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Toward Meaningful Protection of Worker Health and Safety

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BOOKS

Reviewed

Toward Meaningful Protection of Worker Health and Safety

Joseph A. Page*

EXPENDABLE AMERICANS. By Paul Brodeur. New York: Viking Press. 1974. 274 pages. \$8.95.

MUSCLE AND BLOOD. By Rachel Scott. New York: E. P. Dutton. 1974. xii + 306 pages. \$8.95.

In the annals of job health and safety, 1974 was a signal year. It produced an epidemic of occupational liver cancer associated with vinyl chloride,¹ disclosure of a plan to soft-pedal federal regulation of industrial hazards in return for contributions to the 1972 Nixon reelection campaign,² and the publication of a brace of exposés decrying the human toll taken by workplace perils. These events furnish hard evidence that the bright hopes raised by passage of the landmark Occupational Safety and Health Act of 1970³ remain far from fulfillment.

In the search for reasons for this ostensible failure, two books present appropriate starting points. Paul Brodeur's *Expendable Americans*⁴ and Rachel Scott's *Muscle and Blood*⁵ illumine patterns of indifference and

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1. On January 22, 1974, the B.F. Goodrich Company announced that several employees at its plastics factory in Louisville, Kentucky, had died from angiosarcoma, a rare and fatal form of liver cancer. The workers had been exposed to vinyl chloride, a colorless gas used in the production of the solid plastic, polyvinyl chloride. See OSHA, *Preamble to Emergency Temporary Standard for Exposure to Vinyl Chloride*, 39 Fed. Reg. 12342 (1974). In the entire United States, the death toll from angiosarcoma had been averaging about 21 per year. See Saar, *Vinyl Chloride and Cancer*, Washington Post, May 5, 1974, § C, at 2, col. 1. At the Goodrich plant there were 4 fatalities in 5 years. By late 1974, a worldwide total of 26 angiosarcoma cases among vinyl-chloride workers had been uncovered. See Kramer, *Vinyl-Chloride Risks Were Known by Many Before First Deaths*, Wall St. J., Oct. 2, 1974, at 1, col. 1. In addition, employees producing finished goods from polyvinyl chloride, such as floor tile and fabrics, have suffered both liver cancer and serious but noncancerous liver disease. See Kramer, *Death of 2 Polyvinyl Chloride Workers From Rare Type of Cancer is Verified*, Wall St. J., June 14, 1974, at 8, col. 1; Kramer, *Scientists Hear Reports That Vinyl Chloride May Be More Dangerous Than Realized*, Wall St. J., May 13, 1974, at 8, col. 3.

2. See Randall, *Worker Safety and Politics*, Washington Star-News, July 15, 1974, § A, at 1, col. 1.

3. 29 U.S.C. §§ 651-78 (1970).

4. Hereinafter cited as P. BRODEUR.

5. Hereinafter cited as R. SCOTT.

reckless disregard toward job health and safety by both government and industry. The authors focus primarily upon the years following enactment of the 1970 law. Fired by indignation in the muckraking tradition, the efforts of Brodeur and Scott seek to attract attention to a social issue that, despite its awful dimensions, has never enjoyed a prominent place on the public agenda.⁶ The books complement each other nicely, with Brodeur's etching in great detail the development and enforcement of federal standards regulating worker exposure to asbestos dust and Scott's weaving a patchwork of vignettes that stress the human side of occupational disability. Yet both books are flawed, not only as exercises in popular journalism but also in their contribution toward understanding the obstacles to significant reductions in job accidents and diseases. They shrink from some of the really difficult, complex problems and fail to analyze or even suggest alternative strategies for achieving acceptably safe and healthful working conditions.

This Review will attempt a critical assessment of *Expendable Americans* and *Muscle and Blood*, elaborating on one of the critical dilemmas that the books only lightly touch upon and commenting briefly on some sources for possible improvement in the workplace environment. No definitive solutions will be offered; indeed, none may exist. However, this Review will suggest some action that may be taken to pierce the veil of neglect that has long shrouded the protection of worker health and safety.

I. ASSESSMENT OF THE EXPOSÉS

Paul Brodeur's report⁷ limns in somewhat personalized terms the author's study of the responses of industry, government, medicine, and labor to the health hazards of asbestos dust—a subject Brodeur previously pursued at some length in both article⁸ and book form.⁹ Although the author digresses to explore other aspects of occupational health regulation, the major portion of the book chronicles events following the discovery that workers at a Texas asbestos-insulation factory were being exposed to harmful quantities of asbestos dust and describes the promulgation of a federal standard for acceptable asbestos dust levels under the Occupational Safety and Health Act.

Although the deleterious effects of asbestos dust upon the human lung

6. A 6-month survey by the Bureau of Labor Statistics in 1971 uncovered an estimated 3.1 million job injuries and illnesses and nearly 4,300 work-related deaths in the nonfarm sector during the survey period. See 1973 PRESIDENT'S REPORT ON OCCUPATIONAL SAFETY AND HEALTH 5. The 1972 Report stated that "there may be as many as 100,000 deaths per year from occupationally caused diseases." 1972 PRESIDENT'S REPORT ON OCCUPATIONAL SAFETY AND HEALTH 111.

7. Brodeur's account first appeared as a 5-part series in the *New Yorker*. See Brodeur, *Annals of Industry—Casualties of the Workplace*, NEW YORKER, Oct. 29, 1973, at 44; *id.*, Nov. 5, 1973, at 92; *id.*, Nov. 12, 1973, at 131; *id.*, Nov. 19, 1973, at 87; *id.*, Nov. 26, 1973, at 126.

8. Brodeur, *The Magic Mineral*, NEW YORKER, Oct. 12, 1968, at 117.

9. P. BRODEUR, *ASBESTOS AND ENZYMES* (1972).

have long been recognized, the actual scope of the health hazard did not become evident until Dr. Irving Selikoff of the Mount Sinai Environmental Sciences Laboratory began to study asbestos workers in 1962. Examining live workers over a period of time and researching the medical records of deceased workers, Dr. Selikoff found not only high levels of lung scarring, or asbestosis, but also an alarming incidence of lung cancer and mesothelioma (a rare cancer of the pleural linings of the lung and chest).

Brodeur recounts the reactions of company officials of an asbestos-insulation plant in Tyler, Texas, and of the then federal Division of Occupational Health¹⁰ to the grim discoveries being made and publicized by Dr. Selikoff and his associates and to reports that the levels of asbestos dust in the Tyler factory exceeded what were then deemed safe limits. The company took air samplings and conducted studies that were both bungled by incredible omissions and invested with a minimal sense of urgency. The federal agency directed its energies solely to data collection and took no interest in devising ways to protect the workers. In 1969, pursuant to their responsibilities under the Walsh-Healey Act,¹¹ Department of Labor inspectors visited the plant, took air samples without proper measuring equipment, recommended the issuance of respirators to employees and improvements in ventilation, but failed to follow up to determine compliance. In 1971, two doctors newly appointed to the National Institute for Occupational Safety and Health (NIOSH)—formerly the Division of Occupational Health—discovered the data their agency had been gathering and became alarmed over its implications. Frustrated in their attempts to interest the Department of Labor's Occupational Safety and Health Administration (OSHA) in taking enforcement action under the 1970 Act, they notified union officials, who in turn demanded a NIOSH¹² inspection of the Tyler factory and a medical examination of the workers. The NIOSH survey concluded that a grave health crisis existed at the plant. OSHA inspectors then visited the facility. Although their findings did not contradict those of NIOSH, they proposed fines of only \$210 for nonserious violations of the Act.¹³ Subsequent pressure by the union and publicity over working conditions at the plant helped to provoke a decision by the company in early 1972 to close down the Tyler installation.

10. The agency was later to become the Bureau of Occupational Safety and Health and then the National Institute of Occupational Safety and Health. For a description of this agency and a critique of its past performance, see J. PAGE & M. O'BRIEN, *BITTER WAGES* 88-94, 197-99 (1973).

11. Act of June 30, 1936, ch. 881, 49 Stat. 2036. The Act covered work being performed under certain federal contracts and required that working conditions be safe and healthful. The only sanction the Act imposed was denial of future federal contracts to violators. On the Labor Department's administration and enforcement of the Act, see J. PAGE & M. O'BRIEN, *supra* note 10, at 94-104. The Walsh-Healey Act has been superseded by the Occupational Safety and Health Act. See 29 U.S.C. §§ 653(a), (b)(2) (1970).

12. For a discussion of the different functions performed by OSHA and NIOSH, see text accompanying notes 32-34 *infra*.

13. OSHA requires the issuance of a citation for nonserious violations "in situations where an

As the controversy over the situation in Tyler intensified, a petition from the Industrial Union Department of the AFL-CIO forced OSHA to initiate rulemaking proceedings for the development of a new exposure standard for asbestos dust. Brodeur describes in detail several sessions of the public hearing during which union officials and scientists argued for a standard of two fibers per cubic centimeter of air, to be reduced to zero at a later date, while industry urged that the level be set at five fibers. Brodeur effectively demonstrates a link between the asbestos industry and both a Canadian scientist who testified as a purportedly independent witness in favor of the 5-fiber standard, and Arthur D. Little, Inc., a private consulting firm engaged by OSHA to study the economic impact of the various proposed standards. Indeed, the author's analysis of what he terms the "medical-industrial complex"¹⁴—the subtle (and not so subtle) interrelationships among industry, the medical and scientific communities, and government—is one of the strengths of the book.¹⁵

Expendable Americans is devastating as a case study of the Tyler affair, instructive as far as it delves into the setting of the asbestos standard, and incomplete as an overall picture of job health regulation. The timing of events unfortunately prevented Brodeur from making use of the revelation that the former Assistant Secretary of Labor in charge of OSHA, in response to a White House request that federal agencies and departments consider how they might help reelect Richard Nixon in 1972, had formulated a scheme whereby OSHA would refrain from setting health standards objectionable to industry, in return for corporate campaign contributions.¹⁶ In addition, the dramatic discovery that occupational exposure to vinyl chloride gas can cause a rare form of liver cancer¹⁷ occurred too late for inclusion except in the Epilogue.

Brodeur's approach is chronological and virtually that of a diarist; he records the progress of his own investigations and discoveries and does not hesitate to meander into other related occupational health matters. Unfortunately, he seldom attempts to put his observations in perspective.¹⁸ As a result, his style, when combined with occasional lapses into excessive detail, risks losing readers unfamiliar with the subject. Moreover, although

incident or occupational illness resulting from violation of a standard would probably not cause death or serious physical harm but which have a direct or immediate relationship to the safety or health of employees." OSHA, COMPLIANCE OPERATIONS MANUAL VIII-6 (1972).

14. P. BRODEUR at 154.

15. It is instructive to compare this analysis with a recent opposing argument that warns of the growing power of the "regulatory-medical complex," which it defines as "a loose but not uncoordinated network of regulatory agencies, government research institutes, academic medical teams, labor unions, and other groups united by a common commitment to eradicate environmental causes of disease." Weaver, *On the Horns of the Vinyl Chloride Dilemma*, FORTUNE, Oct. 1974, at 150, 202-04.

16. See Randall, *supra* note 2.

17. See note 1 *supra*.

18. The book provides occasional compensations, such as the dramatic effect of the culmination

the book stores a wealth of information, the publisher's failure to provide an index makes access to this valuable material difficult.

While *Expendable Americans* will especially delight the *cognoscenti*, *Muscle and Blood* seeks to aim shock waves at a more general readership. Rachel Scott marshals a series of case studies in an attempt to convey a sense of the "massive, hidden agony of industrial slaughter in America."¹⁹ Having visited the sites of a number of workplace catastrophes, she presents a victim's-eye view of the physical consequences of job accidents and illnesses and of the financial constraints imposed by the inadequacies of worker's compensation. On the other hand, curtains of corporate secrecy frustrated her efforts to obtain industry's side of the story. She corroborates Brodeur's argument for the existence of a "medical-industrial complex" through her incisive discussion of the Industrial Health Foundation, an organization funded by industry to conduct "independent" scientific research that invariably serves the purposes of its sponsors.²⁰

Nevertheless, when she turns from specific facts to broader issues, Scott's argumentation becomes diffuse and loses impact. She fails to capitalize on the outrage generated by her vignettes by directing it toward positive solutions. Thus she scores state regulation of occupational safety and health in a manner more appropriate to the period before the 1970 Act took effect, without discussing the effect the new law is having and can have upon the states.²¹ Moreover, her generalized comments on OSHA and NIOSH are not conducive to an understanding of what can be accomplished within the present legal and administrative framework. Too often her generalized, polemical prose masks a failure to offer concrete proposals, as exemplified by her concluding point that "[o]nly the American people themselves have the power to bring about the changes that can stop this industrial massacre."²²

II. CONTROVERSY OVER COST

A shortcoming common to both the Brodeur and Scott books is their failure to present comprehensive looks at the issues involved in assessing cost of compliance. In his account of OSHA's asbestos rulemaking, Bro-

of the author's persistent, unsuccessful attempts to obtain information from the medical director of the parent corporation owning the Tyler factory. As recounted at the end of the book, Brodeur finally met the director face-to-face and asked to interview him concerning the health problems of the men at the Tyler plant. The director refused, stating: "It's a question of the patient's rights." P. BRODEUR at 245. The "patient" to whom the director was referring was his corporate employer.

19. Dust jacket to R. SCOTT.

20. See also J. PAGE & M. O'BRIEN, *supra* note 10, at 153-54.

21. See 29 U.S.C. § 667 (1970). See also J. PAGE & M. O'BRIEN, *supra* note 10, at 210-21; BROWN, *State Plans under the Occupational Safety and Health Act of 1970*, 38 LAW & CONTEMP. PROB. 745 (1974); Seymour, *Forging a Partnership with the States*, MONTHLY LABOR REV., Aug. 1973, at 28; Sheehan, *OSHA and State Job Safety Plans*, MONTHLY LABOR REV., Apr. 1974, at 44; Comment, *An Alternative to Federal Preemption: The Washington Plan*, 9 GONZAGA L. REV. 615 (1974).

22. R. SCOTT at 296.

deur discusses the agency's consideration of costs in formulating its final regulation. He accepts the contention of union officials who argued that cost of compliance should be totally irrelevant to the development of health standards, and he attacks both the merits and the conflict-of-interest aspect of the Arthur D. Little study commissioned by OSHA to analyze the economic impact of various asbestos-dust exposure limits. The cost issue is, however, far more complicated than Brodeur implies and therefore deserves more detailed analysis.

The legal argument for inclusion of a cost factor in promulgating industry health regulations hinges on vague phraseology in the 1970 Act. When the Senate Committee on Labor and Public Welfare considered the bill, Senator Jacob Javits secured the adoption of an amendment²³ that, as it emerged in the final version of the law, required OSHA to weigh the "feasibility" of health standards²⁴ and to promulgate standards that would protect the health of employees "to the extent *feasible*."²⁵ The legislative history sheds little light on what Congress actually intended by these terms.²⁶

Other language in the Act is equally unhelpful. The purpose of the 1970 Act is to "assure so far as possible every working man and woman in the Nation safe and healthful working conditions."²⁷ The term "occupational safety and health standard" is defined as a standard incorporating requirements "reasonably necessary or appropriate to provide safe or healthful employment."²⁸ Since absolute safety and health would compel the cessation of all work activity,²⁹ the limitations imposed on the scope of federal regulation by the phrases "so far as possible" and "reasonably necessary" are vague indeed. The lack of congressional guidance for resolving issues of economic feasibility is particularly deplorable in light of the precision of other federal safety statutes on this point.³⁰

23. See S. REP. NO. 1282, 91st Cong., 2d Sess. 58 (1970).

24. 29 U.S.C. § 655(b)(5) (1970).

25. *Id.* (emphasis added). No similar mandate attached to the imposition of safety standards.

26. The House version contained no similar qualification. The Conference Committee adopted the Senate language. See H.R. REP. NO. 1765, 91st Cong., 2d Sess. 36 (1970).

27. 29 U.S.C. § 651 (1970).

28. *Id.* § 652(8).

29. See G. CALABRESI, *THE COSTS OF ACCIDENTS* 17-18 (1970).

30. For example, the National Traffic and Motor Vehicle Safety Act, 15 U.S.C. § 1391(1) (1970), the Consumer Product Safety Act, 15 U.S.C. § 2056(a) (Supp. III, 1973), and the National Mobile Home Construction and Safety Standards Act, Pub. L. No. 93-383, § 603(8), 88 Stat. 700 (Aug. 22, 1974), seek to eliminate "unreasonable" risks of harm. The same acts also expressly mandate consideration of costs. See 15 U.S.C. § 2058(c)(1)(C) (Supp. III, 1973) (Consumer Product Safety Act); Pub. L. No. 93-383, § 604(f)(4), 88 Stat. 701 (Aug. 22, 1974) (Mobile Home Act). See also 15 U.S.C. § 1392(a) (1970), which requires that federal motor vehicle safety standards be "practicable." On the basis of strong legislative history, the term has been interpreted to encompass consideration of economic factors. See *H & H Tire Co. v. United States Department of Transp.*, 471 F.2d 350, 353 (7th Cir. 1972). In addition, both the Mobile Home Act and the 1974 Amendments to the Traffic Safety Act require manufacturers who wish to contest proposed standards on the basis of economic burden to submit cost data to the agency. See Pub. L. No. 93-383, § 607(a), 88 Stat. 703 (Aug. 22, 1974) (Mobile Home Act); Pub. L. No. 93-492, § 105, 88 Stat. 1470 (Oct. 27, 1974) (Motor Ve-

While the feasibility language of the 1970 Act could be narrowly construed to apply only to technological capacity to reduce harmful exposures, OSHA has taken a more expansive view, asserting that the language also entails reasonableness of costs.³¹ In support of its position, OSHA has pointed to the statutory division of function between itself and NIOSH. The latter agency develops criteria documents recommending standards for exposure to toxic substances and harmful physical agents.³² OSHA has responsibility for promulgation of the ultimate standard.³³ According to OSHA, this division of functions indicates a difference in the considerations appropriate to determinations by each agency: NIOSH recommends on the basis of what would theoretically be best for the health of the worker, and OSHA adds the "feasibility" factor.³⁴

The agency, of course, cannot by itself construe the legislative meaning, and recently the judiciary has begun the task of resolving the issue. In *Industrial Union Department, AFL-CIO v. Hodgson*³⁵ the Court of Appeals for the District of Columbia reviewed the asbestos standard and held, *inter alia*, that the considerations underlying the regulation "could properly include problems of economic feasibility."³⁶ As a matter of statutory construction, the court found that "Congress does not appear to have intended to protect employees by putting their employers out of business—either by requiring protective devices unavailable under existing technology or by making financial viability generally impossible."³⁷

The court's delineation of the circumstances under which cost considerations may properly affect a health standard qualifies this broad proposition. The mere fact that a standard may financially burden an employer or reduce profits would not, in the court's view, be relevant. The court added:

Nor does the concept of economic feasibility necessarily guarantee the existence of individual employers. It would appear to be consistent with the purposes of the Act to envisage the demise of an employer who has lagged behind the rest of the

hicle Amendments). Thus, the standard-setting process created by these statutes encompasses an approach analogous to the determination of unreasonable, and hence negligent, conduct at common law, whereby the extent and gravity of the risk arising from a particular activity or aspect of an activity is balanced against the cost of avoiding the risk and the utility of any conduct terminated in order to avoid the risk. See W. PROSSER, *THE LAW OF TORTS* 146-49 (4th ed. 1971). See also Posner, *A Theory of Negligence*, 1 J. LEGAL STUDIES 29, 32-33 (1972). Where risk outweighs cost of avoidance and utility, it is deemed unreasonable. Such a finding would also justify the promulgation of a safety standard designed to put an end to unreasonable risks.

31. See J. PAGE & M. O'BRIEN, *supra* note 10, at 235.

32. See 29 U.S.C. §§ 669(a)(2)-(3), 669(a)(7)(c) (1970).

33. See *id.* § 655.

34. See Statement of John H. Stender, Assistant Secretary of Labor for Occupational Safety and Health, *Hearings on Occupational Safety and Health Act Review Before the Subcomm. on Labor of the Senate Comm. on Labor and Public Welfare*, 93d Cong., 2d Sess. 228 (1974).

35. 499 F.2d 467 (D.C. Cir. 1974).

36. *Id.* at 477.

37. *Id.* at 478.

industry in protecting the health and safety of employees and is consequentially financially unable to comply with new standards as quickly as other employers.³⁸

However, where enforcement of a standard might have a substantial adverse impact upon all but a few of the companies affected or might cause the shutdown of an entire industry, OSHA "could properly consider that factor."³⁹ This analysis would seem to imply that the agency would have discretionary authority to close down an industry, provided that it had duly taken into account the economic consequences. The opinion thus is unfortunately schizophrenic, for it provides the contradictory assertions that OSHA must not put employers out of business and that OSHA must merely consider costs in making a decision that might put individual employers out of business.

The Fifth Circuit in dictum has suggested a somewhat different analysis. In its review of OSHA's emergency temporary standard for pesticides, it stated that "[t]he promulgation of any standard will depend upon a balance between the protection afforded by the requirement and the effect upon economic and market conditions in the industry."⁴⁰ This analysis suggests that OSHA must weigh risks against costs in *every* case, and thus could cause the shutdown of entire industries in certain circumstances. Though more coherent than the standard set forth in *Industrial Union*, the Fifth Circuit's formulation provides little more concrete guidance to OSHA.

The agency has, for its part, insisted that its responsibility in setting health standards includes consideration of economic impact as a factor, though not an overriding one. But exactly how OSHA fits cost into the equation remains a mystery. In developing final regulations for worker exposure to asbestos dust,⁴¹ 14 carcinogenic substances,⁴² and vinyl chloride gas,⁴³ the agency had economic-impact studies prepared. However, the final regulations provide little indication of the precise weight to be given to costs, or even identification of these relevant costs.⁴⁴ OSHA seems content

38. *Id.*

39. *Id.* (emphasis added).

40. *Florida Peach Growers Ass'n, Inc. v. Department of Labor*, 489 F.2d 120, 130 (5th Cir. 1974). In its attack on OSHA's vinyl chloride standard, industry argued both economic and technological infeasibility. The Second Circuit upheld the standard. *Society of the Plastics Industry, Inc. v. Occupational Safety & Health Administration*, 509 F.2d 1301 (2d Cir. 1975). The opinion addresses technological considerations at length but avoids any separate treatment of the financial burden of compliance.

41. For an analysis of the economic-impact statement used in the asbestos proceedings, see P. BRODEUR 145-54, 164-71.

42. The economic-impact statement used in the development of the carcinogen standards is discussed in Page & Munsing, *Occupational Health and the Federal Government: The Wages Are Still Bitter*, 38 LAW & CONTEMP. PROB. 651, 663-64 (1974).

43. See OSHA, *Vinyl Chloride: Availability of Final Economic Impact Study*, 39 Fed. Reg. 33009 (1974).

44. The preamble to the asbestos standard states merely that "the delay in the effective date of

to cloak its use of costs with the mantle of policy judgment in order to shield itself from judicial scrutiny.⁴⁵ Yet the specific facts supporting these judgments do not appear in the preambles to the final rules.

It is true that the weighing of the cost factor involves abundant uncertainty. Consider, for example, the difficulty in assessing the economic impact of a health standard that industry claims will terminate the manufacture of a widely used product. How are such claims to be evaluated? Of what import is the possibility that a business might move overseas in order to escape the costs of regulation? To what extent may OSHA call upon industry to develop new technology that will permit affordable compliance with a new health standard?⁴⁶ If a toxic substance is found to be so hazardous that an entire industry would have to cease production in order to eliminate the risk, how should OSHA measure the cost of the shutdown? Should not OSHA discount this cost if any part of the business may be converted to another type of production? How should the general economic climate—in particular, problems of unemployment—at the time of decision affect a standard?

Further, how can such decisions be made without a quantification of

the 2-fiber standard will provide all employers a reasonable time to comply." OSHA, *Standard for Exposure to Asbestos Dust*, 37 Fed. Reg. 11318, 11319 (1972). The preamble to the carcinogen standard mentions the argument that it would not be feasible to administer a regulation setting a zero tolerance level and requiring a permit system for the use of the chemicals; however, the only specific factor mentioned to support OSHA's decision not to adopt a permit system is: "The investigations and evaluations of thousands of work situations involving a carcinogen, and the completion of the procedures, possibly including hearings, for the granting of the permits, would require many years and the diversion of substantial resources, even if available, from other serious occupational safety and health problems." OSHA, *Occupational Safety and Health Standards: Carcinogens*, 39 Fed. Reg. 3756, 3758 (1974). The preamble to the vinyl chloride standard devotes several paragraphs to a discussion of technological feasibility without specifying costs. OSHA, *Standard for Exposure to Vinyl Chloride*, 39 Fed. Reg. 35890, 35892 (1974).

It is instructive to compare OSHA's perfunctory discussions of costs with the detailed factual analysis of the economic feasibility of abatement of the discharge of asbestos-like fibers into Lake Superior, in *United States v. Reserve Mining Co.*, 380 F. Supp. 11 (D. Minn.), *motion for stay granted*, 498 F.2d 1073 (8th Cir.), *application to vacate stay denied*, 95 S. Ct. 287 (1974), *aff'd as modified*, No. 74-1291 (8th Cir. March 14, 1975), *application to vacate stay pending appeal denied*, 43 U.S.L.W. 3527 (U.S. Mar. 31, 1975).

45. Section 6(b) of the Act permits OSHA to promulgate occupational safety and health standards through informal rulemaking procedures. 29 U.S.C. § 655(b) (1970). However, upon review by a federal court of appeals, the test is whether OSHA's determinations are "supported by substantial evidence in the record considered as a whole." *Id.* § 655(f). In applying this test, one court has stated: "What we are entitled to at all events is a careful identification by the Secretary, when his proposed standards are challenged, of the reasons why he chooses to follow one course rather than another. Where that choice purports to be based on the existence of certain determinable facts, the Secretary must, in form as well as substance, find those facts from evidence in the record. By the same token, when the Secretary is obliged to make policy judgments where no factual certainties exist or where facts alone do not provide the answer, he should so state and go on to identify the considerations he found persuasive." *Industrial Union Dep't, AFL-CIO v. Hodgson*, 499 F.2d 467, 475-76 (D.C. Cir. 1974). See also *Associated Indus. of N.Y. State, Inc. v. Department of Labor*, 487 F.2d 342 (2d Cir. 1973); Note, *Judicial Review Under the Occupational Safety and Health Act: The Substantial Evidence Test as Applied to Informal Rulemaking*, 1974 DUKE L.J. 459.

46. The Traffic Safety Act, 15 U.S.C. § 1391(1) (1970), as amended, 15 U.S.C. § 1391(1) (Supp. III, 1973), has been interpreted to authorize the issuance of safety standards requiring improvements in existing technology or the development of new technology. See *Chrysler Corp. v. United States Dep't of Transp.*, 472 F.2d 659 (6th Cir. 1972).

the risks involved? Decades may pass before an industrial disease manifests itself.⁴⁷ Causal relation is often uncertain and may derive from statistical association rather than a precise understanding of etiology.⁴⁸ Should OSHA take into account who is going to bear the costs if the relevant risks do cause harm? Inadequacies in workers' compensation coverage for occupational illnesses often force employees to shoulder much, if not all, of the economic burden.⁴⁹

An additional complication inherent in the use of the cost factor is the degree to which industrial risks extend beyond the workplace. The spouses and children of workers exposed to asbestos dust may develop lung cancer and other asbestos-related lung problems by inhaling asbestos fibers caught in the workers' clothes.⁵⁰ Toxic substances endangering the work force may also threaten the community-at-large if they escape into the surrounding environment.⁵¹ Where an occupational health standard carries with it both the reduction of risks to persons other than workers and the threat of financial debilitation of an industry, it would be a feast of unreason for OSHA, in any balance of risks against costs, to ignore the benefits or losses that would accrue to nonworkers. But the perimeters of the workplace limit OSHA's jurisdiction.

None of these difficulties seems to trouble OSHA, for it has made no real attempt to calculate the weight of the risk factor. Like mercury on a windowpane, economic impact remains an elusive element on the list of determinants for health standards. OSHA invokes costs with solemn regularity but struggles to maximize the discretionary aspect in its use. Most disturbing is the agency's having been caught playing politics with the cost factor, thereby casting an ominous shadow over the legitimacy of its exercise of "discretion." The final report of the Senate Select Committee to investigate Watergate, released in mid-1974, described a June 1972 memorandum written by George Guenther, then Assistant Secretary of Labor for Occupational Safety and Health, which detailed how OSHA might assist in the effort to reelect Richard Nixon.⁵² The scheme provided, in part, that "no highly controversial standards (that is, cotton dust, etc.) . . . be proposed by OSHA or by NIOSH."⁵³ The memo stressed "the great potential of OSHA as a sales point for fund raising and general support

47. See generally Mancuso, *Medical Aspects of Occupational Diseases*, 19 OHIO ST. L.J. 612, 622-25 (1958).

48. *Id.* at 615-22.

49. See generally THE REPORT OF THE NATIONAL COMMISSION ON STATE WORKMEN'S COMPENSATION LAWS 17-22, 35-39 (1972).

50. See Brody, *Cancer Found in Asbestos Workers' Kin*, N.Y. Times, Sept. 19, 1974, at 1, col. 5.

51. See, e.g., *Hearing on Vinyl Chloride Before the Subcomm. on Environment of the Senate Comm. on Commerce*, 93d Cong., 2d Sess., ser. 110, at 64-74 (1974) [hereinafter cited as *Vinyl Chloride Hearing*].

52. S. REP. NO. 981, 93d Cong., 2d Sess. 431-33 (1974).

53. *Id.* at 432.

by employers."⁵⁴ The Committee found that no action had ever been taken to implement the plan.⁵⁵ Nonetheless, the incident does illustrate the state of mind of the person who was in charge of OSHA and was exercising broad discretion in weighing the cost-of-compliance factor.

Other manifestations of attitudes similarly disquieting have surfaced. Laurence Silberman, Undersecretary of Labor and the person for whom Guenther had written his memorandum, reacted to its disclosure by explaining that "it would have been perfectly legitimate to say that OSHA would more nearly balance the relative interests of workers and employers under a Republican than under a Democratic Administration."⁵⁶ In addition, closely following release of the Guenther memo came reports that OSHA had been pressuring NIOSH to omit recommendations for specific exposure levels in its criteria documents.⁵⁷ Since OSHA standards, with their incorporation of the cost factor, had invariably watered down NIOSH's recommendations, it was clear that OSHA was concerned about its public image.⁵⁸ But by keeping from public view the NIOSH recommendations, which are concerned solely with maximizing worker protection on the basis of scientific and medical data, OSHA would also be hiding the extent to which optimum worker protection has been sacrificed in order to reduce adverse economic impact upon industry.

The foregoing discussion points to a potential for, if not a record of, abuse deriving both from the vagueness of the statutory definition of the cost factor and from an expansive grant of discretionary authority that can mask political machination. The questions left unanswered by the cryptic language of the 1970 Act involve policy considerations that cry out for careful scrutiny by Congress. At the very least, the law should be amended to spell out the precise factors OSHA must take into account in balancing the economic burden imposed by a standard against the human costs of not setting the standard, as well as the relative weight to be given each factor. It is crucial that congressional feet be put to the fire in delineating the exact circumstances under which worker health is to be sacrificed for economic reasons. Indeed, a full grasp of the implications of delegating to OSHA authority to condemn workers to industrial disease because the costs of avoidance are excessive might provide impetus for additional federal legislation lifting from workers the economic burdens of occupational disability.

54. *Id.* at 433.

55. *Id.*

56. Randall, *Labor Dep't Hit on Politics in Worker Safety*, Washington Star-News, July 16, 1974, § A, at 5, col. 1.

57. See Jackson, *Agency Push to Dilute Job Safety Cited*, Washington Star-News, July 17, 1974, § A, at 4, col. 2.

58. One reporter has quoted a Labor Department official as saying that the NIOSH standards "have put us into a public relations box." Burnham, *Brennan Defends Job Safety Aides*, N.Y. Times, July 23, 1974, at 5, col. 1.

III. FURTHER PROPOSALS FOR ACTION

Though the vinyl chloride epidemic attracted substantial publicity in 1974,⁵⁹ other ominous disclosures have underscored the hydra-headed nature of job health hazards. For example, the Allied and Dow Chemical Companies reported high levels of lung and lymphatic cancer among workers handling inorganic arsenic, a chemical widely used in the production of pesticides, ceramics, glass, and certain medicines.⁶⁰ An estimated 1.5 million workers may be directly or indirectly exposed to this risk.⁶¹ Experiments have associated liver cancer in rats with exposure to vinylidene chloride, a component of plastic wrappings for food.⁶² Exposure to anesthetic gases is the suspected cause of abnormally high rates of various diseases found in a nationwide survey of men and women who work regularly in hospital operating rooms.⁶³ The cumulative impact of these findings, together with the factual material in the two books under review, point strongly to a conclusion that little significant progress has yet been made in stemming the health threat posed by toxic industrial chemicals.

The struggle for safe and healthful working conditions covers many fronts and has engaged many combatants. Federal and state agencies, private industry, organized labor, and the medical and scientific communities have all participated. And all come under attack from Brodeur and Scott for permitting in some fashion the continuing crisis in the workplace. Both authors take aim at doctors and scientists who place loyalty to a corporate employer above professional responsibility for the health of employees. *Expendable Americans* reflects upon and criticizes the performances of NIOSH and OSHA in the Tyler, Texas, episode and the development of the asbestos standard. Brodeur supplies useful, if limited, insights into NIOSH's institutional impotence and OSHA's lack of commitment to worker health and safety.⁶⁴ Scott finds fault with both government and labor, though her criticism is superficial and impuissant.

But Brodeur and Scott neglect two additional input sources, Congress and the legal profession. In the years following passage of the 1970 Act, Congress has had the task of appropriating funds for its administration and enforcement, overseeing OSHA and NIOSH, and amending the Act where it has proved inadequate. The legal profession possesses great poten-

59. See note 1 *supra*.

60. See Burnham, *High Levels of Cancer Are Found in Arsenic Workers*, N.Y. Times, Aug. 30, 1974, at 13, col. 1; Richards & Scott, *Arsenic, Industry and Cancer*, Washington Post, Jan. 12, 1975, § B, at 5, col. 1.

61. See Burnham, *supra* note 60.

62. See Kilborn, *Cancer Fear Cited for a 2d Chemical*, N.Y. Times, Oct. 5, 1974, at 39, col. 8.

63. See Cohn, *Anesthetic Gases Linked to Many Ills*, Washington Post, Oct. 15, 1974, § A, at 1, col. 1. Higher incidence rates were found for cancer, liver and kidney diseases, spontaneous abortions, and birth defects.

64. For further development of this point, see Page & Munsing, *supra* note 42, at 654-66.

tial for affecting the success of the Act. While an in-depth analysis of the contributions of Congress and the legal profession to the cause of job health and safety would be beyond the scope of this Review, some preliminary observations upon certain aspects of their record are useful.

A survey of legislative activity relating to workplace hazards over the past 3 years leaves the dominant impression that Congress has reacted much more vigorously to industry complaints (especially those of small business) concerning the alleged inconvenience and unreasonable expense of the 1970 Act⁶⁵ than to reports of newly discovered dangers gravely threatening worker health. As a practical matter, this response is not surprising, since the immediate and particularized burden the Act imposes on individual companies furnishes them with a strong incentive to pressure Congress. On the other hand, the constituency mobilized by the risk of an insidious disease that may afflict an indeterminate number of workers in 10 or 20 years is apt to be limited and a good deal less vocal.

As a result, prolabor elements in both the Senate and House have had to fight a defensive battle to fend off legislation designed to meet industry demands at the expense of worker protection. Thus in May 1974, the Senate rejected by only seven votes an amendment that would have softened the 1970 law by making discretionary rather than mandatory the imposition of civil penalties for serious violations and by eliminating civil penalties for nonserious violations.⁶⁶ In 1972, however, both the House and Senate succeeded in tacking onto appropriations bills amendments exempting small businesses from job safety and health regulation,⁶⁷ only to be thwarted by presidential vetoes directed at other aspects of the legislation.⁶⁸

The political composition of the incoming 94th Congress, the state of the economy, and the legislative priorities of organized labor are among the factors that will determine whether the Congress in the current session will display greater sensitivity to the safety and health needs of workers. This Review has earlier suggested that congressional attention be directed at the tradeoff between worker protection and costs of compliance in the setting of health and safety standards. Two other improvements to the safeguards afforded by the 1970 Act also merit specific mention.

A controversy growing out of the vinyl chloride episode suggests the desirability of an amendment imposing on industry a mandate to report immediately to NIOSH and OSHA the discovery of any substantial hazard

65. See generally *Hearings on Small Business and the Occupational Safety and Health Act of 1970 Before the Subcomm. on Environmental Problems Affecting Small Business of the House Select Comm. on Small Business*, 92d Cong., 2d Sess. (1972); *Hearings on the Implementation of the Occupational Safety and Health Act Before the Subcomm. on Labor of the Senate Comm. on Labor and Public Welfare*, 92d Cong., 2d Sess. (1972).

66. See 120 CONG. REC. S 7294-309 (daily ed. May 7, 1974).

67. See 118 CONG. REC. 21102-04, 22713-37, 31307-20, 33438-49 (1972).

68. See *id.* at 28415, 37203.

to workers from a toxic substance or physical agent. The chemical industry was aware in 1971 that high concentrations of vinyl chloride could cause tumors in laboratory animals.⁶⁹ In late 1972, Italian industry-sponsored experiments revealed liver and kidney tumors in rats exposed to the chemical at a level as low as 250 parts per million (250 ppm).⁷⁰ At that time the legal exposure standard in effect in the United States was 500 ppm.⁷¹ On July 17, 1973, a delegation from the Manufacturing Chemists Association (MCA), the chemical industry trade association, met with NIOSH personnel to discuss the status of research on the toxicity of vinyl chloride. The Association claims that its representatives informed NIOSH of the incidence of tumors at exposures of 250 ppm,⁷² while NIOSH officials stoutly deny that this information was ever transmitted.⁷³ NIOSH took no action until early 1974, when the first worker fatalities were announced.⁷⁴ Testimony at a congressional hearing in August 1974 tends to support NIOSH's version of the dispute.⁷⁵ Another allegation of data suppression came to light in October 1974, when the Ralph Nader-funded Health Research Group charged that until 1971 a Philadelphia company withheld from its employees and government officials knowledge of the carcinogenicity of a chemical used at its plant, even though the company knew in 1967 that the substance might cause lung cancer.⁷⁶

Other federal safety legislation could serve as models for disclosure amendments to the 1970 Act. Under the Consumer Product Safety Act, whenever the manufacturer, distributor, or retailer of a consumer product has reason to believe that the product is creating a substantial hazard to the public, he must notify the Consumer Product Safety Commission.⁷⁷ Congress has imposed similar reportorial requirements on the manufacturers of motor vehicles⁷⁸ and mobilehomes.⁷⁹ Clearly workers have no less urgent

69. See Kuttner, *Vinyl Chloride Link to Cancer Known in 1971, Report Says*, Washington Post, Sept. 5, 1974, § A, at 2, col. 1. See also Mintz, *Chemical Hazard Kept Quiet*, Washington Post, May 20, 1974, § A, at 16, col. 1.

70. See Kramer, *Vinyl-Chloride Risks Were Known by Many Before First Deaths*, Wall St. J., Oct. 2, 1974, at 22, col. 3.

71. 29 C.F.R. § 1910.93, table G-1 (1974).

72. See Manufacturing Chemists Ass'n, Release No. 3846, Vinyl Chloride Chronology, undated, at 9 (copy on file with author).

73. See *Vinyl Chloride Hearing*, *supra* note 51, at 56-57 (testimony of Dr. Marcus Key, Director of NIOSH).

74. See *id.*

75. See *id.* at 83-93 (Sen. Tunney's questioning of Dr. Theodore Torkelson, representing the MCA).

It is unfortunate that the opinion of the U.S. Court of Appeals for the Second Circuit upholding OSHA's vinyl chloride standard recites MCA's version of the chronology and accepts at face value its claim to have notified NIOSH on July 7, 1973. *Society of the Plastics Ind., Inc. v. Occupational Safety & Health Ad.*, 509 F.2d 1301 (2d Cir. 1975), *application for stay denied sub nom.*, *Firestone Plastics Co. v. United States Dep't of Labor*, 43 U.S.L.W. 3527 (March 31, 1975).

76. See Hricko & Pertschuk, *Cancer in the Workplace: A Report on Corporate Secrecy at the Rohm and Haas Company*, Health Research Group, Oct. 2, 1974 (copy on file with author).

77. 15 U.S.C. § 2064(b) (Supp. III, 1973).

78. 15 U.S.C. § 1402 (1970).

79. Pub. L. No. 93-383, § 615, 88 Stat. 709 (Aug. 22, 1974).

a need than consumers for the protection that prompt government awareness of substantial risks would provide.

Congress should also give priority to devising methods of preventing the use of new substances and processes until their safety has been established. Each year industry introduces 500 to 600 new toxic substances into the stream of production.⁸⁰ Yet these chemicals need not under present law be tested prior to use, even though workers might inhale, ingest, or otherwise absorb them. It took an outbreak of peripheral neuropathy, a serious nerve disorder, at an Ohio factory to precipitate research leading to the discovery of the harmful effects of methyl *n*-butyl ketone, a solvent used in the production of printing inks.⁸¹ The Senate version of the Toxic Substances Act of 1973 would have mandated safety pretesting for certain new industrial chemicals.⁸² Unfortunately, the bill never emerged from a House-Senate conference in 1974. It has been revived in the current session.⁸³

While Congress can make dramatic changes in the statutory protection afforded workers, it remains for the legal profession to ensure the practical application of such changes. The dictates of the dollar allocate the deployment of most legal talent. Thus, under the Occupational Safety and Health Act, those with a substantial economic stake (namely, companies cited for violations of the Act or industries affected by proposed standards) do not hesitate to hire top legal talent to represent them. Though the Act offers some unique opportunities for workers to participate in its administration and enforcement,⁸⁴ it does not provide for payment of legal fees to attorneys representing workers in the vindication of their rights under the Act.⁸⁵ Therefore, individual employees or labor unions must pay their own lawyers. The workers' and unions' lack of immediate financial incentive and funds for this kind of legal representation has resulted in a distinct imbalance of forces.

Admittedly, some affluent unions could devote more resources to the legal struggles over job health and safety. On the other hand, the great majority of American workers do not belong to trade unions⁸⁶ and do not

80. See GENERAL ACCOUNTING OFFICE, REPORT TO THE SENATE COMMITTEE ON LABOR AND PUBLIC WELFARE: SLOW PROGRESS LIKELY IN DEVELOPMENT OF STANDARDS FOR TOXIC SUBSTANCES AND HARMFUL PHYSICAL AGENTS FOUND IN WORKPLACES 16 (1973).

81. See Wall. St. J., July 15, 1974, at 15, col. 1. See also R. SCOTT at 91-97.

82. S. 426, 93d Cong., 1st Sess. § 5 (1973).

83. S. 776, 94th Cong., 1st Sess. (1975).

84. The 1970 Act provides, *inter alia*, that employees may require NIOSH to evaluate the toxic effects of a substance found in a workplace, 29 U.S.C. § 669(a)(6) (1970), petition OSHA for the development of a standard, *id.* § 655(b)(1), request OSHA compliance investigations, *id.* § 657(f), and participate in enforcement proceedings before administrative law judges and the Occupational Safety and Health Review Commission to contest the period of time granted by OSHA to employers for the abatement of violations, *id.* § 659(c). For a general discussion of employee rights under the Act, see J. PAGE & M. O'BRIEN, *supra* note 10, at 185-89.

85. Attorney's fees may be awarded to consumers who sue for the private enforcement of certain rules or orders under the Consumer Product Safety Act. See 15 U.S.C. § 2073 (Supp. III, 1973).

86. It has been estimated that 20-25% of the work force is unionized. See J. PAGE & M. O'BRIEN, *supra* note 10, at 115.

deserve to reap the fruits of this neglect. Thus it is arguable that the legal profession has some responsibility to help assure that the cause of workplace survival has adequate representation. So-called "public interest lawyers"⁸⁷ could redress part of the advocacy imbalance, if ways could be found to put public interest work on a financially viable footing.⁸⁸

The law schools harbor another source of legal talent that could be enlisted. Students could provide legal assistance (and perhaps even representation) to workers willing to intervene in enforcement proceedings. They could also involve themselves in the administrative process on the federal and state levels. OSHA has a staff of attorneys who churn out regulations setting safety and health standards and evaluate state plans submitted for OSHA approval. A crying need exists for legally trained persons to oversee this activity and engage in advocacy before OSHA on behalf of workers. In addition, as the states develop plans under which they will reassume responsibility for worker safety and health, law students in every state could perform similar oversight and advocacy functions. This is an area ripe for the creation of clinical programs at law schools in state capitals and industrial cities around the country.

IV. CONCLUSION

Books such as *Expendable Americans* and *Muscle and Blood* serve a useful, positive purpose in publicizing workplace casualties. The real need, however, is to go beyond descriptions of what is wrong, to hammer out specific strategies that will take into account the magnitude of the problem and the necessity of multiple approaches, and then proceed with the daily trench warfare of execution. It may take years before results surface, but the issue of occupational safety and health presents a challenge to which there are no easy answers.

87. See Note, *The New Public Interest Lawyers*, 79 YALE L.J. 1069 (1970).

88. For proposed solutions to the problem, see Sitkin & Kline, *Financing Public Interest Litigation*, 13 ARIZ. L. REV. 823 (1971); Comment, *The Private Bar, the Public Interest, and Tax Incentives: Monetary Motivation for Action*, 13 ARIZ. L. REV. 953 (1971). See also Tucker, *The Private Lawyer and Public Responsibility—The Profession's Armageddon*, 51 NEB. L. REV. 367 (1972).