

SESSION IV-

PANEL DISCUSSION ON TLV's FOR LEAD

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The interpretation of what constitutes a proper TLV with regard to a given toxic agent is generally a lively subject for discussion, as witnessed by the recent proposed and adopted standard on vinyl chloride and the subsequent litigation concerning the standard. I am confident that the discussions this afternoon will be just as stimulating.

The panelists will detail this subject for you, but before calling upon them I would like to refer briefly to some experiences of the Occupational Safety and Health Review Commission. The Commission is an independent agency created under the Occupational Safety and Health Act of 1970 to adjudicate disputes arising from enforcement actions between employers, employees, and the Secretary of Labor.

In the short period of time that I have been associated with the Society for Occupational and Environmental Health, sponsor of this conference, I have been deeply impressed by the dedication of the officers and membership in their pursuit of societal goals. I am fully confident that all present will play some part in helping to achieve the purpose for which the Occupational Safety and Health Act was enacted; that is, to assure, so far as possible, that every working man or woman in this country has a safe and healthful work environment.

Each year there are some hundreds of thousands of new cases of occupational illnesses in the United States. In order to reduce this tragically high figure, the Secretary of Labor has promulgated standards which set exposure limits for hundreds of toxic agents, and outlined the necessary preventive and corrective measures required for workplace areas in the presence of toxic agents and other health hazards, such as noise. In fiscal year 1974, for example, the Labor Department issued citations for some 11,000 health violations; however, this figure represents only about 4 percent of the total number of violations cited. While this number may appear to be relatively low, one thing is certain; the number of complaints, inspections, citations, and contested cases involving health hazards will dramatically increase in the near future. The Commission has only started to scratch the surface in this area.

There have been relatively few cases before the Commission dealing with inorganic lead; nevertheless, the cases which have already been decided have laid the ground work for future adjudication of health hazard cases.

In July, 1971, a citation was issued to an Omaha lead smelting plant in which there were airborne concentrations of lead significantly exceeding

the standards for safe levels. Because the standard dealing with airborne lead did not become effective until August, 1971, the company was cited under the general duty clause, which requires that each employer shall furnish his employees a place of employment which is free from recognized hazards that are causing, or likely to cause, death or serious physical harm. It was the Secretary of Labor's position that any exposure in excess of .2 mg/cu m of airborne lead constituted a recognized hazard in the industry. I might add that the NIOSH Criteria Document advocates a .15 mg/cu m standard.

Seven representative workers were equipped with air sampling devices to collect data at this Nebraska smelting plant. The results ranged from a low of .10 mg/cu m to a high of 2.85 mg/cu m. In all, five of the seven employees worked in areas having readings in excess of .2 mg/cu m of air.

After the hearing, the Review Commission found the company in violation and the judge noted that the employer failed to require the use of respirators or to utilize adequate engineering controls. In addition to an assessed penalty, the company was ordered to provide the necessary engineering controls within 6 months of the issuance of a final order of the Commission. In review, a majority of the Commission members affirmed the disposition of the case.

The order of the Review Commission was upheld by the United States Circuit Court of Appeals for the Eighth Circuit. Of particular importance was the Court's approval of air sampling as a method of detecting violations. While stating that biological monitoring, including urine and blood sampling, is also accurate, the court stressed that air sampling is the most efficient and practical way for the Secretary of Labor and employers to determine airborne lead levels for the purposes of enforcement actions under the Occupational Safety and Health Act. In this regard I would point out that the Commission has long approved this sampling technique for other health hazards, particularly in noise cases.

Some of you might ask why a decision involving exposure to lead under the general duty clause is important when the Secretary of Labor has a standard dealing with lead and improvements in that standard are being planned. It is important because most, if not all, of the significant health standards adopted by the Secretary of Labor following rule making proceedings, have been legally contested. Some were stayed and not in effect during the litigation and others have been declared invalid. In the event of a Stay, with a court decision holding that a new lead standard is invalid, the general duty clause would come into play. In applying this clause, what is recognized as a hazard in a particular industry is most important.

All of you and those on the panel with me will have much to say about what is recognized as hazardous. This is an important responsibility

and I look forward to hearing the comments as this conference progresses.

Before closing I would like to mention one of the problems presented in all of our cases. Section 17-K of the Act states in part that "a serious violation shall be deemed to exist in a place of employment if there is a substantial probability that death or serious physical harm may result from a condition which exists..." The problem, in cases involving exposure to health hazards, such as lead, arsenic, etc., is to determine at what point in time and at what level of exposure within the purview of the standard that a violation becomes serious enough to cause physical harm or death.

We at the Commission are well prepared for the expected influx of health cases. The hazards of exposure to excess levels of lead, arsenic, mercury, beryllium, silica, asbestos, and other substances, are well documented and tragic. It is time to eliminate these hazards.

With this I would like to begin the panel discussions. I also would ask the audience to withhold questions until all of the panelists have had an opportunity to make their presentations.

I would like to turn the microphone over to Dr. Hector Blejer, who is the Deputy Director of the Division of Field Studies and Clinical Investigations at NIOSH, for his comments on Inorganic Lead; Biological Indices of Absorption-Biological Threshold Limit Values. Dr. Blejer.



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HEALTH EFFECTS OF  
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**LEAD and ARSENIC**  
**EXPOSURE**      A SYMPOSIUM

# **HEALTH EFFECTS OF OCCUPATIONAL LEAD AND ARSENIC EXPOSURE**

## **A SYMPOSIUM**

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