# THE CASE FOR OSHA REFORM

By Philip J. Landrigan and Steven Markowitz

HE COMPREHENSIVE OCCUPATIONAL Safety and Health Reform Act (H.R. 3160) is a most important bill — timely and necessary. The major justification for passage of the bill is that in 1992 occupational diseases continue to be all too common in the United States.

In the 22 years since passage of the Occupational Safety and Health Act in 1970, progress has been made in the prevention of occupational disease. Some of the worst abuses have been curbed. Standards have replaced guidelines. Secrecy about work-related hazards is less common. An ineradicably high level of expectation about occupational health and safety has been created.

## U.S. OCCUPATIONAL DISEASE

Nevertheless, success in eliminating work-related disease in the United States has remained elusive. Cancer mortality is increasing, and occupational exposures appear to account for at least part of this trend. (1) Death rates in underground mining have risen. (2) Asbestos, though used less commonly than in the past, remains widely dispersed; approximately 10,000 asbestos-related deaths are expected to occur in the United States each year for the remainder of the century. By the year 2000, more than 300,000 American workers will have died as a consequence of occupational exposures to asbestos. (3) Silicosis is still common among miners and foundry workers (4); a recent review of OSHA field survey data indicated that levels of silica exposure in 43 percent of American ferrous foundries exceeded legally mandated standards. (5) The recent tragedy in the chicken processing factory in Hamlet, North Carolina, reminds us that safety hazards are also common in American workplaces, and that these hazards can kill. Each year in the United States an estimated 10,000 American workers die on the job as the result of acute traumatic injuries suffered at work. Finally, recent data from our group at the Mount Sinai School of Medicine and from the Government Accounting Office (GAO) indicate that child labor with its attendant health hazards has increased substantially over the last decade. (6) In New York State alone, 1,200 working children received workers' compensation awards for work-related injury last year; 42 per cent of these awards to children were for permanent occupational disability.

Our group at Mount Sinai has developed an estimate of the current extent of occupational disease. (7) We have calculated that each year in the State of New York between 4,700 and 6,600 deaths are caused by chronic diseases resulting from past occupational exposures. Extrapolating these estimates to the United States, we have calculated that each year in the United States approximately 50,000 to 70,000 deaths and 350,000 new cases of illness are caused by toxic exposures encountered in American workplaces. These illnesses include cancer, chronic lung disease, cardiovascular disease, chronic disease of the nervous system, and kidney failure. An additional 10 million persons suffer traumatic injuries on the job, and approximately 10,000 persons die each year as the result of traumatic injuries suffered at work.

The costs of occupational disease are high. The direct and indirect medical costs that are incurred each year in the United States as the result of occupational illness are estimated to exceed \$6 billion. (8) These costs contribute substantially to current overall increases in health care costs in the United States.

The great tragedy of the current situation in occupational health is that work-related diseases are entirely unnecessary. (9) They are highly preventable. They arise from man-made conditions, and they can be prevented through modification of those conditions. In the present era of rapidly escalating health care costs, the savings to the American public that would result from aggressive prevention of occupational disease could be substantial. (8)

## **FACTORS RESPONSIBLE**

Why do occupational diseases continue to exist in the United States? A series of factors account for their persistence. (9)

- 1. Relatively little is known about the potential health hazards of most synthetic chemicals. Enforcement of the Toxic Substances Control Act by the Environmental Protection Agency (EPA) has been extraordinarily lax. Tens of thousands of untested chemicals have been allowed by EPA and the chemical manufacturing industry to come into the workplace. According to a study undertaken by the National Academy of Sciences, 80 percent of industrial chemicals have never undergone toxicity testing. (10)
- 2. Physicians are not trained to suspect work as a cause of disease. The average American physician receives only four hours of training in occupational medicine during the four years of medical school. (11) Consequently, American doctors often fail to recognize and diagnose occupational illness.
- 3. Surveillance programs for occupational disease are fragmented, unreliable and outdated. (12) They produce significant underestimates of the actual number of cases of occupational illness that occur each year in the United States. Moreover, these programs focus on occupational injuries and on easily recognized superficial conditions such as dermatitis, while ignoring serious chronic disease. Thus, the picture that they produce does not convey an appropriate sense of urgency or gravity about the need to reduce the burden of occupational illness in the United States.
- 4. The U.S. Occupational Safety and Health Administration (OSHA) and the National Institute for Occupational Safety and Health (NIOSH) have for the last decade been greatly limited in their ability to prevent occupational illness. The budget of NIOSH has been decreased by more than 50 percent since 1980. OSHA now has fewer inspectors in the field than it did a decade ago. Many thousands of American factories have never been visited by an OSHA inspector. On average, each American factory is visited by an OSHA inspector less than once per decade. In consequence, abuses go unnoticed, unchecked and unregulated, and disease develops unseen and unprevented.
- 5. OSHA regulations are seriously inadequate. Many thousands of American workers are excluded from coverage by OSHA standards. These unprotected workers include government employees, construction workers, maritime workers, and agricultural workers. Each year, many thousands of cases of occupational disease occur in

these workers — pesticide poisoning in agricultural workers, lead poisoning in construction workers and asbestosis, lung cancer and mesothelioma in merchant seaman exposed to asbestos. The toll of disease in these unprotected workers is fearsome, and the economic costs of these entirely preventable diseases are very high.

A second problem is that permissible limits of exposure to occupational toxins that are established in OSHA regulations frequently are outdated. They are not reflective of current scientific knowledge. They, therefore, fail to protect workers against the toxic effects of chemical substances to which they are exposed each day in their work.

OSHA has relied unduly in its standard-setting activities on a series of quasi "standards" that have been established by a private group, the American Conference of Governmental Industrial Hygienists (ACGIH). This group, which has no official standing, has engaged for many years in the practice of setting "threshold limit values" for substances in the workplace. The consensus process by which these ACGIH threshold limit values are set is not established in law, and the representation of various stakeholders in the process, labor in particular, has been at best uneven. Also, ACGIH threshold limit values are deficient in that they simply establish a numerical level for recommended exposure to a chemical substance but prescribe no procedures recommending approaches that should be taken for the protection of workers. Also, they establish no procedures for biomedical or environmental monitoring of workers. OSHA's continuing reliance on ACGIH threshold limit values has impeded OSHA's ability to establish its own well-founded legally binding standards. Now 22 years after passage of the OSH Act, OSHA's continuing reliance on ACGIH threshold limit values is a national embarrassment.

Another shortcoming of OSHA standards is the absence of generic standards for medical monitoring and for environmental monitoring of workers exposed to toxic substances. OSHA should long ago have established industry-wide procedures for the conduct of these routine, yet very important activities.

Inequitable levels of protection constitute another problem in OSHA standards. OSHA typically sets standards at a level that will permit one death to occur per 1,000 exposed workers. This level of protection is much less stringent than that applied by EPA for ensuring the safety of persons in the general public. Typically, EPA regulations are set at a level that will allow no more than one case of disease per 100,000 or per million exposed persons. The inequitable standard-setting engaged in by OSHA sends a clear message that workers are considered

by the present administration to be 100 or 1,000 times less valuable to the United States than other members of society.

6. Finally, the White House Office of Management and Budget (OMB) has time and again blocked or

delayed the passage of regulations from OSHA that would have prevented substantial numbers of cases of illness and death from occupational disease. Repeatedly, OMB has blocked approaches to disease prevention through regulation that would have saved substantial health care dollars.

"The provisions in the bill requiring all employers with 11 or more employees to have joint safety and health committees ... represents an extension to the American workplace of an approach that long has been standard among enlightened companies in this country as well as in many Canadian and European workplaces."

Over the last decade, the heavy hand of OMB has been evident in delays that were imposed upon the regulation of numerous occupational toxins, among them benzene and formaldehyde. It has been calculated that between 30 and 490 excess deaths from leukemia will

ultimately result from OMB's 10-year delay of benzene regulation. (13) Likewise, delay in the regulation of occupational exposure to formaldehyde will result ultimately in excess numbers of cases of respiratory cancer in occupationally exposed workers. (14)

Last March, OMB blocked OSHA's efforts to extend OSHA protection to workers in the construction trades, the maritime industry, and agriculture. In blocking these regulations, OMB acted in clear contravention of the Congressional intent that is expressed in the preamble of the OSH Act that "this Act is intended to provide a safe and healthful workplace for every working American man and woman." In its analysis, OMB has clearly placed economic considerations above considerations of human health and human life. It has engaged in a malignant form of cost-benefit analysis that is contrary to common humanity and that was specifically opposed more than a decade ago by the American Public Health Association in its Policy Statement No. 8103

In denying these regulations, OMB argued speciously that the imposition of regulations in construction, agriculture and the maritime industry would cause employers in those sectors to transfer jobs overseas to the ultimate detriment of American workers. That prospect seems hardly likely in relation to either agriculture or construction. Moreover, OMB's ruling ignores the fact that hundreds of American workers in agriculture are poisoned each year by pesticides, it ignores the fact that hundreds of workers in the construction industry are poisoned each year with lead, and it ignores the fact that tens of thousands of maritime workers have died of the diseases caused by asbestos. OMB's denial of these regulations represents a narrow form of cost accounting that is not worthy of a civilized government. Moreover, OSHA's analysis considers only the costs of disease prevention, but ignores the much greater costs that result from preventable occupational disease.

## THE NEED FOR REFORM

The persistence of occupational disease and death in the United States constitutes the strongest argument for reform and strengthening of the OSH Act. Much remains to be done to fulfill the fundamental promise of the Act to "provide a safe and healthful workplace for every American man and woman."

In my opinion, the reform act takes major steps towards preventing work-related disease and improving the health of American workers. Several aspects of the bill warrant special attention.

#### Section 101. Safety and Health Programs

This section would require employers to develop a written occupational safety and health program in consultation with employees. Such plans have been standard in Canada, the United Kingdom and many European countries for several decades. They represent a very effective device for making the prevention of occupational injury and disease an explicitly stated corporate goal. The creation of such a written plan puts a company on record that it will take steps to prevent occupational disease and injury. Moreover, the existence of such a plan provides a yardstick against which a company's performance on job safety and health can be measured.

In my opinion, the creation of these plans is a step that is long overdue in the American workplace. It is eminently rational. It is a procedure that is entirely consistent with the sort of target-based management goals that firms use routinely in other areas, such as production and cost accounting. It is a measure that will be well understood by managers. In responsible companies, this provision will have the effect of incorporating success in attaining occupational safety and health targets into the evaluation of managers.

OSHA must be very specific in developing guidelines for safety and health programs. Targets must be set, and hazards must be listed. For example, companies must be required to list all carcinogens and other occupational hazards present in a worksite. An appropriate and well-tested approach for classifying occupational carcinogens will be to use the lists developed by EPA for the classification of carcinogens. OSHA should not become involved in developing a new scheme of chemical classification here; that would only delay the development of these regulations. Also companies must be required regularly to produce information on the number of workers in a firm who have developed work-related disease and injury. These actual numbers should be prominently compared with the targets that have been proposed in the company's plan. Section 201. Joint Safety and Health Committees.

The provisions in the bill requiring all employers with 11 or more employees to have joint safety and health committees is excellent. It represents an extension to the American workplace of an approach that long has been standard among enlightened companies in this country as well as in many Canadian and European workplaces. The existence of actively functioning joint safety and health committees constitutes a powerful mechanism for insuring that a workplace is safely run, that health and safety targets are explicitly addressed, and that problems are forthrightly addressed. Moreover, the sense of investment in the work that these committees provide constitutes a powerful incentive towards the healing of rifts between management and labor and can result in increases in productivity, as well as decreases in health care costs.

#### Section 301. Extension of OSHA Coverage

The proposed extension of OSHA coverage that is embodied in the Act represents an excellent step forward. It is long overdue that OSHA coverage be extended to public employees, to employees of federal agencies, and to employees of DOE nuclear facilities. When I was at NIOSH, some of the greatest frustrations that I encountered resulted from our often ineffectual attempts to deal with occupational safety and health problems among governmental workers or workers in contractor-operated federal nuclear facilities. Often we were delayed for months, and even years, in our efforts to address sometimes very serious occupational safety and health problems among these groups.

Section 401. Standard-Setting Procedures

The new bill requires OSHA to respond to petitions for health and safety standards within 90 days of their receipt. Moreover, if the agency finds that a standard is warranted, the new Act requires that the agency issue a proposed rule within 12 months of the petition.

This accelerated timetable represents a major advance. In the past, years and even decades have elapsed between an initial petition for a standard and the eventual decision by OSHA. The time lost in this process is not without consequence. For example, as I noted earlier, in the case of benzene, several hundred lives will ultimately be lost unnecessarily to leukemia and lymphoma among workers who were exposed to this proven human carcinogen during an 11-year delay in its regulation. (13) Likewise, in the case of formaldehyde, American workers will suffer and die unnecessarily from lung cancer and from cancer of the upper airways resulting from unnecessary exposures that were incurred during a seven-year delay in controlling exposure to this chemical. (14) In each of these cases, workers sickened and lives were lost while OSHA and the OMB delayed. Reasonable delay to evaluate evidence is absolutely necessary. Unreasonable delay that results in disease and death is not tolerable and constitutes a dereliction of public duty. I fully support the provisions of the new Act to streamline the standard-setting process.

Another strength of the proposed legislation is that it requires OSHA to pay special attention to recommendations issued by NIOSH that are relevant to the standard-setting process. Too often in the past, NIOSH's superb, well-considered and far-reaching recommendations for occupational standards have not been closely heeded by OSHA. Indeed, OSHA has all too commonly put greater weight on the hastily constructed threshold limit values developed without any official sanction by the American Council for Governmental Industrial Hygienists (ACGIH). ACGIH threshold limit values are not developed in the public domain. Moreover, unlike NIOSH recommendations for standards, ACGIH threshold limit values contain no provisions for medical monitoring and medical surveillance and they provide no information or advice as to how the recommended standards should be attained.

I consider these provisions of the reform act that strengthen the role of NIOSH to be absolutely in keeping with the OSH Act and represent a long overdue expression of proper regulatory philosophy.

#### Section 506. Abatement Provisions

A very important aspect of this provision is that employers who have been cited by OSHA for serious, willful or repeat violations will be required to abate these violations promptly within 30 days and post a notice of the abatement at the place of the violation. In the past, abatement has too frequently been delayed unnecessarily. In some instances, this delay has led to the occurrence of additional, entirely preventable illness and injury among workers who were exposed to a hazard during the period of delay. I fully endorse this provision.

#### Section 801. Data Collection.

This section of the proposed legislation requires the U.S. Department of Labor (DOL) to gather and make publicly available data on high-risk industries, employers, operations and occupations. Also it charges DOL to gather information on the causes of injuries and illnesses and on Workers' Compensation costs. I presume that this information would be presented in the form of an annual report. This would be a very important advance. It would represent the first mandated effort at regular national quantification of the burden of occupational disease and injury in the United States and its attendant costs. This represents a major advance over the present situation in which we basically have no national data. (2)

#### Section 901. Provisions Pertaining to NIOSH.

The new bill requires, first, that NIOSH establish a program to identify and notify employees who are at increased risk of suffering work-related injuries or illnesses and, second, that NIOSH establish a national surveillance program to identify and collect data on work-related illnesses and injuries.

These provisions are very important. They represent extensions of good work that NIOSH has already initiated through its SENSOR program, a federally supported, state-based program for the surveillance of occupational disease and injuries. The major impediment until now to the SENSOR program has been grossly inadequate funding. Hopefully, the new Act would make sufficient funds available to NIOSH to allow the surveillance of occupational disease in this country to achieve the same level of sophistication that has existed for many decades in the surveillance of such communicable diseases as measles, rubella, cholera, tularemia, and plague. (12)

In general, the provisions of this new Act that strengthen NIOSH are very important. NIOSH has too often been the poor stepchild of OSHA. Because of budgetary limitations imposed by OMB and regulatory inattention imposed by OSHA, NIOSH has not been able to fulfill the high potential that was envisioned for it at the time of its creation in 1970. I strongly support the provisions in H.R. 3160 that would strengthen NIOSH. ▲

**EDITOR'S NOTE:** This commentary is based on Dr. Landrigan's testimony last April before the U.S. House of Representatives Committee on Education and Labor on H.R. 3160, Comprehensive Occupational Safety and Health Reform Act.

#### REFERENCES

- 1. Bailar JS III, Smith EM. "Progress against cancer?" New Engl J. Med 1986: 314:1226-1232.
- 2. Weeks JL, Fox M. "Fatality rates and regulatory policies in bituminous coal mining, United States, 1959-1981". *Am J Publ Hlth* 1983; 73:1278-1280.
- 3. Nicholson WJ. "Cancer from occupational asbestos exposure: Projections 1965-2030." In IJ Selikoff (Ed) Disability Compensation for Asbestos-Associated Disease in the United States. New York: Mount Sinai Press, 1985.
- 4. Landrigan PJ et al. "Silicosis in a grey iron foundry: The persistence of an ancient disease." Scan J Work Environ Hlth. 1986; 12:32-39.
- 5. Oudiz J. et al "A Report on silica exposure levels in United States foundries." Am Industr Hyg Assoc J 1983; 44:374-376.
- 6. Pollack SH, Landrigan PJ, Mallino DL. "Child labor in the 1990s: Prevalence and health hazards." Ann Rev Publ Hlth 1990; 359-375.
- 7. Landrigan, PJ, Markowitz S. "Current magnitude of occupational disease in the United States: estimates from New York State." *Ann NY Acad Sci* 1989; 572:27-45.
- 8. Fahs MC, Markowitz S, Fischer E, Shapiro J, Landrigan PJ. "The health costs of occupational disease in New York State." Am J Industr Med 1989; 16:437-449.
- 9. Landrigan PJ, Baker DB. "The recognition and control of occupational disease." *JAMA* 1991; 266:676-680.
- 10. National Research Council. Toxicity Testing Strategies to Determine Needs and Priorities. Washington, DC: National Academy Press, 1984.
- 11. Levy BS. "The teaching of occupational health in United States medical schools: Five-year follow-up of an initial survey." Am J Publ Hlth 1985; 75:79-80.
- 12. US House of Representatives. Committee on Government Operations. Occupational Illness Data Collection: Fragmented, Unreliable and Seventy Years Behind Communicable Disease Surveillance. Washington DC: 1984. 60th Report by the Committee on Government Operations. House Report 98-1144.
- 13. Nicholson WJ, Landrigan PJ. "Quantitative assessment of lives lost due to delay in regulation of occupational exposure to benzene." *Environ Hlth Persp* 1989; 82: 185-188.
- 14. Landrigan PJ, Perera FP. "Controversy in the regulation of formaldehyde." (Editorial) Am J Industr Med 1988; 14:375-377.