:
COM (404) 347-0113
FTS (404) 347-0113

SECRETARY OF LABOR, Complainant, v. GENERAL MOTORS CORPORATION, DELCO CHASSIS DIVISION, Respondent.	OSHRC Docket Nos. 91-2973, 91-3116 & 91-3117 (Consolidated)

Appearances:

Mary Anne Garvey, Esquire
Office of the Solicitor
U. S. Department of Labor
Cleveland, Ohio
For Complainant

Brian W. Scovill, Esquire
General Motors Corporation
Detroit, Michigan
For Respondent

Before: Administrative Law Judge Edwin G. Salyers

DECISION AND ORDER

The Occupational Safety and Health Administration (OSHA) conducted three separate inspections of facilities owned and operated by General Motors Corporation, Delco Chassis Division (GM), in August and September of 1991. As a result of these inspections, the Secretary issued citations to GM in the three cases alleging various violations of the Occupational Safety and Health Act of 1970 (Act). These cases, docketed as Nos. 91-2973, 91-3116, and 91-3117, were consolidated and tried before the undersigned on

October 15 and 16, 1992. Prior to the hearing, the parties reached a partial settlement of the citations as follows (Tr. 28-30):

Docket No. 91-3117-- GM agreed to withdraw its notice of contest with regard to items 1, 2 and 3 of Citation No. 1. The Secretary agreed to vacate item 5 of Citation No. 1 and to reclassify item 6 of Citation No. 1 as an "other" than serious violation with a penalty of $1,250.00. GM agreed to withdraw its notice of contest to item 1 of Citation No. 3, and the Secretary agreed to vacate item 2.

Docket No. 91-2973-- The parties agreed that item 1 of Citation No. 1 would be reclassified as an "other" than serious violation of the Act and that a penalty of $1,250.00 would be assessed.

The foregoing agreements of the parties are approved by the court and will be included in the order of disposition in these cases.

Left for consideration are five items that allege violations of either § 1910.147(c)(4)(i), § 1910.147(c)(4)(ii), or § 1910.147(d)(4)(i) of the lockout/tagout standard. Section 1910.147(c)(4)(i) requires that energy control procedures be developed, documented and utilized to protect employees. Section 1910.147(c)(4)(ii) requires that the energy control procedures clearly and specifically outline the scope, purpose, authorization, rules and techniques to be used, and the means to enforce compliance. Section 1910.147(d)(4)(i) requires that lockout or tagout devices be affixed to each energy isolating device by authorized employees.

The following items are at issue in the consolidated cases:

Docket No.	Citation No.	Item	Standard	Classification
91-3117	1	4	§1910.147(c)(4)(ii)	Serious
	2	1	§1910.147(c)(4)(i)	Repeat
91-3116	1	1	§1910.147(c)(4)(ii)	Serious
	2	1	§1910.147(c)(4)(i)	Repeat
91-2973	1	1	§1910.147(d)(4)(i)	Repeat

Docket No. 91-3117

Facts

OSHA Compliance Officer John Collier inspected GM's facility at 2701 Home Avenue in Dayton, Ohio, on September 24 and 25, 1991 (Tr. 45). On the second day of his inspection, Collier observed Daniel Westbeld, a tool, die and mold maker for GM, performing maintenance on a robot and pneumatic press in Department 288. The press is identified as machine No. 2773367 (Tr. 167) and is one of several "pick and place robots" used in that department. The robot had been programmed to pick up rubber inserts, known as bushings, and insert them inside a piece of metal (a "dog bone"). Once the bushings have been inserted into the dog bone, the robot places the dog bone in the press where the bushings are "stuffed" into the dog bone. This machine manufactures a torque strut which attaches the engine to the frame of the automobile and cushions the engine during driving (Tr. 168). The press is powered by compressed air (Tr. 171).

A solenoid valve powered by electricity releases the air pressure which gives the press its force. The robot is powered by electrical energy (Tr. 64). The robot and press are controlled by a computer (Tr. 62).

On September 25, 1991, Westbeld was replacing linear ball bearings in the lower die unit of the press. (These bushings are distinct from the bushings that are stuffed in the dog bones). The task usually takes about half an hour to complete. In order to gain access to the press, Westbeld had to open the gate that surrounds the robot and press (Tr. 171-172).

The gate around machine No. 2773367 was interlocked, meaning it was equipped with a photoelectric cell that both sent and received signals (Tr. 230). The system was designed to place a "hold" on the robot when the gate was opened. The safety interlock was intended to prevent messages from being sent to the robot or to the press which could cause either piece of equipment to function. Westbeld put his "truck," a cart holding tools and weighing 100 to 150 pounds, in front of the open gate to keep it from closing while he was working on the press (Tr. 172, 182, 194). Before beginning maintenance on machine No. 2773367, Westbeld would notify the operator who would move the robot out of the way,

usually to the "home" position (Tr. 191-192). After the robot was moved out of the way, the operator would then hit the "emergency stop" (Tr. 197-198).

The robot is powered by electrical energy. The press is operated by air pressure. The solenoid valve, which releases the air pressure and causes the press to function, is powered by electricity (Tr. 63-64). Westbeld did not exhaust the air from the press's valve nor did he lock out the valve before he began working on the machine (Tr. 65). Westbeld did not disconnect the robot from its energy source and did not ensure that the robot was de-energized (Tr. 182). While working on the press, Westbeld was required to place his hands within the confines of the die (Tr. 179).

Item 1 of Citation No. 2

Alleged Violation of § 1910.147(c)(4)(i)

The Secretary alleges that GM committed a repeat violation of § 1910.147(c)(4)(i), which provides:

> 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.
>
> Section 1910.147(a)(1)(i) specifies the activities covered by § 1910.147:
>
> This standard covers the servicing and maintenance of the machines and equipment in which the *unexpected* energization or start up of the machines or equipment, or release of stored energy could cause injury to employees. This standard establishes minimum performance requirements for the control of such hazardous energy.

The Secretary contends that Westbeld's activities in performing maintenance on machine No. 2773367 are covered by the provisions of the lockout standard. The production process had been halted on the press, and Westbeld had been performing maintenance on it. The Secretary points out that the preamble to the lockout standard provides that during maintenance activities:

> [T]he machine or equipment must be isolated from the energy source and the energy isolating device disabled. It is also during these activities that employees are exposed to the unexpected energization, startup or release of

stored energy against which the control procedures established in this standard are designed to provide protection.

54 Fed. Reg. 36644 at 36661 (1989). The Secretary argues that because machine No. 2773367 was not isolated from its energy sources prior to the commencement of maintenance, Westbeld was exposed to the unexpected energization or start up of the equipment, or the release of stored energy. The Secretary contends that, had the machine released stored energy while maintenance was being performed, Westbeld could have been injured.

A sign on the cage of the machine states that "all air cylinders have stored energy" (Exh. C-4). GM's expert, Richard Parry, conceded that machine No. 2773367 had the potential for stored energy (Tr. 232). Westbeld admitted that he did not bleed off the air pressure before he began working on the press (Tr. 179). The only precaution Westbeld took was placing his truck in front of the machine's door to prevent the closing of the gate.

Compliance Officer Collier testified, since the air pressure was not bled off, the potential existed for a release of air which could have resulted in the operation of the press (Tr. 67). Collier believed that the solenoid could have been manually tripped, resulting in a release of energy. He also believed that the computer could have sent an erroneous message to the valve, causing it to function (Tr. 66).

Collier testified that Westbeld should have operated the exhaust valve to release the air. Then Westbeld should have used a lockout device to lock out the valve that controlled the air (Tr. 67-68). Section 1910.147(b) defines "lockout device" as "[a] device that utilizes a positive means such as a lock, either key or combination type, to hold an energy isolating device in a safe position and prevent the energizing of a machine or equipment." Collier also suggested that Westbeld could have inserted a die block in the press to prevent the upper part of the die from drifting down (Tr. 69-69). Collier further testified that the electrical lines which power the robot's functions should have been disconnected and locked out (Tr. 69).

GM contends that the Secretary has failed to meet threshold elements of its burden of proof. These requirements provide:

> To establish a violation of a standard, the Secretary must show by a preponderance of the evidence that: (1) the cited standard applies, (2) its terms were not met, (3) employees had access to the violative condition, and (4) the employer knew or could have known of it with the exercise of reasonable diligence.

Seibel Modern Manufacturing & Welding Corp., 15 BNA OSHC 1218, 1991 CCH OSHD ¶ 29,442, p. 39,678 (No. 88-821, 1991).

Richard Parry has been a staff engineer with GM since 1973 (Tr. 206). He was certified at the hearing as an expert regarding maintenance functions and machine controls utilized in GM's plant (Tr. 209). Parry demonstrated throughout his testimony that he is a highly knowledgeable and credible witness. Of all the witnesses who testified for either party, Parry impressed the undersigned as the witness who had the best understanding of the workings of the machines and equipment, as well as the best command of the details of how the various systems worked. While Collier was a credible witness, he did not have the depth of knowledge demonstrated by Parry regarding the equipment at issue. Based upon his superior knowledge and experience, this court concludes that Parry's testimony is entitled to greater weight than that rendered by Collier.

Parry explained that in order for machine No. 2773367 to cycle, a multi-step process would have to be completed (Tr. 214-216):

(1) All interlock gates would have to be closed;

(2) The start button on the control console would have to be pushed, which activates the robot system and instructs it to orient itself as to location. This takes some time and, if not in the home position, the robot returns to the home position;

(3) The robot then proceeds to the conveyor area where the bushings are located and picks one up;

(4) The robot then rotates to the press area;

(5) The robot places a bushing into a funnel;

(6) The robot next picks up a dog bone and the other bushing;

(7) The robot returns to the funnel, drops a bushing, and places the dog bone into a fixture; and

(8) Only after the above sequence of tasks is completed will the solenoid valve be signaled to activate the compressed air power to initiate movement of the press. (Tr. 214-216).

GM contends that the Secretary failed to establish that the terms of the standard were not met and that Westbeld was exposed to a hazard of injury due to an *unexpected* release of stored energy. GM believes it was not necessary to lock out the machine because the number of steps required to cause the machine to cycle would allow any employee working on the machine sufficient time to remove himself or herself from the zone of danger before exposure occurred.

The undersigned agrees. In *Caterpillar, Inc.*, No. 92-0127, slip op. at 5 (October 30, 1992), Judge Barkley vacated a citation issued under the lockout standard, stating:

> Typically, lockout procedures are designed to protect against accidents where maintenance is performed at locations remote from machinery's controls. For example, an employee may be injured where a conveyor is unexpectedly started by a second employee who does not see the maintenance worker. Such is not the case here . . . . Moreover, the operator, during the maintenance procedure is only a few feet away from the mill's control panel; it would be impossible for anyone to start up the mill without being aware of the operator's presence.

Judge Barkley's reasoning is apposite here. The lockout standard specifically targets "the *unexpected* energization or start up of the machines or equipment." Under the circumstances described in the record, Westbeld or any other employee engaged in maintenance of the machine would be alerted to the possible activation of the press by the several steps that must occur before the press cycles. This would afford sufficient notice that energization was about to occur and provide sufficient time to the employee to vacate the zone of danger.

The Secretary has failed to establish that § 1910.147(c)(4)(i) was breached by respondent, and item 1 of Citation No. 2 will be vacated.

Item 4 of Citation No. 1

Alleged Violation of § 1910.147(c)(4)(ii)

The Secretary alleged that GM committed a serious violation of § 1910.147(c)(4)(ii), which provides:

> The procedures shall clearly and specifically outline the scope, purpose, authorization, rules, and techniques to be utilized for the control of hazardous energy, and the means to enforce compliance including, but not limited to, the following:
>
> (A) A specific statement of the intended use of the procedure;
>
> (B) Specific procedural steps for shutting down, isolating, blocking and securing machines or equipment to control hazardous energy;
>
> (C) Specific procedural steps for the placement, removal and transfer of lockout devices or tagout devices and the responsibility for them; and
>
> (D) Specific requirements for testing a machine or equipment to determine and verify the effectiveness of lockout devices, tagout devices, and other energy control measures.

Collier found fault with GM's program as it related to parts (B) and (C) of this provision of the lockout standard; he found the program to be adequate with respect to parts (A) and (D). Exhibit C-1 is a copy of GM's lockout/tagout procedure. Part (B) of the cited provision requires that GM outline "[s]pecific procedural steps for shutting down, isolating, blocking and securing machines or equipment to control hazardous energy." GM's procedural steps for lockout and tagout are detailed in the fourth paragraph of GM's lockout/tagout procedure as follows:

> *Sequence of Lockout/Tagout System Procedures:*
>
> (1) Notify all affected employees that a lockout/tagout system is going to utilized and the reason for its use. The employee must know the type and magnitude of energy that the machine or equipment utilizes and understand the hazards.

(2) Shut the machine or equipment down by following the normal operating procedures.

(3) Operate the switch, valve, or other energy isolating device(s) so that the equipment is isolated from its energy source(s). Stored energy (such as that in springs, elevated machine members, rotating flywheels, hydraulic systems, air, gas, steam or water pressure, etc.) must be dissipated or restrained by method such as repositioning, blocking, bleeding down, etc.

(4) Lockout and/or tagout the energy isolating devices using the assigned individual lock to tag method selected plus any additional safety measures deemed necessary.

(5) After ensuring that no personnel are exposed, and checking to ensure the energy sources are disconnected, operate the push button or other normal operating controls to make sure the equipment will not operate.

(6) Return the operating controls to neutral after the test.

(7) The equipment is now locked out or tagged out.

The Secretary contends that GM's procedural steps are not specific enough to meet the requirements of § 1910.147(c)(4)(ii)(B). The Secretary argues that GM should have a separate written procedure for each machine or piece of equipment (Secretary's Brief, p. 18). Such a requirement is not found, however, in the cited provision of the standard. Furthermore, the preamble to the lockout/tagout standard explicitly rejects the requirement of having a separate written procedure for each machine or piece of equipment (54 Fed. Reg. 36644 at 36670):

> [W]hereas the procedure is required to be written in detail, this does not mean that a separate procedure must be written for each and every machine or piece of equipment (those using the same type and magnitude energy) which have the same or similar types of controls can be covered with a single procedure.

The Secretary has not proved that the machines operated in GM's Delco plant have types of controls different enough to require separate procedures for each machine. The general procedural steps outlined by GM in its written lockout/tagout procedure meet the conditions set out in the standard's preamble (*Id.*):

> The written energy control procedure required by this standard need not be overly complicated or detailed, depending on the complexity of the equipment and the control measures to be utilized. . . . In addition, the employer's procedures may not need to be unique for a single machine or task, but can apply to a group of similar machines, types of energy and tasks if a single procedure can address the hazards and the steps to be taken satisfactorily.

GM's lockout/tagout procedure meets the requirements of § 1910.147(c)(4)(ii)(B). Section 1910.147(c)(4)(ii)(C) requires that the employer's written procedure contain "[s]pecific procedural steps for the placement, removal and transfer of lockout devices or tagout devices and the responsibility for them." Exhibit R-1 of Docket No. 91-3117 is a copy of GM's "LOCK-OUT/TAG-OUT AND SAFETY PADLOCK PROCEDURE." Paragraphs 6 and 7 of that document specify the steps and responsibilities for the placement, removal and transfer of lockout devices:

> (6) When necessary to place more than one safety padlock on the source of power control that will not accommodate more than one lock, the accessory device (scissors) must be used.
>
> (7) As *each* employee completes his particular assignment, or at the end of his work shift, he must remove his safety padlock. If removal of the lock will create a hazard to another employee or possible damage to the equipment if turned on, the lock of the employee assigned to work on the job the following or oncoming shift should replace the lock of the employee leaving the job.
>
> If the oncoming employee is not available to assume "lock-out" responsibility for the machinery or equipment, the lock being removed must be replaced with a "danger tag" describing the status of the repair job, the work that remains to be done, the date, and the name and clock number of the employee leaving the "tag" so that additional information can be obtained if necessary. Upon the arrival of the oncoming employee, this "danger tag" should be reviewed immediately, then removed and replaced with the employee's own lock.
>
> If an employee leaves the plant without removing his safety padlock from the machinery or equipment, the employee's foreman or next higher authority must be notified. The foreman or next higher authority, before making the necessary arrangements with the Tool Control Department to obtain a key to remove the safety padlock, must exhaust all available means and sources of information to verify that the employee leaving the safety padlock has actually left the plant. (These efforts may range from utilizing the Manpower Management System to determine if the employee has clocked out to actually

> telephoning the employee's home. If telephoning becomes necessary, the purpose and importance of the call must be made immediately known to the party answering the telephone). Having verified that the employee has left the plant, a key to remove the safety padlock may be obtained from the Tool Control Department with the signed approval of the foreman or next higher authority *and* the Health & Safety Representative, or in his absence a Plant Security Officer, (Form F64D). Once removed, the oncoming employee must replace it with his *own* lock and determine the status of the machinery or equipment before proceeding with necessary repair work.

GM's written procedural steps meet the requirements set out in § 1910.147(c)(4)(ii)(C). Item 4 of Citation No.1 of Docket No. 91-3117 will be vacated.

Docket No. 91-3116

Facts

On September 9 and 10, 1991, OSHA Compliance Officer Steven Medlock conducted an inspection at GM's Ohio Delco Products plant in Vandalia, Ohio (Tr. 252). The inspection was conducted in response to a complaint filed by Thomas Ashburn, the health and safety representative for Local 87 of the United Rubber, Cork, Linoleum & Plastic Workers of America (Exh. C-6; Tr. 385, 390). Ashburn filed his complaint following an incident in which an employee, Kaye Lowe, was injured while working on a piece of equipment known as the A-7 module.

The A-7 module is one of several modules in that area of the plant where ball joints are transferred from one location to another by robots (Tr. 255). The robots are located in the modules, which can be entered by gates which are interlocked (Tr. 437, 439). In addition to a robot, there are two tables, a dial table and a dust seal table, which are partially enclosed by the fencing which surrounds the module (Tr. 425-431). Employees work at stations on the perimeter of the tables on the side of each table which extends outside of the enclosure (Exh. R-2 of No. 91-3116). Four employees, two at each table, operate the equipment (Tr. 329). The robot picks up and transfers parts between the two tables (Tr. 348-349). As ball joints are transferred from one location to another, different operations are performed on the ball joints (Tr. 255). One of the operations performed on

them involves inserting grease into the ball joints. This operation is performed inside of the robot module.

GM stipulated that it "knew that once or more times a shift, an operator or maintenance employee could hit the emergency stop and go through the gate of the interlock barrier guard surrounding the A-7 or A-9 robot modules to perform housekeeping or service and maintenance activities, without locking out the robot or the dial table or the dust seal table" (Tr. 405-406). According to the Secretary's theory of the case, on the day that Lowe was injured, she entered the robot module by opening the gate to release a ball joint that had become stuck at the point where the greasing is performed. As Lowe attempted to release the ball joint, the grease unit on the dial table cycled (Tr. 456). Lowe was struck on the back of her forearm with grease. The grease penetrated Lowe's skin, and she had to be taken to the hospital to have the grease removed (Tr. 397). GM disputes the Secretary's claim that Lowe entered the module by opening the module's gate. GM claims that Lowe crawled through the gate, thus failing to activate the interlock by opening the gate. GM claims that it could not duplicate the accident while the module's gate was not open (Tr. 456-457).

During his inspection, Medlock observed an employee enter the robot area and stand within the swing radius of the robot's arm. The employee was removing a cart or picking up some loose pieces from the floor. The employee did not lock out the equipment before entering the gate (Tr. 273).

Item 1 of Citation No. 1

Alleged Violation of § 1910.147(c)(4)(ii

The Secretary alleged that GM committed a serious violation of § 1910.147(c)(4)(ii) with respect to the modules for failure to clearly and specifically outline the scope, purpose, authorization, rules and techniques to be used, and the means to enforce compliance in its energy control procedures. The Secretary argues that GM's employees were exposed to the unexpected release of energy while working on the modules.

Parry, GM's expert, testified as to the sequence of events necessary to restart the equipment in the module once the electrically interlocked gate had been opened (Exhs. R-2, R-3, R-4 of No. 91-3116; Tr. 424-433):

(1) Close and latch the gate;

(2) Push the master start button on one of the two control panels on the right-hand control station panel;

(3) Push the "power on" button with a light indicating that has occurred;

(4) At a separate control location, the operator would push a "start Hydraulic" button;

(5) Once that lights up, the operator pushes the "swage motor" on button;

(6) Once that lights up, the operator pushes the three "index motor" on buttons;

(7) Then the "cycle start" button is pushed, which starts the "dial table" but does not result in a fully operational system;

(8) At a different control panel for the "dust seal table," the operator pushes "power on";

(9) After that lights up, the operator switches from manual to automatic mode;

(10) Then the "cycle start" button is pushed;

(11) From a third operations panel controlling the "teach pendant," the operator pushes a start button; and

(12) Simultaneously, the operator must intentionally push the arrow button down (Tr. 424-433).

The operators at the control panels are only 3 to 4 feet away from any employee who might be performing work within the controlled area, in plain view of the operators (Tr. 453).

As in the previous case, No. 91-3117, Parry's testimony is given greater weight than that of the compliance officer. The Secretary contends that Lowe was injured even though she had opened the module's gate. GM contends that Lowe's accident could not have happened unless the gate was closed. Based upon the record, it is impossible to determine which version of Lowe's accident is true. It is the Secretary, however, who has the burden of proof. Parry's detailed analysis of the steps necessary to cause the robot to cycle raises

a sufficient doubt as to the Secretary's proof. The Secretary has failed to establish by a preponderance of the evidence that employees working on the module were exposed to the *unexpected* release of stored energy. The citation for item 1 of Citation No. 1 of No. 91-3116 will be vacated.

Item 1 of Citation No. 2

Alleged Violation of § 1910.147(c)(4)(i)

The Secretary alleged that GM committed a repeat violation of § 1910.147(c)(4)(i) for failure to develop, document and utilize energy control procedures to protect employees. The citation alleges that GM violated this provision in that:

(1) Operators performing work in the robot envelope and/or on equipment capable of being locked out did not utilize lockout. In addition, work in the envelope or on equipment such as GMFA1 robot modules A4, A7, A8, A9, and A14 had been performed utilizing emergency stops and other control circuit devices as the deenergizing method, rather than "line voltage" type disconnects.

(2) Maintenance employees performing work on equipment capable of being locked out did not always utilize lockout. In addition, work on equipment such as GMFA1 robot modules A4, A7, A8, A9, and A14 had been performed utilizing emergency stops and other control circuit devices as the deenergizing method, rather than "line voltage" type disconnects.

As noted in the previous section, the Secretary has failed to establish that a hazard of an *unexpected* release of stored energy exists in the instant case. This item will be vacated.

Docket No. 91-2973

Facts

OSHA compliance officer Richard Liston also inspected GM's Vandalia, Ohio, plant in response to another complaint filed by Thomas Ashburn (Tr. 529). Ashburn filed the complaint because he believed that GM did not enforce the use of lockout devices on its Lamb C and J car lines (Tr. 510).

The Lamb C car line produces a ball joint socket (Tr. 511). Pallets move around a transfer machining line where multiple functions are performed on the part (Tr. 581). There are cutting tools and drills that perform operations on the ball joints as they travel throughout the line (Tr. 515). As the ball joints move around the line, they are machined to certain specifications (Tr. 511).

Two employees who work on the line are responsible for loading and rotating the sockets as they move around the line (Tr. 513-514). These employees work inside the line. Two other employees work on the outside of the line and are responsible for gauging the parts (Tr. 557-558). These employees are also charged with knocking down chips and making tool changes. "Chip knock down" involves cleaning out the chips which are produced from the machining of the sockets (Tr. 590). Chips are knocked down at regular intervals and at the end of each shift (Tr. 531-532). In addition to clearing the chips as they pile up, the employees must make tool changes which involve removing and replacing the tools on the machine. The tool changes require the operator to turn a set screw with one-third of a turn, knock out the small triangular carbide insert, and then replace the insert (Tr. 614-615). Tool changes are customarily made at the beginning of each shift (Tr. 531).

Ashburn testified that he frequently observed employees knocking down chips and changing tooling without first affixing a lockout device to the equipment (Tr. 533). Richard Evans, a Lamb line operator, stated that he regularly knocked down chips and changed tools without locking out the equipment first (Tr. 545).

Item 1 of Citation No. 1

Alleged Violation of § 19010.147(d)(4)(i)

The Secretary alleged that GM violated § 1910.147(d)(4)(i), which provides:

> Lockout or tagout devices shall be affixed to each energy isolating device by authorized employees.

The Secretary contends that GM violated the cited standard because, by not requiring its employees to lock out when knocking down chips or making tool changes, it exposed the

employees to the hazard of an unexpected release of energy. As in the previous items involving the lockout standard, GM contends that its employees were not exposed to a hazard and, thus, the lockout standard is not applicable to the cited circumstances.

GM detailed the procedure that its employees go through when knocking down chips and making tool changes.

Prior to performing the chip knockdown or tool change, the operator performing these functions places the South "LAMB C" Car Line Load Station Push Button Panel (Exh. R-1 of No. 91-2973) to single cycle (Tr. 558-559). The operator proceeds to the Main Push Button Console (Exh. R-2 of No. 91-2973), which is located in the center of the equipment, and turns the coolant off. This shuts down the entire transfer line. The operator then turns the particular "head," requiring a tool change or chip knockdown, to manual. *(Id.)* Then the operator opens an electrically interlocked gate (Tr. 560). Opening up the interlock gate also automatically shuts the coolant off, even if the "coolant off" button had not been switched, in accordance with standard operating procedure (Tr. 562). The operator would be aware of an operational malfunction if the gate were opened and the coolant did not stop. In normal production operations, the "dog" prevents the machine head from fully retracting. Thus, the operator next moves or "flips" the "dog" so that he can get the machine head to the fully retracted position where the tools can be reached. The operator then closes the gate, restoring power to the "head," and manually returns the head to a process position. Once the head is back in place, the electrically interlocked gate is reopened to perform the tool change or chip knockdown. A 10-inch wrench was used to actually perform the chip knockdown.

If someone attempted to restart the equipment at any time during this process, nothing would occur except that a series of warning bells would sound (Tr. 563, 567, 587). As an additional safeguard, at all times there are two emergency stop cords which run the length of the machine and are within an arm's length of the operator performing the chip knockdown or cleaning operation (Tr. 568). When either of these cords are pulled, everything on the machine is shut off.

Parry testified at length about the restart sequence that must occur once the equipment was shut down or an electrical interlock gate is open (Exh. R-3 of No. 91-2973;

Tr. 581-589). The restart sequence from a "power off" and "coolant off" position is as follows:

(1) Turn the main disconnect switch on south control panel "on," which places electrical power into the electrical panels;

(2) Press and hold the master start button on the interior control panel (this resulting in a four-second delay, during which time a bell rings which alerts anyone within the area that the master start button has been activated);

(3) Change the coolant selector from off to on;

(4) Ensure all interlock gates are closed;

(5) Ensure that all "heads" have been taken out of manual mode (failure to do so will result in a bell and button light on the control panel, but no activity can occur);

(6) Push hand or automatic mode on master control panel;

(7) Push the start button pertaining to the conveyor line and two transfer lines;

(8) Push a spindle start button, resulting in a four-second delay, during which time bell rings. (The above activates one spindle at a time, which requires a total of about 20 to 25 seconds.)

(9) Then the coolant actually begins to flow in an operational mode (still no conveyor line activity);

(10) The operator would then change the cycle button from single stroke to continuous; and

(11) Then the start cycle button is pushed, resulting in another four-second delay, during which time bells ring prior to pallet and conveyor line movement.

This sequence must be followed before there can be the possibility of any movement (Tr. 588). There is no way to "short cut" this startup or initiate movement without following the above sequence in order (Tr. 593). If an employee attempted to short cut this sequence, nothing would happen and the machine would remain "sitting there" (Tr. 589). With regard to a minor tool change or chip knockdown, the above procedure starts at step (3) and requires a total of eight separate and deliberate actions to initiate movement and fully reactivate the transfer line. This startup warning sequence takes a substantial period of time, during which bells are rung at three separate points during the process.

In the unrebutted expert opinion of Parry, the chip knockdown and minor tool changes do not require lockout because there was a long startup sequence with numerous and adequate warnings prior to the possibility of motion which could cause injury (Tr. 596-597). Thus, there could be no "unexpected energization or startup, or release of stored energy" on the equipment which could cause injury to an employee.

Once again, the testimony given by Parry is more persuasive than that adduced by the Secretary. The sequence detailed by Parry precludes an unexpected release of energy. The citation issued in Docket No. 91-2973 will be vacated.

FINDINGS OF FACT AND CONCLUSIONS OF LAW

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

ORDER

Based upon the foregoing decision, it is ORDERED that the items cited in the separate cases be disposed of as follows:

Docket No.	Citation No.	Item	Standard	Disposition	Penalty
91-3117	1	4	§ 1910.147(c)(4)(ii)	Vacated	-0-
	2	1	§ 1910.147(c)(4)(i)	Vacated	-0-
91-3116	1	1	§ 1910.147(c)(4)(ii)	Vacated	-0-
	2	1	§ 1910.147(c)(4)(i)	Vacated	-0-
91-2973	1	1	§ 1910.147(d)(4)(i)	Vacated	-0-

Based upon the stipulation of the parties, which is fully set forth on pages one and two of this decision, the items specified therein are affirmed, modified or vacated in accordance with the agreement of the parties.

EDWIN G. SALYERS
Judge

Date: April 22, 1993