National Safety Council

PLAINTIFF'S EXHIBIT
G-254

Office of the President

May 23, 1984

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Docket Officer
Docket No. H-033C
Room S-6212
U.S. Department of Labor
Third Street and Constitution Avenue, N.W.
Washington, D.C. 20210

Gentlemen:

RE: DOCKET NO. H-033C

The National Safety Council is pleased to present its response to OSHA's proposed revision to its permanent standard regulating occupational exposure to asbestos, Federal Register, April 10, 1984, pp. 14116-45.

This response represents a consensus of occupational safety and health professionals associated with the Council's constituency, including business, industry and organized labor.

The Council urges the Occupational Safety and Health Administration to give every consideration to these recommendations to minimize exposures to asbestos in the workplace.

Sincerely,

T. C. Gilchrest

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Public Service Organization

National Safety Council

NATIONAL SAFETY COUNCIL RESPONSE
TO DOCKET NO. H-033C

Occupational Exposure to Asbestos

May 23, 1984

The National Safety Council congratulates the Occupational Safety and Health Administration for (a) the scientific integrity of its determination that "...employees exposed to asbestos at the previous 2 f/cc time-weighted average PEL face a significant risk to their health...," [FR 14118, 1st column] and (b) the candor of its statement with respect to both of its proposed alternate PELs, 0.2 f/cc and 0.5 f/cc, to wit "OSHA believes that a significant risk remains at exposures to the proposed alternative PELs," [FR 14117, 1st column].

The Council's comments will initially deal with five issues which are believed to be major and crucial.

I. DEFINITION. The Council recommends that the permanent standard:

1) adopt the current definition in 1910.1001(a); and

2) apply to chemically treated and/or altered asbestos as does OSHA's compliance interpretation of the current standard.

II. PERMISSIBLE EXPOSURE LIMITS. The Council's recommendations for a PEL are based on the following factors:

1) The Act, section 6(b)(5), requires OSHA to set a standard "...which most adequately assures, to the extent feasible on the basis of the best available evidence, that no employees will suffer material impairment of health..."

In interpreting the Act in the benzene case, the Supreme Court did not require "anything approaching scientific certainty" but allowed OSHA "some leeway where its findings must be made on the frontiers of scientific knowledge," IUD, AFL-CIO v. API, 448 U.S. 601,656 (1980).

2) OSHA's notice stated, in assessing excess mortality at PELs of 0.5 f/cc, 0.2 f/cc, and 0.1 f/cc, that for each of them "the residual excess cancer risks still exceed the Supreme Court's rough guidelines of 1 per thousand lifetime risk of dying which was suggested as an example of a risk which a reasonable person might well consider significant" [FR 14120, 2nd column].

3) A NIOSH-OSHA Asbestos Work Group submitted a report "Workplace Exposure to Asbestos: Review and Recommendations," April 1980, which stated: "Where asbestos exposures cannot be eliminated, they must be controlled to the lowest level possible...the lowest level of exposure detectable using currently available analytical techniques...would be 100,000 fibers greater than 5 um in length per cubic meter averaged over an 8-hour workday. Regardless of the choice of a permissible exposure limit, best engineering controls and work practices should be instituted, and protective clothing and hygiene facilities should be provided and their use required of all workers exposed to asbestos. Respirators are not a suitable substitute for these control measures. The committee also reiterates its judgment that even where exposure is controlled to levels below 100,000 fibers, there is no scientific basis for concluding that all asbestos-related concern would be prevented." [pp. 6-7]

   In addition, the Work Group "...asked that the new standard set a minimum workplace exposure limit of 100,000 fibers per cubic meter of air, the lowest level which can be accurately measured..." [HEW NEWS, April 17, 1980, p. 2].

   The Work Group also made "specific findings" including "optical microscopy continues to be the most reliable and economically feasible method for determining airborne levels of asbestos. Its lowest reliable detection limit is 100,000 fibers per cubic meter," [HEW NEWS, April 17, 1980, pp. 3-4].

4) The Congress directed NIOSH to "...develop criteria dealing with toxic materials and harmful physical agents and substances which will describe exposure levels...at which no employee will suffer impaired health or functional capacities or diminished life expectancy as a result of his work experience," section 20(a)(3). In particular, Congress authorized NIOSH "...develop and establish recommended occupational safety and health standards..." section 22(c)(1).

   In carrying out its Congressional mandate, with respect specifically to asbestos, NIOSH stated that "the lowest level of exposure detectable using currently available techniques" is "100,000 fibers greater than 5 um in length per cubic meter averaged over an 8-hour workday," [DHHS (NIOSH) Publication No. 81-103, p. 4].

5) At its Orlando, Florida meeting of May 24, 1983, OSHA's National Advisory Committee on Construction Safety and Health unanimously adopted a motion "that the lowest possible, reliable, measurable level be implemented and that considerations be given to engineering and work practices," [Transcript of Meeting, pp. 365-6]. Present at the meeting were two public members, five employer members, five employee members, two state representatives, nine OSHA staff (including Mr. Patrick Tyson), and one NIOSH staff.

6) The NIOSH-OSHA Asbestos Work Group concluded that "There is no safe exposure limit for asbestos" [HEW NEWS, April 17, 1980].

7) OSHA's current proposed rule proposes two alternatives, 0.2 f/cc or 0.5 f/cc, but states that "OSHA believes that a significant risk remains at exposures to the proposed alternative PELs." [FR 14117, 1st column].

On the basis of these factors, the Council recommends that:

a) OSHA's permanent PEL for asbestos exposure in both general and the construction industry should be the lowest feasible level using available analytical techniques;

b) OSHA should not promulgate different PELs for some fiber types, since there is not sufficient research to warrant a variable exposure limit;

c) OSHA should require that every employer whose employees are subject to asbestos exposure should have an asbestos exposure plan which includes medical surveillance at the employee's option but at the employer's expense; establishment of regulated areas; air monitoring; training and education; signs and labels; and respiratory protection program; and

d) OSHA and NIOSH make determined efforts that laboratories which are approved for testing for compliance with the applicable PEL should assure maximum feasible accuracy in their testing methods and results.

III. REGULATED AREAS. The Council recommends that any regulated area should be restricted to authorized persons who are qualified and trained. Appropriate signs, enclosures, barricades, etc., should be required. Protective clothing should be required in all regulated areas, with appropriate change facilities provided for each job.

The Council also recommends that appropriate training and education should be provided to persons prior to their working in regulated areas.

IV. ENGINEERING CONTROLS AND RESPIRATORS. The Council regards respirators as a second line of defense and as not acceptable in lieu of engineering controls and adequate work practices, which should be the primary tools to protect workers against asbestos exposure. Therefore, the National Safety Council recommends that engineering controls, and adequate work practices and respirators should be required if there is an excess asbestos exposure.

When engineering controls are found to be ineffective in controlling excess asbestos exposures, and when respirators are required as a method of control, they should be only supplied air respirators (where necessary and feasible on construction jobs) or powered air purifying respirators with highly efficient filters

V. THE CONSTRUCTION INDUSTRY. The Council recommends a specific, separate standard should be promulgated for the construction industry because of the following:

1) non-fixed work place;
2) transient work force;
3) specialized contractors for asbestos;
4) regulatory pressures to assure new construction materials be asbestos free;
5) multiple skill classifications and jurisdictions;
6) weather variations; and
7) vertical standards in construction.

* * *

The Council's comments on other issues which are deemed to be important are as follows.

MONITORING PROVISIONS. The Council believes that the current standard regarding monitoring provisions is satisfactory except for construction. The current monitoring provisions in the standard are not workable for construction where exposures change constantly. OSHA should consider for construction a new sampling strategy where initial samples would be taken on every ashestos job. Additional samples should be taken weekly. Any samples showing levels above the PEL would trigger more frequent (daily) sampling until exposures drop below the trigger level for five consequtive days of sampling. Samples should be taken when exposure is expected to be at a maximum. These times are determined by the qualified person and by the employees for construction. Employers should also honor all reasonable requests for additional sampling from employees. This strategy allows the flexibility to characterize exposures more accurately since the amount and timing of samples is geared to actual exposure levels and based on the experience and knowledge of the competent person and the employees.

MEDICAL SURVEILLANCE REQUIREMENTS. The Council recommends that OSHA update the current medical surveillance requirement found in 29 CFR 1910.1001(j) to require the following:

Medical Surveillance: The employer should provide to employees, at no cost and during working hours, comprehensive medical examinations in accordance with the provisions below. With exception of the examinations provided in subparagraph (l)(ii), employees should not be required to submit to medical examinations.

(1) Examination Protocol: The examination should include at a minimum:

(i) Examinations as described in paragraph (2) to detect asbestos-related disease, monitor general health conditions and provide a baseline and continuing documentation for future reference for all asbestos exposed employees. These examinations should consist of a history to elicit symptomatology of upper and lower respiratory and gastrointestinal disease; a physical

examination of the respiratory and gastrointestinal systems; a 14-inch by 17-inch posterior-anterior chest x-ray; right and left anterior oblique chest x-rays if necessary for further diagnosis; and pulmonary function tests, including forced vital capacity (FVC) and forced expiratory volume at one second (FEV1). For employees over 40 years of age, a rectal examination and stool quaiac test for occult blood should be made available at the employees option. All x-rays should be read by certified B readers; and

(ii) An examination to determine an employee's fitness to wear and use a respirator. This examination should consist of pulmonary function test, including forced vital capacity (FVC) and forced expiratory volume at one second (FEV1); a history of elicit symptomatology of upper and lower respiratory diseases; and a physical examination of the respiratory system. This examination should be completed prior to an employee's commencement of asbestos-related work and thereafter no less frequently than annually. The employer should be responsible for assuring compliance with this subparagraph.

(2) Examination Triggers:

(i) For all persons employed on the effective date of this section, the examination described in subparagraph (1)(i) should provide within 30 calendar days of the effective date of this section, and thereafter as required by subparagraph (2)(iii) and (iv).

(ii) For employees commencing asbestos-related work after the effective date of this section, the examination described in subparagraph (1)(i) should be provided prior to the commencement of such work.

(iii) For employees less than 40 years of age with less than 20,000 hours of employment in the construction industry, the medical examination in subparagraph (1)(i) should be provided every three years after the initial examination.

(iv) For employees 40 years of age or older or with 20,000 hours or more of employment in the construction industry, the medical examination described in subparagraph (1)(i) should be provided annually; except that the right and left anterior oblique chest x-rays need only be performed every three years. A rectal examination and a stool quaiac test for occult blood should be made available annually at the employees option.

(v) The medical examination described in subparagraph (1)(i) should be provided for all employees exposed to asbestos spill.

(vi) The employer should not be required to provide an examination if the employee has been examined in accordance with these recommendations within the past one year period.

(3) Examination Certification: Examinees should be provided a written certification upon completion of each examination (which in construction should be signed by the physician), stating when the examination took place and at what date that certification will expire. This certification should be carried by the employee while engaged in asbestos-related work. OSHA inspectors should have the right to check certifications.

(4) Anti-discrimination Provisions: Except as is necessary to determine an employee's fitness for work, employers should not discriminate against employees on the basis of when or whether a person is or would be entitled to an examination under this subsection.

METHODS OF MEASUREMENT. The Council recommends that OSHA specify the method for measurement for airborne concentrations of asbestos fibers in the revised standard. The intent to standardize the method and to mandate technical training, laboratory certification and round-robin testing is commended. There is increasing evidence that phase contrast microscopy can be reliable to fractional levels with improved techniques and trained technicians.

ELECTRON MICROSCOPY AND OPTICAL MICROSCOPY. Electron microscopy is obviously better at giving an exact count of all asbestos fibers present and can distinguish between asbestos and non-asbestos fibers. These advantages over optical microscopy are outweighed by the expense of EM and additional time needed for analysis. Also, all epidemiological studies quantifying risk have been based on concentration estimates from optical microscopy and there is no easy way to corrolate concentrations from optical counts to EM counts, so it would be difficult to quantitate risk by counts based on EM methods. Thus, a permissible exposure limit based on EM counts could not easily be set. For these reasons, the Council concurs with OSHA's approach to rely primarily on optical microscopy for analysis, but rely on EM for more assurances in the product/process categorization scheme. Hopefully, more reliable and sophisticated methods as described above will increase accuracy and be widely and easily available.

SIGNS AND LABELS. The signs and labels are appropriate for regulated areas. OSHA should require signs for all regulated areas. The signs should be printed in large, bold letters on a contrasting background. The sign should be readable from a distance of 20 feet. The sign should state:

DANGER--ASBESTOS
CANCER AND LUNG HAZARD
ONLY CERTIFIED EMPLOYEES SHALL HANDLE,
USE OR DISPOSE OF THIS PRODUCT
AND ONLY WITH RECOMMENDED WORK PRACTICES

Signs should be bilingual in the languages which predominate in the workforce area, and should include symbols to assist comprehension where necessary.

RECORDKEEPING. The recordkeeping provisions do not present problems for general industry over and above other OSHA standards. However, an expanded (and possibly centralized) recordkeeping system to keep account of transient workers, mobility of specialized skills, etc., should be considered.

PEL — GENERAL INDUSTRY AND CONSTRUCTION. The PEL adopted for general industry should apply to the construction industry. To require a higher exposure level (to a toxic substance) for one group of employees over another group of employees is obviously contrary to the provisions of the OSH Act. Equal protection evenly provided is the only perceivable standard that can legally be adopted.

MONITORING AND MEASUREMENT. The present requirements for initial determinations for each place of employment are feasible for nonfixed workplaces that may exist for short periods of time.

Regarding under what conditions a prior evaluation of asbestos exposures from specific work practices and materials can provide an adequate basis for determining employee exposure in the future for employees engaged in the same type of operation, the Council's position is that prior evaluation of products and work practices should only be used as a basis for determining exposures when some assurances can be made that (a) the exposure situation is identical and (b) the exposure level can be accurately verified using more sensitive analytical methods.

The current monitoring provisions in the standard are not workable for construction where exposures change constantly. For construction, OSHA should consider a new sampling strategy where initial samples would be taken on every asbestos job. Additional samples should be taken weekly. Any samples showing levels above the PEL should trigger more frequent (daily) sampling until exposures drop below the trigger level of five consecutive days of sampling. Samples should be taken when exposure is expected to be at a maximum. These times are determined by a qualified person and by the employees for construction. Employers should also honor all reasonable requests for additional sampling from employees. This strategy allows the flexibility to characterize exposures more accurately since the amount and timing of samples is geared to actual exposure levels and based on the experience and knowledge of the competent person and the employees.

High exposure levels, such as in demolition, necessitate more frequent sampling to determine employee exposure levels in the event of respirator failure. In these high exposures, air-supplied respirators or powered air-purifying respirators should be used. This also acts as an incentive to control the high exposures to a lower level using engineering controls and work practices.

Regarding the usefulness of lab results, labs usually have a two - three day turnaround time for sample result using optical microscopy. This can affect their usefulness on jobs that are very short (one day or less), but otherwise, they can be used successfully as a guide to determine when exposures are not being adequately controlled. Another method to be considered is the use of direct reading fibers aerosol monitor. On very short jobs, the samples will not be returned in sufficient time to alter compliance strategies. However, the samples would still be useful in determining a worker's exposure level, especially in the event of respirator failure or if respirators are not being worn.

ENGINEERING SOLUTIONS PERTAINING TO HANDLING AND INSTALLATION OF NEW PRODUCTS IN CONSTRUCTION. Based on the little data available, there are some engineering controls and work practices that have been demonstrated to successfully control exposures. A strong case has been made for local exhaust systems attached to power tools, such as circular saws and drills, and for work practices, such as snap cutting of AC pipe. Studies have also demonstrated the efficiency of wet methods.

DRYWALL REMOVAL, RENOVATION AND DEMOLOTION OPERATIONS. The Council concurs with OSHA that from experience and the data that exist, feasible engineering controls and practices are effective in significantly reducing asbestos exposure. Such feasible controls and practices should be mandated.

COMPLIANCE STRATEGY FOR THE CONSTRUCTION INDUSTRY. As discussed in response to earlier issues, respirators must be a last result, used only to supplement proper work practices and engineering controls. Flexibility should never mean allowing the option of less protection since respirators may not provide equivalent protection. Respirators are not only less reliable, but also can interfere with a worker's productivity. When levels cannot be controlled sufficiently using engineering controls and work practices, then respirators—the most reliable to minimize asbestos exposure—should be used. In such cases, a comprehensive respirator program should be instituted.

COMPLIANCE APPROACH FOR THE CONSTRUCTION INDUSTRY. The compliance approach for construction should include many different aspects working in concert with one goal in mind—protecting workers from asbestos. Reliance on a qualified person to monitor compliance on the worksite is a common one in numerous existing construction standards. Extensive work practice requirements and prohibitions to control exposures as well as respiratory protection programs will help insure protection.

Designation of regulated areas is an important approach to limit bystander and incidental exposures so common in construction. Requirements for negative air pressure enclosures are commonly accepted as an important hedge against bystander exposures and environmental contamination.

Signs and label requirements are part of an essential hazard communication program not only for workers entering regulated areas but also for others on the site to warn them of the dangers of exposure to asbestos. Labels also serve to remind workers of the required and prohibited work practices. Worker training and education also serve a protective function since educated workers are more aware of the risks and more likely to work safely.

Employer reporting requirements allow for some quality control over contractors doing asbestos work. Several states currently regulate or license contractors.

Another essential component of protection is the requirement that employers survey worksites prior to work commencing for asbestos and notify all the workers, other contractors, and OSHA of the potential hazard. This should

be the first step in any hazard awareness program, particularly for other sub-contractors whose workers may be exposed incidentally and need to coordinate their efforts to prevent exposure.

All these approaches combine to constitute a truly protective and practical approach to protecting construction workers from asbestos exposure.

FIT TESTING REQUIREMENTS FOR RESPIRATORS IN THE CONSTRUCTION INDUSTRY. The Council has proposed the use of air-supplied or powered air-purifying respirators which do not require fit testing.

PERSONAL PROTECTIVE EQUIPMENT IN THE CONSTRUCTION INDUSTRY. OSHA should adopt the present requirements for PPE for the construction industry, but should be more precise about the need for protective clothing.

HYGIENE FACILITIES AND PRACTICES IN THE CONSTRUCTION INDUSTRY. OSHA should require the facilities and hygiene practices that are appropriate to protect construction industry employees exposed to asbestos by requiring uncontaminated lunch facilities and require change rooms and showers for employees who work in a regulated area. Self-contained mobile units that provide hygiene facilities for those exposed to asbestos in non-fixed workplaces are available. These units are enclosed and are not subject to varying weather conditions.

MEDICAL EXAMINATIONS IN THE CONSTRUCTION INDUSTRY. The recommendations listed under MEDICAL SURVEILLANCE REQUIREMENTS [page 4] should be applicable to the construction industry.

RECORDKEEPING REQUIREMENTS IN THE CONSTRUCTION INDUSTRY. Recordkeeping is a necessity because of the long latency period of asbestos-related diseases. A worker needs to be able to point to exposure and medical records from 30 - 40 years earlier to demonstrate, perhaps for workers compensation purposes, a corrolation between exposure and disease. Epidemiological studies require the capability of looking back on exposure records. And also, since dose is the best predictor of future disease, dose records may act to warn workers to take additional precautions to avoid future exposures.

The Council recommends that employers should keep three types of records:

- Training Records -- kept one year beyond employment
- Medical Records -- kept 30 years beyond employment
- Exposure Records -- kept 30 years beyond employment

Copies of all records should be made available to employees at no cost when they are generated. This helps insure that a worker can easily keep track of his or her records. Employees should be allowed access to the employer's records as provided in 1910.20 and should be guaranteed confidentiality.

OSHA should explore the possibility of setting up a centralized depository without shifting the responsibility from the employer.