



Compliance Officer William Wilkerson testified that he observed plumes of overspray during the painting of a machine in one of the bays and that electrical outlets were located on support columns approximately 9 ½ to 11 feet from the spraying operation. He tested the concentration of flammable components in the air by holding a combustible gas meter in the spray that was rebounding from the surface of the machine after it had traveled a total of 4 to 5 feet. The concentration of the mixture in the air measured 5 percent of the lower explosive limit (LEL),<sup>1</sup> which neither Wilkerson, nor any other witness, testified constituted a dangerous quantity. Wilkerson testified that he could not measure the spray any closer to the nozzle because it would have contaminated his meter. The LEL readings decreased as he moved further away from the machine, and were 1 to 2 percent of the LEL in the vicinity of the electrical outlets. Based on the compliance officer's conclusion that a reading of 5 percent of the LEL downstream meant that dangerous quantities of flammable vapors or mists must have been present somewhere in the direct path of the spray, OSHA issued a citation to Cincinnati alleging a violation of 29 C.F.R. § 1910.107(c)(6).<sup>2</sup> The citation alleged that nonconforming electrical outlets were located within 20 feet of a spraying area, which is defined by section 1910.107(a)(2) as “[a]ny area in which *dangerous quantities of*

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<sup>1</sup>The LEL is the minimum concentration of a mixture by volume in air necessary to achieve an explosion.

<sup>2</sup>The standard provides:

**§ 1910.107 Spray finishing using flammable and combustible materials.**

(c) *Electrical and other sources of ignition.*

....

(6) *Wiring type approved.*

....

Electrical wiring, motors, and other equipment outside of but within twenty (20) feet of any spraying area, and not separated therefrom by partitions, shall not produce sparks under normal operating conditions and shall otherwise conform to the provisions of subpart S of this part for Class I, Division 2 Hazardous Locations.

*flammable vapors or mists*, or combustible residues, dusts, or deposits are present due to the operation of spraying processes.”(emphasis added).

The compliance officer’s conclusion was supplemented by the testimony of Dr. David Loebach, a chemical engineer and director of OSHA’s Technical Center in Cincinnati, Ohio, who appeared as an expert witness on behalf of the Secretary. He had visited Cincinnati’s plant the week before the hearing to observe a machine being spray painted and had familiarized himself with the material safety data sheets for the materials used in the spraying process. Dr. Loebach testified that dangerous quantities of flammable mists or vapors must be present during the spraying process because the ingredients were flammable and a flammable concentration cannot become diluted without passing through its explosive range.<sup>3</sup> Dr. Loebach stated that whenever a flammable mixture is used during spray painting there will be quantities of flammable vapors or mists that exceed the LEL for that mixture at some point in the direct path of the spray. It is therefore consistent for a concentration to be present in dangerous quantities, yet measure only 5 percent of LEL, which Loebach agreed is not a dangerous quantity, when tested 4 to 5 feet downstream from the source of the spray. His calculations show that the flammable mixture used by Cincinnati reaches its LEL somewhere between 2 to 10 inches from the nozzle of the spray gun. Based on this testimony, it is the Secretary’s position that because the spraying operation at Cincinnati’s plant involved flammable solvents, there had to be dangerous quantities of flammable vapors or mists present, and thus the area was a “spraying area” within the meaning of the standard.

Cincinnati also presented witnesses on the issue of whether dangerous quantities of flammable vapors or mists were present. Mr. David Robinson, the vice-president of an environmental testing, consulting, and engineering firm and an expert industrial hygienist, accompanied the compliance officer during the inspection and took similar tests. Robinson collected approximately ten to fifteen readings from the spraying operation and the results

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<sup>3</sup>According to Dr. Loebach, the explosive range is a concentration above the LEL but below the upper explosive limit.

from his tests were very similar to those reported by Wilkerson, ranging from 0 to 5 percent of the LEL. Robinson testified that he was able to test the direct spray of the gun at approximately 1 to 2 feet from the nozzle, and that the highest reading was still only 5 percent of the LEL. Robinson testified that such readings are not indicative of dangerous quantities of flammable mists or vapors, and therefore, the cited standard was not applicable.

Larry Bumgardner, the manufacturing manager at Cincinnati, testified that Cincinnati uses very expensive spray guns that have a transfer rate of approximately 90 percent.<sup>4</sup> He stated that these spray guns produce much less overspray than the average spray gun which has a transfer rate of 50 percent. He also testified that the area in which the machines are painted is roped off and that barrel fans and ceiling and wall ventilation are in operation during all spraying processes. In addition, the painter testified that he was instructed to check the vicinity for open flames or ignition sources and to start the floor and ceiling fans before painting.

## II. DISCUSSION

In order for the cited standard to apply, the area in question must meet the definition of a spraying area, which is “any area in which dangerous quantities of flammable vapors or mists, or combustible residues, dusts, or deposits are present due to the operation of spraying processes.” The highest measurement recorded was only 5 percent of the LEL and both parties agree that 5 percent is not a dangerous concentration. Therefore, on their face, the test results fail to establish that dangerous quantities of flammable vapors or mists existed. Thus, in order to establish that the area in question was in fact a spraying area, the Secretary must rely on a scientific principle that, according to its expert witness, because the mixture was flammable, there “must have been 100 percent of the LEL at some point in the spray path.” This testimony is not directly rebutted. Both Commissioners Montoya and Guttman agree that there is arguably inferential rebuttal in Robinson’s testimony. The Secretary urges us to find that a spraying area existed somewhere close to the nozzle of the spray gun, where,

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<sup>4</sup>The transfer rate is the amount of the spray that lands on the intended surface.

according to the testimony of Dr. Loebach, dangerous quantities of flammable vapors must have existed. This is the first time that the Secretary has asked us to find that an area is a spraying area based on theoretical evidence that a flammable mixture will always pass through its LEL when sprayed. This is urged upon us in the face of physical evidence which, without the application of Loebach's theory, does not indicate dangerous quantities.

A review of the Secretary's enforcement history relating to the standards governing spraying areas reveals that she has always considered specific evidence necessary to establish that an area is a spraying area. For example, an OSHA memorandum dated March 20, 1979, entitled "Clarification of 29 C.F.R. 1910.107 in regard to when sampling for the LEL would be required," stated that "[i]n spraying areas, ventilation, quantity of flammable and/or combustibles being sprayed, absence of residues, dusts, or deposits, etc., make it difficult to determine if there are dangerous flammable vapors present. Therefore, sampling for the LEL would be necessary to establish that a hazard exists before citing 29 C.F.R. 1910.107, . . . ." In addition, compliance officer Wilkerson testified that interpretive letters from OSHA advised that LEL testing is necessary in order to prove that dangerous quantities of flammable vapors or mists exist and that prior to his inspection of Cincinnati, his area director had instructed him to conduct LEL testing to determine if dangerous quantities of flammable vapors or mists were present. These instructions, while not binding on the Secretary, show that OSHA has in the past interpreted the standard to require case specific evidence that a spraying area exists.<sup>5</sup>

For the reasons that follow, we find that the Secretary has failed to establish a violation of 29 C.F.R. § 1910.107(c)(6) based on the evidence presented in this case.

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<sup>5</sup>Likewise, Commission decisions have always required specific evidence that dangerous quantities of flammable vapors or mists were present to establish that an area was a spraying area, even though flammable materials were sprayed. *See Allis-Chalmers Corp.*, 10 BNA OSHC 1301, 1982 CCH OSHD ¶ 25,882 (No. 77-3285, 1982); *Air-Kare Corp.*, 10 BNA OSHC 1146, 1981 CCH OSHD ¶ 25,758 (No. 77-1133, 1981); and *Ed Jackman Pontiac-Olds, Inc.*, 8 BNA OSHC 1211, 1980 CCH OSHD ¶ 24,351 (No. 76-20, 1980).

MONTOYA, Commissioner:

The cited standard defines a spraying area as one in which “dangerous quantities of flammable vapors or mists . . . are present due to the operation of spraying processes.” The phrase “dangerous quantities” thus defines the scope of the standard: the Secretary must establish that such quantities of flammable vapors or mists existed in order for the standard to apply. In her attempt to do so, the Secretary presented the compliance officer’s monitoring results that fail to establish the presence of dangerous quantities of vapors or mists. The Secretary also produced an expert witness who testified that dangerous quantities exist in the spray path whenever flammable materials are sprayed. Though the scientific theory offered by this witness was not directly rebutted, its evidentiary value is nonetheless outweighed by the results of direct monitoring of the area done by both parties. By the Secretary’s own admission, this monitoring failed to show that flammable vapors or mists were present in dangerous quantities.

I must also reject this expert’s opinion, for it is inconsistent with the plain language of the standard. Since the standard recognizes that flammable vapors or mists may be present in *other than* dangerous quantities, some type of quantitative proof is necessary to establish that the standard applies. The acceptance of mere scientific theory as dispositive proof would essentially remove this requirement from the standard and thereby expand the scope of the standard to *all* spraying operations involving flammable components. *See General Motors Corp.*, 17 BNA OSHC 1217, 1219-20, 1993-95 CCH OSHD ¶ 30,793, p. 42,810 (No. 91-2973, 1995) (consolidated), *aff’d*, 89 F.3d 313 (6th Cir. 1996) (regulations are to be read so as to give effect to all their terms).

This is not a case in which the Commission is required to consider whether deference is owed the Secretary: the standard unambiguously requires the Secretary to prove that dangerous quantities of flammable vapors or mists exist in order to establish that the standard applies. *See Unarco Commercial Products*, 16 BNA OSHC 1499, 1502-3, 1993-95 CCH

OSHD ¶ 30,294, pp. 41,732-3 (No. 89-1555, 1993) (noting that the deference requirement enunciated by the Supreme Court in *Martin v. OSHRC (CF&I)*, 499 U.S. 144 (1991), does not apply when the meaning of a standard is unambiguous). *See also General Motors*, 17 BNA OSHC at 1218-9, 1993-95 CCH OSHD at pp. 42,808-9; *McNally Construction & Tunneling Co.*, 16 BNA OSHC 1879, 1880, 1994 CCH OSHD ¶ 30,506, p. 42,167 (No. 90-2337, 1994), *aff'd*, 70 F.3d 116 (6th Cir. 1995). Even if I had concluded that the definition of a spraying area was ambiguous, I would still have questioned whether deference is owed to the Secretary here, since the standard involved was adopted from another source under the provisions of section 6(a) of the Occupational Safety and Health Act.<sup>6</sup> As noted in my separate opinion in *Andrew Catapano Enterprises, Inc.*, 17 BNA OSHC 1776, 1792, 1996 CCH OSHD ¶ 31,180, pp. 43,616-17 (No. 90-0050, 1996) (consolidated), the Court in *CF&I* held that an agency's "delegated lawmaking powers" include the "power authoritatively to interpret its own regulations" because those regulations represent an exercise of its "unique expertise and policymaking prerogatives." *CF&I Steel*, 499 U.S. at 151. This reasoning certainly applies whenever a genuine ambiguity is found in a standard promulgated by the Secretary pursuant to the notice and comment rulemaking provisions of OSH Act section 6(b). However, the rationale for deference is not nearly so evident when, as here, the standard was simply adopted from another source. Had the *CF&I Steel* Court known that reviewing authorities might feel constrained by its decision to defer to the Secretary's interpretation of standards developed by organizations such as the National Fire Protection Association, perhaps the Court would have provided a broader disposition of these issues.

For the reasons set forth above, I affirm the judge's vacation of the citation on the grounds that the Secretary failed to establish that the cited standard was applicable to Cincinnati.

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<sup>6</sup>The definition of a spraying area found in 29 C.F.R. § 1910.107(a)(2) was derived from the National Fire Protection Association ("NFPA") Standard No. 33-1969, "Spray Finishing Using Flammable and Combustible Liquids," section 104.

GUTTMAN, Commissioner:

It appears clear, if not expressly stated, that the Secretary has changed her interpretation of the regulation and now it would be applicable to all spraying operations involving flammable materials. The Secretary has, in the past, construed the standard to require some measure of case specific evidence that dangerous quantities of flammable vapors or mists were present due to the operation of spraying processes. The essential characteristic of the standard has been made plain both in formal interpretive letters and in the enforcement practices which have borne fruit in cases before us. Commission case law, as previously noted, therefore has been reflective of the longstanding interpretation.

In this case, measurements by both the Secretary and the Respondent found the concentration of flammable material in the air to be below the level at which the standard is triggered. However, the Secretary provided an expert witness who, the Secretary argues in her brief, demonstrated that because the mixture was flammable “there must have been 100 percent of the LEL [Lower Explosive Limit] at some point in the spray path.” It does not appear that the Secretary recognizes any exception to this principle; i.e., any basis for assuming that what is argued here would also not be argued in any other case where a flammable material is sprayed. Thus, for us to find in the Secretary’s favor, we would have to essentially find that, in any case where flammable mixtures are used, physical evidence is not necessary because the standard will be triggered by the application of this theory. Thus, the Secretary is implicitly stating that a rule which has always been understood to provide for case-by-case evidence is in essence a *per se* rule.<sup>7</sup>

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<sup>7</sup>We owe the Secretary substantial deference in interpreting OSHA regulations. In *CF&I Steel* the Supreme Court made plain that the “power authoritatively to interpret” OSHA regulations lay with the Secretary. 499 U.S. at 151. “Congress,” the Court explained, “intended to delegate to the Commission the type of nonpolicymaking adjudicatory powers typically exercised by a *court* in the agency review context.” *Id.* at 154. In the exercise of “adjudicatory powers,” however, the Commission is authorized to review the Secretary’s interpretation for consistency with the regulatory language and essential reasonableness.

The abrupt change implicit in the Secretary's argument raises two kinds of questions. First, is the Secretary's theory correct?<sup>8</sup> Second, assuming it is correct, 1) is the interpretation a permissible one; and 2) if so, has it been adequately justified here and has there been adequate notice to the Respondent?<sup>9</sup> For purpose of this analysis, I assume that the position taken by the Secretary's expert is correct.

While the Secretary is permitted to reinterpret a rule, a substantial new interpretation requires the departure from precedent to be "explicitly and rationally justified." *See, e.g., State of Michigan v. Thomas*, 805 F.2d 176, 184 (6th Cir. 1986). The inquiry, as precedent provides, is thus not ended by a finding that the Secretary's proposed interpretation is not plainly at odds with the language of the rule.<sup>10</sup> As the District of Columbia Circuit noted in *Greater Boston Television Corp. v. F.C.C.*, 444 F.2d 841, 852 (D.C. Cir. 1970), *cert. denied*, 403 U.S. 923 (1971), "[a]n agency's view . . . may change, either with or without changed

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<sup>8</sup>I note that the testimony is subject to the rebuttal of Cincinnati's safety consultant Robinson who tested the flammable components in the air 1-2 feet from the nozzle and found only 5 percent of the LEL.

<sup>9</sup>A new interpretation may be justified for prospective application, but its application to the Respondent at hand is a separate question. An employer is entitled to fair warning of conduct which an occupational safety and health standard prohibits or requires. In this case, it does not appear as if Cincinnati undertook any LEL measurements before the OSHA inspection; however, had it done so, the results would have indicated that it was in compliance with the standard. I note that the standard does not require such testing, and that the evidence shows that Cincinnati was concerned with the safety of spraying and took precautionary measures.

<sup>10</sup>As I understand Commissioner Montoya, she views the new interpretation as impermissible because the language of the standard is unambiguous, and precludes the interpretation. For the reasons discussed here, I view the standard to be clear in the context of its long interpretation and enforcement by the Secretary. However, if the present interpretation had been forwarded on a more timely basis, (e.g., coincident with the initial interpretive letter), or were the result of reasonably explicable changed circumstances, (e.g., new scientific understanding or measurement techniques providing a refined meaning of "dangerous quantities"), it is not clear that the Secretary's interpretation would be an impermissible contradiction of the standard's language. Thus, I do not join Commissioner Montoya in concluding that the language of the standard is unambiguous.

circumstances. But an agency changing its course must supply a reasoned analysis indicating that prior policies and practices are being deliberately changed, not casually ignored.” In this case, the Secretary essentially seeks to change a longstanding evidentiary rule into a per se rule, with no recognition, explanation or support for what amounts to a fundamentally new rule. There is nothing novel in the fact pattern in this case, nor does the Secretary suggest that the principle, which Dr. Loebach testified establishes “dangerous quantities,” was not known at the time the standard was promulgated or throughout the course of its implementation.

Finally, the Secretary refers us to the national standard from which the present standard was derived, and states that her interpretation is consistent with the language of the source standard. However, in context this evidence also indicates that the Secretary’s position is an unexplained departure from a longstanding rule.

It is appropriate to look to the national standard from which the OSHA standard was derived when interpreting a standard. *See Gold Kist, Inc.*,<sup>7</sup> BNA OSHC 1855, 1861, 1980 CCH OSHD ¶ 24,205 p. 29,444 (No. 76-2049, 1979) (holding that cited source should be considered in determining the interpretation and application of the standard just as the legislative history of the Act is considered in interpreting the Act’s provisions). In this case, the source standard is the National Fire Protection Association (“NFPA”) Standard No. 33-1969, Spray Finishing Using Flammable and Combustible Liquids, section 104,<sup>11</sup> which defines a spraying area as:

Any area in which dangerous quantities of flammable vapors or mists, or combustible residues, dusts or deposits are present due to the operation of spraying processes.

A spraying area includes:

- (a) The interior of spray booths except as specifically provided in Section 1104.
- (b) The interior of ducts exhausting from spraying processes.

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<sup>11</sup>29 C.F.R. § 1910.155 (1995) cites NFPA Standard 33-1969 as the source standard for § 1910.107.

(c) Any area in the direct path of spray or any area containing dangerous quantities of air-suspended powder or air-suspended combustible residue, dust, deposits, vapor or mists as a result of spraying operations.

The Secretary relies on the NFPA language “any area in the direct path of spray” to support her view that the current OSHA standard includes all such areas.

To further support her reliance on the NFPA standard, the Secretary cites *Fusibles Westinghouse de Puerto Rico, Inc. v. OSHRC*, 658 F.2d 21 (1st Cir. 1981), which relied on the NFPA source standard to find that a spray booth is a spraying area. The court reasoned that because a spray booth is presumed to have dangerous quantities of flammable vapors, mists or residues under the NFPA standard, it can be presumed to have dangerous quantities under the OSHA standard. The Secretary argues that the direct path of spray is also presumed to have dangerous quantities of flammable vapors or mists because it also is considered a spraying area under the NFPA standard.

However, the current OSHA standard does not include the explanatory language found in the NFPA standard, and, as we have discussed, in a quarter century of public administration of the standard the Secretary has consistently performed at odds with this proposition. As I understand it, in affirming that the NFPA’s language was relevant, the court was not, as we are here, confronted with longstanding and uniform administration of the rule to the contrary. OSHA had, prior to the *Fusibles* decision, presumed that a spray booth and a spraying room were spraying areas, but it had not done so with other spraying operations.<sup>12</sup> Here, by contrast, even after the *Fusibles* decision, the Secretary did not change her view of the standard to rely on the explanatory language of the NFPA standard to establish that any area in the direct path of the spray was a spraying area. OSHA continued to test the LEL levels in areas that were not spray booths or spray rooms to establish a hazard. Indeed, in this

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<sup>12</sup>The memorandum dated March 20, 1979, noted *supra* p. 6, clarifying when to test the LEL explained that testing was not necessary inside spray booths or spray rooms, but that it was necessary in other areas to establish that a hazard exists.

very case, had the Secretary's proposed new rule been known at the onset, the LEL measurements taken to support the citation would seemingly not have been necessary.

In sum, the Secretary's enforcement practices and interpretation of the standard in the past do not suggest, and are actually contrary to, the new rule implicitly urged upon us in this case. Assuming the correctness of the Secretary's technical position, the Secretary has the authority to put forth such a new rule. However, where the Secretary did not even present her new position to us as a basic change, much less explain her rationale, the Secretary has failed to satisfy the procedure required by law to implement such a new interpretation. Therefore, the record must be judged under precedent which requires case specific evidence of dangerous quantities of flammable vapors or mists. As we have discussed, under this standard, the Secretary's claim that dangerous quantities of flammable materials were present at Cincinnati's facility has not been established on this record.

### III. CONCLUSION

For the above reasons, we conclude that the decision of the Administrative Law Judge should be affirmed. Accordingly, the citation is vacated.

/s/ \_\_\_\_\_  
Velma Montoya  
Commissioner

/s/ \_\_\_\_\_  
Daneil Guttman  
Commissioner

Dated: April 25, 1997

WEISBERG, Chairman, dissenting:

I dissent from my colleagues' holding that the Secretary failed to establish that the area in which machinery was spray painted at Cincinnati's manufacturing facility was a spraying area within the meaning of the standard. In my view, the Secretary has proven that dangerous quantities of flammable vapors or mists were present during the spray painting operation at Cincinnati based on the testimony of both the compliance officer and the Secretary's expert witness that the combustible gas meter reading of 5 percent of the LEL indicated higher concentrations closer to the nozzle.

The majority appears concerned that the Secretary is advancing a new interpretation of the standard, one which is inconsistent with its past interpretation and enforcement. However, this is not a case which turns on the interpretation of a standard, but one which can be decided based on the evidence presented at the hearing. The Secretary, as the majority

notes, has the burden of proving in each case that dangerous quantities of flammable vapors or mists existed in order for the standards involving spraying areas to apply. The Secretary has met that burden in this case. It may well be that dangerous quantities of flammable vapors or mists will exist every time flammable materials are used in a spraying operation, but that does not mean that the Secretary has changed her interpretation of the standard; she has merely introduced supplemental testimony in this case to bolster the compliance officer's observations and test results.

The compliance officer testified that he observed plumes of overspray and that the test results of 5 percent of the LEL after the spray had traveled a total of 4 to 5 feet from the spray gun indicate that dangerous levels of flammable vapors or mists were present somewhere in the direct path of the spray.<sup>13</sup> The compliance officer's testimony was bolstered by Dr. David Loebach, an expert chemical engineer, who testified that a 5 percent reading downstream from the source of the spray is consistent with dangerous quantities closer to the nozzle. Dr. Loebach further testified that scientific principles dictate that a flammable mixture will necessarily pass through its LEL when sprayed. This testimony was un rebutted. In my view, the evidence presented by the Secretary is sufficient to find that a spraying area existed during the spraying operation at Cincinnati.

Since it was uncontested that there were noncomplying electrical outlets within 9½ to 11 feet of the spraying operation, well inside the 20 foot area set out in the standard, I would find that the Secretary has established a violation of 29 C.F.R. § 107(c)(6).

/s/ \_\_\_\_\_  
Stuart E. Weisberg  
Chairman

Dated: April 25, 1997

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<sup>13</sup>The majority opinion correctly states that the highest measurement recorded was only 5 percent of the LEL and both parties agree that 5 percent is not a dangerous concentration. However, it is important to note that both the compliance officer and Cincinnati's expert agree that 10 percent of the LEL would be a dangerous situation.