50272-101

REPORT DOCUMENTATION PAGE	1. REPORT NO.	2. PB90131004

4. Title and Subtitle NIOSH Testimony on NIOSH Responsibilities by [illegible] Baier, October 3, 1978

5. 78/10/03

6.

7. Author(s) NIOSH

8. Performing Organization Rept. No.

9. Performing Organization Name and Address NIOSH

10. Project/Task/Work Unit No.

11. Contract (C) or Grant(G) No.
(C)
(G)

12. Sponsoring Organization Name and Address

13. Type of Report & Period Covered

14.

15. Supplementary Notes

16. Abstract (Limit: 200 words) This testimony reviewed the NIOSH experience in implementation of the Occupational Safety and Health Act during the previous 7 years. Prior to the passage of the Act, research was conducted and technical assistance offered on occupational safety and health concerns to employers at their request or at the request of specific agencies, but the authority to promulgate enforceable standards was lacking and it was not possible to perform a study at the request of the employees themselves. Since passage of the Act the budget jumped from 10 million to 65 million dollars and the staff from 340 to over 900. Significant progress has been made in the specific areas of concern of asbestos (1332214), silica (7631869), lead (7439921), mercury (7439976), coke oven emissions, and benzene (71432), along with 13 other substances. Altogether, over 100 documents recommending standards have been transmitted to OSHA, covering more than 2000 toxic substances and physical agents. Work has also proceeded in the area of industrial accidents, safety research in support of standards for personal protective equipment, and recommendations for standards for emergency egress from elevated workstations and for logging. Attention was directed toward information services which will help avoid duplication of research efforts. Health Hazard Evaluations have been completed in response to over 500 requests, with over half of these reports finding that hazardous conditions did exist at the work site.

17. Document Analysis a. Descriptors

b. Identifiers/Open-Ended Terms NIOSH-Publication, NIOSH-Author, NIOSH-Testimony, Baier-E-J, Safety-research, Occupational-health-programs, Industrial-safety-programs, Worker-health, Toxic-materials, Industrial-hazards, Occupational-exposure

c. COSATI Field/Group

18. Availability Statement	19. Security Class (This Report)	21. No. of Pages 12
	22. Security Class (This Page)	22. Price A02

(See ANSI-Z39.18) ...tions on Reverse

OPTIONAL FORM 272(4-77)
(Formerly NTIS-35)
Department of Commerce

S7037

Statement of
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National Institute for Occupational Safety and Health
Center for Disease Control

Before the
Subcommittee on Labor
Senate Committee on Human Resources

October 3, 1978

I am pleased to appear before you today to review our experience in implementing the Occupational Safety and Health Act during the last seven years. I am accompanied by Vernon E. Rose, Director of the NIOSH Division of Criteria Documentation and Standards Development and Philip J. Bierbaum, Deputy Director of the NIOSH Division of Surveillance, Hazard Evaluations, and Field Studies. Since there has been an occupational health program in the Public Health Service for sixty-four years, we are in a good position to assess what difference the Act itself has made. Before the Act was passed, predecessors of NIOSH conducted research and provided technical assistance on occupational safety and health problems to employers at their request or at the request of State and local health departments. It was not until after the Act was passed that specific authority existed to translate research into enforceable standards governing general industry and to conduct health hazard evaluations at the request of employees as well as employers.

Since May 1970, the NIOSH budget has increased from $10 million to $65 million and the staff has increased from 340 to over 900. Last year Congress gave NIOSH additional responsibilities for research on the occupational health problems of the approximately 500,000 miners in the United States. In May 1978, a special board chaired by the Assistant Secretary for Health recommended to Secretary Califano that NIOSH continue to expand its programs to make it commensurate with the size of the occupational safety and health problem and more responsive to the demanding legislative requirements. They concluded that the current

laboratories in Morgantown and Cincinnati could be expanded to accomodate the growing research program.

We will discuss the progress we have made since 1971 in implementing programs in standards development, safety research, health hazard evaluations, and how we relate to the Occupational Safety and Health Administration (OSHA) in these areas. We will also discuss recordkeeping requirements, an important joint responsibility of NIOSH and OSHA under the Act.

Criteria for Recommended Standards

The Senate Report on the Occupational Safety and Health Act noted that "not only do we still have insufficient information regarding many of the threats to health which have long been known to exist in industry, but, in addition, the modern worker encounters health hazards involving complex, often synergistic, interactions of numerous physical and chemical agents, and that the introduction of such agents into industry is proceeding at a rapid pace,...."

NIOSH has made considerable progress since the Act was passed in developing recommended standards for some of the most serious occupational health hazards. Asbestos, silica, lead, mercury, coke oven emissions, and benzene along with 13 other substances were addressed within the first two years of our criteria documentation effort. As of last week, a total of 100 documents recommending occupational safety and health standards will have been transmitted to OSHA, covering more than 2,000 toxic substances and physical agents.

Increasingly, we are developing single documents covering groups of substances with similar chemical characteristics or covering industrial processes such as coal gasification, coal liquefaction, the roofing industry and welding and brazing. The document on pesticides manufacturing and formulation, transmitted this year, covered 1,500 registered pesticides. Over 60 percent of the criteria documents developed during the next three years will deal with groups of substances.

NIOSH recommendations are based on occupational safety and health information published in the scientific literature and on studies conducted by the NIOSH research divisions. Research conducted by NIOSH each year includes approximately 90 field studies evaluating worker exposure to toxic substances, physical agents and injury-producing hazards, and approximately 70 studies conducted in NIOSH laboratories in Morgantown and Cincinnati. We have also provided NIOSH experts to testify at all OSHA public hearings and recently we have assisted in the questioning of witnesses. We believe it is important to coordinate our work in this area with OSHA so that standards can be established which effectively control workplace exposures.

NIOSH criteria documents are valuable even before they are translated into enforceable standards. They are widely distributed and many companies use them as a basis to control hazards even though the documents do not have the force of law. They provide a thorough review of the existing literature and state of knowledge on a hazard and serve as an inpetus for further research by NIOSH and others. They are also

being used by other government agencies and by international bodies, such as the World Health Organization, as the basis for developing international permissible limits for occupational exposures.

Currently, NIOSH is conducting on contract a review and evaluation of our procedures for developing recommended occupational safety and health standards. This evaluation will elicit the viewpoints of occupational safety and health professionals from organized labor, industry, government, and academia, those who are users of our recommendations or who are experts in the field. Included in the evaluation will be the following questions:

1. Is NIOSH addressing the most important occupational safety and health problems?
2. How valid are the recommendations for standards?
3. How useful are the recommendations, either within or in addition to the regulatory process?

We will advise this subcommittee on the results of this evaluation effort, and any changes in our criteria documentation efforts that may result.

Safety Research

The statistics on industrial accidents are well known--each year over 2.3 million workers suffer disabling injuries and over 12,000 die as a result of work-related accidents, totalling over 7 billion dollars annually in medical care and wage compensation costs alone. Yet, we have very little information on the causes of these accidents.

In 1977 NIOSH created a special Division of Safety Research in Morgantown, West Virginia, with programs in safety data analysis, safety surveillance, epidemiology, testing and certification of personal protective equipment, and safety criteria document development. This division is working on several projects to learn more about what causes accidents to provide a basis for promulgating new safety standards or revising current ones. One project involves categorizing accidents in the building and highway construction industries according to whether an existing standard has been violated, whether a standard was in existence but not violated, or whether there was no applicable standard. If this classification scheme is successful in understanding the causes of accidents and in developing safety standards, future projects will use this approach.

Research is also being conducted on the causes of accidents in specific industries such as the oil and gas industries, as well as in broad categories such as the storage and manufacture of explosives and in materials handling. The human factors aspects of accident prevention and control, particularly the complex interaction of man, machine and environment, are also being studied so that future standards consider these relationships.

NIOSH also conducts safety research in support of standards for personal protective equipment. Although personal protective equipment should not be a substitute for safe design of processes, it will continue to be used in emergencies, for maintenance operations, and to protect workers when engineering controls break down. Little research

has been done to identify injuries that could be prevented through proper design and use of personal protective equipment. Existing standards are usually based on the consensus of committees representing various interest groups which often do not consider performance characteristics of the devices. For example, protective helmets have traditionally been designed to protect against blows on the top of the head but there is considerable evidence the helmets do little to protect the side of the head or the neck, which often suffers more than the skull from blows to the top of the head. We have a study underway to provide data on the epidemiology of these injuries so that standards can be established for testing and certifying this equipment which more realistically reflect conditions under which it is used.

In addition to criteria documents on health issues, NIOSH has transmitted recommendations to OSHA for development of standards for emergency egress from elevated workstations and for logging. A criteria document containing recommendations to protect employees working in confined spaces is in final review and should be transmitted soon. Both safety and health recommendations are being included in process standards for slaughtering and rendering plants, welding and brazing, printing industry, and foundries. Plans for future safety criteria documents are being coordinated with the OSHA Directorate of Safety Standards Program.

NIOSH has continuing contact with OSHA staff to coordinate our safety research to avoid duplication of effort. We have participated with OSHA and the Bureau of Labor Statistics in developing methods to

obtain data on the causes of selected high accident areas, including accidents involving ladders, power saws, welding and scaffolds. NIOSH, through inter-agency agreement with the National Bureau of Standards (NBS), is conducting a study of scaffolds, their use, construction and loading requirements. Current standards will be thoroughly reviewed and accident data analyzed to develop recommendations to improve the safety of workers using scaffolds. All such research is aimed toward preventing other tragedies such as the scaffolding collapse at Willow Island, West Virginia.

Health Hazard Evaluations

Under the health hazard evaluation program authorized by section 20(a)(6) of the Act, NIOSH responds to written requests from employees and employers to determine whether substances found in the workplace have potentially toxic effects. NIOSH submits such determinations to employers and affected employees as soon as possible. NIOSH also routinely submits final reports to OSHA and to certain other Federal and State agencies. In addition, NIOSH provides consultation and technical assistance not specifically authorized by section 20(a)(6).

Since the program began in 1972 we have completed over 500 health hazard evaluations on a variety of industrial hazards. Approximately half of these have resulted in findings of toxic conditions. NIOSH has completed over 130 technical assistance reports, many at the request of OSHA and other Federal, State, and local agencies.

In a report issued in May 1978, the General Accounting Office (GAO) concluded that the NIOSH health hazard evaluation program has helped to

protect workers and should be widely promoted and made available to more workers. We agree with GAO that the program is important, however, we are concerned about creating a demand for assistance that we will not be able to meet. We are considering various alternatives by which we could double or triple our current program. This might include expanding our own staff in this area as well as expanding our use of contract personnel. We plan to involve one of our Educational Resource Centers (ERC) in a pilot effort to determine how they might assist us in conducting health hazard evaluations. We are also exploring how we can best work with staffs of other Federal and State agencies to respond to occupational health problems among their employees.

The report also made a number of specific recommendations to improve the program. These included notifying requestors more quickly about results of the evaluation, notifying requestors if recommendations for exposure levels change after the report is issued, sending reports to other companies with similar exposures, and establishing a program for measuring program effectiveness. They also recommended responding to requests for investigations even at worksites where OSHA is conducting or planning to conduct compliance action. GAO further recommended that NIOSH actively implement its policy to provide OSHA with additional pertinent criteria for toxic substances encountered in health hazard evaluations which are not adequately covered by existing standards.

NIOSH generally concurred with these recommendations and has already taken steps to implement them. NIOSH has made several changes

to improve the timeliness of reports. Requestors are usually contacted within a week and the most urgent problems are given the highest priority. NIOSH responds within 24 hours to emergencies. The internal review process for health hazard evaluation reports has been shortened and interim reports are issued as soon as the field work has been completed. Since 1977 NIOSH has made use of professional services contracts with physicians in different sections of the country who can be called upon to conduct medical examinations.

We are now abstracting important information from health hazard evaluations and placing it in a computerized data base that will serve a number of purposes. In one pilot project we are using the computer to select reports documenting significant health hazards and identify firms manufacturing or using a similar process or chemical. We will send these firms a synopsis of the pertinent health hazard evaluation report. The computerized data base should also be useful in obtaining information to set priorities for research and standards development and for current intelligence bulletins.

We are conducting a study to determine whether it would be useful to notify requestors if NIOSH substantially reduces the recommended level of safe exposure to a substance after the report was issued. We have also established procedures to be followed when it seems necessary for both NIOSH and OSHA to investigate the same plant and for transmittal of criteria when health hazard evaluations document substances for which adequate standards do not exist. In response to the GAO recommendation to review the program's effectiveness, we are

asking for critical evaluations from the employers and employees involved in the last 200 health hazard evaluations NIOSH has conducted. We will inform this Committee on the results of the survey.

Recordkeeping

We are pleased that OSHA has published proposed regulations for retention and access to employee exposure and medical records. Such records are important not only to the employee but also to NIOSH in carrying out its research function and to OSHA in its standard setting and enforcement activities. It has been our experience that work history information and demographic data (such as age, sex, race, social security number, last known address and any cause of death information) as well as medical, exposure, and accident records are vital to our epidemiologic and surveillance studies.

In our formal response to the OSHA proposed standard, we stressed that it is important that such records be systematically linked so all available data on each individual can be examined. We feel strongly that such records be retained for a period consistent with the latency for development of chronic diseases, which can be 30 years or more. Such a retention period would be consistent with section 8(c) of the Toxic Substances Control Act and this retention period is now being recommended in recent NIOSH criteria documents. It is our view that once an employer establishes a systematic recordkeeping system, it does not pose a significant additional burden to retain them for the required time, particularly with the use of techniques such as microfilm and computers.

Another important part of the proposed regulation is employee access to records. We believe that an employee should have the right of access to any record an employer maintains on that individual, including medical records, and that disclosure to a third party requires consent of the individual, with the exception of Federal, State or local agencies with legal right of access to the records.

Since NIOSH research is a key element in the adversarial standards setting process, it is essential that it be based on the best available evidence. For epidemiologic and surveillance studies, such evidence is often obtained from records maintained by the employer.

Conclusion

In reviewing our experience in implementing the Occupational Safety and Health Act, we have found it to be a strong and well-drafted law. It gave NIOSH important authorities that have enabled us to obtain the data we need to conduct our research, including the right to enter the workplace and to examine pertinent records. These rights have been upheld in subsequent court decisions. The Act has enabled us to be more responsive to workers through our health hazard evaluation program. This provision recognizes that it is often the worker who is first aware of occupational safety and health problems. We have also continued to provide technical assistance to employers by on site evaluations and providing information on controlling workplace hazards. Each year the Institute responds to nearly 200 requests for technical information and publishes about 120 technical reports.

It is indeed unfortunate that the implementation of the Occupational Safety and Health Act has created such controversy, but it is understandable. We at NIOSH and at OSHA are attempting to deal directly with vital problems affecting millions of lives. The solutions to these problems range from minor changes to complex expensive engineering modifications. We would expect this to create controversy. We welcome continued oversight and evaluation of our efforts to make this law work. The differences between government, management, and labor surrounding OSHA are really with its implementation, not with the law itself.

Mr. Chairman, we will be pleased to attempt to answer any questions you or other Members of the Subcommittee may have.