

HEALTH STANDARDS UPDATE MAY 1984

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OSHA Asbestos ETS Stayed

On November 4, 1983 OSHA published an Emergency Temporary Standard for Asbestos. On March 7, 1984 the United States Court of Appeals for the Fifth Circuit held that "OSHA did not properly act pursuant to its ETS enabling statute and that the standard in question, therefore, should not become effective absent notice and comment rulemaking." (P-5).

The Court concluded that: "We determine the Emergency Temporary Standard to be invalid because the record, considered as a whole, does not indicate that the risk the ETS seeks to eliminate is "grave," as OSHA itself has defined it, or that the ETS is "necessary," as those terms are used in the ETS statute." (P-26)

National Academy of Sciences Report On Asbestos

In March 1984, The National Academy of Science's National Research Council released a report which found that non-occupational exposure to asbestos presents a measurable risk to human health. The report, Non-Occupational Health Risks of Asbestiform Fibers found that:

(1) "Lifetime risk for mesothelioma from non-occupational environmental exposure to asbestos is much higher than that for lung cancer. This finding applies even to smokers, but is especially applicable to nonsmokers."

(2) "Individual lifetime risk estimates for lung cancer from non-occupational environmental exposures to 0.0004 fibers/cm³ are much lower than the risks observed for smoking."

The committee found the estimated individual lifetime risks from a continuous exposure to asbestos at 0.0004 fibers/cc to be as follows:

<u>Disease</u>	<u>Exposure Group</u>	<u>Risk x 1,000,000</u>
lung cancer	male smoker	0.9
lung cancer	female smoker	0.3
lung cancer	male non-smoker	0.08
lung cancer	female non-smoker	0.04
Mesothelioma	all	9.0

(Table 7-2, p. 212)

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"...the committee used epidemiological data, mostly from occupational settings, to develop a quantitative model of the relationship between fiber dose and carcinogenic response for a generalized "asbestos" exposure resulting in either lung cancer or mesothelioma." (P-205)

"The models used by the committee all assume low-dose linearity and, as such, produce higher estimates of risk at low doses than would be obtained with other models. However, because the occupational data do not rule out low-dose linearity, the committee believes that these estimates do not unduly overstate the risks." (P-212)

"The conversion of ambient fiber mass measurements to an equivalent number of fibers was based on measurements of mass and numbers of fibers in the workplace." (P-213)

OSHA ASBESTOS NPR PUBLISHED

On April 10, 1984 OSHA published in the Federal Register (FR 49 14116) a Proposed Rule and notice of hearing. This supplemental notice, together with the November 4, 1984 Federal Register notice (ETS FR 48 51085), constitute proposed revisions to OSHA's permanent standard regulating occupational exposure to asbestos in all industries covered by the Act including general industry, the maritime industry and the construction industry.

This standard proposes two alternative permissible exposure limits: 0.2 fibers (5 micrometers or longer) per cubic centimeter of air as an eight-hour time weighted average or 0.5 fibers (5 micrometers or longer) per cubic centimeter of air as an eight-hour time weighted average.

Notices of intent to appear at the informal rulemaking hearing must be filed in quadruplicate, addressed to Mr. Tom Hall, OSHA, Division of Consumer Affairs, Docket No. H-033C, Occupational Safety and Health Administration, Room N-3635, DOL, Third St. and Constitution Avenue, N.W. Washington, D.C. 20210, (telephone number (202) 523-8024) and must be received on or before May 10, 1984.

Comments concerning the proposed revisions must be received on or before May 25, 1984, and should be addressed to the Docket Officer, Docket H-033C, OSHA, U.S. DOL, Room S-6212 Third St. and Constitution Avenue, N.W., Washington, D.C. 20210.

The hearing will begin at 10:00 a.m. June 19, 1984 in the Auditorium, U.S. Department of Labor, Washington, D.C.

Asbestos Hearings Planned

The Senate Labor and Human Resources Subcommittee on Labor has planned a series of four hearings to examine the scope of the problem in regard to disease caused by exposure to asbestos fibers. The hearings have been scheduled to be held in Room 430 of the Dirksen Senate Office Building on:

April 24, April 30, May 21, and June 5, 1984

The session on April 24, is scheduled for 2 p.m. and the others for 9:30 a.m.

ASBESTOS INFORMATION NUMBERS AT THE EPA

SUPERFUND

Hot-line 202-382-3000 (Washington, D.C.)
Toll Free 800-424-9346

TOXIC SUBSTANCES

David Mayer 202-382-3949 (Washington, D.C.)

TSCA ASSISTANCE OFFICE

202-554-1404 (Washington, D.C.)

AIR REGULATIONS

Bob Meyers 202-382-2875 (Washington, D.C.)

BENZENE

Nader Group Requests an ETS

In early March 1984, The Public Citizen Health Research Group (a Ralph Nader Group) petitioned OSHA for an immediate ETS on Benzene. HRG cited two recent unpublished studies as the basis for its request. Sidney Wolfe, Director of the HRG said that the studies found that a 2.8 fold increase in leukemia deaths in workers exposed to concentrations of benzene that they would inhale in 10 years at

the current PEL. Also that cumulative exposures equivalent to one ppm for less than 15 years or 10 ppm for less than one and one-half years more than doubled the risk of mortality from lymphatic and hematopoietic cancer.

By the first week in April, 1984 OSHA had an informal copy of its Benzene Standard at the Office of Management and Budget (OMB). OMB has problems with OSHA's risk estimate, the requirements for medical surveillance at the action level, (0.5 ppm) and the use of respirators.

Meanwhile, OMB is pushing to get the negotiations process started again, but OSHA is pushing as hard as it can to get the Benzene Standard through OMB and the Secretary's office regardless of what happens with the negotiations process.

The Benzene Standard is currently being reviewed by Secretary Donovan's Office. It will then be sent to OMB formally. Negotiations between OSHA and OMB have been ongoing, so once the standard is formally submitted to OMB for clearance, it should not be more than a month before it is published. The PEL being considered is 1.0 with an Action Level of 0.5 parts per million.

The cost of the medical surveillance actions OSHA has proposed be initiated at the Action Level, and the flexibility to use personal protective equipment in place of engineering controls, are two of the major points of discussion between OSHA and OMB.

Looking back, we see that OSHA published in the Federal Register July 8, 1983 (FR 48, 31412) a request for information on Occupational Exposure to Benzene, and set a regulatory schedule that called for a proposal by November 1983, hearings in February 1984 and a final standard published in June 1984. It is possible that OSHA may have a Notice of Proposed Rulemaking out by the end of June 1984.

CANCER POLICY

April 24, 1984

The White House Office of Science and Technology Policy (OSTP) has been working on a set of guidelines for carcinogen identification and regulation. The second draft of this document, "Review on Mechanisms of Effect and Detection of Chemical Carcinogens," was recently circulated among selected peer reviewers and the third draft is presently being reviewed by the White House. This draft, which will be published in the Federal Register, will give a 60 day period of public review and comment. The object of the document,

according to OSTP personnel, is to provide guidelines for the use of science in the process of risk assessment. Eventually, it is intended to be the basis for a uniform carcinogen policy throughout the federal government.

This document has pretty well stalled progress on OSHA's revised Cancer Policy and brought action on the part of the Interagency Regulatory Council (Risk Assessment Group) to a crawl (on this topic). Of the agencies involved with the Risk Assessment Group, only the EPA continues to push for a separate policy.

ETHYLENE OXIDE

On April 21, 1983, OSHA proposed that ethylene oxide exposure be regulated to a level of one ppm (48 FR 17284). Hearings were held, beginning July 19, 1983. Currently, OSHA is preparing a final draft of the ETO standard and may be able to publish a final by the end of June 1984.

On April 18, 1984, the EPA surprised other government regulatory agencies and watchdogs with its publication in the Federal Register of a Notice for Revised Labelling for Pesticide Products Containing Ethylene Oxide which are registered for the Sterilization of Equipment and Supplies in Hospitals and Health Care Facilities (FR 49 15268).

The EPA justified its actions on the basis of "new evidence" including studies indicating that ETO may present an unacceptably high cancer risk at current levels of exposure. The EPA found that "new evidence" also augmented the concern that ETO may produce adverse reproductive effects.

In general, the EPA expects that "The following modifications are intended to reduce the exposure of hospital and health care facility workers to ETO to 1 ppm or as close to that level as practicable. To achieve this, the agency has requested that registrants change ETO product labeling to require users to modify workplace design and workplace practice."

"The modifications in workplace design focus on the installation of certain equipment such as gas line hand valves, a "capture box" as part of the sterilizer drainage system, installation of aerators, and installation and or up-grading of ventilation systems."

"Workplace practice modifications focus on the adoption of systematic worker routines that will reduce both the time of worker exposure to ETO and the levels of exposure. Users of ETO for the sterilization

of equipment and supplies in hospitals and health care facilities must comply with the amended label language when it appears on a registered ETO product."

"The Agency expects new product labels to begin showing up in the market place approximately six months from the date of this notice." "Certain label changes however, will not be effective until July 1, 1986."

ETHYLENE DIBROMIDE

On February 3, 1984, the AFL-CIO, the Food and Allied Service Trades Department, and the American Federation of Grain Millers, and the International Brotherhood of Teamsters, petitioned OSHA for an immediate ETS for EDB. The unions demanded a 45 ppb PEL and a 100 ppb ceiling, work practice controls, respirators, medical surveillance provisions and training and education as component parts of any OSHA ETS on EDB.

On February 8, 1984, OSHA held a public hearing on its proposed standard for employee exposure to EDB. OSHA proposed to lower the PEL from 20 ppm to 0.1 ppm (8 hours) and a STEL of 0.5 ppm with an action level of 0.05 ppm. NIOSH testified that they considered the OSHA proposed STEL of 0.5 ppm too high and recommended 0.045 ppm and a ceiling of 0.130 ppm. NIOSH also opposed the use of respirators for intermittent exposures and the use of qualitative fit-testing rather than quantitative. Organized labor representatives urged the mandatory use of engineering controls wherever feasible, and supported a PEL of 15 ppb as an 8 hour TWA with a ceiling of 100 ppb.

On February 24, 1984, Thorne Auchter informed the AFL-CIO that OSHA would not be responding immediately to their request for an ETS. Mr. Auchter said that when OSHA finished its review of the hearing record on EDB, the ETS request would be considered.

Currently, OSHA is working on a final standard for EDB and it looks like it might be out by September or October 1984.

LEAD

Dr. Edward Baker of Harvard's Occupational Medicine Program, speaking at a March 2 NIOSH sponsored seminar, said that studies conducted at a brass foundry, from 1980 to 1982, showed a nearly 20 microgram drop in average blood-lead levels because of compliance with the OSHA lead standard. Improved ventilation, respirators and a strict

no smoking policy were credited with the improvement. Researchers said they noted sharp improvements on neurological and mental performance as blood-lead levels dropped. However, they cautioned that the study was too small to be definitive.

On March 28, 1984, OSHA announced an experimental six month variance from the lead standard for the Gulf Coast Lead Company to enable it to test the use of helmet type powered air purifying respirators (See respirators).

On April 6, 1984, the U.S. Court of Appeals for the District of Columbia Circuit, ordered OSHA to write a draft order lifting a current stay on the requirement that primary and secondary lead smelters and battery manufacturers develop written compliance plans. This draft was to have been submitted to the court on April 10, 1984 after review by union and industry officials. The court will use this draft as the basis for a court order, to be effective June 1, 1984, lifting the stay.

On April 24, 1984, OSHA published in the Federal Register (FR 49 17545) a notice lifting OSHA's stay of paragraphs (e)(3)(ii)(B) and (E) of the lead standard, 1910.1025, for the primary and secondary smelting and battery manufacturing industries as of June 1, 1984.

OSHA proposed that employers in the primary and secondary smelting and battery manufacturing industries develop compliance plans containing all available information by July 1, 1984 and that they come into full compliance by August 1, 1984.

Data, views, and arguments regarding this proposal must be received by May 21, 1984. Comments should be sent to Docket Office, Docket H-004G, Room S-6212, U.S. Department of Labor, 200 Constitution Ave., N.W., Washington, D.C. 20210.

FORMALDEHYDE

The EPA is preparing for rulemaking on exposure to formaldehyde fumes in the manufacture and occupancy of mobile homes and among employees in the apparel industry. It has made presentations to OMB on this subject and is pushing hard to get it published. There are also rumors that the EPA is going to use Section 14 of the Toxic Substances Act (Disclosure of Data) to collect information on formaldehyde that would otherwise not be released to it.

The Interagency Regulatory Council Formaldehyde Group is working on a pilot project to come up with a workable standard to regulate employee exposure to formaldehyde. There seems to be little urgency for this except on the part of the EPA and no estimate of when they may be finished with the project.

RESPIRATORS

The Mine Health Research Advisory Committee met February 2-3 and voted to approve recommendations to accept active and passive end-of-service life indicators (ELSI's) as appropriate for use with a variety of respirators if certain safeguards are included. The Committee recommended that both types could be used where the substance had good warning properties, but that only the active ELSI should be used around substances with poor warning properties.

On March 28, 1984, OSHA granted the Gulf Coast Lead Company an experimental six month variance from its Lead Standard to test helmet type powered air purifying respirators with built in voice amplifiers. This is being done as an alternative to removing workers with elevated blood leads from one job to a another where exposure to lead is lower. One prime aim is to evaluate the efficiency of the new respirator while at the same time monitoring the blood lead reduction in participating workers.

NIOSH has established an internal committee to examine respirator protection factors as they work toward a comprehensive review of NIOSH policy on respirator use. This group will examine the "decision logic" behind institute policy on respirators and make recommendations as to what should be changed. The results of the committee's work will be used in future Criteria Document recommendations for respirators.

The committee will concentrate on studies that compare the bench testing of respirators with "field" testing. This committee is not involved in the current revision of 30 CFR 11.

Currently, OSHA is reviewing a first draft of the revised 1910.134 but, it has not yet reached the Acting Assistant Secretary's Office. It is not considered likely that an ANPR for this standard will be published before this fall.

1,3 BUTADIENE

On February 9, 1984, NIOSH issued Current Intelligence Bulletin No. 41 on 1,3-Butadiene. The abstract is as follows: "Inhalation exposure of rats and mice to 1,3-butadiene induced a carcinogenic response at multiple sites. Mammary fibroadenomas/carcinomas, uterine sarcomas, leydig cell adenomas of the testes, thyroid follicular cell adenomas, exocrine tumors of the pancreas, and Zymbal gland carcinomas were identified in rats exposed at concentrations of 1,000 or 8,000 ppm of 1,3-butadiene. Mice exposed to 625 or

1,250 ppm of 1,3-butadiene developed a high incidence of malignant lymphomas: an increased incidence of other tumors, including hemangiosarcoma; and testicular and ovarian atrophy."

"The offspring of pregnant rats exposed to 1,3-butadiene at 8,000 ppm had major skeletal defects. In addition, fetal toxicity was observed when pregnant dams were exposed at 200 ppm, 1,000 ppm and 8,000 ppm."

"Epidemiological studies of workers employed in facilities producing styrene-butadiene rubber indicated an increased, but not statistically significant, risk of mortality from neoplasms of the lymphatic and hematopoietic tissues and from leukemia."

"Based on these data, the National Institute for Occupational Safety and Health (NIOSH) recommends that 1,3-butadiene be regarded as a potential occupational carcinogen and teratogen and as a possible reproductive hazard." NIOSH also suggested that the present OSHA standard for butadiene, 1000 ppm, be reviewed for possible modification.

NIOSH

On February 17, 1984, NIOSH announced in the Federal Register (49 FR 6182), the availability of Research and Demonstration Grants Relating to Occupational Safety and Health; Availability of Funds for Fiscal Year 1984. Grants will be awarded to both nonprofit/women owned or profit-making organizations. The categories of interest to NIOSH are:

1. Occupational lung diseases
2. Musculoskeletal injuries
3. Occupational Cancers (other than lung)
4. Amputations, fractures
5. Cardiovascular diseases
6. Disorders of reproduction
7. Neurotoxic disorders
8. Noise-induced loss of hearing
9. Dermatologic conditions
10. Psychologic disorders
11. Control technology research
12. Respirator research

In the fiscal year 1984, \$6,501,000, will be available to award grants. \$3.8 million of this will support continuation grants, and \$400,000 will be funded in the Special Emphasis Research Career Award (SERCA) Program. NIOSH published information about SERCA in the Federal Register December 13, 1983 (48 FR 55515).

SILICA

On April 4, 1984, the United Steelworkers of America urged that OSHA immediately begin rulemaking procedures for revision of the Crystalline Silica standard. The Steelworkers raised the issue of the association of cancer with silica exposure, and recommended that OSHA adopt a PEL in accord with NIOSH's recommended level of 50 micrograms per cubic meter.

NIOSH said that its recommendations were adequate for protection against fibrotic lung disease, but that more research was needed to clarify the relationship of exposure to crystalline silica and cancer.

Nicholas Ashford, Director of the Center for Policy Alternatives at the Massachusetts Institute of Technology proposed to shift the burden of scientific proof to industry with an industry specific rebuttable presumption in regard to carcinogenicity. Industries would then be forced to demonstrate to the agencies satisfaction the safety of their operations.

Those who are familiar with the EPA's pesticide regulations will recognize the philosophical approach advocated by Dr. Ashford as the basis of the Rebuttable Presumption Against Registration, (RPAR).

NOISE

OSHA is attempting to determine whether the booklet, "What Every Employer Needs to Know About OSHA Recordkeeping," Bureau of Labor Statistics (BLS) publication No. 412, is clear enough to avoid affecting the issue of casualty in recording industrial hearing loss. In its hearing conservation amendment, OSHA did not specify whether or not all standard threshold shifts are considered recordable illnesses or injuries. Since BLS 412 is being rewritten, OSHA wants to be sure that the issue of casualty is handled in a neutral way.

Towards that end, OSHA has written a draft of suggested new language, and has asked the National Advisory Committee on Occupational Safety and Health (NACOSH) to comment on the casualty issue and whether it should be addressed specifically in either BLS 412 or OSHA Form 200.

One issue being debated is the presumed work relatedness of hearing loss if the employee has been exposed, in the workplace, to noise exceeding 85 dBA. The difference between recording a hearing loss in an individuals medical record, and putting it down as a "noise induced hearing loss" on the Form 200, could be significant in Workers Compensation issues.

The International Brotherhood of Teamsters feels that the guidelines for the recording of significant threshold shift or noise induced hearing loss give the employer too much discretion as to how employee hearing loss is recorded and where. The key factor in the union's complaint is the freedom allowed to make the determination of whether the hearing loss resulted from or was aggravated by a work-related exposure.

EPA - CANCER AND AIR POLLUTION

On Wednesday March 7, 1984, the EPA published a Notice of Availability in the Federal Register (FR 49, 8487) of a Review and Evaluation of the Evidence for Cancer Associated with Air Pollution.

The EPA has prepared, under contract, a draft report which summarizes and compiles available scientific evidence related to the hypothesis that cancer rates in human populations are associated with their exposure to pollutants present in the ambient air.

Critical comments on the strengths and weaknesses of the studies are presented, and general methodological problems in the conduct and interpretation of the studies are discussed. However, no overall judgments about the weight of the entire body of scientific evidence are offered.

The draft report (EPA -450/5-83-006) dated November 9, 1983, was prepared to respond to public comments on this issue that were submitted in response to the Agency's proposed airborne carcinogen policy published on October 10, 1979. (44 FR 58642)

Copies may be obtained at the U.S. EPA Library, Research Triangle Park, N.C. 27711, (919) 541-2777.

For further information contact: Mr. Robert Schell (919) 541-5645.

MORE EPA ASBESTOS

February 23, 1984

Asbestos Health Assessment Update, Notice of availability of external review draft. February 23, 1984, (FR 49 6788).

This notice announces the availability of an external review draft of the Asbestos Health Assessment Update document. Docket No. ECAO-HA-79-6; ORD-FRL 2530-2.

EPA Document No. 600/8-84-003A.

Comments on the draft must be received by April 27, 1984.

The objective of the Asbestos Health Assessment Update is to provide EPA with a sound scientific basis for review and revision, as appropriate of the National Emission Standards for Asbestos 40 CFR Part 61 Subpart B.

For further information contact Diane Chappell, U.S. EPA Environmental Criteria and Assessment Office, MD-52 Research Triangle Park, N.C. 27711, 919-541-3637.

To order the above document, call 513-684-7562.

National Emission Standards for Hazardous Air Pollutants

On April 5, 1984, the EPA published in the Federal Register, National Emission Standards for Hazardous Air Pollutants; Amendments to Asbestos Standard. (FR 49 13658)

Amendments to the National Emission Standard for Asbestos were proposed in the Federal Register on July 13, 1983 (48 FR 32126). This action promulgates the amendments under Section 112 of the Clean Air Act as amended in 1977. The intended effect of the amendments is to reinstate work practice and equipment provisions of the standard that were held not to be emission standards by the U.S. Supreme Court in 1978. They also reword and rearrange the standard for clarity.

Effective date, April 5, 1984 Under Section 307(B)(1) of the Clean Air Act. Judicial review of these amendments is available only by the filing of a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit within 60 days.

Docket number A-83-02 contains information considered by EPA in development of the promulgated amendments. For further information contact Mr. Robert L. Ajax, Standards Development Branch, Emission Standards and Engineering Division 919-541-5578.

The amendments reinstate portions of the asbestos NESHAP that were equipment or work practice requirements. The Supreme Court held in Adamo Wrecking Company V. United States, 434 U.S. 275 (1978) that work practice requirements of the NESHAP were not authorized by the 1970 Amendments to the Clean Air Act under which they were originally promulgated. The 1977 Amendments to the Act specifically authorize such requirements. On June 19, 1978 (43 FR 26372), EPA repromulgated many of the requirements under authority of the 1977 Amendments, and today's action repromulgates the following remaining requirements in a new Subpart M of 40 CFR Part 61.

Stripping, Removal and Demolition

Under Section 61.141 the EPA intended that the proposed definition of "demolition" describe the activities that occur when a facility

is demolished as distinguished from "renovation", as the terms are used in the regulation. The primary distinguishing activity is that load supporting structural members are wrecked or taken out in a demolition operation, but not in a renovation.

Asbestos stripping or removal may occur in either, but should not be used to define the primary activity of demolition or renovation. Section 61.145 clearly states that when demolition or renovation operations meet certain specified criteria regarding asbestos materials in the facility they are subject to the regulation. Also 61.147 clearly specifies that stripping or removal of asbestos materials during demolition or renovation must be carried out in accordance with the standard.

EPA did not intend to omit the word "stripping" from the definition of "renovation" at the time of proposal. The terms should be defined to describe the type of activity that is being carried out at a facility regardless of the presence or absence of asbestos material. The definition of "renovation" has been revised accordingly.

March 7, 1984

On November 16, 1983 the Service Employees International Union (SEIU) AFL-CIO petitioned the EPA under section 21 of the Toxic Substances Control Act (TSCA) 15 U.S.C. 2620 to initiate rulemaking proceedings under section 6 (TSCA), 15 U.S.C. 2605, concerning the abatement of friable asbestos containing materials in public and private elementary and secondary schools and the inspection and abatement of these materials in other public and commercial buildings.

On April 17, 1984 the EPA published in the Federal Register (FR 49 15094), a notice of a scheduled Public Meeting in Response to Citizen's Petition on Asbestos (49 FR 8450). The meeting will be held Monday May 7, 1984 at 9:00 a.m. at the North Auditorium North Building, Department of Health and Human Services, 330 Independence Avenue, S.W. Washington, D.C.

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