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Occupational Safety and Health: Environmental Justice for the Forgotten American

BY JOSEPH A. PAGE* AND GARY B. SELLERS**

For the agony of the crushed arm, for the torment of the scorched body, for the delirium of terror in the fall through endless hollow squares of steel beams down to the death-delaying construction planks of the rising skyscraper, for the thirst in the night in the hospital, for the sinking qualms of the march to the operating table, for the perpetual ghostly consciousness of the missing limb—for these things and for the whole hideous host of things like them, following upon the half million accidents that happen to American working men every year, there can be no compensation.¹

And, well, my father worked in a chemical plant right next door to the one I work for; about twenty years. He's dead now. I had an uncle; he also worked in a chemical plant, the same plant right next door to me. He died of cancer, this cancer in the throat. He had a tube in his throat, and it was as a result of working in this chemical plant; he didn't have it before he went there. But a certain chemical that he inhaled, got in his throat and his throat was a mess and he died. I mean, I don't use the expression—he died like a dog We're a small bunch but we've got a problem. These chemicals are going to kill us all.²

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¹ Hard, *The Law of the Killed and Wounded*, EVERYBODY'S MAGAZINE, Sept. 1908, at 361.

² Harold Smith, Local 8-447, Oil, Chemical and Atomic Workers Int'l Union, quoted in *Hazards of the Industrial Environment*, transcript of a conference sponsored by District 8 Council, Oil, Chemical and Atomic Workers Int'l Union, Kenilworth, N.J., March 29, 1969, at 58-59; reprinted in *Hearings on H.R. 843, H.R. 3809, H.R. 4294, H.R. 13373, Before the Select Subcomm. on Labor of the House Comm. on Education and Labor*, 91st Cong., 1st Sess., pt. 2, at 1293-3 (1969).

Dormant for nearly six decades, the issue of occupational safety and health has begun to stir anew the national conscience.³ Once again voices are being raised against the gratuitous, unjust and unnecessary contribution American workers and their families are making to industrial prosperity and growth—a private subsidy paid to employers and coined in blood, broken bones, broken health, physical pain, mental anguish, and the ultimate trauma of death.

At the turn of the twentieth century, the human toll exacted by industry provoked a great public outcry. A talented corps of muckraking authors described in vivid terms the unsafe, unhealthy conditions of America's factories and workshops.⁴ They deplored the financial hardships suffered by the disabled worker and his family. In this era of rapid industrialization the frequency, severity and sequelae of work accidents were appalling. Injured workers could seldom obtain compensation from their employers and had to deplete their own meager savings and even turn to public relief to defray the costs of their accidents. The dehumanizing effects of this process were unworthy of a civilized nation.

The clamor for reform culminated in 1911 with the passage of the first state workmen's compensation acts, designed to shift to the employer most of the financial cost of work-connected injuries and deaths.⁵ This economic burden, it was supposed, would force employers to provide for the safety of their workers, and thus serve a preventive as well as a compensatory function.

³ See, e.g., *Industrial Safety: The Toll of Neglect*, TIME, Feb. 7, 1969, at 76; Rugaber, *Records Show That Lax Government Regulations Allow Occupational Hazards to Grow*, N.Y. Times, Jan. 2, 1970, at 17, col. 1; Mintz & O'Toole, *Industrial Hazards Exact a Rising Toll*, Washington Post, Dec. 28, 1969, et al., col. 5; O'Toole & Mintz, *Industrial Hazards Foster "Silent Kind of Violence,"* id., Dec. 29, 1969, et al., col. 4; O'Toole & Mintz, *Virtual Indifference to Job Safety Accompanies Rise in Casualties*, id., Dec. 30, 1969, et al., col. 3.

⁴ The classic of the genre is U. SINCLAIR, *THE JUNGLE* (1906, Airmont ed. 1965), which describes conditions in the meat-packing plants of Chicago. See also Dosch, *Just Wops*, EVERYBODY'S MAGAZINE, Nov. 1911, at 579; Hard, *The Law of the Killed and the Wounded*, id., Sept. 1908, at 361; Hard, *Pensioners of Peace*, id., Oct. 1908, at 522; Hard, *Making Steel and Killing Men*, id., Nov. 1907, at 579; Packer, *The Hazards of Industry: Should the Workman Bear the Whole Burden?*, OUTLOOK, June 5, 1909, at 319; *What If You Kill a Man?*, WORLD'S WORK, Nov. 1910, at 13602; *Buying a Man's Arm: By the Corporation Lawyer Who Made the Purchase*, AMERICAN MAGAZINE, July 1909, at 260.

⁵ General discussions of the history and goals of workmen's compensation may be found in E. CHEIT, *INJURY AND RECOVERY IN THE COURSE OF EMPLOYMENT* 10-13 (1961); I. A. LARSON, *THE LAWS OF WORKMEN'S COMPENSATION* §§ 1-5 (1964); H. SOMERS & A. SOMERS, *WORKMEN'S COMPENSATION: PREVENTION, INSURANCE AND REHABILITATION OF OCCUPATIONAL DISABILITY* 17-37 (1954).

Within the next decade most states enacted compensation statutes,⁶ and industrial groups initiated well-publicized safety campaigns.⁷ These steps served to blunt the thrust of the critics. Accident rates began to subside somewhat⁸ (the inevitable result of instituting the most rudimentary and inexpensive safety practices, which had previously been ignored), and the limited number of workers covered by the new acts began to receive limited benefits for employment injuries. The muckrakers turned to other causes as 1911 assumed the aura of a landmark year in the history of American social legislation.

For more than half a century the broad issue of occupational safety and health languished. The National Safety Council, a private group dominated by industry, published annual statistics which showed the dimensions of the problem diminishing,⁹ and these figures were uncritically accepted by the Bureau of Labor Statistics and other federal and state agencies concerned with accident prevention.¹⁰ The labor movement gradually developed into a powerful political force responsible for promoting the interests of the worker. But the unions failed to gather their own data on industrial accidents and diseases. They also failed to put effective pressure on the federal and state governments to strengthen and enforce existing legislation which was supposed to protect the working man.¹¹ The social security laws came into existence and were expanded to cover death and permanent total disability¹²—thus helping to relieve discontent with the inadequate benefit levels of workmen's compensation.

Suddenly in 1968 the hazards of the workplace re-emerged as matters of national concern. On January 23, President Lyndon B. Johnson delivered to the Congress a message on manpower and job training which included a reference to the problem of industrial safety and a declaration that, "It must be our goal to

⁶ *Id.*

⁷ See Palmer, *History of the Safety Movement*, 123 ANNALS 9 (Jan. 1926).

⁸ See note 127 *infra*.

⁹ See J. TURNBULL, C. WILLIAMS & E. CHEIT, *ECONOMIC AND SOCIAL SECURITY* 284 (2d ed. 1962).

¹⁰ See notes 30-41 *infra*, and accompanying text.

¹¹ The role of the labor movement in the struggle for occupational safety and health will be discussed at considerable length in the full NADER REPORT ON OCCUPATIONAL SAFETY AND HEALTH.

¹² See POLLACK, *DISABILITY INSURANCE UNDER SOCIAL SECURITY, IN OCCUPATIONAL DISABILITY AND PUBLIC POLICY* 158 (Cheit & Gordon eds. 1963); J. TURNBULL *et. al.*, *supra* note 9, at ch. 4.

protect every one of America's seventy-five million workers while they are on the job."¹³ The Johnson administration then sponsored the introduction of legislation which sought for the first time a comprehensive involvement by the federal government in the battle against industrial accidents and diseases.

On February 1, 1968, the Select Subcommittee of the House Committee on Education and Labor held the first of a series of hearings on the subject.¹⁴ Two weeks later the Subcommittee on Labor of the Senate Committee on Labor and Public Welfare began a similar investigation.¹⁵ These and subsequent hearings in 1969¹⁶ and 1970¹⁷ produced a mass of data which revealed and documented major shortcomings in various public and private programs for the prevention and compensation of work accidents and diseases.

Appreciation of the seriousness of the occupational safety and health problem has been gradually spreading. The recent burgeoning of both the consumer and ecology movements has undoubtedly helped. Indignation at hazards posed to consumer by defective products can readily shift to the daily risks endured by men and women engaged in production. Alarm at the deterioration of the nation's natural environment relates easily to the increasing dangers inherent in the work environment. A common thread which binds those who advocate consumer protection, conservation and occupational safety and health is that they all seek to curb the excesses of modern technology and to make corporate power responsive to the public interest.

The resurgence of the movement for occupational safety and health has been aided by the dramatic publicity generated by the coal mine explosion which caused seventy-eight fatalities in Farmington, West Virginia, on November 20, 1968, and the subsequent agitation by miners demanding compensation for "black lung"

¹³ 114 CONG. REC. S589, H688 (Jan. 23, 1968).

¹⁴ See Hearings on H.R. 14816, *Before the Select Subcomm. on Labor of the House Comm. on Education and Labor*, 90th Cong., 2d Sess. (1968), [hereinafter cited as 1968 House Hearings].

¹⁵ See Hearings on S. 2864, *Before the Subcomm. on Labor of the Senate Comm. on Labor and Public Welfare*, 90th Cong., 2d Sess. (1968).

¹⁶ See Hearings on H.R. 893, H.R. 3809, H.R. 4294, H.R. 13373, *Before the Select Subcomm. on Labor of the House Comm. on Education and Labor*, 91st Cong., 1st Sess. (1969), [hereinafter cited as 1969 House Hearings].

¹⁷ See Hearings on S. 2193, S. 2788, *Before the Subcomm. on Labor of the Senate Comm. on Labor and Public Welfare*, 91st Cong., 1st & 2d Sess. (1969-70), [hereinafter cited as 1969-70 Senate Hearings].

disease and better safety standards for the mines.¹⁸ Congressional hearings,¹⁹ the passage of the federal Coal Mine Safety Act²⁰ and recent attempts to secure the enforcement of the Act²¹ have kept public attention focused on the coal mines, and serve as a constant reminder of a larger, more significant problem: the safety and health of every working man and woman in the United States.

Undoubtedly (and unfortunately) more industrial disasters like the Farmington explosion would gain for the occupational safety and health movement the attention and action it merits. In the absence of such cataclysmic horrors, the challenge which the movement faces is to communicate the full sweep and depth of the problem, which must be seen and understood in the perspective of its entirety as a prerequisite to the first steps toward an effective solution.

Statistics are a beginning, and tell two stories: how bad things appear to be, and how much worse they really are, when one takes into account the widespread use of incomplete, misleading methods of data collection.

The National Safety Council has reported that in 1968 industrial accidents caused 14,300 deaths and 2.2 million disabling work injuries; 245 million man-days lost because of disability; \$1.6 million in wage losses; \$800 million in medical costs; and a total cost to the economy in the amount of \$7.9 billion.²² According to the U. S. Department of Labor's Bureau of Labor Statistics, in 1958 manufacturing entailed an accident rate of 11.4 disabling injuries per million man-hours worked.²³ By 1967 the rate had

¹⁸ For an extensive collection of newspaper articles describing the struggle for health and safety in the coal mines, see CONG. REC. E6002 (daily ed. June 26, 1970); *id.* H3114 (daily ed. Apr. 24, 1969); *id.* E2540 (daily ed. Apr. 1, 1969); *id.* H2383 (daily ed. March 31, 1969); *id.* E1271 (daily ed. Feb. 24, 1969); *id.* E749 (daily ed. Feb. 5, 1969); see also comment, *Mine Safety Legislation; A History of Neglect*, 11 B.C. IND. & COMM. L. REV. 31 (1969).

¹⁹ *Hearings on S. 355, S. 467, S. 1094, S. 1178, S. 1300, S. 1907, Before the Subcomm. on Labor of the Senate Comm. on Labor and Public Welfare*, 91st Cong., 1st Sess. (1969); *Hearings on H.R. 4047, H.R. 4295, H.R. 7976, Before the General Subcomm. on Labor of the House Comm. on Education and Labor*, 91st Cong., 1st Sess. (1969).

²⁰ Coal Mine Safety Act, Pub. L. No. 91-173, 83 Stat. 803 (Dec. 30, 1969).

²¹ See *Burton v. Hickel*, No. 861-70 (D.D.C., March 23, 1970); Porter, *Nader Accuses Interior of Evading Mine Safety Law*, Washington Post, Aug. 7, 1970, at A8, col. 1.

²² National Safety Council, *Accident Facts 23-24* (1969).

²³ BUREAU OF LABOR STATISTICS, U.S. DEP'T OF LABOR, REPORT NO. 360 INJURY RATES 1 (1969), reprinted in *1969-70 Senate Hearings*, pt. 2, at 1525.

reached 14, up from 13.6 in 1966.²⁴ Each of the twenty-one major manufacturing groups surveyed by the Bureau had a higher injury rate in 1967 than in 1965.²⁵

Ten times as many man-days are lost from work-connected disabilities as from strikes, and days of lost productivity as a result of accidents and illnesses are ten times greater than the loss from strikes.²⁶

Industrial mishaps have produced annual fatalities which exceed war deaths in Vietnam²⁷ and Korea²⁸ during comparable periods. Ralph Nader's 1970 testimony before the Senate Subcommittee on Labor, was more explicit as to the comparative impact of occupational violence: "In the last three years the fatality toll of riots in our cities has been 260 to 270 dead. Just in total of fatalities from trauma on the job that amounts to 5 days' toll in the occupational safety area."²⁹

If these figures are disquieting, how much more so is the fact that they reflect gross under-reporting? Dr. Jerome I. Gordon, in a study just submitted to the Department of Labor, has concluded that injury statistics compiled and published by the Bureau of Labor Statistics [hereinafter referred to as BLS] and the National Safety Council record a mere one-tenth of the actual injury toll!³⁰

The measure which the BLS and the National Safety Council use to calculate disabling injuries is the so-called Z16.1 standard devised by the American National Standards Institute.³¹ The Z16.1

²⁴ *Id.*

²⁵ *Id.* BLS has just released its figures for 1968, which show that the accident rate has remained at 14.0. BUREAU OF LABOR STATISTICS, U.S. DEP'T OF LABOR, REPORT NO. 379, INJURY RATES I (1970).

²⁶ See H.R. Rep. No. 1291, 91st Cong., 2d Sess. 14-15 (1970).

²⁷ *Id.* at 14.

²⁸ See H. SOMERS & A. SOMERS, *supra* note 5, at 6.

²⁹ See 1969-70 Senate Hearings, pt. 1, at 647.

³⁰ Gordon *et al.*, *An Evaluation of the National Industrial Safety Statistics Program*, Submitted to the Office of Planning, Wage and Labor Standards Administration, U.S. Dept. of Labor, June 30, 1970; Professor Gordon's summary of his findings is reprinted in CONG. REC. E7307 (daily ed. Aug. 4, 1970).

³¹ See United States of America Standards Institute, *Method of Recording and Measuring Work Injury Experience* (Dec. 27, 1967), reprinted in 1969-70 Senate Hearings, pt. 2, at 1173. Subsequent to the publication of this pamphlet, the United States of America Standards Institute changed its name to the American National Standards Institute. See 1969-70 Senate Hearings, pt. 1, at 447-50. According to Ralph Nader, "The name was changed under pressure by the Federal Trade Commission who alleged that this was a deceptive practice in that it confused a private organization with a governmental agency." *Id.* at 628-29. Cf. LAQUE, ANNUAL REPORT OF THE PRESIDENT OF THE AMERICAN NAT'L STANDARDS INSTITUTE, reprinted in 1969 House Hearings, pt. 2, at 1167, 1174.

definition of disabling injury excludes an injured employee who can return to "any regularly established job" on the shift after the one on which the accident occurred.³² Thus by re-assigning injured workers to "soft" jobs, large firms can easily avoid reporting injuries. Exactly how this is being done came to light in testimony before the Senate Subcommittee on Labor. According to corumentation supplied by the United Steelworkers of America, in a number of instances at a particular plant injured workers were given different job assignments and returned to work on crutches on the day after their accidents while the company newsletter continued to boast about the company's record of consecutive hours without lost-time injuries.³³ Another union official, commenting on his company's receipt of an award for 2 million hours without a lost-time accident, said "It is all walking wounded. That is what we call it."³⁴

The Z16.1 standard excludes injuries incurred on a Friday if the employee makes it back to work on his next shift on Monday.³⁵ The day of injury and the day on which the employee returns to full-time work are not counted as days lost as a result of disability.³⁶

Specific evidence of the type of minimizing inherent in the BLS and National Safety Council approach is observable in figures obtained from two large companies which calculated injuries on a different basis. For December, 1968, Martin-Marietta listed eighty-nine "doctor cases," which they defined as involving more than "routine first aid." Over the same period they reported seven disabling injuries under the Z16.1 standard.³⁷

For 1968 Bethlehem Steel pegged at 13.20 injuries per million

³² American Standards Institute, *supra* note 31, at 8.

³³ See 1969-70 Senate Hearings, pt. 1, at 695-97.

³⁴ *Id.* at 813. According to Frank Burke, Safety and Health Director of the United Steelworkers of America,

In the steel industry it is a practice that when an employee is injured they will administer first aid or hospitalization to the injured, then will have his or her supervisor punch their time card, then have another company representative go to the home of the injured employee, and bring him or her to their place of employment so that this particular accident cannot be recorded as a lost-time accident. 1968 House Hearings at 528.

³⁵ American Standards Institute, *supra* note 31, at 8.

³⁶ *Id.*

³⁷ Letter from Milton Durham Corporate Director, Safety, Martin-Marietta Corp., to Rep. Philip Burton, Aug. 15, 1969, and accompanying work injury report.

man-hours of work its own "serious injury index," which included "all disabling work injuries (as defined in Z16.1) and all nondisabling work injuries which prevent the injured employee, for any part of a turn following the turn on which he was injured, from doing all or part of the job he was doing at the time of injury." For the same period the firm's National Safety Council rate was only 0.73.³⁸ For 1967 Bethlehem calculated a rate of 7.37 for its coal operations, but reported a frequency of 4.84 to the National Safety Council.³⁹

The Gordon study reported that the American Telephone and Telegraph Company recorded more than a 300% increase in their internal company work injury experience after changing from the Z16.1 measure to a modified version of the "serious injury index."⁴⁰

More than 11 years ago the chairman of the American National Standards Institute's Z16.1 Committee had this to say about the standard:

As the safety movement developed . . . the emphasis on accident prevention tended to concentrate in particular groups of establishments, primarily the larger ones. . . . They took the lead in accident prevention and began to utilize all of the stimulants to effective action possible. This, inevitably, led to the competitive approach. . . . Unfortunately, for the statistician, these contests gave injury statistics in the individual establishment a position of importance which had not been contemplated when Z16.1 was first developed. In effect, they lost their original purpose of measuring the need for accident prevention and became measures of accomplishment. . . .

....

In all honesty, we have to recognize that most of the specific rules introduced into Z16.1 have the effect of reducing the range of reportable injuries. In the aggregate, the effect of these changes upon the range of reportable cases may be substantial. If we accept this premise, as I feel we must, all of our statistical indications of improvement in the volume

³⁸ Letter from R. F. Willey, Manager, Bethlehem Corp., to Rep. Philip Burton, Aug. 20, 1969.

³⁹ *Id.*

⁴⁰ See Gordon, *Twenty-Five Million Industrial Injuries a Year*, reprinted in CONG. REC. E7308 (daily ed. Aug. 4, 1970).

of work injuries become questionable. Have we really succeeded in bringing injury occurrence in manufacturing to the lowest level in history or do our figures largely reflect shifts in reporting rather than substantive improvement? Are we, in effect, kidding ourselves? If so, we are doing a disservice to the safety movement.⁴¹

The measurement of work injuries by the BLS suffers from other serious shortcomings. The BLS reckons its annual rate from data voluntarily submitted by some 65,000 business establishments.⁴² A New York study which compared information submitted by the same establishments voluntarily to the BLS and as required by law to the state Workmen's Compensation Board revealed a considerable difference in work injury frequency rates. In manufacturing, the rate derived under the BLS approach was 12; as derived from the New York Workmen's Compensation Board's records it was 16.⁴³ For construction the discrepancy was 27 to 43.⁴⁴

Another suggestion of weakness, attributable to the BLS' voluntary scheme of data collection, is the fact that after the 1968 congressional hearings on occupational safety and health the number of establishments reporting information on industrial injuries to the BLS diminished quite substantially.⁴⁵

According to Dr. Gordon,

The 16 co-operating states that participate in the [BLS] program . . . have on occasion "sabotaged" data collection by refusing to mail out survey schedules and follow-up on responses. This has resulted in elimination of some important industrial detail on work injuries and has seriously biased survey results.⁴⁶

The BLS is well aware of inadequacy of their statistics. Indeed, an Alice-in-Wonderland passage in a BLS handbook at-

⁴¹ Quoted in Pearce, *Quality of Statistics on Work Injury Rates*, paper presented at Interstate Conference on Labor Statistics, Knoxville, Tenn., July 9, 1959, at 13, 14.

⁴² BUREAU OF LABOR STATISTICS, U.S. DEP'T OF LABOR, REPORT NO. 379, INJURY RATES 3 (1970).

⁴³ See 1969-70 Senate Hearings, pt. 1, at 205.

⁴⁴ *Id.*

⁴⁵ See statement of Dr. Jerome B. Gordon in 1969 House Hearings, pt. 1, at 667-68.

⁴⁶ See Gordon, *Twenty-Five Million Industrial Injuries a Year*, *supra* note 40.

tempts to turn black into white (or white into black) by confessing failure as an indicia of success: "[W]hereas one might expect to breed a certain amount of doubt about a statistical survey by revealing its lack of perfection, frankness about unavoidable defects more often has the opposite effect and public confidence in the work is reinforced in the process."⁴⁷ Ralph Nader has quoted from a BLS report in 1969 which took a somewhat less sanguine view: "Regional directors, industry safety people and safety engineers were nearly unanimous in the opinion that Bureau of Labor Statistics figures were of little or no value."⁴⁸

We have been thus far focusing on accident statistics. If one compares these figures with data on occupational diseases, the former emerge as merely inadequate and unreliable. The latter are virtually non-existent. As Victoria M. Trasko, Special Assistant to the Director of the Bureau of Occupational Health, noted in her 1968 Report to the U.S. Department of Labor on Needs of Occupational Health Program, "Despite scientific advances in the medical and environmental control of specific occupational diseases, the prevalence and incidence of occupational diseases in the United States is completely unknown."⁴⁹

An indication of the pathetic state of occupational disease statistics emerges from the way the U.S. Public Health Service arrives at its national figure of 336,000 cases annually. This total is nothing more than a projection of the 27,000 cases reported in 1965 in California, the only state in the union with a comprehensive system of recording occupational diseases.⁵⁰

Despite this lack of statistics, we do know that modern technology has converted the workplace into an invisible arena of violence, subjecting worker to fumes, gases, dust, heat, noise vibrations and a host of other exposures and stresses whose harmful effects may be undetected or unknown. New, potentially toxic chemicals find their way into industrial use at an estimated

⁴⁷ BUREAU OF LABOR STATISTICS, *supra* note 42, at 1.

⁴⁸ See 1969-70 Senate Hearings, pt. 1, at 630.

⁴⁹ TRASKO, REPORT TO U.S. DEPARTMENT OF LABOR ON NEEDS OF OCCUPATIONAL HEALTH PROGRAM (1968).

⁵⁰ See PUBLIC HEALTH SERVICE, U.S. DEP'T OF HEALTH, EDUCATION AND WELFARE OCCUPATIONAL DISEASE: THE SILENT ENEMY I (1968) [hereinafter cited as SILENT ENEMY]; see also the testimony of Dr. William H. Stewart, U.S. Surgeon General, 1968 House Hearings at 107.

rate of one every twenty minutes.⁵¹ In many instances the crippling effects of occupational exposures delay their appearance for years, and may not become evident until after the worker changes jobs or retires.

In recent years a number of occupational disease problems have attracted public attention. These include:

Exposure to asbestos. One out of five deaths of asbestos workers is attributable to lung cancer.⁵² This is seven times the normal rate. One out of ten deaths results from asbestosis, a lung disease. One out of seven or eight is due to mesothelioma, a rare malignancy of the lung which affects one out of 10,000 in the general population. It is well established that these diseases are caused by continued exposure to asbestos dust.

Dr. Irving J. Selikoff, an authority on asbestosis, testified to the Senate Subcommittee on Labor:

You may wonder why asbestos workers walk backwards. They don't always walk backwards. It is only going upstairs. They are so short of breath that after two steps they have to sit down. It is easier to go up a flight of stairs backwards than walking up. It is a terrible way to die.⁵³

Dr. Selikoff also stated that "8 per cent of all deaths among insulation workers in this country are due to a completely preventable cause."⁵⁴

Byssinosis or "brown lung" disease. Of over 240,000 active textile workers in the United States, an estimated 17,000 have a respiratory condition caused by the inhalation of dust generated in the initial stages of the processing of cotton and other fibers.⁵⁵ This condition, known as byssinosis, can cause disability or death. It has been speculated that it afflicts more than 80,000 former textile workers.⁵⁶

⁵¹ SILENT ENEMY 6.

⁵² Statistics on asbestos exposure are compiled from SILENT ENEMY 3; testimony of Dr. Irving J. Selikoff, *1969-70 Senate Hearings*, pt. 2, at 1072-85; see also Brodeur, *The Magic Mineral*, NEW YORKER, Oct. 12, 1968, at 117.

⁵³ *1969-70 Senate Hearings*, pt. 2, at 1074.

⁵⁴ *Id.* at 1073.

⁵⁵ See *1969 House Hearings*, pt. 2, at 880-2; *1969-70 Senate Hearings*, pt. 1, at 585-86, 990-98; see also *id.*, pt. 2, at 1567-85.

⁵⁶ *Id.*

The attitude of the textile industry toward this disease is encapsulated in the following comment which appeared in the *American Textile Reporter*, an organ of the industry:

We are particularly intrigued by the term "Byssinosis," a thing thought up by venal doctors who attended last year's ILO [International Labor Organization] meeting in Africa where inferior races are bound to be afflicted by new diseases more superior people defeated years ago.⁵⁷

The Reporter goes on to prescribe chewing tobacco and snuff for the treatment of "cotton fever," its euphemism for byssinosis.⁵⁸ These comments are not inconsistent with evidence that the textile companies have been actively blocking evidence to study the disease.⁵⁹

Pneumoconiosis or "black lung" disease. A U.S. Public Health Service study revealed that throughout the Appalachian soft coal region one of every ten active and one of every five former miners show X-ray evidence of this chronic respiratory ailment.⁶⁰ According to the Surgeon General, "Data from post mortem examinations would indicate an even higher prevalence of this disease."⁶¹

Cadmium poisoning. Welders exposed to cadmium fumes risk death or serious injury. These fumes have no pronounced odor or immediate effect.⁶² A worker subjected to a severe exposure will die within four to nine days.⁶³ Thus it is probable that a number of deaths from cadmium poisoning may go unrecognized.

Noise. The number of American workers exposing noise con-

⁵⁷ Reprinted in *1969-70 Senate Hearings*, pt. 1, at 999.

⁵⁸ *Id.*

⁵⁹ See letter from Dr. H. Karl Sessions, Director, Branch of Special Health Services, Dep't of Public Health, Ga., to George Perkel, Research Director, Textile Workers Union of America, Oct. 23, 1969, reprinted in *1969 House Hearings*, pt. 2 at 905.

⁶⁰ See testimony of Dr. William H. Stewart, U.S. Surgeon General, Hearings on S. 355, S. 467, S. 1094, S. 1178, S. 1300, S. 1907, S. 2118, S. 2284. Before the Subcommittee on Labor of the Senate Comm. on Labor and Public Welfare, 91st Cong., 1st Sess., pt. 2, at 720.

⁶¹ *Id.*

⁶² CALIFORNIA STATE DEPT OF HEALTH, OCCUPATIONAL HEALTH ASPECTS OF CADMIUM INHALATION POISONING 4 (1969).

⁶³ CALIFORNIA STATE DEPT OF HEALTH, OCCUPATIONAL HEALTH TECHNICAL INFORMATION SERVICE, CADMIUM POISONING 3 (1966).

⁶⁴ PUBLIC HEALTH SERVICE, U.S. DEPT OF HEALTH, EDUCATION AND WEL-

ditions which may damage their hearing is estimated to be in excess of six million, and may even reach sixteen million.⁶⁴

Pesticide poisoning. Agricultural workers are constantly exposed to toxic pesticides.⁶⁵ The most poisonous are organic phosphate insecticides, which are chemically related to nerve gases and are fatal in small doses even when absorbed through the skin.⁶⁶ One doctor in Salud, California, tested twelve farmworkers and found seven to be suffering from low-grade insecticide poisoning.⁶⁷ Between April and October, 1969, one out of three workmen's compensation cases in Salud involved pesticide poisoning.⁶⁸

Exposure to betanaphthylamine. This dye ingredient is absorbed through the skin and gastro-intestinal tract, and causes cancer of the bladder.⁶⁹ Before its use was legally restricted in Pennsylvania⁷⁰ it was responsible for at least eighty-nine cancer cases in that state.⁷¹ DuPont Corporation reported several hundred cancer cases before switching to available substitutes.⁷² Although there is no known, safely allowable exposure to it,⁷³ betanaphthylamine is currently being produced by a small company in Georgia.⁷⁴

Radiation exposure. It is estimated that of 6,000 men who have worked as uranium miners in the United States, between 600 and 1,100 will die during the next two decades because of

FARE, CONSUMER PROTECTION AND ENVIRONMENTAL HEALTH SERVICE, ISSUE STUDY ON NOISE CONTROL 7 (1969), reprinted in 1969-70 *Senate Hearing* at 1627, 1640. See also, SILENT ENEMY 5: "Fifty per-cent of the machines in industry generate noise levels potentially harmful to hearing."

⁶⁵ See, CALIFORNIA DEP'T OF PUBLIC HEALTH, See, BUREAU OF OCCUPATIONAL HEALTH AND ENVIRONMENTAL EPIDEMIOLOGY, OCCUPATIONAL DISEASE IN CALIFORNIA ATTRIBUTED TO PESTICIDES AND OTHER AGRICULTURAL CHEMICALS (1967) reprinted in 1969 *House Hearings* at 1413. *Id.* at 1335-1473.

⁶⁶ *Id.* at 1448.

⁶⁷ *Id.* at 1449.

⁶⁸ *Id.* at 1451.

⁶⁹ See, MANUFACTURING CHEMISTS ASS'N, CHEMICAL SAFETY DATA SHEET—BETANAPHTHYLAMINE (adopted Apr. 1949), reprinted 1968 *House Hearings* 743.

⁷⁰ PA. DEP'T OF HEALTH, RULES AND REGULATIONS, ch. 4, art. 434 (April 25, 1968).

⁷¹ Interview with John O'Neill, Industrial Hygienist, Office of Standards Development, Bureau of Labor Standards in Washington, D.C., July 22, 1970. Mr. O'Neill had previously served as an official in the Radiation Standards Div. of the Pennsylvania Department of Labor and Industry, the enforcement body of the Pennsylvania Health Department.

⁷² See, Testimony of Ralph Nader at 1969-70 *Senate Hearings* at 650.

⁷³ See, MANUFACTURING CHEMIST ASS'N., *supra* note 69.

⁷⁴ See, Montgomery, *Georgia Factory Producing Chemical Outlawed in One State as Cancer Cause*, Atlanta Constitution, June 25, 1968, at 40, col. 4.

radiation exposure. The principal cause of these deaths will be lung cancer.⁷⁵

Of even greater significance than these public disclosures of the growing dangers of occupational diseases is the fact that the workers themselves are beginning to notice what is happening to them, and to ask questions which convey considerable unease. Recent statements by members of the Oil, Chemical and Atomic Workers International Union illustrate this awakening consciousness.⁷⁶

Peter MacIntyre, president of the chemical workers local in Sayreville, New Jersey, asked his national union:

What can be done, what can be told about gases when they're mixed together, such as chlorine and titanium tetrachloride? Now we have operators who have been working with these gases and fumes since 1961. We'd like to know what's happening to these people. Some of them have been taken out of the plant. Some of them, nothing has ever happened to them. We would like to know would wearing clothes that smell from chlorine be dangerous? We have people who continuously have their clothes saturated with the fumes of chlorine.⁷⁷

Another worker at a chemical plant in Linden, New Jersey, asked the national union about the effects of acrylamide:

We've had six or seven people that have suffered strokes, paralysis. One of the men became blind about a year ago. Now this acrylamide is also used in all acrylic-based paints. . . . But what I'm interested in now, is finding out exactly what the crippling effects of this acrylamide is. Because everybody in this plant is exposed to this, due to the faulty equipment that management has installed there. They're only concerned with a production yield, not a safety standard.⁷⁸

⁷⁵ See SILENT ENEMY 3.

⁷⁶ The Oil, Chemical and Atomic Worker's Int'l Union has published the transcripts of eight regional conferences entitled *Hazards in the Industrial Environment*. The transcripts contain comments and questions by workers about dangers which they themselves perceive in their own workplaces.

⁷⁷ DISTRICT 8 COUNCIL, OIL, CHEMICAL AND ATOMIC WORKERS INT'L UNION, HAZARDS OF THE INDUSTRIAL ENVIRONMENT, at 33 (March 29, 1969); reprinted in 1969 *House Hearings*, pt. 2, at 1267.

⁷⁸ HAZARDS OF THE INDUSTRIAL ENVIRONMENT, *supra* note 78 at 31; 1969 *House Hearings*, *supra* note 78, at 1265.

In the light of the foregoing, current efforts to protect the health of the American worker are woefully inadequate. According to a pamphlet on occupational disease prepared by the U.S. Public Health Service,

*Industry spends an estimated \$320 million annually for health services and professional surveillance of plant environment. However, no more than 20 percent of the total work force is employed in plants where such services are provided. Four out of five of the Nation's workers are employed in small plants, which usually offer no health services at all.*⁷⁹

At the state and municipal levels approximately five cents per worker per year is expended for occupational health services.⁸⁰ In 1967 state and local governments employed only five hundred people in occupational health and industrial hygiene to safeguard eighty million workers.⁸¹ According to an AFL-CIO survey, 25 states presently employ nearly 2,600 fish and game wardens.⁸²

The federal government spends only \$6 to \$7 million annually (or less than ten cents per worker) for occupational health and safety research through Department of Health, Education and Welfare programs.⁸³

Most workers disabled by industrial accidents or diseases must look to the state workmen's compensation statutes for medical and cash benefits. The workmen's compensation system in the United States will celebrate its sixtieth birthday in 1971. There are those who are wont to extol workmen's compensation with emotion-tinged rhetoric, and to decry any federal involvement in compensating industrial disability as an evil intrusion to be resisted at all costs. One will not find those most intimately affected by the system—i.e., the workers—among these staunch defenders of the status quo. For a quick look at the facts suggests the conclusion that the workmen's compensation system has reached its retirement age; or, at the very least, it desperately needs help.

⁷⁹ SILENT ENEMY 6.

⁸⁰ *Id.*

⁸¹ *Id.*

⁸² See, 1968 House Hearings at 711.

⁸³ Testimony of Dr. Roger O. Egeberg, Ass't Secretary for Health and Scientific Affairs, Dep't of Health, Education and Welfare, in 1969-70 Senate Hearings pt. 1, at 156.

It is generally recognized that cash benefits under workmen's compensation should replace between one-half and two-thirds of the injured employee's economic loss.⁸⁴ A confidential, still-suppressed report delivered to the President's Council of Economic Advisors in August, 1968 by a Special Task Force on Workmen's Disability Income discloses that in forty-three states the maximum allowable 1968 workmen's compensation benefits for permanent total disability did not meet the 1966 poverty standard-of-living level as calculated by the Social Security Bulletin.⁸⁵

Prior analyses have likewise pointed out the failure of workmen's compensation to provide adequate cash benefits to replace wage losses. Thus, in 1962 in Illinois workmen's compensation was found to pay for only eighteen per cent of the injured worker's estimated present and future wage loss.⁸⁶ A 1961 study found that death benefits were similarly deficient. Using 1956 figures, the study concluded that workmen's compensation benefits under the California statute replaced a mere 12.2% of the medium net loss suffered by the survivors of the victims of fatal industrial accidents in that state.⁸⁷ On a national level, thirty-three states replaced 20% or less of the estimated loss.⁸⁸

The Bureau of Labor Standards periodically publishes a list of standards recommended for incorporation into the state compensation statutes by groups such as the American Medical Association, the Council of State Governments and the Department of Labor. In 1961, a comparison of nineteen model provisions with the compensation acts of the 50 states, the District of Columbia and Puerto Rico, revealed that of a total of 988 categories (19 standards multiplied by 52 jurisdictions), 58% failed to meet the recommendations.⁸⁹ In their 1967 publication, the Bureau of Labor Standards used 16 model provisions. The 52 jurisdictions still scored a percentage of 58% deficient.⁹⁰ If one

⁸⁴ See I A. LARSON, *supra* note 5, at 1.

⁸⁵ BERKOWITZ ET AL., *THE WORKMEN'S DISABILITY INCOME SYSTEMS RECOMMENDATIONS FOR FEDERAL ACTION* 80-85 (Aug. 1968).

⁸⁶ ILLINOIS INDUSTRIAL COMM'N, *ANNUAL REPORT OF COMPENSABLE WORK INJURIES* 17 pt. II, (1963).

⁸⁷ E. CHEIT, *supra* note 5, at 62-88, 106-09.

⁸⁸ *Id.*

⁸⁹ DEP'T OF LABOR, U.S. BUREAU OF LABOR STANDARDS, BULL. NO. 212 *STATE WORKMEN'S COMPENSATION LAWS: A COMPARISON OF MAJOR PROVISIONS WITH RECOMMENDED STANDARDS* (rev. Dec. 1961).

⁹⁰ *Id.* (rev. 1967).

removes from the 1961 list the 3 standards not included in the 1967 list, the 1961 rating rises to a deficiency of 61%, which means that measured by the 16 standards used in 1967, the 52 jurisdictions made a 3% improvement in 6 years—not exactly what one would call an encouraging performance.

It would be impossible to overemphasize the stark fact that in a span of nearly six decades of existence the workmen's compensation system in the United States has progressed only to the point of being 58% deficient. The present status of occupational safety and health must also be viewed in the light of the more than half century which public and private groups have had to struggle against the ravages of industrial accidents and diseases. The conclusion is inescapable that the traditional approaches have had enough time, and have proved unequal to the task at hand.

In his testimony before the House Select Subcommittee on Labor on February 1, 1968, then Secretary of Labor W. Willard Wirtz recognized the critical role of an underlying philosophy toward industrial safety and health:

The mechanics were in charge of the industrial revolution. The humanists are asserting, against even stronger forces, their authority in the technological revolution. Life and limb were considered an acceptable price of progress during that period when even the optimists' philosophy was embodied in a phrase about the "inevitability of progress." But we are no longer determinists. We have accepted human responsibility for shaping not only the course but the quality of progress. A higher value is placed now on a life, a limb, an eye.⁹¹

Throughout the formative era of American industry, progress was considered inevitable, and occupational accidents were viewed as inevitable byproducts of progress.⁹² Yet historical determinism

⁹¹ 1968 *House Hearing* 12.

⁹² "Society never has advanced, and, so far as we can now see, it will never advance, without blood. When our ancestors made war their principal business, there was blood. And when we, their descendants, when we devote ourselves to manufacture and commerce, when we invent and operate complicated, gigantic machinery, there is still blood. We may diminish the volume of that red torrent, but we cannot stop its flow. The accident is an inevitable incident of business." Hard, *The Law of the Killed and the Wounded*, EVERYBODY'S MAGAZINE, Sept., 1908, at 361.

seems to beg the question. It smacks of testimony before a Congressional investigating committee in 1912 by a U.S. Steel executive, who answered complaints about excessive hours in the steel industry with the pious explanation that hours were set "by the laws of nature."⁹³

There was nothing inevitable about the formulation and execution of the rules of law relating to industrial accidents. Legislatures and courts faithfully reflected the interests of those who dominated the economy, and who were not in the least willing to have the cost of work injuries interfere with profits and growth. They held to the proposition that property rights took precedence over human rights, an ethic which permeated the entire social fabric in the nineteenth century.

To sanction this policy of shielding industry from the burden of industrial mishaps, the courts applied legal principles which made it virtually impossible for injured workers to shift their losses to the enterprises which employed them.⁹⁴ A suit for money damages required that the employee establish negligence on the part of the employer.⁹⁵ In addition to his opportunity to contest allegations of negligence, the employer could assert any of three legal defenses which, if proven, would completely exonerate him. He could argue that the accident had been caused, in whole or in part, by the employee's own negligence; that the employee had willingly encountered the employment hazard which caused the accident; or that a fellow-employee was responsible for the injury.⁹⁶

Each of these defenses is highly vulnerable to criticism. In situations where the employee's negligence was very slight—momentary inadvertence, perhaps—in comparison with the employer's maintenance of unsafe machinery or working conditions, it was manifestly unfair to deny the employee any recovery at all, especially if his injuries were serious. In addition, as one writer noted in 1910 in describing several categories of worker negligence

⁹³ Quoted in D. BRODY, *STEELWORKERS IN AMERICA: THE NONUNION ERA* 34 (1969).

⁹⁴ See, e.g., Brodie, *The Adequacy of Workmen's Compensation As Social Insurance: A Review of Developments and Proposals*, 1963 WIS. L. REV. 67, 68.

⁹⁵ See generally, W. PROSSER, *TORTS* ch. 15 (3d ed. 1964).

⁹⁶ *Id.* at 549.

in the steel industry, "human powers of attention, universally limited, are in [the worker's] case further limited by the conditions under which work is done—long hours, heat, noise, intense speed. For the reckless ones we maintain that natural inclination is in their case encouraged and inevitably increased by an occupation involving constant risk; recklessness is part of the trade."⁹⁷

In applying the doctrine of assumption of the risk, the courts took the position that by remaining on the job in the face of known dangers, the worker somehow bargained away his right to recover damages from the employer.⁹⁸ Inherent in this doctrine was the notion that the worker, if he did not wish to assume the risk, could always quit his job and move to another. In the light of the harsh realities of economic conditions during this era and the uniformity of dangerous machinery and work practices in every industry, this reasoning was untenable.

The so-called "fellow-servant rule" was the most indefensible of the three defenses. To bar recovery to an employee injured by the negligence of a co-worker made no sense at all, except as a blatant device to protect employers from legal liability.⁹⁹

Though damage suits usually took the form of trials by jury, the presiding judge could direct a verdict for the employer if he found that as a matter of law the employer was not negligent, or that one of the three defenses was applicable. In this way the trial judge could eliminate the possibility that jurors might sympathize with the injured worker and might bend legal rules in order to do justice.

A final factor which militated against the worker with a valid claim was the law's delay.¹⁰⁰ It might take two years or more before his lawsuit was scheduled for trial. This placed upon him a serious financial hardship, which attorneys for the employer often exploited by postponing and stretching out the trial as long as possible. The result was that the worker was generally forced, because of economic hardship, to settle his claim for a fraction of

⁹⁷ C. EASTMAN, *WORK-ACCIDENTS AND THE LAW* 95 (1910); see also Hard, *Making Steel and Killing Men*, *EVERYBODY'S MAGAZINE*, Nov. 1907, at 579, 587 ("... recklessness is certainly a psychological characteristic of men in steel plants. All tradition teaches them to be reckless.")

⁹⁸ W. PROSSER, *supra* note 95, at 550.

⁹⁹ *Id.* at 552; but cf. Pound, *The Economic Interpretation and the Law of Torts*, 53 *HARV. L. REV.* 365 (1940).

¹⁰⁰ Hard, *supra* note 92.

what it was worth. Since he also had to pay his own lawyer, his final recovery was hardly adequate.¹⁰¹

Various estimates have been made, ranging from 70 to 94 per cent of the accident and death claims which the common law left uncompensated.¹⁰² From 1906 to 1912, the U.S. Steel Corporation is said to have lost no more than six verdicts.¹⁰³ "During the year ending July 1907, Jones & Laughlin paid nothing to the families of seven, funeral expenses for ten, and over a thousand dollars to only two families of its toll of twenty-five dead. In Allegheny County 88 out of 158 injured married men received no compensation, and 23 of 33 men permanently disabled were given less than one hundred dollars."¹⁰⁴

From the employer's point of view, therefore, the cost of industrial accidents was hardly onerous. Most companies purchased liability insurance, which included the services of insurance company lawyers to defend against claims. Approximately one-third of their premium dollar went to pay claims by injured workers, with the remainder eaten up by the insurer's expenses and profit.¹⁰⁵ The big companies were self-insurers, which meant that they paid their own lawyers and liability claims. With such little economic incentive for safety, it is easy to see how employers came to consider industrial accidents as "inevitable."

Another important causative factor underlying the plight of work accident victims was the prevalent philosophy of "rugged individualism." In the early days of industrial development in the United States, private initiative served as the handmaiden of progress. The "Horatio Alger" ethic held that any individual could achieve financial prosperity if he worked hard enough at it. Personal responsibility for success implied personal responsibility for failure, from which it followed, albeit tenuously, that industrial accidents were failures for which the worker should be held responsible. The legal principles governing work accidents reflected this attitude, which took root in the days of the small work shop. The courts were unwilling to adapt these principles to the increasing complexities of the manufacturing process, which put

¹⁰¹ W. PROSSER, *supra* note 95, at 554.

¹⁰² *Id.* at 554 n. 97.

¹⁰³ D. BRODY, *supra* note 93, at 92.

¹⁰⁴ *Id.*

¹⁰⁵ H. SOMERS & A. SOMERS, *supra* note 5, at 24.

working conditions far beyond the control of the individual worker.

In addition, "rugged individualism" did not contribute to safety in the steel industry because of the practice of appointing to supervisory positions men who had come up through the ranks on their own initiative and merit.¹⁰⁶ These supervisors had personally run all the risks of injury and death inherent in the industry, and had become hardened to them. Their stomachs did not turn at the sight of mangled or charred bodies. For them the task at hand was to keep production up and costs down. They could hardly be expected to promote safety in the plants.

The wide exploitation of immigrant labor also contributed to the precedence of property rights over human rights in the field of work safety. The prevalent attitude toward immigrants was brilliantly captured in a 1911 muckraking magazine describing the author's visit to the office of a construction engineer overlooking a recently excavated railroad cut:

"To think," I exclaimed, "that not a man was killed!"

"Who told you that?" asked the young assistant.

"Why, it's here in this report sent to the newspapers by your press-agent. He makes a point of it."

The young assistant smiled. "Well, yes, I guess that's right," he replied. "There wasn't anyone killed except just wops."

"Except what?"

"Wops. Don't you know what wops are? Dagos, niggers and Hungarians—the fellows that did the work. They don't know anything, and they don't count."¹⁰⁷

Foreign workers arriving in the great waves of immigration at the turn of the century were quickly converted into industrial

¹⁰⁶ Hard, *supra* note 97, at 579.

¹⁰⁷ Dosch, *Just Wops*, EVERYBODY'S MAGAZINE, Nov. 1911, at 579; *see also*, A. HAMILTON, *EXPLORING THE DANGEROUS TRADES* 151-52 (1943):

Yesterday I visited doctors and druggists and hospitals [in Colorado during 1910's]. I am amazed to see how lightly lead poison is taken here. One would think I was inquiring about mosquito bites. When I asked an apothecary about lead poisoning in the neighborhood of the smelter, he said he had never know a case. I explained that that was incredible and he said: "Oh, maybe you the thinking of the Wops and Hunkies. I guess there's plenty among them. I thought you meant white men."
Id.

Dr. Hamilton was a pioneer in the field of industrial medicine.

cannon fodder. Coming from peasant societies, unable to speak English, they greased the wheels of industry with their blood.

The accident rate for non-English speaking employees at the South Works [steel mill] from 1906 to 1910 was twice the average of the rest of the labor force. Almost one-quarter of the recent immigrants in the works each year—3,273 in the five years—were injured or killed. In one year 217 Eastern Europeans died in the steel mills of Allegheny County.¹⁰⁸

Because of language problems and unfamiliarity with the law foreign born accident victims and their families found it uncommonly difficult to press legal claims against their employers.¹⁰⁹

The muckrakers focused most of their fire on the financial plight of the injured worker, and tended to slight the problem of industrial accident prevention. This may have been due in part to the prevailing belief that work mishaps were inevitable, and in part to the assumption that making employers pay for the costs of these mishaps would sufficiently motivate them to reduce the frequency and severity of work injuries.

Some of the states did enact safety laws, dating from the passage in 1877 of a Massachusetts statute requiring factory safeguards.¹¹⁰ But effective enforcement was something else. A 1910 survey of the situation in Pennsylvania concluded that state safety inspectors were too few and were politically appointed; they were not very zealous about their work and failed even to keep public records of prosecutions of safety code violations.¹¹¹

Prior to 1911, various efforts were made to ameliorate the ravages of industrial accidents. Many states passed employer liability laws which modified the common law rules and made it easier for injured employees to recover damages from their employers.¹¹² Groups of workers pooled their scant resources to establish funds from which they or their families might draw modest payments in the event of disability or death. Some of the larger companies furnished medical and financial benefits to injured employees without regard for fault. U.S. Steel sensitive to

¹⁰⁸ D. BRODY, *supra* note 93, at 100.

¹⁰⁹ *Id.*, at 101.

¹¹⁰ MASS. GEN. LAWS ch. 214 (1877).

¹¹¹ C. EASTMAN, *supra* note 97.

¹¹² See J. TURNBULL *et al.*, *supra* note 9, at 259-60.

the winds of impending reform, began an extensive safety program in 1908, and two years later introduced its own compensation plan for industrial accident victims.¹¹³

But these piece-meal measures proved pathetic in the face of an occupational accident toll which reached staggering proportions in the first decade of the twentieth century. The year 1907 was particularly grim. There were 3,242 fatalities in the anthracite and bituminous coal mines.¹¹⁴ On December 6, 361 men were killed in a mine explosion in Monongah, West Virginia.¹¹⁵ Thirteen days later, a mine explosion in Jacobs Creek, Pennsylvania, claimed 239 lives.¹¹⁶

Crystal Eastman's book, *Work-Accidents and the Law*, became a best seller¹¹⁷ and helped fuel popular indignation. Especially effective was the front piece,¹¹⁸ a calendar dating from July 1906 to June 1907. Under each day was a check-mark for each industrial death occurring that year in Allegheny County, Pennsylvania, the heartland of the American steel industry. The relentless consistency of the daily toll, and the final total, 526, conveyed a gruesome message.

Statistics told only part of the story, for it was a matter of common knowledge that a substantial number of industrial injuries and deaths went unreported.¹¹⁹ This was particularly true with regard to occupational diseases, many of which were unrecognized as such.

Several states appointed commissions to study the industrial accident problem.¹²⁰ They paid specific attention to reforms which had been initiated by Bismarck in Germany in 1884, and in

¹¹³ See D. BRODY, *supra* note 93, at 164-68.

¹¹⁴ BUREAU OF MINES, DEP'T OF THE INTERIOR, BULL. 481; HARRINGTON, EAST & WARNCKE, *SAFETY IN THE MINING INDUSTRY* 6 (1950).

¹¹⁵ *Id.* at 25.

¹¹⁶ *Id.*

¹¹⁷ See H. SOMERS & A. SOMERS, *supra* note 5, at 30.

¹¹⁸ C. EASTMAN, *supra* note 97, at ii.

¹¹⁹ See Hard, *Making Steel and Killing Men*, EVERYBODY'S MAGAZINE, Nov. 1907, at 579. See also U. SINCLAIR, *supra* note 4, at 115:

It was said by the boss at Durham's that he had gotten his week's money and left there. That might not be true, of course, for sometimes they would say that when a man had been killed; it was the easiest way out of it for all concerned. When, for instance, a man had fallen into one of the rendering tanks and had been made into pure leaf lard and peerless fertilizer, there was no use letting the fact out and making his family unhappy.

¹²⁰ See J. TURNBULL *et al.*, *supra* note 9, at 260-61; see also W. DODD, ADMINISTRATION OF WORKMEN'S COMPENSATION 19-26 (1936).

England in 1897. The latter became the model for a proposed new approach to industrial accidents in the United States—workmen's compensation.

A statement attributed to England's Lloyd George nicely encapsulates the underlying philosophy of workmen's compensation: "The cost of the product should bear the blood of the workman."¹²¹ Under this new system the employer would be liable, regardless of fault, for worker injuries and deaths "arising out of and in the course of the employment," but would pay to the employee or his family cash benefits limited by statute, as opposed to the full compensatory damages recoverable under the common law.¹²² This formula involved a quid pro quo: the employer gave up his common law defenses, while the worker surrendered the possibility of obtaining full damages. Thus the costs of work accidents would pass to the employer, who could then absorb them by adjusting the price of his product. In addition, claims under workmen's compensation were to be processed by an administrative agency, which would hopefully grant prompt recoveries to workers whose injuries were covered by the act.

Congress passed a workmen's compensation statute for federal employees in 1908.¹²³ Two years later New York enacted the first state workmen's compensation act, which the New York Court of Appeals held unconstitutional.¹²⁴ But several other states passed their own compensation acts in 1911, and these as well as a subsequent, revised New York compensation statute overcame constitutional objections and were upheld by the courts.¹²⁵ By 1920 all but eight of the states had passed workmen's compensation laws.¹²⁶

The new statutes did not cover every worker or every occupation. But they did shift from employee to employer a substantial part of the total economic burden of industrial accidents, and thereby reduced to a tolerable level a problem which had previously reached critical dimensions.

¹²¹ See W. PROSSER, *supra* note 95, at 554.

¹²² See note 5 *supra*.

¹²³ Act of May 30, 1908, ch. 236, 35 Stat. 556.

¹²⁴ *Ives v. South Buffalo Ry. Co.*, 201 N.Y. 271, 94 N.E. 431 (1911).

¹²⁵ See J. TURNBULL *et al.*, *supra* note 9, at 262-63.

¹²⁶ See W. MALONE & M. PLANT, *CASES AND MATERIALS ON WORKMEN'S COMPENSATION* 62 (1963).

Though accident frequency rates showed a marked decrease after the enactment of the new legislation,¹²⁷ it has proved impossible to document any clear relationship between workmen's compensation and work safety. Professor Walter F. Dodd, reviewing the situation 1936, concluded: "The operating forces which, since 1911, may have produced increase or decrease of industrial injuries are not capable of measurement; but it is perhaps safe to say that workmen's compensation has had little effect upon the result."¹²⁸ But in the years immediately following the enactment of the new laws, there were many who resorted to *post hoc, ergo propter hoc* reasoning and hailed their salutary effect upon accident rates.¹²⁹

The passage of workmen's compensation acts did not mark a revolutionary change in values, nor signal the end of the ascendancy of property rights over human rights. Though the humanitarian aspects of the new statutes were often proclaimed, the truth of the matter is that workmen's compensation made excellent business sense, and for that reason powerful business interests backed its adoption.¹³⁰

Popular dissatisfaction with existing methods of work-accident prevention and compensation had reached such a level that some reform was inevitable. Businessmen feared the liberalization of employer's liability laws, which would have limited the employer's common law defenses and made it much easier for injured workers to recover full compensatory damages.¹³¹ Workmen's compensation would be much less costly to industry, particularly since it would be relatively easy to keep compensation benefits at a low level.

The pre-existing system had been the cause of great dissatisfaction among workers. This was a time when labor unions were beginning to grow in strength and militancy. Far-sighted business leaders saw the need to eliminate sources of conflict between labor

¹²⁷ See J. TURNBULL *et al.*, *supra* note 9, at 284-86.

¹²⁸ W. DODD, *supra* note 120, at 698.

¹²⁹ See Andrews, *Relation of Workmen's Compensation to Accident Prevention*, 123 ANNALS 205 (1926).

¹³⁰ See generally J. WEINSTEIN, *THE CORPORATE IDEAL IN THE LIBERAL STATE* 40-61 (1968).

¹³¹ *Id.* at 45.

and capital, and to deprive the emerging labor movement of its best issues.¹³²

From the business point of view governmental regulation, if unavoidable, is best tolerable at the state level. It was no great problem for business interests to see to it that state legislatures kept workmen's compensation benefits and coverage at the lowest possible levels. The abundance of high-powered legal talent at the service of industry and the absence of countervailing representation for the injured worker helped to produce state court decisions which interpreted the compensation statutes in a restrictive way.¹³³

The enactment of workmen's compensation also took most of the steam from the pressures upon industry to make the workplace safer. As we have indicated, people assumed that the new compensation laws caused accident rates to decrease. There was no urgent necessity, therefore, to seek more comprehensive government regulation of industrial safety and health.

Industry had begun to understand that the true cost of work accidents included property damage, disruption of the work process after an accident and the expense of training replacements when skilled workers were disabled or killed. Therefore a number of large companies initiated their own safety movements.¹³⁴ They were motivated by self-interest, as expressed by Judge Elbert H. Gary, a pioneering safety crusader, who promised the board of directors of U.S. Steel, "If you will back us up in it [a proposed safety drive], we'll make it pay."¹³⁵

Thus the enactment of workmen's compensation laws and the safety movements generated by business groups derived from dollars-and-cents judgments reflecting a more rational application of the same property-oriented philosophy which produced deplorable conditions in factories and workshops at the turn of the century. This "more rational" approach has led to the deplorable conditions which have come to light in the past two years in the course of investigations into occupational safety and health.

¹³² *Id.* at 54.

¹³³ See MARCUS, *ADVOCATING THE RIGHTS OF THE INJURED, IN OCCUPATIONAL DISABILITY AND PUBLIC POLICY* 77 (Cheit & Gordon eds. in 1963).

¹³⁴ See Palmer, *History of the Safety Movement*, 123 *ANNALS* 9 (1926).

¹³⁵ *Id.* at 19.

It seems evident, therefore, that to achieve an environment that will satisfy contemporary demands for justice in the workplace, we must understand that in the past regulation of work conditions has never forced industry to transcend the bounds of self-interest, and that in matters of safety and health employees have been forced to rely primarily upon decisions made by employers and based upon considerations of cost. The task at hand is to free occupational safety and health from the shackles of the cost-benefit approach, as determined by industry on the basis of profitability, and to mobilize all available resources to bring all available pressure upon all the causes of accidents and diseases throughout the total work environment.

A WORKERS' BILL OF HEALTH RIGHTS

The time has come to place the interests of the worker in health and safety above the interests of property. A program to provide real protection for American workers must begin with a recognition that every worker has the basic right to job conditions which safeguard, to the maximum extent possible, his full physical, biological, social and psychological health.

To realize this ultimate goal, we recommend consideration of the following specifics as indispensable elements of a worker's bill of health rights:

1. *The Right to Protection from Job Hazards.* Every worker has the right to maximum feasible protection from the risk of illness or injury partially or wholly caused by the hazards of his work environment or the nature of his job.

2. *The Right to Work Without Fear.* Every worker has the right to a job environment designed and engineered to provide a maximum feasible protection from job hazards, and to protective equipment designed to operate with a minimum of discomfort and effort on the part of the worker himself.

3. *The Right to Medical Information About Himself.* Every worker has the right to receive from his employer a physical examination and appropriate medical tests, treatment and full results of any diagnosis by a qualified physician of his choice (a) at least annually, and (b) whenever his job subjects him to the

risk of disease or injury through exposure to harmful agents in excess of recommended exposures or standards. The worker must also be informed of any personal or constitutional characteristic, genetic or acquired, which may predispose him to increased vulnerability to specific occupational stresses or hazards. In the event the worker is killed on the job, his family has the right to have an autopsy performed on him by a qualified "occupational pathologist," (a pathologist qualified to recognize occupational disease), and to all tissue analyses necessary to evaluate the presence of occupational morbidity.

4. *The Right to Information About All Potential Job Hazards.* Every worker has the right to be informed of all potential hazards to his health and safety associated with his workplace or with the performance of his job. The worker therefore has the right to be informed of, and have easy access to all epidemiological and environmental data collected by the company or its consultants which is not medically confidential, and to all studies made with this data. The worker therefore has the right to be fully informed of the nature of all the medical illnesses, signs, syndromes, symptoms, consequences, complications, conditions and disabilities which are known or thought to be caused by, contributed to, or associated with the hazards to which the worker is potentially exposed.

5. *The Right to Have Known or Fixed Dangers Clearly Described by the Employer.* Every worker has the right to a job and work environment where all substances and conditions, which individually or in combination are potentially hazardous to the worker, are measured regularly, labelled and accompanied by warnings and instructions by the employer. This will enable the worker and his employer to maintain full awareness of potential hazards, and should assure control of these hazards within safe limits. Information on labels, warnings and instructions must include where possible:

- (a) Quantitative analysis of the contents if available;
- (b) A description of the conditions under which the substance, the environment, and the worker may interact to endanger the worker;

- (c) A description of toxic signs and symptoms;
- (d) A statement of emergency treatment in event of acute exposure of toxicity;
- (e) A statement of proper conditions and precautions for safe use.

6. *The Right to Have Variable Dangers Measured Regularly.* Every worker has the right to be told by his employer: (a) the measurable level of his daily exposure to potentially dangerous experiences, and (b) the specific instances when his exposure exceeds the lowest established limits to those substances or processes.

7. *The Right to Discover and Preserve a Record of Job Hazards.* Every worker has the right to photograph, measure, and document the environmental conditions and job stresses to which he is or has been exposed. Any worker may execute this right himself or through a representative, but solely for health, safety, and compensation purposes.

8. *The Right to Corroboration of Information and Enforcement of Standards.* Every worker has the right to have his workplace open to inspection, measurement, evaluation, and enforceable correction by federal, state and local departments of occupational health and safety. This includes the right to know when the inspection will occur, and to be informed of the total results of any such inspection report. This also includes the right to a confidential conference with inspection personnel at a time other than during job hours, the right to request and receive an inspection by filing a complaint, the right to submit himself to physical examination and medical tests performed by qualified government personnel, without loss of pay or fear of reprisals, and the right to obtain a copy of the results of any such inspection.

9. *The Right to be Protected and to Protect Himself.* Every worker has the right not to be subjected to excess exposure to substances which have been shown to be potentially dangerous. He also has the right not to be exposed to substances which have not been sufficiently tested for acute and chronic toxicity sufficient for the Department of Health, Education and Welfare to set interim standards for exposure. Nor shall any worker be subject

to exposure to any substance which has not been registered with the federal government and independently studied, and a standard approved and licensed by a qualified federal health agency for safe use.

If such standards or a worker's rights as defined above are violated, every worker so affected has the right to refuse to work or remain in a hazardous environment until it is made safe. This act in the defense of his health or safety shall not result in loss of employment, pay or benefits, constitute a contract violation, or be otherwise subject to reprisal.

10. *The Right to Limit to Working Hours Hazardous Work Exposures.* Every worker has the right to be as clean and uncontaminated when he leaves the workplace as he is when he arrives. The worker shall have the right to whatever necessary protective clothing, protection, and hygiene facilities are necessary to assure this right to avoid contamination by hazardous processes or substances, and the means to decontaminate himself for meals between work hours and after work is completed for the day. Cleaning of contaminated work clothing shall be the responsibility of the employer.

11. *The Right to Recover for Damages Resulting From Violation of Standards.* Every employee has the right, notwithstanding his receiving disability compensation, to bring an action against his employer either in a court of law or in a duly constituted tribunal, for the entire value of damages resulting from injury, illness, or damage to the worker's health due in part or in whole to environmental conditions or the stresses of a job which have not met established health and safety standards, criteria, codes, contracts and public warnings by government and professional departments and organizations qualified to recommend safe exposure limits for fully protecting the health and safety of workers. Any such recovery would be reduced by the amount an employee receives under any workmen's compensation award.

12. *The Right to Recover the Full Value of Health Damaged by Employer Failures.* Every employee has the right, notwithstanding receiving disabilities or workmen's compensation, to bring an action against his employer either in a court of law or in a duly constituted tribunal, for the *full* value of damaged health

if the employer failed to provide the worker any of these health rights. Any such recovery shall be reduced by any other recovery under the Workmen's Compensation law.

13. *The Right to Recover for Hidden or Delayed Injuries to Health.* When a worker experiences illness, injury, disability or pathological changes impairing health, as shown by autopsy, he, or his representative in the case of his death, shall have the right, notwithstanding the passage of time, to sue for damages if his damage has resulted from previous occupational exposure.

14. *The Right to Recover an Adequate Level of Workmen's Compensation for All Job-Related Health Impairments.* Just as every worker has the right to receive a minimum wage, he should receive workmen's compensation adequate for survival for *all* job related violence. Within three years, the minimum workmen's compensation schedule in each state should be made equivalent in terms, conditions and benefits to that received by federal employees from the U.S. Government. To that end, federal legislation should be passed to require all state programs to reach this minimum humane level.

15. *Every Worker Has the Right to Receive Health and Life Insurance Equivalent to the True and Complete Value of His Life to Him and to His Family, From His Employer at a Rate Equivalent To That Which Federal Employees Receive.*

16. *Every Worker Has The Right to Bargain for Stricter Standards Than Those Established or Provided by Law.*

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