AOMA Report

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OSHA ISSUES APPENDICES TO LEAD STANDARD; OUTLINES MEDICAL SURVEILLANCE

Three appendices elaborating on the Occupational Safety and Health Administration's lead standard, and giving medical surveillance guidelines, were published in the Federal Register on October 23 (pp. 60980-60995). According to OSHA, the appendices provide additional information and are not intended to create any obligations not otherwise imposed by the standard. It should be noted, however, that employers are provided 60 days from publication before they must comply with requirements based on the appendices.

The main provisions of the lead standard, which ultimately lowers permissible worker exposure to 50 $\mu g/m^3$ of air averaged over an eight-hour workday, have been in effect since March 1, but those governing engineering and work practice controls, and some other minor provisions, have been stayed pending judicial review.

Appendix A identifies the various metal compounds covered and their uses and lists permissible worker exposure limits, ways in which the metal enters the body, and outlines the damage caused to reproductive, nervous and other body systems by overexposure. Appendix B is a summary for employees which spells out key provisions of the standard such as monitoring requirements, medical surveillance, medical removal protection, information and training, and employers' responsibilities, as well as exposure limits.

Appendix C, details a program of biological monitoring and medical surveillance to be made available to all employees exposed to lead above the action level of 30 $\mu g/m^3$ TWA (time-weighted average) for more than 30 days each year. This program consists of periodic blood sampling and medical evaluation to be performed on a schedule which is defined by previous laboratory results, worker complaints or concerns, and the clinical assessment of the examining physician.

Medical guidelines for the temporary removal of an exposed employee and his or her subsequent return to work in an exposure area are an important part of Appendix C. Under the standard's ultimate worker removal criteria, a worker is to be removed from any work having any eight hour TWA exposure to lead of 30 $\mu g/m^3$ or more whenever either of the following circumstances apply: (1) a blood lead level of 60 $\mu g/100$ g or greater is obtained and confirmed by a second follow-up blood lead level performed within two weeks after the employer receives the results of the first blood sampling test, or (2) the average of the previous three blood lead determinations or the average of all blood lead determinations conducted during the previous six months, whichever encompasses the longest time period, equals or exceeds 50 $\mu g/100$ g. An exception applies when an employee's last blood sample indicates a blood lead level at or below 40 $\mu g/100$ g.

During the first two years that the ultimate removal criteria are being phased in, the return criteria have been set to assure that a worker's blood lead level has substantially declined during the period of removal. From March 1, 1979, to March 1, 1980, the blood lead level requiring employee medical

Workers so removed are to be returned to work when their blood lead levels are at or below 60 µg/100 g of whole blood. From March 1, 1980 to March 1, 1981, the blood lead level requiring medical removal is 70 µg/100 g. During this period workers need only be removed from jobs having a daily 8 hour TWA exposure to lead at or above 50 $\mu g/m^3$ and are to be returned to work when a level of 50 µg/100 g is achieved. Beginning March 1, 1981, return depends on a worker's blood lead level declining to 40 µg/100 g of whole blood.

Recommendations of the examining physician may be more stringent than the specific provisions of the standard. The physician is given broad flexibility to tailor special protective procedures to the needs of individual employees. The physical examination should emphasize the neurological, gastrointestinal, and cardiovascular systems. The following laboratory studies are required: (1) blood lead level; (2) hemoglobin and hematocrit determinations, red cell indices, and examination of the peripheral blood smear to evaluate red blood cell morphology; (3) blood urea nitrogen; (4) serum creatinine; and (5) routine urinalysis with microscopic examination. The zinc protoporphyrin test, which measures an adverse metabolic effect of lead and as such is a better indicator of lead toxicity than the level of blood lead itself, is not required due to pending litigation. Because of its relatively recent development and the lack of extensive data concerning its interpretation, the ZPP currently remains an ancillary test. Prophylactic chelation is prohibited and diagnostic and therapeutic chelation are permitted only under the supervision of a licensed physician with appropriate medical monitoring in an acceptable clinical setting.

Copies of the standard and the appendices are available without charge by writing or calling the OSHA Office of Publications, Room S-1212, U.S. Dept. of Labor, Washington, DC 20210; telephone: (202) 523-6138.

OSHA CLARIFIES EXTENT OF MEDICAL REMOVAL PROTECTION UNDER LEAD STANDARD

The medical removal protection provisions of the Occupational Safety and Health Administration's standard for worker exposure to lead applies to those employees who, at the time the lead standard became effective (March 1, 1979), were temporarily removed from their jobs due to high blood lead levels. This clarification by Eula Bingham, Assistant Secretary of Labor and Director of OSHA, means that those employees are entitled to medical protection removal benefits (no loss in pay, seniority, or other employment rights) for up to 18 months. Dr. Bingham added that this would be the case whether the employer's removal criteria were equal to or more stringent than those of the OSHA standard, and regardless of what benefits or insurance the employee received prior to March 1.

NEW REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES NOW AVAILABLE

Distribution of the first copies of the 1978 Registry of Toxic Effects of Chemical Substances (RTECS) was made by the National Institute for Occupational Safety and Health late in October. This publication, which supersedes all previous printed editions of the Registry, is a compendium of toxicity data abstracted from the scientific literature. The 1978 edition contains 124,247 name entries -- 33,929 of these are substances listed by their prime names and accompanied by associated toxicity data; the other 90,318 name entries are synonyms. This represents an increase of approximately 7,500 more substances than were listed in the 1977 Registry. The 1978 edition also includes, for the first time, primary skin and eye irritation data.

In the 1978 Registry, all substances are listed in alphabetical order. Each prime name is identified by a unique RTECS accession number (two letters and seven numerals) that varies directly with the alphabetic sequence of the name, e.g., toluene has a higher number than benzene. Each synonym is cross-referenced to its appropriate prime name accession number. For each such number the following data are provided when available: the substance prime name and synonyms; CAS number; molecu-

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