



EUROBAT Communicates Blood Lead Reduction Guidelines

The following article was contributed by Karsten Kurz, Director of Environment Health and Safety Germany and European Regulatory Affairs for EXIDE Technologies. Mr. Kurz also serves as a member of the Committee for Environmental Affairs of EUROBAT.

European Regulations

The existing European Union (EU) Chemical Agents Directive (98/24/EEC) defines the minimum protection standard concerning employee blood lead levels for EU-Europe companies, with a maximum permitted exposure of 70 µg/dl for both female and male employees. Individual EU member states actually have blood lead limits that vary from 70 µg/dl (Germany) to 60 µg/dl (UK) down to 50 µg/dl (Sweden). These examples generally refer to male employees. In most European countries, the exposure for female employees is restricted to 30 µg/dl if they are of an age of reproductive capacity. Exposure limits in Europe in general are determined by the results of one single test. This is different than in the U.S., where exposure/removal limits are determined by the results of two tests or an average of samples collected over a defined period of time.

In September 2000, the EU Scientific Committee for Occupational Exposure Limits (SCOEL) published its initial recommendations to lower the applicable exposure limits throughout Europe to 30 µg/dl for female and male exposed workers. SCOEL cited the neurobehavioral effects of lead as the relevant health effect on which this recommendation was based.

The European lead-producing and lead-consuming industries had been asked for comments on the scientific basis of the SCOEL recommendations and on other health effects of lead. These comments have been submitted to the Directorate of Employment of the European Commission. In

addition, before taking final action, officials must also consider the socio-economic impact of lowering the legal blood lead level in Europe. The industry is currently preparing comments on this subject as well. It is expected that the process to change the relevant Chemical Agent Directive on employee blood lead levels will continue at least until the middle of 2002.

EUROBAT Response

EUROBAT is actively involved in the above-mentioned industry efforts to prepare and submit comments on lowering blood lead limits. However, EUROBAT and the European lead-producing and lead-consuming industry in general, are doing much more than this by taking the proactive initiative to voluntarily start activities to reduce their employees' exposure without waiting for a decision from the legislative bodies. The industry has developed "Guidelines to Lower Blood Lead," also known as the EUROBAT Blood Lead Reduction Program. Less than six weeks after the initial SCOEL recommendation issued on

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NTP Officially Announces Intent to Review Lead as Possible Carcinogen

The National Toxicology Program (NTP) has announced its intent to review 16 additional substances for possible listing in the Report on Carcinogens (ROC) Eleventh Edition that is scheduled for publication in 2004. Included on the list is the occupational exposure to lead or lead compounds.

According to the NTP, the major occupational exposures to lead are in the lead smelting and refining industries, battery manufacturing plants, steel welding or cutting operations, construction and firing ranges.

The scientific review of the nominated substances involves three separate scientific reviews: two U.S. federal review groups and one non-governmental peer review body that is a subcommittee of the NTP Board of Scientific Counselors. Throughout the review process,

multiple opportunities are provided for public input, including comment at the public meeting of the NTP Board Subcommittee.

At this stage of the process, the NTP is seeking public input of information on carcinogenicity in relation to occupational exposure to lead and its compounds, as well as current production data, use patterns or human exposure information. According to NTP spokesman Dr. C.W. Jameson, this information will then be included in a background document for lead and its compounds to be used in the review process. Information input is requested by September 24, 2001.

A detailed description of the review procedures, including the steps in the formal review process, is available at ntp-server.niehs.nih.gov.

Group to Petition OSHA for Review of Lead Standard

The Council of State and Territorial Epidemiologists (CSTE) announced their executive committee had passed a resolution aimed at petitioning the Federal Occupational Safety and Health Administration (OSHA) to update its standards for the protection of workers exposed to lead in both the general and construction industry sectors. In addition to submitting a petition to OSHA to update the standard, CSTE also intends to send a letter to the Director of the Centers for Disease Control and Prevention (CDC) requesting that the National Institute for Safety and Health also update the Criteria Document for Occupational Exposure to Inorganic Lead.

According to Donna Knutson, Executive Director of CSTE, this action is being taken because the current OSHA standards are based on the level of scientific knowledge about lead toxicity that was available in the late 1970s, and significant new toxicity information is now available. Other reasons cited for taking this action include their position that the technology to control airborne lead exposures has improved over the past twenty years; that the OSHA standards are not consistent with CDC's national public health goal of maintaining the blood lead levels of all lead exposed

workers below 25 µg/dl; worker protection based only on air lead levels are inadequate; and that the construction standard provides a higher level of protection than is provided under the general industry standard.

A time frame for submitting the petition was not provided in the letter. However, if you would like additional information concerning the petition, it is available on the CSTE website at www.cste.org.

New OSHA Administrator Announced

By a unanimous decision, the U.S. Senate confirmed the nomination of John Henshaw to be the next administrator of the Occupational Safety and Health Administration. Mr. Henshaw was a former corporate safety and health official with the St. Louis-based Asataris and the Monsanto Company. During the Senate hearings, Mr. Henshaw stated that he supported a balanced OSHA that provides enforcement where needed, but he intended to also focus on compliance assistance as well as education. The official title for Mr. Henshaw will be the Assistant Secretary of Labor for Occupational Safety and Health.

Soybean Hulls Eyed for Waste Water Filtering

Scientists from the U.S. Agricultural Research Service (ARS) have found that soybean hulls, the seed's fiber coat, show promise as a new filter for removing metals from industrial wastewater. At the American Chemical Society's 221st national meeting, ARS chemist Lynda Wartelle and colleagues reported that soybean hulls are a low-value, high-volume agricultural waste that can be rendered into metal adsorbents comparable to ion exchange resins. The key lies in a new process they devised that changes the hull's properties and surface charge using food-grade citric acid combined with a heating step.

Most commercial ion exchange resins cost between \$2 and \$20 per pound depending on whether they are synthetic or cellulose-based, but the ARS scientists estimate that making adsorbents from soybean hulls costs about 53 cents per pound. In trials with solutions containing cadmium, copper, lead, nickel and zinc, the modified hulls captured positively-charged ion forms of these metals at rates slightly above comparable commercial resins.

ARS has awarded a contract to a Minnesota firm to test the soybean hull adsorbents under field conditions.

Top Conservationist Appointed Head of Mining, Metals and Sustainable Development Body

Doug Yearly, chairman of the International Council on Metals and the Environment (ICME) has announced the appointment of Dr. Jay D. Hair, an eminent conservationist, to head a restructured global mining and metals industry association on sustainable development, to be based in London.

Mining, Minerals and Sustainable Development project, a joint initiative of the World Business Council for Sustainable Development of Geneva and the International Institute for Environment and Development in London. He will relinquish this post to head the new organization.

Dr. Hair has declared his commitment to dedicate his work for the mining, minerals and metals industry to "economic progress, environmental protection and social responsibility".

Dr. Hair is an alumnus of Clemson University, with an undergraduate degree in biology and Master of Science degree in zoology. Dr. Hair also holds a doctorate in zoology from the University of Alberta, Canada. While not a native North Carolinian, Dr. Hair undertook business training at the University of North Carolina at Chapel Hill and Duke University and held an academic post at North Carolina State University.

Dr. Hair will become Secretary General designate of the International Council on Mining and Metals on September 1, 2001. He has previously led two of the world's most prominent environmental organizations.

From 1981 to 1985, Dr. Hair served as President and Chief Executive Officer of the National Wildlife Federation (NWF). During his presidency, the NWF was the largest membership-based environmental organization in the U.S. Highlights during the NWF presidency included creation of the NWF Corporate Conservation Council to promote communication about environmental issues with the business community and the establishment of the NWF International Affairs Division to address global environmental concerns. He currently serves as chair of the Assurance Group of the

Mealey's Lead Litigation Conference

An intensive course in the fundamentals of lead litigation, Mealey's Lead Litigation 101 Conference will be held November 5-6 at the Ritz-Carlton Hotel in New Orleans. The conference offers a unique program that will present the intricacies of lead litigation. Subjects include how to prepare plaintiff and defense cases, handling expert witnesses, how to interpret and use scientific data, and examining trial strategies. For more information, email at mbuek@mealeys.com, call 1-800-MEALEYS or visit the website at www.mealeys.com.

November 14, 2000, EUROBAT officially adopted this program by signature of its president.

The basic elements of the Blood Lead Reduction Guidelines are a list of control measures that combine activities in the following areas:

- Technical controls and workplace procedures
- Personal hygiene
- Personal protective equipment
- Training

Industry experience shows there is not a strong correlation between lead in blood and lead in air. Therefore, EUROBAT considers all single measures that are described in the guideline as measures of equal priority. This approach is new to the legislative bodies and to National Health & Safety Authorities in the European Union Member states. Prior to this, the regulations mainly focused on low lead in air exposure, postulating that this consequently yielded low blood leads. Now it seems that in Europe the official position on this is under review. The first relevant publication in Europe that acknowledges there must be something beyond lead in air is the SCOEL recommendation:

“Only part of the occupational exposure occurs by inhalation and a considerable portion is incorporated after oral ingestion. Lead ingestion varies as a function of personal hygiene of the individual and the overall cleanliness of the work environment.”

In Print

Zinc Supplementation Might Potentiate the Effect of Vitamin A in Restoring Night Vision in Pregnant Nepalese Women. Christian, P., Khatry, S., Yamini, S., Stallings, R., LeClerq, S., Shrestha, S., Pradhan, E. and West, K. *Am. J. Clin. Nutr.* 73:1-45-1051 (2001).

Nepalese women with reported night blindness were given 25 mg of zinc weekly and in combination with Vitamin A, β -carotene or a placebo. Zinc treatment increased serum zinc concentrations, but alone (zinc alone group) failed to restore night vision or to improve dark adaptation. However, women in the vitamin A + zinc were four times more likely to have their night vision restored than women in the placebo group. These data suggest that zinc potentiated the effect of vitamin A in restoring night vision among night-blind pregnant women with low initial serum zinc concentrations.

This quote appears in the initial SCOEL recommendation (SCOEL/SUM/834, September 2000, page 11). It would appear that industry experience has found its way into scientific recommendation that initiates the legislative procedure.

The Implementation, the Review and the Continuous Improvement by the Blood Lead Reduction Guidelines are accompanied by facility-specific reductions of internal limits. This reduction of internal limits can be compared to the successful Battery Council International/Lead Industry Association voluntary industry OSHA Program to lower the threshold for removal and return levels for workers in high lead exposure areas. However, specific target levels for EUROBAT member companies will not be communicated as long as the discussion of the final European limit continues. Until the relevant health effect is finally defined by the legislative process, the EUROBAT members will track their program to an exposure level that is “as low as possible”.

In Europe to date, there has been no tradition, positive experience with, or acceptance of, voluntary programs to achieve desired improvements that have traditionally been set as legally binding limits. Nevertheless, EUROBAT believes that supporting the legislative bodies and adopting such voluntary programs will demonstrate the benefit of this approach to all concerned. While this should have a positive impact on our industry’s image, the biggest benefit is for our employees – improvement of their health.

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