

**FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION**

OFFICE OF ADMINISTRATIVE LAW JUDGES  
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FALLS CHURCH, VIRGINIA 22041

April 15, 1998

INLAND STEEL MINING COMPANY,	:	CONTEST PROCEEDINGS
Contestant	:	
v.	:	Docket No. LAKE 97-86-RM
	:	Order No. 7809214; 4/28/97
SECRETARY OF LABOR,	:	
MINE SAFETY AND HEALTH	:	Docket No. LAKE 97-87-RM
ADMINISTRATION (MSHA),	:	Citation No. 7809215; 4/28/97
Respondent	:	
	:	Minorca Mine
	:	Mine ID No. 21-02449
	:	
	:	
SECRETARY OF LABOR,	:	CIVIL PENALTY PROCEEDING
MINE SAFETY AND HEALTH	:	
ADMINISTRATION (MSHA),	:	Docket No. LAKE 97-103-M
Petitioner	:	A. C. No. 21-02449-05609
v.	:	
	:	
	:	
INLAND STEEL MINING COMPANY,	:	
Respondent	:	Minorca Mine

**SUMMARY DECISION**

Before: Judge Hodgdon

These cases are before me on Notices of Contest and a Petition for Civil Penalty pursuant to section 105(d) of the Federal Mine Safety and Health Act of 1977, 30 U.S.C. § 815(d). The Contestant/Respondent, Inland Steel Mining Company, has filed a Motion for Summary Decision under Commission Rule 67, 29 C.F.R. § 2700.67. The Secretary opposes the motion. For the reasons set forth below, the motion is granted.

Citation No. 4557691, in Docket No. LAKE 97-103-M, alleges a violation of sections 56.5001(a) and 56.5005 of the regulations, 30 C.F.R. §§ 56.5001(a) and 56.5005, because:

A welder in the weld shop was exposed to 147.06 Fg/m<sup>3</sup> of copper welding fumes from 0700-0800 on August 21, 1996.<sup>11</sup> This exceeds the STEL (exposure limit) of 100 Fg/m<sup>3</sup> times the sampling factor (1.08) for welding fume sampling and elemental analysis. Analytical results were received and the citation issued on September 23, 1996. The employee was air arcing in a shovel bucket and visible fumes were produced during this process. The engineering controls in use were a 12" exhaust tube to a 23" wall-mounted exhaust fan, a 20" box fan placed near the work area, and both overhead doors in the shop were open. The welder was wearing a respirator, and a respirator program meeting the requirements of ANSI Z88.2-1969 was in place. The abatement date is for the implementation of further engineering and administrative controls.

Order No. 7809214, in Docket No. LAKE 97-86-RM, alleges that the company had “not made a good faith effort to establish measures for control of exposure to metal fumes produced during air-arcing operations” and, therefore, had not abated Citation No. 4557691. Citation No. 7809215, in Docket No. LAKE 97-87-RM, alleges that the Inland violated section 56.5002, 30 C.F.R. § 56.5002, by failing to take “health samples . . . of air arcing operations to monitor the welder’s exposure to harmful metal fumes since the citation was issued on August 21, 1996.”<sup>2</sup>

Section 56.5001(a) provides, in pertinent part, that,

the exposure to airborne contaminants shall not exceed, on the basis of a time weighted average, the threshold limit values adopted by the American Conference of Governmental Industrial Hygienists, as set forth and explained in the 1973 edition of the Conference’s publication, entitled “TLV’s Threshold Limit Values for Chemical Substances in Workroom Air Adopted by ACGIH for 1973,” pages 1 through 54, which are hereby incorporated by reference and made a part hereof. . . . Excursions above the listed thresholds shall not be of a greater magnitude than is characterized as permissible by the Conference.

Threshold limit values (TLVs) “refer to airborne concentrations of substances and represent

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<sup>1</sup> The symbol “Fg” means “microgram,” “[o]ne millionth of a gram.” U.S. Department of Interior, Bureau of Mines, *A Dictionary of Mining, Mineral, and Related Terms* 703 (1968). Thus, the allegation is that the welder was exposed to 147.06 micrograms of copper welding fumes per cubic meter of air.

<sup>2</sup> The Respondent has filed a Motion to Withdraw its notice of contest on this citation.

conditions under which it is believed that nearly all workers may be repeatedly exposed day after day without adverse effect.” *TLV’s Threshold Limit Values for Chemical Substances in Workroom Air Adopted by ACGIH for 1973* 1 (1973) (*1973 TLV’s*). TLV’s are the “time-weighted [average exposure] concentrations for a 7 or 8-hour workday and 40-hour workweek.” *Id.* Time-weighted averages (TWA) “permit excursions above the limit provided they are compensated by equivalent excursions below the limit during the workday.” *Id.* at 1-2.

It is apparent that Citation No. 4557691 refers to exceeding neither the TLV for copper fumes nor the permissible excursion level above the TLV. Instead it alleges that the short term exposure limit (STL) was exceeded. STL’s are not mentioned in the regulation, however, an STL for copper fumes is found at page S-29 of the Mine Safety and Health Administration’s (MSHA) *Metal and Nonmetal Health Inspection Procedures Handbook* (1990). The STL is accompanied by a footnote that states: “Short-term limit from Pennsylvania Rules.” *Id.*

It is Inland’s position that the Pennsylvania Rules (Pennsylvania STLs) were not adopted by the American Conference of Governmental Industrial Hygienists (ACGIH) for 1973, that they, therefore, are not incorporated by reference into section 56.5001(a), and that, accordingly, the citation does not set out a violation of the regulations. While the Pennsylvania Rules are mentioned in the *1973 TLV’s*, I conclude that they were not adopted by the ACGIH and are not part of section 56.5001(a) by incorporation or otherwise.

## **A. Regulatory History**

The limiting of exposure to airborne contaminants was first proposed by the Secretary of the Interior in 1969. In a January 1969 Notice of Proposed Rulemaking, the Secretary put forward section 55.5-1, 30 C.F.R. § 55.5-1, which stated: “Where airborne concentrations of dust, gas, mist and fumes are encountered which exceed threshold limit values adopted by the American Conference of Governmental Hygienists, and persons are exposed to such concentrations, control measures shall be adopted to maintain concentrations below such threshold limit values.” 34 Fed. Reg. 656, 658 (January 16, 1969). There is no discussion in the notice of incorporation by reference or exactly what threshold limit values are to be covered by the regulation. Furthermore, when the proposed rules became final, section 55.5-1 had been deleted and the rules stated that that section was “reserved.” 34 Fed. Reg. 12503, 12505 (July 31, 1969)

In 1970, a new section 55.5-1 was proposed. It provided that:

The exposure to airborne contaminants of a person working in a mine shall not exceed, on the basis of a time-weighted average, the threshold limit values adopted by the American Conference of Governmental Industrial Hygienists, as set forth and explained in the most recent edition of the Conference’s publication entitled “Threshold Limit Values of Airborne Contaminants.” Excursions above the listed threshold limit values shall not be of a greater

magnitude than is characterized as permissible by the Conference. This paragraph (a) does not apply to airborne contaminants given a “C” designation by the Conference--for example, nitrogen dioxide.

35 Fed. Reg. 10299, 10300 (June 24, 1970). The text is similar to the present regulation, except that it specifically states that some of the values are not included within it. There was no discussion in the notice of what specifically was included in the regulation. This became a mandatory standard, as proposed, in December 1970. 35 Fed. Reg. 18587, 18588 (December 8, 1970). Again, there was no discussion of the regulation.

In July 1974, a regulation identical to the current one became final. 39 Fed. Reg. 24136 (July 1, 1974). There was no discussion of the new regulation either when it was promulgated or when it was adopted. The rules were recodified in 1985 and section 55.5-1 became 56.5001(a). 50 Fed. Reg. 4048, 4062 (January 29, 1985). No changes were made in the rule and there was no discussion of the rule itself.

## **B. Discussion**

As can be seen, STLs have never been mentioned in the rule. Nor have they been included in any discussion concerning the proposal or adoption of the rule. On its face, the rule is clearly limited to threshold limit values *adopted* by the ACGIH in 1973 and excursions above the listed thresholds characterized as *permissible* by the ACGIH. Therefore, unless the STLs set out in the Pennsylvania STLs have been *adopted* by the ACGIH, they are not included in the rule, and exceeding them does not violate the rule. I find the evidence that they were not adopted to be overwhelming.

STLs are mentioned in two places in the *1973 TLVs*. The first appears in the Preface at pages 6-7 and is set out in full below:

*Short-Term Limits (STLs)*. Because many industrial exposures are not continuous, 8-hour daily exposures, but are short-term, or intermittent, to which the TLVs do not necessarily apply, STLs for 5, 15, or 30 minutes for 142 substances have been put into the regulations of the Pennsylvania Department of Health (Chapter 4, Art. 432, Revised Jan. 25, 1968). These STLs represent the maximal average atmospheric concentration of a contaminant to which a worker may be exposed for the stipulated time. The concentration represents an upper limit of exposure and assumes that there is sufficient recovery between exposures before another is initiated. The daily average exposure including that provided by the STL shall be such that the TLV shall not be exceeded.

Similar STLs for a more restricted number of substances have been recommended by the American National Standards Institute. This standard-setting body refers to these short-term limits as “peaks.”

The TLVs are set out following the Preface, under the heading "Adopted Values," which begins at page 10 and continues through page 35. There is no mention of STLs in this section.

A “Notice of Intended Changes (for 1973)” begins on page 36 and states: “These substances, with their corresponding values, comprise those for which either a limit has been proposed for the first time, or for which a change in the ‘Adopted’ listing has been proposed.” Interestingly, “copper fume” is included in this section proposing that value be changed to 0.2 mg/M<sup>3</sup>.<sup>3</sup>

Finally, Appendix D “Permissible Excursions for Time-Weighted Average (TWA) Limits” begins on page 51. The definitive language of the appendix, on page 51, is set out below:

The Excursion TLV Factor in the Table automatically defines the magnitude of the permissible excursion above the limit for those substances not given a “C” designation, i.e., the TWA limits. Examples in the Table show that nitrobenzene, the TLV for which is 1 ppm, should never be allowed to exceed 3 ppm. Similarly, carbon tetra-chloride, TLV 10 ppm, should never be allowed to exceed 20 ppm. By contrast, those substances with a “C” designation are not subject to the excursion factor and must be kept at or below the TLV ceiling.

These limiting excursions are to be considered to provide a “rule-of-thumb” guidance for listed substances generally, and may not provide the most appropriate excursion for a particular substance . . . .

Then, the appendix goes on to observe, on page 52: “For appropriate excursions for 142 substances consult Pa. Rules & Regs., Chap. 4, Art. 432, and ‘Acceptable Concentrations.’ ANSI.”

The Table, on page 52, sets out the excursion factors, which are multipliers based on various TLV ranges, to be used to determine permissible excursions for a substance.

There is no mention in the Preface that the STLs for 142 substances in the Pennsylvania

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<sup>3</sup> These values are in “milligrams,” not “micrograms.”

Rules are being adopted by the ACGIH. They are not listed in the “Adopted Values” section. While they are mentioned in Appendix D, it is apparent that this is for information purposes since the first sentence in the appendix clearly states that “[t]he Excursion TLV Factor in the *Table* automatically defines the magnitude of the permissible excursion above the limit . . . .” (emphasis added). Nowhere does it state that the Pennsylvania STLs define the magnitude of the permissible excursion.

The Secretary argues that because the regulation refers to “permissible excursions” and because Appendix D, which deals with “permissible excursions,” mentions the Pennsylvania STLs, then the Pennsylvania STLs must be included in the regulation. This argument is unpersuasive. The statement in the regulation is that “[e]xcursions above the listed thresholds shall not be of a greater magnitude than is characterized as permissible by the Conference.” The first sentence in Appendix D is explicit that the *Table* defines the magnitude of permissible excursions. The *Table* is the only method the Conference uses for characterizing permissible excursions. The language in the regulation clearly conforms to the first sentence in Appendix D. Since neither the ACGIH nor the regulation mention STLs, there is no basis for concluding that they were incorporated into the regulation.

The Secretary also argues that the ACGIH uses the terms “permissible” and “appropriate” interchangeably, and that, therefore, when Appendix D refers to “appropriate excursions for 142 substances” it is incorporating those STLs into the appendix. This argument is also flawed. In the first place, “permissible” and “appropriate” are not synonymous. “Permissible” means “that may be permitted.” Webster’s Third New International Dictionary 1683 (1986). “Appropriate” means “specially suitable.” *Id.* at 106. In the second place, it ignores the fact that the *Table* is the only method set out in the Appendix for determining a permissible excursion.<sup>4</sup>

The fact that nowhere in the *1973 TLVS* does the ACGIH state that it is adopting the Pennsylvania STLs, even though in all other instances it explicitly describes what it is adopting, that STLs are only mentioned in the Preface and in Appendix D, and in the appendix only after it unequivocally declares how permissible excursions are defined, to illustrate that what is *permissible* may not necessarily be *appropriate*, is persuasive that the STLs were not adopted by the ACGIH and, therefore, not part of section 56.5001(a). However, if that were not enough, the ACGIH has conclusively confirmed that it did not adopt the Pennsylvania STLs in the *1973 TLVs*.

The report of the 1973 ACGIH meeting states that “the subcommittee on Short-Term Limits was expanded . . . . They were charged with the responsibility to report progress on

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<sup>4</sup> The Secretary’s argument that if the terms *permissible* and *appropriate* are ambiguous, I must defer to her interpretation of them is misplaced. The terms are not ambiguous. Even if they were, it is not the Secretary’s regulation that is being interpreted, but an ACGIH document. Therefore, the Secretary has no greater expertise in interpreting the document than anyone else and there is no basis on which to defer to her.

reviewing the present 142 short-term limits with their documentation, State of Pennsylvania, for incorporation in the TLV Booklet.” *Transactions of the 35<sup>th</sup> Annual Meeting of the American Conference of Governmental Industrial Hygienists* 35 (1973). ACGIH’s *Documentation of the Threshold Limit Values and Biological Exposure Indices* 336 (6<sup>th</sup> Ed. 1991) discloses that the conference has never adopted an STL for copper fumes and that it did not adopt one for copper dusts and mists until 1976 (which it rescinded in 1986). The document also states that: “STELs are not recommended for the fume or the dusts and salts of copper until additional toxicological data and industrial hygiene experience become available to provide a better base for quantifying on a toxicological basis what the STEL should be.” *Id.* Finally, in the *Annals of the American Conference of Governmental Industrial Hygienists*, Vol. 9, *Threshold Limit Values--Discussion and Thirty-five Year Index with Recommendations* 421 (1984) it states: “The first STEL list was published in 1976.”

### C. Conclusion

Accordingly, I conclude that the ACGIH did not adopt the Pennsylvania STLs in 1973 and that, therefore, they could not have been incorporated in section 56.5001(a) of the regulations. Consequently, Citation No. 4557691 must be vacated for failure to state a violation of the Secretary’s regulations. Since Citation No. 4557691 fails to state an offense, Order No. 7809214, which was issued for failing to abate Citation No. 4557691, must also be vacated.<sup>5</sup>

### **ORDER**

The Respondent’s Motion for Summary Decision in Docket Nos. LAKE 97-86-RM and LAKE 97-103-M is **GRANTED**, Citation No. 4557691 and Order No. 7809214 in Dockets No. LAKE 97-86-RM and LAKE 97-103-M are **VACATED** and the cases **DISMISSED**. The Respondent’s Motion to Withdraw its notice of contest in Docket No. LAKE 97-87-RM is **GRANTED** and that case is **DISMISSED**.

T. Todd Hodgdon  
Administrative Law Judge

Distribution:

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<sup>5</sup> Order No. 7809214 also mentions that when readings were taken to determine if the company had reduced copper fumes to permissible levels it was determined that both copper and iron fumes were above exposure levels. While iron fumes were not cited in the original citation, to the extent that they are relevant to whether the company had abated the original citation, MSHA’s reliance on the Pennsylvania STLs for iron suffers from the same infirmity as copper.

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