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**Farmworkers in Jeopardy: OSHA,
EPA, and the Pesticide Hazard**

by

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Comments

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INTRODUCTION

For many years after twentieth century muckrakers challenged the prevailing industrial-age notion that "progress" justified certain inevitable human costs no extensive effort was made to improve American working conditions. The horrors of the workplace revealed then brought about workers' compensation laws.¹ These laws merely sweetened the risk taken by the worker without providing the necessary incentive to eliminate it. The underlying philosophy became: "The cost of the product should bear the blood of the workman."²

When concern for the environment in the late 1960's³ produced accounts of black lung disease, asbestosis,⁴ and pesticides in the food chain,⁵ Americans began to see their workplaces as an eight hour a day environment and demanded more protection. The federal government under this prompting noticed the gaping inadequacies in state workers'

1. In 1908, Congress passed a workers' compensation statute for federal employees. Act of May 30, 1908, ch. 236, §§ 1 *et seq.*, 35 Stat. 556. By 1920, all but eight states had passed such laws. But not all workers were covered by these laws and no recovery was provided for occupational disease. J. PAGE & M. O'BRIEN, *BITTER WAGES* 55 (1973). This is the Ralph Nader Study Group report on disease and injury on the job [hereinafter cited as *BITTER WAGES*]. Further, according to a U.S. Department of Labor, Bureau of Labor Standards publication in 1969, agricultural workers in 28 states remained without workers' compensation coverage.

2. This statement is attributed to Lloyd George, *BITTER WAGES*, *supra* note 1, at 55.

3. In the intervening 50 years, congressional concern for worker safety was minimal, to say the least. In 1910, after a series of mine disasters, Congress created the Bureau of Mines, but gave it little authority. Finally, in 1969, Congress passed the Federal Coal Mine Health and Safety Act, 30 U.S.C. §§ 801 *et seq.* (1970). The Walsh-Healey Act, 41 U.S.C. §§ 35 *et seq.* (1970), was passed in 1936 to regulate wages, hours, and working conditions for employees under contracts with the federal government for the manufacture or furnishing of supplies or equipment in excess of \$10,000. Other legislation containing safety and health provisions included the Longshoremen's and Harbor Workers' Compensation Act, 33 U.S.C. §§ 901 *et seq.* (1970), *as amended*, 33 U.S.C. § 941 (1970), and the Atomic Energy Act of 1954, 42 U.S.C. §§ 2011 *et seq.* (1970), *as amended*, 42 U.S.C. § 2021 (1970). The number of workers covered by these acts is insignificant.

4. Brodeur, *Annals of Industry*, *NEW YORKER*, Oct. 29, 1973, at 44.

5. Rachel Carson, *SILENT SPRING* (1962).

compensation laws and the unwillingness of state legislatures dominated by management interests to increase benefits to keep pace with increased wages and prices.⁶

Employers, though hesitant to disturb the status quo of nonregulation, recognized that a safe workplace and accident prevention would have obvious economic advantages and could be used as a vehicle to boost worker morale,⁷ increase efficiency, and eliminate waste. Thus, the idea of worker safety and health legislation enjoyed superficial popular support in 1968 and 1969.⁸ The real battle lines were drawn by

6. BITTER WAGES, *supra* note 1, at 67.

7. A survey contracted by the Department of Labor was conducted in November and December of 1969 to examine the extent to which resources allocated to existing programs was indicative of the importance of these programs to workers and to locate problems for which programs were needed. Workers assigned high priority to occupational safety and health problems. 64% considered protection from health and safety hazards "very important," and 71% classified protection from work-related illness or injury in this category. Also considered "very important" by 69% was inadequate expense coverage during a work-related illness or injury within the preceding three years. Notably, a large absolute percentage of white-collar workers reported occupational hazards. Herrick & Quinn, *The Working Conditions Survey as a Source of Social Indicators*, 94 MONTHLY LAB. REV. 15-18 (April, 1971).

8. The Johnson administration introduced a bill (S. 2864) in early 1968 and hearings were held.

See *Hearings on S. 2864 Before the Subcomm. on Labor of the Senate Comm. on Labor and Public Welfare*, 90th Cong., 2d Sess., (1968) and *Hearings on H.R. 14816 Before the Select Subcomm. on Labor of the House Comm. on Education and Labor*, 90th Cong., 2d Sess. (1968).

Then the Nixon administration, in its pitch to the "silent majority," picked up the occupational health and safety issue. Both Democrats and Republicans introduced bills in 1969 and another round of hearings began.

See *Hearings on S. 2193 and S. 2788 Before the Subcomm. on Labor of the Senate Comm. on Labor and Public Welfare*, 91st Cong., 1st and 2d Sess., (1969-1970) and *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. (1969).

Statistics cited in 1970 in support of the Act included: In a work force of eighty million industrial workers, 14,500 are killed each year as a result of industrial accidents. Seven million workers are injured per year, 2.5 million of whom are disabled. This amounts to a loss of 250 million man-days of work. Annual loss of wages totals 1.5 billion dollars and loss to Gross National Product is eight billion dollars.

390,000 new occurrences of occupational disease develop each year. (This figure, however, is only a national projection of the 27,000 cases reported in 1965 in California, the only state with a comprehensive system of recording occupational disease. Thus, it does not even begin to encompass occupations not found in California, such as coal mining.) There are 6,000 toxic chemicals in industrial use, and 600 are added every year (approximately one every twenty minutes). Yet national standards have been formulated for only 450 of these chemicals.

The states have a total of 1,600 health and safety inspectors as compared with 2,800 game wardens, which suggest that elk and deer are better protected than working men and women.

116 CONG. REC. 37626-27 (1970) (remarks of Senator Muskie): BITTER WAGES, *supra* note 1, at 6; Brody, *Many Workers Still Face Health Peril Despite Law*, N.Y. Times, Mar. 4, 1974, at 1, col. 5.

labor and industry over *who* would have authority to promulgate standards, enforce the resulting legislation, and adjudicate violations, and *how far* this authority would extend into labor-management relations.⁹ The struggle by each side to accumulate power was fierce. Neither side, nor the Department of Labor, had ever emphasized health and safety on the job. Unions had formulated sophisticated wage scales and pension plans, while neglecting health and safety in bargaining.¹⁰

The designated governmental ally of the worker in this area, the Bureau of Occupational Safety and Health (BOSH), was not even part of the Department of Labor but had been progressively shoved into bureaucratic oblivion in the Department of Health, Education, and Welfare (HEW).¹¹ There was also an ingrained governmental reluctance to take sanctions against employers. Rather, education, warnings, and "voluntary compliance" were stressed. Industry had been successfully relying on this policy of non-enforcement and its own lobbying strength. The belief that progress necessitated the current level of human costs still persisted, often in the guise of protestations by employers that the vast majority of occupational injury and disease was caused by worker carelessness.¹²

9. The fight centered around a bill reported out by the House Education and Labor Committee, termed the Daniels bill (H.R. 16785, 91st Cong., 2d Sess. (1970)), and the Nixon administration's so-called bipartisan solution introduced in the House by Republican William Steiger and Democrat Robert Sikes (H.R. 19200, 91st Cong., 2d Sess. (1970)) and in the Senate by Republican Peter Dominick (S. 4404, 91st Cong., 2d Sess., (1970)). In terms of safeguards for workers, the Dominick-Steiger bill represented a genuine attempt to come to grips with the weaknesses of previous administration bills. This bill was delicately compromised with an even stronger Senate version, introduced by Senator Harrison Williams (S. 2193, 91st Cong., 2d Sess. (1970)); and the Occupational Safety and Health Act of 1970 (also known as the Williams-Steiger Act) was signed into law on Dec. 29, 1970, 29 U.S.C. §§ 651 *et seq.* (1970).

10. See generally BITTER WAGES, *supra* note 1.

11. Characterized by a series of name changes and moves between Washington and Cincinnati, BOSH in 1968 was part of the Environmental Control Administration under the Consumer Protection and Environmental Health Service which was part of the Public Health Service under the authority of the Assistant Secretary for Health and Scientific Affairs in the Department of Health, Education and Welfare. *Hearings on S. 2193 and S. 2788 Before the Subcomm. on Labor of the Senate Comm. on Labor and Public Welfare*, 91st Cong., 1st and 2d Sess., pt. 1, at 138-40 (1970). Testimony of Dr. Marcus Key, Director of BOSH.

12. Testimony given by J. Sharpe Queener, Safety Director of the DuPont Co. of Delaware and representing the U.S. Chamber of Commerce, characteristically expresses this attitude.

From my own personal experience and evaluation of available statistics, the basic cause (85%-95%) of occupational injuries is some type of "people failure."

We do recognize that if such legislation might save the life of one employee, it has merit, but I wish to point out something with which you all probably agree and that is that "people failure" cannot be eliminated by legislation. People aren't machines. They are free agents who value freedom to make their own mistakes—even if they may get hurt or killed.

Id. at 328-29.

Despite intense political bickering, the coverage of the Occupational Safety and Health Act of 1970 is sweeping. It unqualifiedly states:

The Congress declares it to be its purpose and policy . . . to assure so far as possible every working man and woman in the Nation safe and healthful working conditions and to preserve our human resources.¹³

The entire Act is weighted heavily in favor of the worker. It includes numerous rights which may be invoked directly by employees and a "general duty" clause which places responsibility for worker safety and health squarely on the employer.

Each employer . . . shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees.¹⁴

Clearly the Act creates a potential for drastic overhaul of the working environment for the more than 57 million Americans it was passed to cover. But developments since its passage may portend a backsliding into the status quo of non-enforcement which preceded it. This Comment describes one such development—an informal excising of farmworkers from Occupational Safety and Health Administration (OSHA) protection. By quietly ceding jurisdiction to formulate pesticide regulations to the Environmental Protection Agency (EPA), an agency which lacks sufficient authority to protect worker interests, OSHA decided that "every working man and woman in the Nation" simply did not include some 2.8 million farmworkers.¹⁵ The official legislative history admits of no such interpretation of the Occupational Safety and Health Act's purpose clause:

Pesticides, herbicides and fungicides used in the agricultural industry have increasingly become recognized as a particular source of hazard to large numbers of farmworkers. One of the major classifications of agricultural chemicals—the organophosphates—has a chemical similarity to commonly used agents of chemical and biological warfare, and exposure, depending on degree, causes headache, fever, nausea, convulsions, long-term psychological effects, or death. Another group—the chlorinated hydrocarbons—are stored in fatty tissues of the body, and have been identified as causing mutations, sterilization, and death.

While the full extent of the effect that such chemicals have had upon those working in agriculture is totally unknown, an official of the Department of Health, Education, and Welfare stated, during hear-

13. Occupational Safety and Health Act of 1970 § 2, 29 U.S.C. § 651(b) (1970).

14. *Id.* § 5(a)(1), 29 U.S.C. § 654(a)(1).

15. Statement by the Agribusiness Accountability Project on Occupational Safety and Health Act of 1970 before *U.S. Department of Labor Hearings*, Aug. 23, 1973.

ings of the Migratory Labor Subcommittee, that an estimated 800 persons are killed each year as a result of improper use of such pesticides, and another 80,000 injured. Despite the unmistakable danger that these substances present, no effective controls presently exist over their safe use and no effective protections against toxic exposure of farmworkers or others in the rural populace.¹⁶

Placing farmworkers under the inadequate protection offered by EPA's program of pesticide regulation was a tacit admission by OSHA that it would not even try to meet the task set for it by Congress. The price of this surrender will undoubtedly be paid with farmworker lives and health.

I

THE INCALCULABLY DANGEROUS PESTICIDE PROBLEM AND THE LETHARGIC BUREAUCRATIC RESPONSE

The explicit congressional mandate to respond to injury and disease rates in agricultural occupations was plainly justified by the statistics. Agriculture is the third most hazardous occupation in the United States, after mining and construction.¹⁷ Although agricultural employees constitute only 4.5 per cent of the work force, they suffer nearly 17 per cent of the occupational deaths and 10 per cent of the disabling injuries.¹⁸

Agriculture is also one of the most unhealthy occupations. In California, for example, agriculture is the state's largest industry, and it has the highest rate of occupational disease—two and a half times the rate for all industry.¹⁹ Five per cent of all occupational disease and 45 per cent of occupational poisonings are attributed to chemicals used in the agricultural industry.²⁰ Improper use of pesticides, which comprise the bulk of these agricultural chemicals, was estimated to cause 800 deaths and 80,000 injuries per year nationally when the Occupational

16. Committee on Labor and Public Welfare, S. REP. No. 91-1282, 91st Cong., 2d Sess. (1970), reported in *U.S. Code Cong. and Admin. News* at 5180 (1970).

17. Statement of Miriam Guido, Migrant Legal Action Project, *Oversight Hearings on Farmworker Occupational Safety and Health Before the House Comm. on Education and Labor*, 92d Cong., 2d Sess. 216-18 (1972) [hereinafter cited as *1972 Oversight Hearings*].

18. Petition for Promulgation of Emergency Temporary Standards Relating to Pesticides; Promulgation of Permanent Standards Relating to Pesticides, Field Sanitation and Farm Equipment; Promulgation of Other Standards Deemed to Be Necessary by the Advisory Committee; Reconstitution of Agriculture as a Top Priority Industry Before the Occupational Safety and Health Administration, United States Department of Labor 7-8 (Sept. 1, 1972) [hereinafter cited as *1972 Petition for Promulgation of Emergency Temporary Standards*].

19. Ephraim Kahn, M.D., California State Department of Health, *Occupational Illness Related to Pesticides 5*, December 17, 1973 (unpublished manuscript).

20. *Id.*

Safety and Health Act was passed.²¹ Yet even this incidence appears under-reported to a surprising degree. In Tulare County, one of the most heavily agricultural counties in California, reported pesticide-related occupational disease among farmworkers²² has been estimated at as low as one per cent of its actual incidence.²³

The implications of this projection on reported national figures are enormous because California is the only state with a systematic occupational disease reporting procedure. Every case of occupational injury or disease which lasts through the working day or requires medical treatment other than ordinary first aid must be reported in a Doctor's First Report of Work Injury.²⁴ The Doctor's First Report is supplemented by and cross-checked against reports of accidents or disease from state agencies such as the Departments of Food and Agriculture, of Health, and of Industrial Relations. In serious cases, a copy must be sent to the State Department of Industrial Safety.²⁵ The original is the worker's compensation report which the doctor must send to the employer's insurance carrier to be reimbursed.

Substantial under-reporting of agricultural health problems may occur under this system for several reasons. Workers' compensation typically compensates for traumatic injuries, not chronic diseases which may develop incrementally. The report covers only the doctor's initial diagnosis on first examination; no systematic follow-up procedure is required by the Department of Health. Doctor's bills may be paid privately or through Medi-Cal (Medicaid) rather than under workers' compensation. The information on the Doctor's First Report may be incomplete, frustrating identification of the exact cause of injury or the type of work in which it occurred. There is also no way to locate or calculate the number of incidents that go totally unreported. For exam-

21. See text accompanying note 16 *supra*.

22. California State Department of Health study, 1969, cited in Kahn, *supra* note 19.

For purposes of this study in Tulare County, the category of "farmworkers" included those employees exposed to pesticide residues on the crops. Excluded were those whose exposure to pesticides occurred during the manufacturing, mixing, loading, and ground and aerial application. This category of employees generally includes commercial pest control applicators, farmers, farm maintenance employees, and state and local governmental employees.

23. *Id.*

24. CAL. LAB. CODE § 6409 (West 1971). This report must be filed with the Division of Labor Statistics and Research. *Id.* § 6409 (a).

25. CAL. LAB. CODE § 6409(b) (West 1971) provides for such a report in every case involving a serious injury or illness or death. § 6409(c) broadly defines serious injury or illness as any injury or illness occurring in a place of employment or in connection with any employment which requires inpatient hospitalization for a period in excess of 24 hours for other than medical observation or in which an employee suffers loss of any member of the body or any serious degree of permanent disfigurement.

ple, farmworkers may not recognize symptoms of pesticide poisoning as serious or unusual. They may be reluctant to ask for medical help in a culture with which they are unfamiliar. Or they may fear the high costs of medical care.²⁶ In addition, employers can avoid the reporting requirement altogether. Because reports are required only where injuries last through the working day or need medical treatment other than first aid, an employer may simply administer minimal treatment and transfer the injured worker to a "soft" job for the remainder of the shift.

If, as estimated, 99 per cent of pesticide-related disease and an unknown number of accidents among agricultural employees simply escape notice in the only state with a reporting system, the classification of agriculture as the third most hazardous occupation is a gross underestimation indeed. In formulating standards and priorities for all occupations, however, OSHA has failed to give agriculture the high priority for remedial action warranted by the statistics.

To coordinate the implementation of its comprehensive Act, OSHA initially established a "worst first" system of enforcement priorities, including a target industry program designed to intensify inspection of workplaces in five industries, with at least double the national average for disabling injuries in manufacturing, and a target health hazards program covering five toxic substances.²⁷ Agriculture was not made a target industry, nor are any agricultural chemicals among the five target health hazards. Ironically, the official reason for the omission is a lack of existing standards by which compliance could be enforced.²⁸

It was not until February 8, 1972, over two years after the Occupational Safety and Health Act was signed into law, that even cursory consideration was given the problem of pesticides. On that date, President Nixon sent a message to Congress calling for an integrated pest management program and directing the Department of Labor and HEW to develop standards under the Act to protect workers from pesticide poisoning.²⁹ In response, Assistant Secretary of Labor for Occupational

26. Kahn, *supra* note 19.

27. DEPARTMENT OF LABOR, OSHRC, AND HEW, THE PRESIDENT'S REPORT ON OCCUPATIONAL SAFETY AND HEALTH, at 34-35 (1973).

28. Statement of George C. Guenther, Assistant Secretary of Labor for Occupational Safety and Health, 1972 *Oversight Hearings*, *supra* note 17, at 7-8.

Initially OSHA adopted only four standards concerning agriculture. All four were adopted under section 6(a) of the Occupational Safety and Health Act, 29 U.S.C. § 655(a) (1970), from previously existing national consensus standards, that is, standards from a nationally recognized standards-producing organization such as the American National Standards Institute. Covered are the use and storage of anhydrous ammonia, slow-moving vehicle emblems for farm equipment, pulpwood logging, and migrant labor camp housing. Obviously, only the fourth is generally applicable to farmworkers.

29. Pursuant to sections 20-22 of the Occupational Safety and Health Act, 29 U.S.C. §§ 669-671 (1970), the National Institute for Occupational Safety and Health

Safety and Health George C. Guenther directed an interagency federal Task Group on Occupational Exposure to Pesticides³⁰ under the Council on Environmental Quality to evaluate the dangers of pesticide exposure. On June 9, 1972, pursuant to section 7(b) of the Act,³¹ the Assistant Secretary also appointed a Standards Advisory Committee on Agriculture which in turn formed its own subcommittee on pesticides.

Section 7(b) sets forth precise specifications for the formation of advisory committees:

. . . Each such committee shall consist of not more than fifteen members and shall include as a member one or more designees of the Secretary of Health, Education and Welfare, and shall include among its members an equal number of *persons qualified by experience and affiliation* to present the viewpoint of the employers involved, and of persons similarly qualified to *present the viewpoint of the workers involved*, as well as one or more representatives of health and safety agencies of the States. . . . No member of such committee (other than representatives of employers and employees) shall have an economic interest in any proposed rule.³²

Indicative of future proceedings, the advisory committee appointed wholly lacked any representatives "qualified by experience and affiliation . . . to present the viewpoint of the workers . . ." Of the four employee members, one was no longer a farmworker but a maintenance man awaiting a new position as Project Manager of a federal migrant education project after having been fired as director of a local farmworker organization. Another member was recommended by a state legislator who was a grower; by his employer, also a grower; and by the

(NIOSH) was set up in HEW. NIOSH conducts research, standards development, manpower development, and technical assistance programs. One of its important functions is developing criteria for recommendation of standards.

The presidential message also directed 1) the Department of Agriculture, the National Science Foundation, and EPA to launch a large-scale integrated pest management research and development program to be conducted by leading universities; 2) the Department of Agriculture to increase field testing of new pest detection and control methods; 3) the Department of Agriculture and HEW to encourage development of training and certification programs at appropriate academic institutions to provide a large number of crop protection specialists; 4) the Department of Agriculture to expand field scout demonstration programs to cover four million acres under agricultural production in the next growing season.

It should be noted that this presidential message came *after* a 1971 presidential message proposing new federal pesticide legislation which resulted in the 1972 amendments to the Federal Insecticide, Fungicide and Rodenticide Act, 7 U.S.C. §§ 135 *et seq.* (1970), *as amended*, 7 U.S.C. § 136 (Supp. III, 1973).

30. Prominent in the Task Group were several of the scientists who participated in the formulation of California's pesticide standards (3 CAL. ADM. CODE § 2480 (1975)).

31. 29 U.S.C. § 656(b) (1970).

32. *Id.* Emphasis added.

American Farm Chemicals Safety Institute, a nonprofit group financed primarily by donations from chemical companies. Employed in a supervisory position, he no longer did actual farm work. The third representative was a tractor driver in an experimental agricultural program whose union stewardship had been taken away for nonperformance of duties. The fourth managed a large cattle operation.³³

No effort was made to solicit recommendations from migrant organizations. The United Farm Workers of America, AFL-CIO, was not consulted because it was thought sufficient to contact the parent AFL-CIO. Contacts, instead, were made with the National Advisory Committee on Occupational Safety and Health, which is OSHA's main policy committee, several state agricultural departments, and the Farm Labor Committee of the California Legislature.³⁴

This blatant management bias on the part of the Labor Department prompted twelve migrant organizations and public interest groups to petition OSHA on September 1, 1972, for reconstitution of the Committee, on the ground that the appointments violated section 7(b). The petition also asked for promulgation of emergency temporary and permanent standards relating to pesticides, farm equipment, and sanitation facilities in the fields.³⁵ It further requested immediate designation of agriculture as a top priority industry on evidence of its high rate of injury, death, and disease, based also on the large number and extensive geographical distribution of agricultural workers.³⁶

On October 10, 1972, a letter from the office of Assistant Secretary Guenther to petitioners effectively denied the petition on the grounds that "high priority" had already been assigned to this "urgent matter," that permanent pesticide standards would be proposed during the winter, and that sufficient data were unavailable to justify emergency pesticide standards. A replacement appointee was promised for one of the four employee members of the committee.³⁷

33. Testimony of George C. Guenther, *1972 Oversight Hearings*, *supra* note 17, at 8-13. See also *1972 Oversight Hearings* at 155-60, 191-93.

34. *Id.* at 8-13.

35. 1972 Petition for Promulgation of Emergency Temporary Standards, *supra* note 18.

Petitioners included: Migrant Legal Action Program, Inc., National Health and Environmental Law Program, Agribusiness Accountability Project, California Rural Legal Assistance, Environmental Defense Fund, Florida Rural Legal Services, Marion-Polk Legal Aid & Lawyer Referral Association, Organized Migrants in Community Action, Inc. (OMICA), Colorado Rural Legal Services, Inc., Mid-Hudson Valley Legal Services Project, Migrant Services Foundation, Inc., and Public Advocates, Inc.

36. The number of agricultural employees exceeds the combined total number of workers in the five target industries. Agricultural workers may be found in every state during some part of the year. *Id.* at 10.

37. Letter from Chain Robbins, Acting Assistant Secretary of Labor for Occupational Safety and Health, for George C. Guenther, Assistant Secretary of Labor for

To aid OSHA's Advisory Committee in issuing these promised standards,³⁸ the Task Group on Occupational Exposure to Pesticides recommended standards for 22 pesticides on November 10, 1972.³⁹ These recommendations formulated reentry times; that is, the amount of time after application of a particular pesticide which must elapse before entry into the field is safe for a worker.

But the Task Group withdrew its proposed standards as of December 5, 1972.⁴⁰ Upon reconsideration, the Group had found "inadequate data available to reach scientifically justifiable judgments on uniform national re-entry standards" and "no evidence of a national emergency" requiring such standards.⁴¹ This withdrawal was not officially made permanent until February 27, 1973,⁴² and the petitioning groups were not officially notified until March 14, 1973, that the Task Group's action would delay any decision on promulgation of standards by the Advisory Committee.⁴³

The original petitioners responded by filing suit for injunctive and declaratory relief on March 15, 1973.⁴⁴ Their complaint reviewed the history of agency inaction and alleged that the Secretary of Labor had abused his discretion by failing to issue temporary emergency standards after making findings which necessitated issuance pursuant to section 6(c) of the Act. Section 6(c)(1) mandates:

The Secretary shall provide . . . for an emergency temporary standard to take immediate effect upon publication in the Federal Register if he determines (A) that employees are exposed to grave danger from exposure to substances or agents determined to be toxic or physically harmful or from new hazards, and (B) that such emergency standard is necessary to protect employees from such danger.⁴⁵

On May 1, 1973, an Emergency Temporary Standard for Exposure to Organophosphorous Pesticides issued by the Secretary of Labor was

Occupational Safety and Health, to Miriam Guido, Migrant Legal Action Program, Inc., one of petitioners, October 10, 1972.

38. Under section 6(b)(1) of the Occupational Safety and Health Act (29 U.S.C. § 655(b)(1) (1970)), the Secretary of Labor may request recommendations of an advisory committee appointed under section 7 (29 U.S.C. § 656) when he determines a rule should be promulgated on the basis of written information submitted by an interested person or representative of an employee organization. The committee must submit its recommendations within 90 days of its appointment or within a period of time set by the Secretary not exceeding 270 days.

39. Letter from Fred H. Tschirley, Chairman of the Task Group on Occupational Exposure to Pesticides, to Chain Robbins, February 27, 1973.

40. *Id.*

41. *Id.*

42. *Id.*

43. Letter from Chain Robbins to Joanne B. Stern, National Health and Environmental Law Program, March 14, 1973.

44. *Thomas v. Brennan*, Civ. Act. No. 502-73 (D.D.C. 1973).

45. 29 U.S.C. § 655(c)(1) (1970).

published in the Federal Register,⁴⁶ provoking a "shocked" resignation by the Chairman of the Pesticides Subcommittee of the Advisory Committee. The migrant groups' suit was voluntarily dismissed.

The rapidity with which these standards were scuttled through administrative and judicial proceedings by grower groups backed by chemical industries⁴⁷ raises a serious question as to whose "emergency" was involved. Petitions for revocation and reconsideration were immediately filed with OSHA, resulting in a postponement of the effective date of the May 1 standards.⁴⁸ And on June 29, 1973, the Secretary of Labor issued a modified temporary emergency standard in response to agribusiness pressure.⁴⁹

The modified standards were notably diluted. Principally, the number of covered pesticides was reduced from 21 to 12,⁵⁰ reentry intervals were reduced for most of the twelve remaining; and protective clothing and equipment required for entry into a field before expiration of the prescribed interval were limited.⁵¹ These revisions were arbitrarily made without reference to data and without accepting Task Group recommendations.⁵² The modified standards also allowed oral warnings to employees in lieu of notices or posting of warning signs.⁵³ Inclusion of such a change on grounds that warning requirements under the first set of standards were unnecessarily broad illustrates the extent to which agriculturalists pressured the Labor Department to avoid regulation altogether.

On January 9, 1974, grower associations accomplished complete revocation of OSHA's emergency standards. Upon an impressive array

46. 38 Fed. Reg. 10715 (1973).

47. Our hopes soon dissolved, however, as we watched well-financed pesticides industry lobbyists pressure Congress, convince the courts, and misinform and frighten a large number of farmers into thinking that somehow OSHA was not only bad for U.S. agriculture but also bad for us all.

A \$1 billion industry blatantly propagandized a food-cost conscious public and sought to scare farmers through industry-written articles and editorials and lavish advertisements in farm publications into thinking food prices would skyrocket and our agricultural areas would be visited by some disaster akin to the Black Plague if OSHA was enforced.

Statement by the Agribusiness Accountability Project on Occupational Safety and Health Act of 1970 before *U.S. Department of Labor Hearings*, *supra* note 15.

48. 38 Fed. Reg. 15729 (1973).

49. 38 Fed. Reg. 17214 (1973), based on the Administrative Procedure Act, 5 U.S.C. § 555(b) (1970).

50. *E.g.*, compare note 46 *supra* with note 49 *supra*. See also Appendix, Table I.

51. *Id.*

52. Address by Ephraim Kahn, M.D., California State Department of Health, American Chemical Society 167th National Meeting, Los Angeles, California, April 3, 1974.

53. See note 50 *supra*.

of agribusiness petitions for judicial review of the standards, the U.S. Court of Appeals for the Fifth Circuit in *Florida Peach Growers Association, Inc. v. U.S. Department of Labor*⁵⁴ held that the modified standards, though procedurally valid as emergency standards, were unsupported by substantial evidence.⁵⁵ The decision, as will be discussed at length below,⁵⁶ myopically accepted the weaknesses of the Occupational Safety and Health Act which allowed pressure on the courts by special interests to interfere with the power under the Act of the Secretary of Labor to respond to an emergency by issuing standards.

While the Secretary of Labor was floundering in his inability to put strong pesticide reentry standards into action, frustrated by his own advisors and pressured in the courts by powerful economic concerns, the Environmental Protection Agency entered the melee. This second phase began on a public theme of cooperation between EPA and OSHA to rescue the severely disabled emergency standards by formulating scientifically defensible permanent standards.

Section 6(c)(3) of the Occupational Safety and Health Act⁵⁷ requires the Secretary of Labor, upon publication of an emergency standard, to begin proceedings for the promulgation of a permanent standard. These proceedings must be completed within six months. Accordingly, OSHA held four public hearings in different locations between July 31 and August 22, 1973, on worker reentry and protective clothing with respect to 21 organophosphate pesticides.⁵⁸ At roughly the same time, however, EPA held a series of 13 public hearings on what it termed the broader subject of pesticide registration requirements already administered by EPA, including field reentry, protective clothing, and related agricultural worker protection for all pesticides and their uses.⁵⁹

These concurrent hearings had been preceded by a meeting called by the Office of Management and the Budget on July 24, 1973, not long

54. 489 F.2d 120 (5th Cir. 1974).

55. Section 6(f), 29 U.S.C. § 655(f) (1970), OSHA's judicial review provision, states:

Any person who may be adversely affected by a standard issued under this section may at any time prior to the sixtieth day after such standard is promulgated file a petition challenging the validity of such standard with the United States court of appeals for the circuit wherein such person resides or has his principal place of business, for a judicial review of such standard. . . . The filing of such petition shall not, unless otherwise ordered by the court, operate as a stay of the standard. The determinations of the Secretary shall be conclusive if supported by substantial evidence in the record considered as a whole.

56. See text accompanying notes 105-32 *infra*.

57. 29 U.S.C. § 655(c)(3) (1970).

58. 38 Fed. Reg. 17245 (1973).

59. 38 Fed. Reg. 20362 (1973).

after the Secretary of Labor succumbed to agribusiness pressure to modify his temporary emergency standards. The meeting had been expressly convened to resolve jurisdictional issues between EPA and OSHA with regard to pesticides, and an agreement between the two agencies was drafted.⁶⁰

Interpretations of the agreement by the agencies, however, differed markedly. EPA understood the jurisdictional pact to mean 1) that it would have power to review, set, and promulgate pesticide standards at the completion of the scheduled public hearings; 2) that it was to have "primary responsibility" for establishing occupational standards for pesticide usage which would preempt any Department of Labor authority to establish conflicting standards; 3) that it possessed sufficient statutory authority fully to protect agricultural workers; and 4) that the Department of Labor might assist EPA in enforcing the standards by adopting them under OSHA.⁶¹

By contrast, the Department of Labor interpreted the agreement to authorize 1) general authority under the broad purpose clause of the Occupational Safety and Health Act for OSHA to issue and enforce pesticide standards; 2) cooperation between OSHA and EPA in reviewing data and promulgating standards; and 3) coordination of enforcement of each agency's standards to maximize efficient use of agency resources.⁶² Essentially, OSHA envisioned utilizing EPA's scientific expertise to formulate standards by which it could meet its responsibility under the Act to guarantee safe working conditions to farmworkers as well as industrial workers.

After the hearings and after *Florida Peach Growers* was decided in January 1974, though, OSHA abandoned its determination to enforce pesticide safety and health standards for farmworkers and buckled under the judicial pressure from agriculturalists and administrative pressure from EPA. A February 22, 1974, draft memorandum of agreement between the two agencies indicated that EPA would assume sole jurisdiction over the formulation and enforcement of pesticide standards. To OSHA would be left such areas as ventilation, fire extinguishers, open vats of toxic materials, protective clothing, slow-moving vehicle signs, sanitary facilities, roll-bars on farm equipment, and ammonia-based fertilizers.⁶³

60. BNA OCCUPATIONAL SAFETY AND HEALTH REPORTER CURRENT REPORT 771, 799-780, Nov. 15, 1973.

61. *Id.* at 799.

62. *Id.* at 799-800.

63. Memorandum of Agreement between Environmental Protection Agency and Department of Labor Occupational Safety and Health Administration Regarding Protection of Workers Occupationally Exposed to Pesticides, February 22, 1974 (unpublished draft from EPA).

The coalition of migrant and public interest groups which originally petitioned OSHA to formulate pesticide standards contested this cession of jurisdiction to EPA. In *Organized Migrants in Community Action, Inc. (OMICA) v. Brennan*⁶⁴ a mandatory injunction was sought to compel Department of Labor promulgation of permanent standards for employee exposure using the temporary standards as proposed standards and holding hearings on them, as required by section 6(c)(3) of the Act.⁶⁵ The March 4, 1974, filing of the action did nothing to halt EPA's promulgation of pesticide standards. On March 11, 1974, proposed standards based on a summary of findings from the EPA and OSHA hearings were issued and comments invited.⁶⁶ And on May 10, 1974, EPA issued final Worker Protection Standards for Agricultural Pesticides to become effective June 10, 1974.⁶⁷

On June 12, 1974, the Department of Labor moved to dismiss *OMICA* on the ground that EPA's exercise of authority over reentry intervals preempted any further Department of Labor action pursuant to OSHA's own statutory jurisdictional limitations.⁶⁸ Cross motions for summary judgment were also filed, and on October 29, argument was heard and defendants' motion to dismiss was granted from the bench without written opinion. What had begun as a request for standards envisioned by the authors of the Act came to an abrupt halt, while OSHA had rid itself of a major chunk of its protective responsibility.⁶⁹

64. Civil Action No. 74-54 (D.D.C. 1974).

65. 29 U.S.C. § 655(c)(3) (1970). The court granted the injunction, Memorandum in Support of Plaintiffs' Motion for Preliminary Injunction, Civil Action No. 74-54 at 4 (D.D.C. 1974).

OMICA v. Brennan was filed a few days after *Florida Peach Growers* was decided by the Fifth Circuit but before plaintiffs were informed of the decision. As originally filed, *OMICA* complained only of the Department of Labor's failure to comply with section 6(c)(3). After learning of the invalidation of the temporary standards in *Florida Peach Growers*, the plaintiffs in *OMICA* added two causes of action: first, to compel the Department of Labor to promulgate standards within 60 days at the completion of public hearings on permanent standards or to state reasons why no standards should issue; and second, to prevent OSHA's cession of jurisdiction to EPA.

66. 39 Fed. Reg. 9457 (1974).

67. 39 Fed. Reg. 16888 (1974). See Appendix. Plaintiff migrant groups thereupon amended their complaint to add EPA as a defendant and to place into contention the Department of Labor's outright refusal of jurisdiction.

68. Occupational Safety and Health Act of 1970 § 4(b)1, 29 U.S.C. § 653(b)(1) (1970), discussed at text accompanying notes 133-61 *infra*.

69. Attempting to put this controversy behind it, the government now espouses the following history in its 1974 report of the Council on Environmental Quality:

In May 1973, the Department of Labor issued temporary emergency field reentry standards to protect farm workers from exposure to hazardous pesticides. . . . These temporary emergency standards lapsed in November 1973.

In May 1974, the EPA promulgated permanent field reentry standards.

COUNCIL ON ENVIRONMENTAL QUALITY, 5TH ANNUAL REPORT ON ENVIRONMENTAL QUALITY at 158-59 (1974). See also text accompanying note 16 *supra*.

II

THE IMPLICATIONS

What are the implications of these events? Careful analysis of several major points considered above will show how Department of Labor unwillingness to face the difficult task of adequately protecting workers from pesticides has enormous ramifications for farmworkers and for OSHA's future as an effective guarantor of workers' health and safety.

A. The Medical Dangers of Organophosphate Pesticides and Partisan Pressures to Fill the Void in Scientific Research

Since DDT was banned in 1972,⁷⁰ there has been a surge in the use of organophosphate and, to a lesser extent, carbamate pesticides.⁷¹ Members of both of these groups of pesticides have acute toxic effects on humans which result from their ability to disrupt the transference of nerve impulses in both the somatic and autonomic nervous systems. Nerve impulses are carried from neuron to neuron by a transmitter chemical, which is most often acetylcholine. Within the refractory period of the nerve the acetylcholine is destroyed by the enzyme cholinesterase, because to restore the sensitivity of the synapse, the transmitter chemical must be eliminated so that the receptor can return to its resting condition. Organophosphates and carbamates inhibit the action of cholinesterase, which allows acetylcholine to accumulate; the transmission of nerve impulses does not cease, and the body becomes hyperactive.⁷²

Different reactions to cholinesterase inhibition occur in different organs of the body. The extent of the reaction depends on the size of the dose and the rate at which it is absorbed into the blood stream. Symptoms of a small dose of an organophosphate include headache, nausea, vomiting, dizziness, intestinal cramps, diarrhea, excessive sweating, and secretion of saliva. Larger doses may cause blurring of vision, constriction of the pupils, muscle weakness, loss of muscle coordination, difficulty in breathing, convulsions, mental disorientation, coma, and death. Death results from a combination of paralysis of muscles involved in the breathing process and effects on the brain. A fatal dose for an adult of pure parathion, the most widely used of the organophosphate pesticides, is estimated at 100 milligrams.⁷³

70. 37 Fed. Reg. 13369 (1972).

71. See CAL. STATE DEP'T OF FOOD AND AGRICULTURE, 1973, 1974 ANNUAL REPORT OF AGRICULTURAL CHEMICALS AND FEED UNIT, CAL. PESTICIDE USE REPORT; see generally Paul W. Smith, Chief, Aviation Toxicology Laboratory, Civil Aeromedical Institute, Department of Transportation, Federal Aviation Administration, Medical Problems in Aerial Application Diagnosis and Treatment of Poisoning (unpublished report).

72. R. O'BRIEN, INSECTICIDES 16-21, 39 (1967).

73. W. HAYES, CLINICAL HANDBOOK ON ECONOMIC POISONS 37 (1967).

Beyond the acute interference of organophosphates and carbamate pesticides with body cholinesterase and its accompanying symptoms, there is evidence that long term chronic exposure can produce different and serious effects. Chronic exposure of manufacturing and farm workers to organophosphates has been shown to cause neuromuscular impairment varying from mild muscular weakness to serious deterioration of strength and hand-to-eye coordination.⁷⁴ This impairment is not detectable by measuring cholinesterase depression in the blood, the normal method of detecting organophosphate poisoning.

Behavioral effects have also been indicated in several studies. One study of workers engaged in manufacturing organophosphate pesticides showed that exposed workers had disturbed memories, shortened attention spans, and narcoleptic sleep patterns.⁷⁵ Another study reported cases in which persons who first suffered acute organophosphate poisoning later exhibited symptoms of schizophrenia, depression, and memory loss.⁷⁶ Other studies have correlated chronic exposure to organophosphates to liver and kidney damage.⁷⁷

The level of cholinesterase in the blood can be determined by measuring the presence of the enzyme in red blood cells. Absorption of organophosphates and hence poisoning is indicated by decreased activity of the enzyme. Since normal cholinesterase activity varies greatly among individuals, it is essential to know, as a baseline, the level of cholinesterase activity in a particular individual before exposure to pesticides. A simple blood test is all that is required and it must, to provide a valid baseline, be taken before the seasonal work of the farmworker or pesticide applicator begins. A baseline test is imperative since organophosphate poisoning may occur without any of the symptoms mentioned above. If an individual is exposed to organophosphates each day, cholinesterase levels may decrease gradually until an insufficient amount remains to perform its normal biochemical function. Then symptoms overtly manifest themselves. A continuing program of blood tests for the worker will show low cholinesterase levels before they become dangerous, and the worker can be warned to avoid exposure until blood levels

74. Jager, Roberts, and Wilson, *Neuromuscular Function in Pesticide Workers*, 27 BRIT. J. IND. MED. 273 (1970); Prentz, Ensberg, Roberts, and Wilson, *Neuromuscular Function in Agricultural Workers Using Pesticides*, 25 ARCH. ENVIRON. HEALTH 395 (1972).

75. Metcalf and Holmes, *EEG, Psychological and Neurological Alterations in Humans with Organophosphorous Exposure*, 160 ANN. N.Y. ACAD. SCI. 357 (1969).

76. Gershon and Shaw, *Psychiatric Sequelae of Chronic Exposure to Organophosphorous Insecticides*, 1:7191 LANCET 1371 (1961).

77. Davies, Mann, and Tocci, *Renal Tubular Dysfunction and Amino Acid Disturbances Under Conditions of Pesticide Exposure*, 160 ANN. N.Y. ACAD. SCI. 323 (1969).

return to normal or the employer can be warned that he is hazardously impairing the health of his workers.⁷⁸

The effects of erratic exposure to organophosphates are not so easily measured. It is known that at first re-synthesis of cholinesterase is rapid. Much regeneration may occur overnight. A cholinesterase level which is depressed by 15 per cent rebounds to normal within a few days.⁷⁹ But the rate of recovery from a 50 per cent depression is unknown.

Further complications enter when workers return to their jobs before cholinesterase levels have returned to normal. Even a limited exposure to organophosphates will cause a more rapid and severe depression of cholinesterase than the initial exposure.⁸⁰ It should also be noted that a program of blood monitoring may not catch a massive infrequent dose or show the effect of varying doses on already depressed cholinesterase levels.

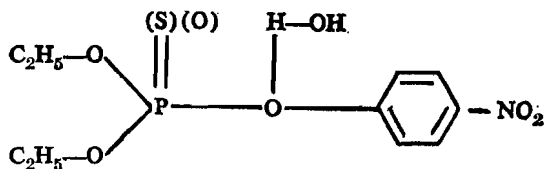
A number of other factors also affect exposure to organophosphate pesticides and hence blood cholinesterase levels. Perhaps the most significant variable is climate. The importance of climatic differences is currently at the heart of the argument against uniform national standards for organophosphate reentry intervals. Both organophosphates and carbamates are relatively unstable chemicals in the environment and degrade into relatively harmless compounds at a measurable rate which varies with the type of pesticide and field conditions. Reentry intervals are theoretically set at the time it takes a particular pesticide to degrade to a point at which no, or at least no significant, depression of cholinesterase level will occur during a normal working day. It is known that organophosphates break down more rapidly in moist field conditions than in dry conditions.⁸¹

78. *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. 1392-93 (1969), Statement of Dr. Thomas H. Milby, Chief, Bureau of Occupational Health and Environmental Epidemiology, State of California Dep't of Public Health.*

79. W.J. Pependorf and R.C. Spear, *Preliminary Survey of Factors Affecting the Exposure of Harvesters to Pesticide Residues*, 35 J. AM. INDUS. HYGIENE ASS'N 374 (1974).

80. *Id.*

81. Organophosphates are degraded by hydrolysis. In the case of parathion, a water molecule breaks apart the parathion or paraoxon molecule by bonding with oxygen as shown below:



Some scientists have reasoned on the basis of this organophosphate characteristic that uniform national reentry standards are wholly unwarranted. They maintain that since almost all reported pesticide poisonings have occurred in California citrus areas which are arid, the dearth of reported poisonings in the moister remainder of the country is a result of the simple fact that few poisonings occur. They discount California's reporting system as a factor by pointing out the absurdity of assuming that a pesticide poisoning incident could go unnoticed even in a state without a reporting system. Therefore, they conclude that reentry intervals cannot be formulated nationally on the basis of California data and would be feasible, if needed at all, only on a state by state basis.⁸² The argument slights the immediate need of field workers for safe working conditions. Uniform intervals between pesticide application and harvest have been imposed by EPA to protect consumers who eat treated fruit, without regard to climatic variations.⁸³ There is absolutely no reason why intervals could not be set which will protect farmworkers as well.

Other factors which affect the level of organophosphate exposure are more individual. The type of clothing worn by the worker and the specific job he or she is performing determine how much of the body will be exposed to the pesticide-laden plant and foliage, how shielded by clothing that exposure will be, and the length of time of exposure. Of course, these factors also vary with the rate of application specific to a particular pesticide, crop, or area. Whether the worker smokes, wears clean or already contaminated clothes, or eats near the field also affects cholinesterase measurements.⁸⁴

82. Several scientists expressed such views at the Symposium on Safe Intervals for Agricultural Worker Re-entry into Pesticide-Treated Areas, 167th Annual Meeting, Amer. Chem. Society Division of Pesticide Chemistry, Los Angeles, Cal., Apr. 3, 1974.

83. Federal Food, Drug, and Cosmetic Act of 1970, 21 U.S.C. § 346a (1970), *as amended*, 21 U.S.C. § 346a (Supp. III, 1973).

84. A California State Department of Health fact sheet succinctly lists the variables which must be considered in formulating organophosphate reentry intervals which will provide workers with adequate protection. It states:

Proper reentry intervals should be set so that exposure to residues in repeated customary field work causes no significant physiological disturbance in field crews. The factors involved in determining truly scientific intervals would have to include the following:

1. Toxicity of the compound (oral, dermal and respiratory).
2. Maximum permissible rate of application (pounds per acre).
3. Rate of degradation or dissipation of the compound on the foliage of the given crop and the effects thereon of physical factors such as sunlight, temperature, moisture, amount and type of dust, etc.
4. Effect of formulation and concentration (especially "ultra-low volume" application) on the rate of degradation and on the exposure hazard.
5. Amount of exposure involved in harvesting a given crop.
6. Relative magnitudes and rates of absorption in exposed workers by different routes (oral, dermal, respiratory) for each residue.
7. Chemical alteration of the residue (with special attention to the formation of more toxic compounds) by various physical factors.

Identification of these numerous variables bearing on exposure levels have also unfortunately been accompanied by a lack of complete and reliable documentation of their relative significance. Some cite this lack of adequate data as an argument against immediate implementation of uniform national standards. Concededly, standards which will protect the worker must rest on some scientific basis. But the health of workers cannot wait until all of the measurements are known or all of the problems solved.

The reentry regulations finally promulgated by EPA after 13 public hearings⁸⁵ meet none of the serious medical problems which accompany organophosphate use. They prohibit reentry without protective clothing before "sprays have dried or dusts have settled" unless a longer reentry period is specified.⁸⁶ 12 pesticides with specific reentry times of 24 or 48 hours are listed,⁸⁷ a mere duplication of the preharvest intervals already set for consumers. EPA offhandedly ignored the gross difference between a consumer's eating several pieces of treated fruit and the absorption of residues by a worker daily engulfed in treated foliage, by stating that preharvest intervals are "usually more than adequate" to protect workers as well.⁸⁸ EPA's regulations are, in their amazingly brief form, worse than no regulation at all. For not only has EPA supplanted important employee rights under the Occupational Safety and Health Act, it has all but assured pesticide misuse through gaping omissions in its regulations.

Re-examining the emergency regulations originally promulgated by OSHA,⁸⁹ it can be seen that reentry times of 2 to 14 days were provided for the same pesticides, and the regulations covered 21 pesticides and five crop types for both wet and dry field conditions. Warnings similar to EPA's were required to be posted and to be given orally where necessary, and information contained in them recorded for one year. Clean protective clothing and respirators were to be provided daily by the employer for employees entering the fields during proscribed times to perform necessary tasks such as irrigation system repairs. Employers were also required to see that food was not kept or eaten near an exposed area and to provide washing and changing facilities, medical assistance arrangements, and instruction in symptom recognition. Plain-

Factors Requiring Investigation In Order to Provide Scientific Basis for Worker Reentry Intervals, 1974 (available at Cal. State Dep't of Health Epidemiological Studies Lab., Berkeley, Cal.).

85. 39 Fed. Reg. 16888 (1974); see also text accompanying note 67 *supra*. See Appendix for a comparison of EPA and California regulations.

86. 40 C.F.R. § 170.3(b)(1) (1974).

87. *Id.* § 170.3(b)(2).

88. 39 Fed. Reg. 16889 (1974).

89. 38 Fed. Reg. 10715 (1973); see also text accompanying note 46 *supra*.

ly, this original regulatory effort was slashed and trimmed by EPA until it has become protection in name only.

The unique collaboration between systematic reporting of pesticide-related injuries and illnesses and concentrated scientific research to quantify the effects of pesticide exposure led to early California reentry restrictions. The data compiled by California and the researchers who did the compilations figured heavily in the advisory committees which considered original OSHA pesticide regulation. Yet California reentry standards are far more restrictive than any of the federal efforts. A reading of the California formulation suggests that very few of the differences between its regulations and federal rules could be scientifically attributed to climatic factors unique to California.

The regulations permit field reentry once spray has dried or dust has settled for all but 18 pesticides applied in four crop types. For these pesticides, reentry times range from 1 to 45 days.⁹⁰ Employees must be orally warned by the employer, but for certain pesticides posting is also required. Specifications for such notices are detailed, and provision is made for warnings in appropriate languages.⁹¹ Records of pesticide application must be maintained for at least one year after application and be available for inspection.⁹² The director or county commissioner of agriculture also has authority to inspect the workplace without advance notification.⁹³ Studies on human subjects to establish shorter reentry intervals are prohibited unless approval is obtained based on assurances that health is not likely to be endangered, that information of the potential risks will be provided to participants, and that all participants will be under medical supervision.⁹⁴

For workers entering fields after pesticides have been applied, the employer must provide handwashing facilities. He must also insure that field work supervisors, presumably including farm operators, their agents, and labor contractors,⁹⁵ are informed of the usual symptoms of organophosphate and carbamate poisoning and plan in advance for emergency medical care.⁹⁶

The California code also covers pesticide mixers, loaders, and ground and aerial applicators. Regulations for these employees are much more stringent than for fieldworkers. This increased protection can only

90. 3 CAL. ADM. CODE § 2480(c)(2)(E) (1975). See Appendix for detailed treatment of California's regulations.

91. *Id.* § 2481.

92. *Id.* § 2482.

93. *Id.* § 2484.

94. *Id.* § 2483.

95. *Id.* § 2476(e)1, all defined by the regulation as "employers."

96. *Id.* § 2480(a).

in part be rationalized by the increased danger to these workers of massive exposure due to accidental spillage. The additional requirements include training in safety procedures,⁹⁷ employer provision of clean protective clothing and equipment,⁹⁸ changing room facilities,⁹⁹ and routine emergency washing facilities at the mixing or loading site.¹⁰⁰ The employer must plan for emergency medical care and post such arrangements.¹⁰¹ He or she must under certain application conditions engage a physician to monitor change in cholinesterase levels from baseline determinations and to conduct other tests. The employer must follow the physician's advice as to limitations on exposure for individual employees, and must also keep records and make cholinesterase results available to workers on request.¹⁰² The point triggering some of these protections is exposure for more than 30 hours in any 30-day period.¹⁰³ More comprehensive regulation could perhaps be achieved by the passage of these period-initiated protections, especially medical supervision, for all employees.¹⁰⁴

If application of organophosphate and other toxic pesticides is to continue, reentry intervals must be set which recognize that the purpose of standards is to protect the worker. Economic concerns of the agriculturalists cannot be allowed to whittle away the margin of safety necessary if standards are to be set before all the data is in.

Scientists cannot yet set accurate reentry intervals which take into account all the variables; they are far even from agreeing on estimates.

97. *Id.* § 2477(b).

98. *Id.* § 2477(i).

99. *Id.* § 2477(g).

100. *Id.* § 2477(h).

101. *Id.* § 2477(c).

102. *Id.* § 2477(d).

103. See, for example, *id.* §§ 2477(d) and 2477(g).

104. The United Farm Workers of America, AFL-CIO, also provides for strong health and safety measures in the agricultural workplace. A typical contract provision dealing with health and safety reveals a structure of self-enforcement by the workers. The company must agree to consult with the Union's Health and Safety Committee in the formulation of policies relating to worker health and safety, including use of agricultural chemicals, use of protective equipment, and time and manner of pesticide application. The employer must notify the Union committee as soon as possible prior to the application of pesticides and, after consultation with the committee, determine the length of time during which reentry is prohibited. Federal and state regulations are to be guides, but reference to recognized experts in the field is also possible. Even so, workers may not enter fields in less than the number of days deemed safe by the applicable regulations. The employer is required to maintain extensive records of pesticide applications, and he is responsible for providing protective equipment and first aid supplies. And the clause includes the following language which reinforces the worker's role in enforcing safe conditions which touch him: "Company shall not require any employee to go or be in any employment or place of employment which is not safe. 'Safe' means such freedom from danger to life or safety of employee as the nature of employment reasonably permits."

California has formulated reentry standards on the basis of data gathered through its reporting system.¹⁰⁵ There is strong opposition among growers, chemical companies, and many scientists to the adoption of nationwide standards similar to California's. Yet if such standards are adopted, an adequate safety margin is better assured. The standards could be revised as both research findings and pesticide poisoning reports are received from different localities. Because weaker standards were adopted, the only possible inference is that worker health is being compromised in favor of economic interests which would benefit by lowering reentry levels below known safe levels.

B. Florida Peach Growers: *Using Equity To Undermine OSHA*

A thorough analysis of the *Florida Peach Growers*¹⁰⁶ opinion unearths the judicial nullification of OSHA's emergency rulemaking powers. The court initially based invalidation of the standards on findings by each of the advisory committees that no emergency existed. However, it then enunciated criteria for further promulgation of permanent standards clearly inconsistent with priorities of the Occupational Safety and Health Act. Section 6(b)(5)¹⁰⁷ of the Act specifically requires:

The Secretary, in promulgating standards dealing with toxic materials or harmful physical agents under this subsection, shall set the standard which most adequately assures, to the extent feasible, on the basis of the best available evidence, that no employee will suffer material impairment of health or functional capacity even if such employee has regular exposure to the hazard dealt with by such standard for the period of his working life. Development of standards under this subsection shall be based upon research, demonstrations, experiments, and such other information as may be appropriate. In addition to the attainment of the highest degree of health and safety protection for the employee, other considerations shall be the latest available scientific data in the field, the feasibility of the standards, and experience gained under this and other health and safety laws. Whenever practicable, the standard promulgated shall be expressed in terms of objective criteria and of the performance desired.

105. California's reentry intervals were purportedly set on the basis of two variables: 1) pesticide residue on the foliage of a particular crop and 2) physiological effect of pesticide doses on workers. Yet what is unknown, as shown by the scientific discussion above, is how and under what conditions the amount of residue can be used as a prediction of the dose which will be absorbed. So even the formulation of California standards was, by necessity, a numbers game.

106. See note 54 *supra* and accompanying text.

107. 29 U.S.C. § 655(b)(5) (1970).

Without mentioning the express purpose of the Act of assuring all workers safe and healthful working conditions, the court formulated its own test:

The 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.¹⁰⁸

By giving economic considerations weight, the court minimized the importance of data concerning potential long-term medical hazards of chronic exposure to organophosphates and emphasized the short-term symptoms, which it described as "mild,"¹⁰⁹ "easily curable,"¹¹⁰ and "fleeting."¹¹¹ Thus the court determined characterizations of mild visible symptoms of organophosphate poisoning to be conclusive of the medical danger posed by exposure to such pesticides. By doing so, the court itself took an extreme and partisan stand on a scientific question which is neither close to solution nor amply researched.¹¹²

Then, applying the judicial review provision of the Act, section 6(c)(1), to its own interpretation of the data, the court found substantial evidence lacking for both required elements of a temporary emergency standard: 1) "grave danger" from exposure to toxic or physically harmful substances, and 2) necessity of an emergency standard to protect workers from such danger. Its reasoning is a classic illustration of judicial obfuscation of an expert agency determination.

There is substantial evidence that farmworkers occupationally exposed to organophosphate residues on foliage may experience headache, fatigue, and vertigo. These are not grave illnesses, however, and do not support a determination of a grave danger. A relatively small number of workers experience these difficulties, and it has been going on during the last several years thus failing to qualify for emergency measures.¹¹³

Clearly, substantial evidence that organophosphates cause farmworkers to have headaches exists. But it is by no means established that such headaches or other symptoms, whether manifested or not, do not constitute a grave danger. This cut-and-dried approach by the court in *Florida Peach Growers* simply does not reflect the complex scientific and medical problems of measurement and treatment of pesticide exposure.¹¹⁴

108. 489 F.2d at 130.

109. *Id.* at 131.

110. *Id.* at 132.

111. *Id.*

112. See Section II A *supra*.

113. 489 F.2d at 131.

114. See Section II A *supra*.

Yet the extensive record in this case undoubtedly set these problems squarely before the court.¹¹⁵

Nor did the court take into account variables specifically mandated by the Occupational Safety and Health Act. For example, section 6(b)(5)¹¹⁶ calls for consideration of impairment of health from *regular exposure* to toxic materials during the working life of an employee in formulating standards. Persistent mild or fleeting symptoms from regular exposure may lead to impairment of health or functional capacity to an unknown degree, either immediately or through progressive effect on the body. The court's assumption that no emergency or grave danger exists, simply because a worker has had headaches or fatigue for years, not only violates 6(b)(5) but is incredible on its face.

Scientists do not yet know the answers to these problems. It was therefore inappropriate for the court, without scientific expertise, to second-guess the Secretary of Labor and categorically state that *no* substantial evidence in the record supported emergency standards.¹¹⁷ A less sweeping argument might have been made on the basis of Advisory Committee and Task Group recommendations against setting standards,

115. 489 F.2d at 129.

116. 29 U.S.C. § 655(b)(5) (1970).

117. In *Dry Colors Manufacturers Association, Inc. v. Department of Labor*, 486 F.2d 98 (3d Cir. 1973), a similar case involving temporary emergency standards under OSHA for 14 chemicals alleged to be carcinogens, the court of appeals upheld the application of section 6(c), 29 U.S.C. § 655(c) (1970), the judicial review provision, to temporary emergency standards. In quantifying the substantial evidence test, the court noted:

The Report of the Senate Committee on Labor and Public Welfare provides the following interpretation of subsection 6(c):

"Because of the obvious need for quick response to new health and safety findings, Section 6(c) mandates the Secretary to promulgate temporary emergency standards if he finds that such a standard is needed to protect employees who are being exposed to grave dangers from *potentially* toxic materials or harmful physical agents." (Emphasis added.) S. Rep. No. 91-1282, 91st Cong., 2d Sess., p. 7 (1970).

This language, however, should not be read to mean that a showing of mere speculative possibility that a substance is harmful to man is sufficient to call into effect the summary procedure of subsection 6(c). It is clear from the Act that Congress considered that the ordinary process of rulemaking would be that provided for in subsection 6(b), dealing with permanent standards; emergency temporary standards should be considered an unusual response to exceptional circumstances. . . . Especially where the effects of a substance are in sharp dispute, the promulgation of standards under subsection 6(b) is preferable since the procedure is specifically designed to bring out relevant facts.

Id. at n.9a. The scientific data before the court and discussed above might well have been found by this court to warrant the Secretary's emergency determination. At minimum, however, the adamant protestations by agribusiness groups that further research was needed to establish safe reentry intervals concede that more than a "mere speculative possibility" exists that organophosphates are harmful to man. The issue is no longer whether regulation, but how extensive the regulation. This, as *Dry Colors* states, is not a matter for the courts; rather, rulemaking procedures designed to resolve such issues should be followed.

with the court expressing a preference for promulgation of such hotly disputed standards under the permanent rulemaking section of the Act.¹¹⁸

Yet if the emergency provisions are to function consistently with the purposes of the Act, judicial authority to review OSHA emergency standards should have been rejected altogether. Examination of the opinion beyond its cursory scientific conclusions shows how section 6(f),¹¹⁹ which allows an individual adversely affected by a standard issued under section 6 to obtain judicial review within 60 days of promulgation, can be utilized to restrain severely the ability of the Secretary to react to an emergency.

In public health areas in particular, agencies may take a variety of summary actions to protect the public in advance of hearing.¹²⁰ Due process requires that opportunity for a hearing and judicial determination occur at some stage, but the right to a hearing does not acquire greater immediacy or importance where the danger of injury is alleged to be greater.¹²¹ Rather, Congress has provided in the Occupational Safety and Health Act for an expedited permanent rulemaking procedure for emergency standards, which includes notice and opportunity for comment and hearing. Section 6(c)(3)¹²² requires the Secretary, upon publication of an emergency standard, to begin proceedings for promulgation of a permanent standard pursuant to section 6(b). These proceedings must be completed within six months, and the emergency standard is effective until superseded by the permanent stand-

118. By this approach, the procedural mechanisms designed for promulgation of permanent standards can be used to elucidate and weigh the evidence. Sacrificed, however, is the flexibility of the Secretary to respond immediately to an emergency. Plus, the court becomes an intermediate delay in the administrative process, ironically deciding whether the problem is so pressing as to permit no delays. Court action at this point also encourages and condones efforts of opposing parties to invalidate emergency standards by deluging a judge, who has no expertise concerning the particular working condition, machine, or chemical, with data calculated to cast doubt on the existence of an emergency though not necessarily on the standards themselves. By any rationale, then, the result in *Florida Peach Growers* calls into question the propriety of judicial interference with a presumptively reasoned determination by the Secretary that an emergency exists and the ease with which that determination can be challenged.

119. 29 U.S.C. § 655(f) (1970).

120. *Goldberg v. Kelly*, 397 U.S. 254, n.10 (1970); *Ewing v. Mytinger and Casselberry*, 339 U.S. 594 (1950).

One of the oldest examples is the summary destruction of property without prior notice or hearing for the protection of the public health. There is no constitutional reason why Congress in the interests of consumer protection may not extend that area of control. It may conclude, as it did here, that public damage may result even from harmless articles if they are allowed to be sold as panaceas for man's ills.

Id. at 599-600.

121. *Id.* at 600.

122. 29 U.S.C. § 655(c)(3) (1970).

ard.¹²³ If a court can interfere before this time with the determination of the agency that an emergency exists, the protection Congress has provided the worker against continuing injury during the pendency of administrative proceedings is seriously weakened.

The court in *Florida Peach Growers* recognizes as much in its defense of Department of Labor authority to revoke and modify summarily the emergency standards promulgated for pesticides in the same manner as they were formulated. Petitioning for reconsideration, revocation, or modification of an emergency standard provides direct and immediate recourse within the agency, which has the discretionary power and expertise to act.¹²⁴ This remedy obviates both the necessity of invoking section 6(b) formal rulemaking procedures and any involvement of the courts.

As stated in *Florida Peach Growers*, with respect to the farmworker and public interest petitioners' challenge to the Secretary's modification of his temporary standards:

Farmworkers' position is contrary to the concepts underlying the Secretary's authority to issue emergency standards. It is inconceivable that Congress, having granted the Secretary the authority to react quickly in fast-breaking emergency situations, intended to limit his ability to react to developments subsequent to his initial response. . . . Such lengthy procedures could all too easily consume all of the temporary standard's six months life. We will not so read the Act "as to take from the [Secretary] the discretionary power to mould remedies suited to practical needs. . . ."¹²⁵

Since the court, in the interest of preserving the integrity of the Act, recognizes that section 6(b) is not the exclusive means of modifying or revoking standards, it must also recognize the corollary, that section 6(f), the judicial review provision, is not the exclusive response to emergency standards. Adequate alternatives to judicial review in areas in which a court may have no expertise are afforded by the expedited permanent rulemaking procedure and the opportunity to petition for emergency modification or revocation.

The expedited rulemaking procedure of section 6(c)(3) is the preferable alternative. It is plain from *Florida Peach Growers* that industry pressure in influencing discretionary power of the Secretary under the emergency provisions can be very effective. Since issuance of emergency standards will almost always work to the advantage of the employee, the incentive for management to fight for revocation and

123. *Id.* § 6(c)(2), 29 U.S.C. § 655(c)(2).

124. Administrative Procedure Act, 5 U.S.C. § 555(b) (1970). See note 49 *supra*.

125. *Florida Peach Growers*, 489 F.2d at 127, citing *NLRB v. Seven-Up Bottling Co.*, 344 U.S. 344, 351-352 (1953).

modification of standards necessarily onerous to it is strong and should not be allowed to outweigh the Secretary's flexibility to react to health and safety emergencies.¹²⁶

Furthermore, use of the substantial evidence test required by section 6(f) makes no sense in the context of the emergency provisions of the Act.¹²⁷ Because determination of an emergency and formulation of standards are made without notice or hearing, unlike permanent standard-setting procedures, the record before the court is apt to be incomplete¹²⁸ and inadequately representative of viewpoints unsolicited by the agency. If, then, the first hearing on the standards is forced by an affected party in court under section 6(f), a judge without expert familiarity with the particular occupational hazard or disease must decide whether an incomplete record contains substantial evidence in support of the emergency determination. The usual standard of review for informal agency decisions without hearing is whether the agency's determination is arbitrary and capricious;¹²⁹ the substantial evidence test is used in reviewing agency action in the nature of a hearing or a full adjudication.¹³⁰ Under section 6(f), however, the court does not ask if the agency has drawn arbitrary or unreasonable inferences from the data.¹³¹ Nor does the substantial evidence test allow the court to deter-

126. Though preferable, the expedited rulemaking alternative is hardly free from opportunities for partisan pressure.

127. Pub. L. No. 91-596, CONF. REP. NO. 91-1765. The Conference Committee adopted informal rulemaking procedures for standards promulgation from the Senate bill, but adopted from the House bill, which provided for formal rulemaking on the record, the "substantial evidence test" for judicial review. See section 6(f), 29 U.S.C. § 655(f) (1970). This compromise differs from the Administrative Procedure Act which provides that the standard of review for informal rulemaking be an "arbitrary and capricious test." 5 U.S.C. § 706(2)(A) (1970). The accommodation was apparently made to lessen concern in the House for "protection of employers from arbitrary burdens imposed by a massive federal bureaucracy . . ."

Florida Peach Growers, 489 F.2d at 128.

128. Potential for inadequate information as the basis for an emergency determination is mitigated somewhat by the use of advisory committees provided for by section 6(b)(1) of the Act, 29 U.S.C. § 655(b)(1) (1970).

129. Under section 706 of the Administrative Procedure Act (5 U.S.C. § 706 (1970)), a reviewing court may hold unlawful and set aside agency action, findings, and conclusions found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.

130. *Citizens to Preserve Overton Park v. Volpe*, 401 U.S. 402 (1970), the landmark case defining these tests, states:

Review under the substantial-evidence test is authorized only when the agency action is taken pursuant to a rulemaking provision of the Administrative Procedure Act itself, 5 U.S.C. § 553 . . . , or when the agency action is based on a public adjudicatory hearing. See 5 U.S.C. 556, 557

Id. at 414. The Court went on to say in essence that this adjudicatory hearing is designed to produce a record which will be the basis of agency action, the basic requirement for substantial evidence review. *Id.* at 415.

131. To make this finding [arbitrary, capricious] the court must consider

mine in which direction the evidence preponderates.¹³² Rather, section 6(f) requires the court actually to examine the strength of the agency's reasons for declaring an emergency against the evidence in the record. Where no hearing has been held, as in the case of a temporary emergency standard, and there is no record similar to a transcript generated from a hearing, review by the substantial evidence test inevitably becomes a *de novo* weighing of disparate elements of the record.¹³³

The result is exemplified in *Florida Peach Growers* by the court's reliance on a record heavily weighted with agribusiness input, the off-hand treatment of debated scientific data, the absence of concern for worker health or a margin of safety, and the explicit emphasis on economic considerations. In taking on the task of reviewing a discretionary emergency standard, the court sets a dangerous precedent which significantly impairs the flexibility of the agency to respond to industrial or agricultural hazards.

C. *The Jurisdictional Question: Worker Self-Protection or Benevolent Sacrifice?*

From the initial move by farmworker organizations to make the Occupational Safety and Health Act work for them as it was explicitly intended, pressure from agribusiness concerns in *Florida Peach Growers*

whether the decision was based on a consideration of the relevant factors and whether there has been a clear error of judgment . . . [citations omitted]. . . . Although this inquiry into the facts is to be searching and careful, the ultimate standard of review is a narrow one. The court is not empowered to substitute its judgment for that of the agency.

Id. at 416.

132. The substantial evidence test as set forth originally in *Universal Camera Corp. v. N.L.R.B.*, 340 U.S. 474 (1951) allows a reviewing court to set aside administrative fact finding only when the court, after taking "into account whatever in the record fairly detracts from" (*id.* at 488) the evidence in favor of the agency's finding, retains a conviction that the record "clearly" prohibits the agency's "decision from being justified by a fair estimate of the worth of the testimony of witnesses or its informed judgment on matters within its special competence or both." *Id.* at 490. Canvassing the whole record to ascertain substantiality, held the Court, is not

intended to negate the function of the Labor Board as one of those agencies presumably equipped or informed by experience to deal with a specialized field of knowledge, whose findings within that field carry the authority of an expertness which courts do not possess and therefore must respect. Nor does it mean that even as to matters not requiring expertise a court may displace the Board's choice between two fairly conflicting views even though the court would justifiably have made a different choice had the matter been before it *de novo*.

Id. at 488.

See also *N.L.R.B. v. Savair Manufacturing Co.*, 414 U.S. 270 (1973).

133. The *de novo* test as laid out in *Overton Park* is authorized when the action is *adjudicatory* in nature and the agency fact finding procedures are inadequate. And, there may be independent judicial fact finding when issues that were *not* before the agency are raised in a proceeding to enforce nonadjudicatory agency action.

Id. at 415 (emphasis added).

and intervention by EPA have caused their efforts to stray, lose momentum, and settle into the narrower issue of agency preemption. With the publication of pesticide standards by EPA, farmworkers were saddled with the extra burden of proving that OSHA, rather than EPA, properly has jurisdiction to set pesticide standards protecting farmworkers; or that even if OSHA's jurisdiction to set standards is preempted by EPA, OSHA properly has jurisdiction to enforce such standards. This was the thrust of *OMICA, Inc. v. Brennan*.¹³⁴ Pushed into challenging EPA's *fait accompli*, plaintiff farmworker groups were forced to argue on the basis of congressional intent and to rely for precedential footing on a small number of OSHA administrative decisions whose salient characteristic is their specificity to the particular facts each presents.

At the heart of the jurisdictional controversy is the Occupational Safety and Health Act's preemption clause, section 4(b)(1):¹³⁵

Nothing in this Act shall apply to working conditions of employees with respect to which other Federal agencies . . . exercise statutory authority to prescribe or enforce standards or regulations affecting occupational safety or health.

And with the aim of putting some bounds on the generality of 4(b)(1), the authors of the Act included section 4(b)(3):¹³⁶

The Secretary shall, within three years after the effective date of this Act, report to the Congress his recommendations for legislation to avoid unnecessary duplication and to achieve coordination between this Act and other Federal laws.

Unfortunately, some five years after the enactment of the Occupational Safety and Health Act, no such report has yet been made.

As discussed above, the Occupational Safety and Health Act broadly decrees protection for all of the nation's workers, and its coverage was expressly intended to include agricultural workers and pesticides.¹³⁷ Moreover, when the Act was passed, the federal government had for years under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)¹³⁸ enforced pesticide regulations through instructions on product labels. Transcripts of hearings on the Act clearly indicate that the strategy of grower interests to exclude agricultural workers from OSHA jurisdiction included pointing up this possible duplication of jurisdiction. Such suggestions, along with contentions of the adequacy of existing FIFRA standards, were rejected. An exchange between Matt

134. See text accompanying notes 64-69.

135. 29 U.S.C. § 653(b)(1) (1970).

136. *Id.* § 653(b)(3).

137. See text accompanying notes 13-16.

138. Federal Insecticide, Fungicide and Rodenticide Act, 7 U.S.C. §§ 135 *et seq.* (1970).

Triggs, Assistant Director of the American Farm Bureau, and Congressman James G. O'Hara, one of the sponsors of the Act, is illustrative:

MR. TRIGGS. We believe that this regulatory pattern represents an effective approach to a very complicated problem—and that maximum progress in the safe use of pesticides, may be best accomplished by adherence to the pattern already established and reliance upon the regulatory agencies now in existence.

To provide duplicatory authorization in the occupational safety statute to the Department of Labor could create an overlapping of jurisdiction and a degree of confusion and wasteful use of resources. . . .

But whatever the situation may be, if corrective action is needed, I suggest it should be in the form of amendments to existing authorizations and programs rather than in the form of a duplication of an authority already subdivided among two agencies. . . .¹³⁹

. . . MR. O'HARA. Mr. Triggs, I think you misunderstand the way the bill that I have sponsored or the bill that Mr. Hathaway has sponsored would operate. In both cases, we provided for the setting of standards, but the Federal standard could simply be that these must be used in accordance with the directions on the container under the Federal Insecticide, Fungicide, and Rodenticide Act.¹⁴⁰

Therefore, Congress not only acknowledged the possibility of concurrent jurisdiction, it expressed an intention to deal with the question in a manner most consistent with the Act's purpose: OSHA was to ensure farmworkers protection from safety and health hazards connected with pesticide use, even if only as a backup.

Preemption questions in other contexts than pesticide regulation have typically been resolved by OSHA in an ad hoc manner. An employer seeking to avoid remedying a safety violation or paying a fine will invoke exemption before an OSHA administrative law judge under 4(b)(1) on the grounds of coverage under another federal statute. The application of OSHA's skeletal preemption clause to an actual work situation, however, is unwieldy at best. Though the decisions look toward the legislative solution promised by 4(b)(3), certain rudimentary interpretations of the 4(b)(1) preemption clause emerge.

Secretary of Labor v. Southern Pacific Transportation Co.,¹⁴¹ for example, posed the practical question of whether the Department of Labor under OSHA or the Department of Transportation under the Federal Railroad Safety Act had jurisdiction over the drop pit area of

139. *Hearings on the Occupational Safety and Health Act of 1969 Before the Select Subcomm. on Labor of the House Comm. on Education and Labor*, 91st Cong., 1st Sess. 582 (1969).

140. *Id.* at 588.

141. OSAHRC Docket No. 1348 (1973).

respondent's diesel service shop. Ascertaining first that the legislative history offered conflicting interpretations of 4(b)(1), the administrative judge began with the Act's sweeping mandate that OSHA assure every worker safe and healthy working conditions. He reasoned that 4(b)(1) should be interpreted consistent with fulfilling this purpose; hence,

in applying an exemption created by the Act it should be strictly construed to the end that the exemption will not be enlarged beyond its necessary extent and in order that the Act will accomplish as fully as possible the remedial purpose for which it was designed.¹⁴²

Comparing OSHA's coverage to that of the Federal Railroad Safety Act of 1970 which broadly granted to the Secretary of Transportation complete authority over 211 areas of railroad safety,¹⁴³ the decision narrowly defined two key terms of 4(b)(1). First, the other federal agency must *exercise actual authority* in the area sought to be protected by OSHA. Thus, mere statutory authority to regulate every area of railroad safety will not supersede OSHA, which is to be seen as supplemental until such time as the Secretary of Transportation actually promulgates standards.¹⁴⁴ The aim is to provide coverage without duplication, yet also without hiatus.¹⁴⁵

The decision then confronted the next logical question: whether, upon the exercise of some authority by another federal agency, the entire industry becomes exempt from OSHA regulation or only the specific working conditions actually regulated by that agency. The administrative law judge held that the existence of a body of railroad safety legislation did not of itself exclude the railroad industry from OSHA regulation; rather, only those specific working conditions currently regulated by railroad safety standards fall within the 4(b)(1) exemption.¹⁴⁶ An

142. *Id.* at 18.

143. The Federal Railroad Safety Act of 1970, 45 U.S.C. §§ 421 *et seq.* (1970), provides:

Section 421. The Congress declares that the purpose of this Act is to promote safety in all areas of railroad operations and to reduce railroad-related accidents, and to reduce deaths and injuries to persons and to reduce damage to property caused by accidents involving any carrier of hazardous material.

Section 431. (a) The Secretary of Transportation . . . shall (1) prescribe, as necessary, appropriate rules, regulations, orders, and standards for all areas of railroad safety supplementing provisions of law and regulations in effect on Oct. 10, 1970, and (2) conduct, as necessary, research, development, testing, evaluation, and training for all areas of railroad safety.

144. Southern Pacific Transportation Co., 13 OSAHRC 258 (1974). *See also* Secretary of Labor v. Penn Central Transportation Co., OSAHRC Docket No. 738 (1973); Secretary of Labor v. Hartwell Excavating Co., OSAHRC Docket No. 1098 (1973); Secretary of Labor v. Lee Way Motor Freight, Inc., OSAHRC Docket No. 2696 (1973); Secretary of Labor v. Fortec Constructors, OSAHRC Docket No. 2524 (1973).

145. Secretary of Labor v. Mushroom Transportation Co., 5 OSAHRC 64 (1973).

146. Southern Pacific Transportation Co., OSAHRC Docket No. 1348 (1973), and cases cited *supra* note 144. The Act's history indicates that section 4(b)(1), 29 U.S.C. § 653(b)(1) (1970), as adopted, incorporates the language of the Senate bill which

OSHA judge in a similar case, *Secretary of Labor v. Penn Central Transportation Co.*,¹⁴⁷ reasoned:

To hold that Section 4(b)(1) excludes an industry from the coverage of the Act simply because some aspects of the industry operations are regulated by a Federal agency, would be tantamount to excluding many major industries from the coverage of the Act, a result not intended by the Congress.¹⁴⁸

The *Penn Central* holding also added two notable refinements to the construction of 4(b)(1). It placed on the employer the burden of showing exemption from the Act.¹⁴⁹ It also distinguished the Federal Railroad Safety Act from the Occupational Safety and Health Act on the ground that, as inclusive as the Railroad Safety Act language is, it principally concerns passenger safety, not employee safety, a scope of coverage insufficient to override OSHA jurisdiction. In order to "affect" occupational safety or health under 4(b)(1), then, a federal agency's safety regulations must do more than incidentally protect employees.¹⁵⁰

For the most part, other OSHA administrative law judges have similarly construed 4(b)(1) to preserve the Act's promise from dilution by a broad preemption policy.¹⁵¹ The Occupational Safety and Health

states that the Act shall not apply to "working conditions of employees with respect to which other Federal agencies . . . exercise statutory authority," rather than the language of the House amendment which would have exempted *employees* whose working conditions were regulated by other agencies. (Emphasis added.)

147. OSAHRC Docket No. 738.

148. *Id.* at 10.

149. *Id.*; see also *Secretary of Labor v. Hartwell Excavating Co.*, OSAHRC Docket No. 1098 (1973).

150. See also *Secretary of Labor v. Hartwell Excavating Co.*, OSAHRC Docket No. 1098 (1973); *Secretary of Labor v. Southern Terminal and Transport Co.*, 4 OSAHRC 1065 (1973).

151. A small number of decisions by OSHA administrative law judges have not followed the general theoretical pattern described. Notable is *Secretary of Labor v. Seaboard Coastline Railroad*, OSAHRC Docket No. 2802 (1973), which held that the Department of Transportation's actual exercise of its statutory authority to enact railroad safety regulations extended sufficiently beyond the "formative" stage to invoke the exemption under section 4(b)(1). The decision also relied on language that "nothing" in the Occupational Safety and Health Act shall apply to working conditions with respect to which another federal agency has exercised authority, to hold that entire industries are exempted when section 4(b)(1) is triggered. The opinion noted, however, that both of these points of interpretation were on appeal in several other cases to the Occupational Safety and Health Review Commission.

Secretary of Labor v. Southern Terminal and Transport Co., 4 OSAHRC 1065 (1973), on the other hand, upheld the interpretation that the section 4(b)(1) exemption narrowly concerns working conditions, rather than industries. But it rejected the requirement that the other agency must have actually exercised its authority in any way whatsoever before section 4(b)(1) comes into play.

To the extent that these decisions conflict with *Secretary of Labor v. Fineberg Packing Co., Inc.*, 7 OSAHRC 405 (1974) (see text accompanying notes 157-62 *infra*), decided later by OSAHRC, they are superseded.

Review Commission (OSAHRC), the agency review body, has not only strongly approved this interpretation by affirming *Southern Pacific Transportation*¹⁵² and administrative decisions consistent with it and by vacating inconsistent rulings,¹⁵³ but it has also evolved its own position in three recent decisions, *Secretary of Labor v. Mushroom Transportation Co.*,¹⁵⁴ *Secretary of Labor v. Fineberg Packing Co., Inc.*,¹⁵⁵ and *Secretary of Labor v. Gearhart-Owen Industries, Inc.*¹⁵⁶

In *Mushroom Transportation*, the Review Commission concluded that the Motor Carrier Safety Regulations of the Department of Transportation, as a whole, adequately protected forklift operators and freight handlers working in respondent's terminal by assuring the non-movement of trucks while being loaded or unloaded. OSAHRC held that the other agency need not exercise its authority in the same manner or with equal stringency for 4(b)(1) to apply. Even so, employee protection from moving trucks in the *Mushroom Transportation* case was clearly more than an incidental consequence of the detailed regulations for braking systems involved. Though the regulations were not instituted specifically to protect employees working inside the terminal, the actual exercise of the regulations could have no other effect.

In *Fineberg*, the distinction between employees and the consuming public as intended beneficiaries of enabling legislation governing another federal agency reappears. The Review Commission held that the Wholesome Meat Act of 1967, which vested in the Secretary of Agriculture authority to protect the consumer from adulterated products, only incidentally affects the safety and health of packing company employees. OSAHRC reasoned:

His [the administrative law judge below] reading would appear to exclude from the Act's jurisdiction working conditions subject to a rule of another agency affecting job safety or health when the effect is benign, even though the effect is incidental. This appears to fall short of an execution of the purpose of the Occupational Safety and Health Act, which is "to assure so far as possible every working man and woman in the Nation safe and healthful working conditions."

To be cognizable under section 4(b)(1), we conclude that a different statutory scheme and rules thereunder must have a *policy*

152. 13 OSAHRC 258 (1974).

153. See *Secretary of Labor v. Illinois Terminal R.R. Co.*, 13 OSAHRC 476 (1974); *Secretary of Labor v. Seaboard Coastline R.R.*, 2 OSAHRC 1362 (1974); *Secretary of Labor v. Union Pac. R.R.*, 13 OSAHRC 539 (1974); *Secretary of Labor v. Union R.R.*, 13 OSAHRC 434 (1974); *Secretary of Labor v. Union Pac. R.R.*, 13 OSAHRC 552 (1974); *Secretary of Labor v. Norfolk & W. Ry.*, 15 OSAHRC 16 (1975).

154. 5 OSAHRC 64 (1973).

155. 7 OSAHRC 405 (1974).

156. 2 OSHC 1568 (1975).

or purpose that is consonant with that of the Occupational Safety and Health Act. That is, there must be a policy or purpose to include employees in the class of persons to be protected thereunder.¹⁵⁷

Because of the strong similarity in *Fineberg* between the two sets of standards sought to be imposed by the two federal agencies, the decision represents an elaboration and narrowing of the *Mushroom Transportation* holding. In *Mushroom Transportation* the issue was over two sets of standards, both of which affected employees. *Fineberg* presents a more precise issue: actual exercise of authority over working conditions by the Department of Labor and another federal agency, imposing virtually duplicatory standards, one with the aim of protecting consumers, the other for protection of employees. The decision solidly holds that in such a situation, 4(b)(1) weights the balance of jurisdiction to OSHA.

The latest decision, *Gearhart-Owen*, broadens the application of *Fineberg's* underlying policy. The Secretary of Labor conceded that actual authority over working conditions had been exercised by the Department of Defense through provisions of its contract with the employer and also conceded that Department of Defense and OSHA safety standards were both intended to protect employees. Yet OSAHRC found that even where all the requirements of *Mushroom Transportation* are satisfied, *Fineberg* requires a still greater showing of preemption:

Rather, in order for preemption under section 4(b)(1) of the Act to occur, the exercise of statutory authority by a Federal agency must be pursuant to enabling legislation the *purpose* of which was to affect occupational safety and health.¹⁵⁸

Applying this "purpose test,"¹⁵⁹ OSAHRC held that Department of Defense safety regulations were "administrative" in nature, to assure smooth operation of its procurement activities. Safety standards established to prevent industrial accidents from impairing a continuous flow of munitions were found not to serve the purpose of the Occupational Safety and Health Act,¹⁶⁰ whether or not the standards were exercised in the same or an equally stringent manner.¹⁶¹ Thus, OSHA jurisdiction is not preempted by co-extensive exercise of actual authority by another federal agency, unless the purpose of that agency's enabling legislation assures workers safe and healthful working conditions.

157. *Fineberg*, 7 OSAHRC at 407.

158. 2 OSHC 1569-70 (1975).

159. *Id.* at 1570 n.3.

160. *Id.* at 1570-71.

161. *Id.* at 1569.

What is the importance of such statutory nuances? Why is OSHA needed as a backup if another agency will enforce the same regulations? And why is OSHA's cession of jurisdiction over pesticides to EPA an unsatisfactory response?

The answer lies in the reason for which the Occupational Safety and Health Act was passed—to assure every working person safe and healthful working conditions—and in the basic premise underlying that policy: that the best, and indeed only, way to guarantee such a promise is to place its enforcement within the power of the working person.¹⁶² The repeated emphasis in the provisions of the Occupational Safety and Health Act on enforcement mechanisms to be invoked by workers themselves evidences an important concept of employee *self*-protection. By contrast, as the following comparative analysis of the two acts will demonstrate, the provisions of the amended Federal Insecticide, Fungicide and Rodenticide Act protect employees only to the extent that environmental safety is a consideration and do not envision a system whereby workers can actively protect their own health and safety interests. Moreover, the overall scheme of FIFRA and its legislative history strongly indicate that its scope, aside from any considerations of OSHA's power under 4(b)(1), fails to protect workers and hence precludes effective issuance of reentry standards.

D. The Occupational Safety and Health Act: A Workers' Bill of Rights

The Occupational Safety and Health Act (the Act) places the fundamental responsibility for the safety of the workplace with the employer, who has a general duty under the Act to "furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees."¹⁶³ Employees are guaranteed both the ability to initiate regulation of the workplace by OSHA and input into the process of regulation. This is achieved by the direct grant of employee rights under the Act in all of its major administrative areas: promulgation of standards, enforcement, and review.

162. Senator Harrison Williams, Jr. (Dem.-N.J.), Chairman, Senate Labor and Public Welfare Committee, and co-author of the Occupational Safety and Health Act of 1970, *Be Prepared*, 9 TRIAL 14 (July/Aug. 1973). He stated:

Within OSHA are provisions designed to protect the employee by assuring certain rights which can be self-initiated. They permit the worker to become involved in both the administration and enforcement aspects of the act. In this way, those most affected are afforded the opportunity to participate.

163. Occupational Safety and Health Act of 1970 § 5(a)(1), 29 U.S.C. § 654(a) (1) (1970).

Essential to all worker participation rights is the right to be informed about the Act. Employers are required to keep employees informed of their statutory protections and obligations and also of applicable standards by posting notices or by other appropriate means of communication.¹⁶⁴

Workers may participate in the standard-setting process by submitting information to the Department of Labor proposing the promulgation of standards. The Secretary of Labor retains discretion to propose a standard upon receipt of such information or to request the recommendations of an advisory committee. Should the Secretary determine to publish a proposed standard, he must afford interested persons an opportunity to submit data and comments. If objections to the proposal are filed and a hearing requested, the Secretary must schedule and publish notice of a public hearing on the objections.¹⁶⁵

An employer may obtain a variance or individual exemption from any standard promulgated under the Act by applying to the Secretary of Labor. A variance is granted temporarily by OSHA when necessary personnel or materials are unavailable or necessary facilities cannot be constructed or altered by the effective date set for compliance with a standard. It requires that the employer have a program for reaching compliance as quickly as possible and have provided all available safeguards for employees. Employees must be notified of the employer's application for a variance, and they have the right to a hearing.¹⁶⁶

The backbone of the Act is its enforcement mechanism, whose functioning depends primarily on inspections of workplaces by OSHA officials and recordkeeping requirements imposed upon the employer. An OSHA official may enter and inspect a place where work is being performed by an employee at reasonable times and without a warrant.¹⁶⁷ Furthermore, the Act prohibits giving advance notice of any inspection¹⁶⁸ and backs up this prohibition with a criminal penalty.¹⁶⁹ The inspector may question privately any employer, owner, operator, agent, or employee¹⁷⁰ and may require the attendance and testimony of witnesses and the production of evidence under oath.¹⁷¹ The employees possess a right under the Act to have a representative accompany the inspector during the physical investigation of any workplace for the purpose of aiding the inspection. The employer has a similar right. If the

164. *Id.* § 8(c)(1), 29 U.S.C. § 657(c)(1).

165. *Id.* § 6(b), 29 U.S.C. § 655(b).

166. *Id.* §§ 6(b)(6)(A), 6(d), 29 U.S.C. §§ 655(b)(6)(A), 655(d).

167. *Id.* § 8(a), 29 U.S.C. § 657(a).

168. *Id.* § 2(b)(10), 29 U.S.C. § 651(b)(10).

169. *Id.* § 17(f), 29 U.S.C. § 666(f).

170. *Id.* § 8(a)(2), 29 U.S.C. § 657(a)(2).

171. *Id.* § 8(b), 29 U.S.C. § 657(b).

workplace has no authorized employee representative, the inspector must consult with a reasonable number of employees.¹⁷²

In addition to this random unannounced inspection procedure initiated by the Department of Labor, an employee or employee representative has a right to request OSHA to perform an inspection if he or she believes that a violation of a safety or health standard threatens physical harm or that an imminent danger exists. The request may be made anonymously.¹⁷³ A determination is then made as to whether there are reasonable grounds to believe the violation or danger exists. If such grounds exist, the Act requires an inspection as soon as possible. If they do not, the Secretary must notify the employees or employee representatives who requested the inspection.¹⁷⁴ Also any violation may be brought to the attention of OSHA officials by any employee or employee representative prior to or during an inspection. The employees have a right to obtain informal review of any refusal to issue a citation for the suggested violation and upon requesting a review, are entitled to a statement from OSHA of reasons for the final disposition of the matter.¹⁷⁵

When an inspector finds a violation, he or she must issue a citation and set a reasonable time for abatement.¹⁷⁶ The employees are entitled under the Act to have the citation prominently posted at or near the site of each violation referred to in the citation.¹⁷⁷

Under the Act, employers must keep records of health and safety activities according to regulations issued by OSHA in cooperation with the Department of Health, Education and Welfare.¹⁷⁸ Employers are also required to record and report work-related deaths, injuries, and illnesses which are not minor, that is, which result in medical treatment other than first aid, in loss of consciousness, in restriction on work or motion, or in transfer to another job.¹⁷⁹ Records regarding exposure to potentially toxic materials or harmful physical agents required by OSHA regulations¹⁸⁰ to be monitored must be made accessible to employees and former employees. Employers must promptly notify any employee of prior or current exposure exceeding levels prescribed by such regulations and must inform him or her of corrective measures being made. Employees or employee representatives have the right to observe the

172. *Id.* § 8(e), 29 U.S.C. § 657(e).

173. Although such a request to the Secretary must be signed, any communication of the request to an employer may be anonymous. *Id.* § 8(f)(1), 29 U.S.C. § 657(f)(1).

174. *Id.*

175. *Id.* § 8(f)(2), 29 U.S.C. § 657(f)(2).

176. *Id.* § 9(a), 29 U.S.C. § 658(a).

177. *Id.* § 9(b), 29 U.S.C. § 658(b).

178. *Id.* § 8(c)(1), 29 U.S.C. § 657(c)(1).

179. *Id.* § 8(c)(2), 29 U.S.C. § 657(c)(2).

180. *Id.* § 8, 29 U.S.C. § 657.

monitoring of toxic or harmful substances and to have access to the records obtained.¹⁸¹

The Act also grants workers important avenues of review or appeal at critical points in both the standards-setting stage and the enforcement stage. Employees, as persons adversely affected by the promulgation of any standard, may seek review in a federal court of appeals on the ground that the standard is not supported by substantial evidence.¹⁸² For review on the enforcement level, employee input is assured in several ways. As mentioned above, employees are entitled to informal OSHA review of a refusal to issue a citation regarding an alleged violation properly brought to the attention of Labor Department officials prior to or during an inspection. Employees and employee representatives also have the right to challenge the abatement period fixed by the citation as unreasonably long. Upon notification of such a challenge, the Occupational Safety and Health Review Commission must conduct a hearing on the citation and issue an order based on findings of fact.¹⁸³ A similar hearing is required by this provision of the Act when an employer notifies the Secretary of Labor of an intention to contest a citation. Affected employees or their representatives have a right to participate in these hearings as parties.¹⁸⁴

Building on the employees' right to invoke administrative review of the abatement aspect of a citation, employees, as persons adversely affected or aggrieved by any order issued under the section of the Act concerning contest of citations or abatement periods, may carry their challenge to a court of appeals. As with judicial review of standards-setting, the agency determination is conclusive if supported by substantial evidence.¹⁸⁵ The words "or aggrieved" are an important inclusion in this section. The issuance of any citation or any notice in lieu of a citation for a *de minimis* violation, as is also permitted under the Act, will presumably benefit, rather than "adversely affect," the worker. But the citation or notice issued may be inadequate from the employee's viewpoint. In such a case, the employee would be aggrieved and entitled to judicial review.¹⁸⁶

181. *Id.* § 8(c)(3), 29 U.S.C. § 657(c)(3).

182. *Id.* § 6(f), 29 U.S.C. § 655(f); for a discussion of the substantial evidence test, see text accompanying notes 127-33 *supra*.

183. Occupational Safety and Health Act of 1970 § 10(c), 29 U.S.C. § 659(c) (1970).

184. *Id.*

185. *Id.* § 11(a), 29 U.S.C. § 660(a).

186. The words "or aggrieved" do not appear in section 6(f), 29 U.S.C. § 655(f); however, the provisions for participation of all "interested persons" in the standards-setting process theoretically compensate for the narrower scope of review at that level. Furthermore, employees are arguably "adversely affected" by an inadequate standard or citation.

The Act provides emergency procedures aimed at conditions or practices in the workplace creating a danger "which could reasonably be expected to cause death or serious physical harm immediately or before the imminence of such danger can be eliminated through the enforcement procedures otherwise provided by [the Act]."¹⁸⁷ Employees are afforded a derivative right of judicial review under this section, but significantly, there is no provision for employee participation in formulating emergency actions. The Secretary of Labor may seek a restraining order in federal court.¹⁸⁸ The employees affected by the dangerous condition have only the right to be informed by the inspector of the danger and of the determination to recommend that the agency seek immediate judicial relief.¹⁸⁹ Affirmative action by workers is not permitted unless and until the Secretary arbitrarily or capriciously fails to seek judicial relief. Thereupon, any employees who may be injured as a result of the failure to seek relief, or their representative, may seek a writ of mandamus to compel the Secretary to petition the court for relief.¹⁹⁰ Workers must thus work under imminently hazardous conditions pending an inspection, a recommendation to the agency, the preparation of an application for a restraining order or of an application for a writ of mandamus followed by an application for a restraining order, and service on the employer. Opponents of the Act in Congress won the rejection of a provision which would have allowed employees to refuse to work under imminently dangerous conditions.¹⁹¹ The exclusion of such a provision weakens the Act's package of worker rights.

Employees are protected from retaliation in the exercise of their statutory rights. A worker may not be discharged or discriminated against in any way for filing a complaint, for initiating any proceeding related to the Act, for testifying in a proceeding, or for exercising any

187. *Id.* § 13(a), 29 U.S.C. § 662(a).

188. *Id.*

189. *Id.* § 13(c), 29 U.S.C. § 662(c).

190. *Id.* § 13(d), 29 U.S.C. § 662(d).

191. 116 CONG. REC. 37601-05 (1970).

The California Occupational Safety and Health Act is much stronger in this area. It provides first for injunctive recourse by the agency similar to federal provisions, where a condition of the employment environment constitutes a "serious menace to lives or safety of persons in the area of the hazard." CAL. LAB. CODE § 6323 (West 1971). However, the California statute further provides that when, in the opinion of the agency a condition in the workplace constitutes an "imminent hazard" to employees, the agency is required to prohibit entry or use and must post a conspicuous notice of its prohibition at the site of the hazard. CAL. LAB. CODE § 6325 (West 1971). And most important, the California act provides that "no employee shall be laid off or discharged for refusing to perform work in the performance of which this code, any occupational safety or health standard or any safety order of the division or standards board will be violated, where such violation would create a real and apparent hazard to the employee or his fellow employees." CAL. LAB. CODE § 6311 (West 1971).

rights under the Act on the worker's own or another's behalf.¹⁹² If an employee believes discrimination has been practiced, he or she has the right to file a complaint with the Department of Labor, which is then required to investigate, seek judicial relief if discrimination is found,¹⁹³ and in any case notify the complainant of the agency's determination.¹⁹⁴

Labor interests are represented on the National Advisory Committee on Occupational Safety and Health which advises the Departments of Labor and HEW on the administration of the Act.¹⁹⁵ Also, advisory committees called to assist with individual standards-setting problems must include "persons qualified by experience and affiliation to present the viewpoint of the employers involved" in numbers equal to similarly qualified representatives of the worker's viewpoint.¹⁹⁶

Of particular importance to the problem of pesticides are the sections of the Occupational Safety and Health Act which concern toxic substances. Potentially strong provisions for monitoring exposure and medical examinations are included; however, weak and indirect mechanisms to invoke the protections are granted workers themselves. Protection against exposure to toxic substances is based in a strict mandate to OSHA. Section 6(b)(5) states:

The Secretary, in promulgating standards dealing with toxic materials or harmful physical agents under this subsection, *shall* set the standard which most adequately assures, to the extent feasible, on the basis of the best available evidence, that no employee will suffer material impairment of health or functional capacity *even if such employee has regular exposure to the hazard dealt with by such standard for the period of his working life*. Development of standards under this subsection shall be based upon research, demonstrations, experiments, and such other information as may be appropriate. In addition to the attainment of the highest degree of health and safety protection for the employee, *other considerations shall be* the latest available scientific data in the field, the feasibility of the standards, and experience gained under this and other health and safety laws. Whenever practicable, the standard promulgated shall be expressed in terms of objective criteria and of the performance desired.¹⁹⁷

This section goes on to list three levels of worker protection which must be afforded by any standard for toxic substance use and which depend

192. Occupational Safety and Health Act of 1970 § 11(c)(1), 29 U.S.C. § 660(c)(1) (1970).

193. *Id.* § 11(c)(2), 29 U.S.C. § 660(c)(2).

194. *Id.* § 11(c)(3), 29 U.S.C. § 660(c)(3).

195. *Id.* § 7(a), 29 U.S.C. § 656(a).

196. *Id.* § 7(b), 29 U.S.C. § 656(b).

197. *Id.* § 6(b)(5), 29 U.S.C. § 655(b)(5) (emphasis added).

on the level of toxicity and nature of the hazard.¹⁹⁸ First, all standards must

prescribe the use of labels or other appropriate forms of warning as are necessary to insure that employees are apprised of all hazards to which they are exposed, relevant symptoms and appropriate emergency treatment, and proper conditions and precautions of safe use or exposure.¹⁹⁹

Second, should the danger require,

such standard shall also prescribe suitable protective equipment and control or technological procedures to be used in connection with such hazards and shall provide for monitoring or measuring employee exposure at such locations and intervals, and in such manner as may be necessary for the protection of employees.²⁰⁰

If, for example, the effect of the substance is not adequately known, [i]n addition, . . . any such standard shall prescribe the type and frequency of medical examinations or other tests which shall be made available, by the employer or at his cost, to employees exposed to such hazards in order to most effectively determine whether the health of such employees is adversely affected by such exposure.²⁰¹

This mandate to OSHA to assume the responsibility of establishing standards for toxic substances is backed up by a correlative responsibility lodged with HEW. The Act requires the two agencies to develop specific plans for research to produce criteria for identifying toxic substances in order for OSHA to meet its responsibility of promulgating standards.²⁰² Such research may include the establishment of regulations by HEW requiring employers to measure, record, and report employee exposure and the institution of medical examination and testing programs.²⁰³ In order to conduct its research, HEW may also inspect workplaces and question employers and employees with the same authority as OSHA inspectors.²⁰⁴ HEW is further granted the authority to research motivational and behavioral factors bearing on occupational safety and health and to inquire into new areas, even those which require action beyond the scope of the Act.²⁰⁵ The information gained by the research must be given to employers and employees.²⁰⁶ This section also allows cooperative agreements with other agencies and

198. *Id.* § 6(b)(7), 29 U.S.C. § 655(b)(7).

199. *Id.*

200. *Id.*

201. *Id.*

202. *Id.* § 20(a)(2), 29 U.S.C. § 669(a)(2).

203. *Id.* § 20(a)(5), 29 U.S.C. § 669(a)(5).

204. *Id.* § 20(b), 29 U.S.C. § 669(b).

205. *Id.* § 20(a)(4), 29 U.S.C. § 669(a)(4).

206. *Id.* § 20(d), 29 U.S.C. § 669(d).

private organizations to aid OSHA in the accumulation of information for standards.²⁰⁷ But it explicitly does not allow OSHA to vacate its responsibilities with respect to toxic substances altogether.

Specific action under this section may be prompted by a request to HEW to determine whether a substance found in the workplace has potentially toxic effects. A determination then must be made and submitted to employers and affected employees. However, the language of the section provides that the initiating request may only be made by the employer or authorized representative of the workers, not the employees themselves.²⁰⁸ This exclusion weakens the Act's strong position on toxic substances vis-a-vis farmworkers, a group which is particularly susceptible to exposure to toxic agricultural chemicals but which is not only largely unorganized but highly mobile in relation to individual employers. Yet the inability of workers to start the process of investigation does not remove the clear responsibility of OSHA and HEW to investigate toxic substances in agricultural workplaces.

The above overview of the Occupational Safety and Health Act reveals a body of rights and protections which guarantees workers direct input into the promulgation of occupational safety and health standards, directs initiative in invoking their enforcement, and directs recourse to agency and judicial review. They are the rights which will be given or taken away under the operation of section 4(b)(1), the Act's jurisdictional clause. Yet it is evident from the wording of this section that its cutting edge was never meant to draw a line between those members of the nation's work force who will enjoy the Act's promise of occupational safety and health and those who will not.

*E. The Federal Insecticide, Fungicide, and Rodenticide Act:
A Workers' Bill of Goods*

The Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) was originally enacted in 1947²⁰⁹ to counter the dangers of toxic pesticides through product labelling. It was designed to regulate the use of pesticides by requiring manufacturers to register their products and accompany them with instructions for use. Registration was based on submission of claims as to the effectiveness of the product garnered from the manufacturer's own testing procedures. Public concern in the 1960's over the environment and widespread DDT use, and resulting citizen suits demanding increased public participation in the FIFRA regulatory scheme,²¹⁰ forced amendment of the Act in 1972. The Federal Environ-

207. *Id.* § 20(c), 29 U.S.C. § 669(c).

208. *Id.* § 20(a)(6), 29 U.S.C. § 669(a)(6).

209. 7 U.S.C. §§ 135 *et seq.* (1970).

210. *Environmental Defense Fund v. Hardin*, 428 F.2d 1093, 1 ERC 1347 (D.C.

mental Pesticide Control Act²¹¹ was formulated to inject environmental considerations into FIFRA, to extend regulation to pesticide users, and to afford the public a role in the formulation and enforcement of regulations.

The amendments to FIFRA do little to check the loose reliance on the manufacturer's testing or the pervasive control by the manufacturer and user over the final application of the pesticide. Citizen participation is largely illusory or effective only late in the regulatory process. And consideration for the environment, not to mention workers who are directly affected by pesticide use, is but pious language. FIFRA as amended not only fails to guarantee workers a safe or healthy work environment, it fails to meet its own professed goals. Each failure of itself justifies invoking OSHA to fill the gap with respect to fieldworkers, applicators, and all employees working with pesticides; and both deficiencies make OSHA jurisdiction imperative.

FIFRA continues to rely on the good faith and truthfulness of the manufacturer's claims of effectiveness and directions for use in registration of pesticides. EPA must now also be satisfied that the pesticide can "perform its intended function" and be "used in accordance with widespread and commonly recognized practice" without causing "unreasonable adverse effects on the environment."²¹² "Environment," as defined by FIFRA, includes "water, air, land, and all plants and man and other animals living therein, and the interrelationships which exist among these."²¹³ "Unreasonable adverse effects on the environment" are further defined as "any unreasonable risk to man or the environment, taking into account the economic, social, and environmental costs and benefits of the use of any pesticide."²¹⁴ It is doubtful that broader language could have been found, yet the effect is to place within EPA's discretion a multitude of considerations without any guidelines as to the weight of each in the registration decision. How is the slow impairment of a farmworker's eye-hand coordination to be weighted economically and socially against an immediate increase in yield per acre, or the damage a particular insect can do to a crop against the importance of

Cir. 1970); *Environmental Defense Fund v. Ruckelshaus*, 439 F.2d 584, 2 ERC 1114 (D.C. Cir. 1971). For a complete discussion of these cases and the Federal Environmental Pesticide Control Act, see Comment, *The Federal Pesticide Control Act of 1972: A Compromise Approach*, 3 *ECOLOGY L.Q.* 277 (1973).

211. 7 U.S.C. § 136 (Supp. III, 1973), amending Federal Insecticide, Fungicide and Rodenticide Act, 7 U.S.C. §§ 135 *et seq.* (1970). The 1972 Act is also referred to as "FEPCA;" however, since the Environmental Protection Agency which enforces the act also refers to the newer act as "FIFRA" or "amended FIFRA," this discussion will use "FIFRA."

212. FIFRA §§ 3(c)(5)(C), (D), 7 U.S.C. §§ 136a(c)(5)(C), (D) (Supp. III, 1973).

213. *Id.* § 2(j), 7 U.S.C. § 136(j).

214. *Id.* § 2(bb), 7 U.S.C. § 136(bb).

that insect in the food chain? Must the benefit from a pesticide use outweigh the harm from that use, or must the benefits from all uses outweigh the aggregate harm? All of the environmental possibilities cannot be detailed on a label.²¹⁵ Nor can a full and impartial weighing be realistically entrusted to those with a vested interest in promoting the use of pesticides.²¹⁶ Thus, environmental considerations are broadly espoused by FIFRA, while failure to provide a measuring stick effectively undermines their application.

Contrast this vague coverage of workers under FIFRA with the definite responsibility imposed on managerial concerns by the Occupational Safety and Health Act to assure every working person in the nation safe and healthy working conditions. Economic, social, or environmental benefits of a hazardous working condition may not compromise this assurance. This monumental worker legislation, enacted two years before the amendments to FIFRA, should define the weight of worker safety under FIFRA's environmental balancing task.

Unfortunately, FIFRA's legislative history indicates that the problem of farmworker exposure to pesticides was never intended to carry much weight in the ecological balance. An amendment to the 1972 Act which would have included farmworkers in the term "man" and provided express protections for farmworkers was rejected.²¹⁷ The surface reason was that such a provision would be surplusage, that farmworkers were amply protected by the broadly worded protections of "man and the environment." Some apprehension was voiced that singling out specific problems might weaken the general provisions. Yet, at the same time, FIFRA sets out detailed provisions for the protection of pesticide applicators. The real reason for omission of farmworkers was fear of hurting the pesticide business; this was revealed by a hypothetical posed in the Committee on Agriculture and Forestry's opposition to the proposal:

In looking for an example to see what the effect of making the farmworker's health a vital criterion might be, DDT immediately comes to mind as the classic example. DDT has not been shown to be especially harmful to farmers or farmworkers. It has been found

215. SENATE COMM. ON AGRICULTURE AND FORESTRY, PROTECTION OF MAN AND THE ENVIRONMENT, SUPPLEMENTAL REPORT ON H.R. 10729, FEDERAL ENVIRONMENTAL PESTICIDE CONTROL ACT OF 1972, S. REP. NO. 92-838, 92d Cong., 2d Sess., pt. II, at 51 (1972) [hereinafter cited as PROTECTION OF MAN AND THE ENVIRONMENT].

216. Even the original FIFRA of 1947 did not give the government such a broad license to play with the lives of humans. It flatly prohibited the distribution or sale of a pesticide which, when used as directed or in accordance with commonly recognized practice, was "injurious to living man or other vertebrate animals, or vegetation, except weeds, to which it [was] applied, or to the person applying such economic poison." 7 U.S.C. §§ 135(z)(2)(g), 135a(a)(5) (1970).

217. PROTECTION OF MAN AND THE ENVIRONMENT, *supra* note 215, at 43-47.

to be toxic to fish and other lower animals and to build up in man. It is not known whether it is injurious to man or not. The Administrator has canceled the registration of DDT effective December 31, 1972, pointing out that methyl parathion presents an effective alternative manner of dealing with pests. But he has delayed cancellation until the end of the year because of the danger of methyl parathion to farmers and farmworkers. If the health of farmworkers is now to be made a vital criterion, that would appear to weight the scale in favor of registration of DDT in preference to registration of methyl parathion.²¹⁸

Clearly, farmworkers are not protected by FIFRA if the cancelled registration of one hazardous pesticide is enough to tip the balance to the easiest economic alternative, the organophosphate methyl parathion, even though its extreme danger to farmworkers was well known to EPA and the chemical companies.²¹⁹ EPA in fact withheld California Public Health Department studies documenting severe health impairment in farmworkers exposed to organophosphates which had prompted emergency state regulation in 1971. These studies, filed with EPA in 1970, were ignored in EPA's hearing record on amendments to FIFRA.²²⁰

And so, successfully downplayed in the passage of the FIFRA amendments was the biggest pesticide problem of all—farmworker exposure. Whatever advances in pesticide regulation FIFRA of 1972 may represent, it does not on its face or in its application evidence a policy or purpose to include employees in the class of persons to be protected, except in the most incidental way. This preemption is blatantly inconsistent with the Occupational Safety and Health Review Commission's *Fineberg* and *Gearhart-Owen* doctrine.

Assuming, *arguendo*, that all employees working with pesticides were afforded consideration under FIFRA consistent with the mandate

218. *Id.* at 44.

219. In 1971, the Agribusiness Accountability Project publicly charged two chemical companies and the California Department of Agriculture with using humans as "guinea pigs" in pesticide reentry research. The charge questioned the voluntariness of the participation by two work crews who had been approached through their crew leaders, upon whom they depended for work. The charge also condemned the lack of medical supervision; the use of subjects already suffering from other diseases such as chronic headaches, ulcers, and anemia; and the absence of any medical assistance for subjects actually evidencing symptoms of organophosphate poisoning. Only after serious injuries had occurred did the state urge that reentry intervals for the pesticides used be raised from 7 to 30 days. *Hearings on H.R. 10729 Before the Subcomm. on Agricultural Research and General Legislation of the Senate Comm. on Agriculture and Forestry*, 92d Cong., 2d Sess., pt. II, Exhibit A at 332-34 (1972). Testimony of A.V. Krebs, Agribusiness Accountability Project.

220. See *Hearings on H.R. 10729 Before the Subcomm. on the Environment of the Senate Comm. on Commerce*, 92d Cong., 2d Sess., ser. 92-80 at 78-90, 103-05, 156-70 (1972). Statements of A.V. Krebs, Agribusiness Accountability Project; Valerie Kantor, Migrant Legal Action Project; David Dominick, EPA.

of the Occupational Safety and Health Act, could EPA actually exercise authority to prescribe and enforce occupational safety and health regulations over the specific working conditions of pesticide exposure sufficient to preempt OSHA?

Under FIFRA's registration procedure interested persons have the right to comment on the data submitted by the manufacturer in support of registration of a pesticide.²²¹ This information includes the pesticide label, claims of effectiveness, directions for use, and the formula. However, the test results upon which the claims are based need not be submitted for comment unless EPA requests them.²²² EPA also is proscribed from considering the fact that a pesticide is not essential in the capacity requested by the manufacturer;²²³ hence, EPA is incapable of preferring a biologically safe pesticide over a more hazardous substance which qualifies under the vague registration requirements. EPA may refuse to register a pesticide and grant the applicant time to make corrections. The applicant may then seek administrative review of the refusal, but other interested persons may do so only "with the concurrence of the applicant."²²⁴ These opportunities for public participation in the promulgation of regulations are considerably more narrow than the opportunities afforded any interested person to call into question an OSHA proposed standard and demand a full public hearing.²²⁵ Instead, the registration procedure of FIFRA as amended in no sense reduces or directs the widespread and massive use of agricultural chemicals; nor does it afford workers any more control over their working conditions than a weak opportunity to comment. It functions more as a classification system of pesticides on the market with a minimum of restriction.

The expansion of FIFRA to regulate the user of pesticides is founded in the Act's classification requirements. When a pesticide is registered, its proposed uses are classified as either general or restricted. General use pesticides will not cause unreasonable adverse effects on the environment when used as labelled or in accordance with widespread and commonly recognized practice.²²⁶ Pesticides classified as restricted are those which may generally cause, without additional regulatory restrictions, unreasonable adverse effects on the environment, including injury to the applicator, when used as directed or in accordance with widespread and commonly recognized practice.²²⁷ If a use is classified as restricted because of toxic dermal or inhalation dangers to the applicator

221. FIFRA § 3(c)(4), 7 U.S.C. § 136a(c)(4) (Supp. III, 1973).

222. *Id.* § 3(c)(1), 7 U.S.C. § 136a(c)(1).

223. *Id.* § 3(c)(5), 7 U.S.C. § 136a(c)(5).

224. *Id.* § 3(c)(6), 7 U.S.C. § 136a(c)(6).

225. See text accompanying notes 165-66 *supra*.

226. FIFRA § 3(d)(1)(B), 7 U.S.C. § 136a(d)(1)(B) (Supp. III, 1973).

227. *Id.* § 3(d)(1)(C), 7 U.S.C. § 136a(d)(1)(C).

and others, the pesticide may only be applied by or under the direct supervision of a certified applicator as defined by FIFRA.²²⁸ If it is so classified because of its unreasonable adverse effects on the environment, EPA may formulate regulations other than requiring application by or under the direct supervision of a certified applicator.²²⁹

Direct supervision of a certified applicator in any case merely entails application by a "competent person acting under the instructions and control of a certified applicator who is available if and when needed, even though such certified applicator is not physically present at the time and place the pesticide is applied."²³⁰ Such laxity in specifying competency requirements and failure to ensure the presence of the applicator in the field allows users and applicators to escape responsibility for misuse, much as manufacturers and distributors could pass the blame to the unregulated user under FIFRA of 1947. This gap in coverage completely subverts FIFRA's paternalistic goal of protecting farmworkers by regulating users.

To enforce its labelling procedures and use classifications, EPA may issue a "stop sale, use, or removal" order to halt any or all distribution or application of a pesticide if registration has been cancelled or suspended or if there is reason to believe on the basis of inspection or tests that the pesticide violates FIFRA or is intended to be distributed or sold²³¹ in violation of FIFRA.²³² However, FIFRA makes it virtually impossible to reach this remedy through worker initiative.

The registrant must submit additional information on unreasonable adverse environmental effects, if at any time he has such information,²³³ and EPA must cancel registration every five years.²³⁴ Yet only EPA's Administrator may initiate cancellation proceedings before that time.²³⁵ Interested parties may participate in cancellation hearings requested by the registrant or anyone adversely affected by the cancellation.²³⁶

If EPA determines that continued registration presents an immi-

228. *Id.* § 3(d)(1)(C)(i), 7 U.S.C. § 136a(d)(1)(C)(i).

229. *Id.* § 3(d)(1)(C)(ii), 7 U.S.C. § 136a(d)(1)(C)(ii). The distinction between these two subsections makes little sense other than to highlight the intended focus of FIFRA on the environment in general as opposed to the specific threat to workers of dermal or inhalation exposure. What comparative measurement solely limits employees' lives and health to an overseer who need not be present to oversee while it legislates unlimited power to protect every other element of the environment?

230. *Id.* § 2(e)(4), 7 U.S.C. § 136(e)(4).

231. This remedy is not available for pesticide misuse in violation of the act. Misuse is remediable only by financial penalties. *Id.* § 14, 7 U.S.C. § 136l.

232. *Id.* § 13, 7 U.S.C. § 136k.

233. *Id.* § 6(a)(2), 7 U.S.C. § 136d(a)(2).

234. *Id.* § 6(a)(1), 7 U.S.C. § 136d(a)(1).

235. *Id.* § 6(b), 7 U.S.C. § 136d(b).

236. *Id.*

ment hazard during the time necessary to complete cancellation, it may order suspension of registration effective five days after notification of the registrant.²³⁷ If within the five days, the registrant requests a hearing, the suspension order does not take effect until an expedited administrative review is completed, which under the terms of the statute may consume over a month.²³⁸ But if EPA determines that an emergency exists, it may suspend prior to notifying the registrant. While the order stays in effect during review, only the registrant and EPA may participate in the emergency suspension hearing. Others adversely affected are limited to filing briefs.²³⁹ Importantly, cancellation and suspension are unavailable if a pesticide is misused; only if use in accordance with a label creates a hazard may EPA act.²⁴⁰ Since such action amounts to a reconsideration of the registration, leaving the request for a hearing to the option of the manufacturer, distributor, or user—the only persons likely to be adversely affected by cancellation until after the registration is reformulated—perpetuates the weaknesses of the registration procedure.²⁴¹

Contrast the solicitude for the manufacturer in emergency situations under FIFRA to the emphasis on worker protection in the Occupa-

237. *Id.* § 6(c), 7 U.S.C. § 136d(c).

238. *Id.* § 6(c)(2), 7 U.S.C. § 136d(c)(2).

239. *Id.* § 6(c)(3), 7 U.S.C. § 136d(c)(3).

240. *Id.* § 6(b), 7 U.S.C. § 136d(b).

241. Perhaps the best example of both FIFRA's bending over backwards to accommodate producers' economic interests and its intentional maneuvering to avoid any substantive protection for workers and consumers, is its allowance of indemnities to manufacturers and distributors who suffer losses by reason of cancellation or suspension of a pesticide registration. *Id.* § 15, 7 U.S.C. § 136m. Producers are reimbursed for endangering the lives and health of the workers and the public. Consider the theoretically opposite view taken by the Occupational Safety and Health Act which legislates a complete re-evaluation of the capability of state workers' compensation laws to cover safety and health employment disabilities. Section 27 of the Act, 29 U.S.C. § 676 (1970), mandates:

(a)(1) The Congress hereby finds and declares that—

(A) the vast majority of American workers and their families, are dependent on workmen's compensation for their basic economic security in the event such workers suffer disabling injury or death in the course of their employment; and that the full protection of American workers from job-related injury or death requires an adequate, prompt, and equitable system of workmen's compensation as well as an effective program of occupational health and safety regulation; and

(B) in recent years serious questions have been raised concerning the fairness and adequacy of present workmen's compensation laws in the light of the growth of the economy, the changing nature of the labor force, increases in medical knowledge, changes in hazards associated with various types of employment, new technology creating new risks to health and safety, and increases in the general level of wages and the cost of living.

(2) The purpose of this section is to authorize an effective study and objective evaluation of State workmen's compensation laws in order to determine if such laws provide an adequate, prompt, and equitable system of compensation for injury or death arising out of or in the course of employment.

tional Safety and Health Act. Though suspension of registration under FIFRA is undoubtedly broader in its potential effect on workers, OSHA action is directed to the workplace, where the hazard occurs. It may be initiated by an employee request for inspection, and workers have the right to be informed of emergency action. OSHA's remedy is a judicial restraining order, rather than lengthy agency review, and workers are entitled to force agency action by a writ of mandamus.²⁴²

FIFRA's failure to extend effective regulation to the workplace also appears in other provisions and practically insures that EPA will never receive information which would prompt cancellation, suspension, or prosecution. FIFRA requires the registration of establishments,²⁴³ defined as any place where a pesticide is produced or held for distribution or sale.²⁴⁴ Significantly, the workplace is not considered an establishment. Also, a proposed classification for use by permit only was specifically rejected in considerations of the 1972 amendments.²⁴⁵ Permits would have focused enforcement on the user and would have injected some outside control on the manufacturer's claims with regard to a particular use. FIFRA requires producers to keep records of their operations²⁴⁶ but exempts private applicators.²⁴⁷ Users are not mentioned at all. While inspections are provided for in FIFRA, a warrant must be obtained if there is reason to believe the Act has been violated and a written statement of the reason for the inspection must be presented. And not surprisingly, only "establishments" may be inspected.²⁴⁸

Herein lies the most fundamental difference between FIFRA and the Occupational Safety and Health Act. By giving up jurisdiction over the largest health problem of the agricultural segment of the nation's work force, the Department of Labor has denied these employees the most fundamental of the rights guaranteed the rest of the working population: the right to initiate anonymously inspections without warrants or advance notification to the employer, and the right to observe the monitoring of harmful substances and to have access to records required to be kept by the employer. It would be ludicrous to assume that the authors of the FIFRA amendments ever intended the Act to be the exercise of actual authority over farmworker health and safety supplanting OSHA. They never considered the prospect. For example, the basis for rejecting user record-keeping requirements was that

242. See text accompanying notes 167-190 *supra*.

243. FIFRA § 7, 7 U.S.C. § 136e (Supp. III, 1973).

244. *Id.* § 2(dd), 7 U.S.C. § 136(dd).

245. PROTECTION OF MAN AND THE ENVIRONMENT, *supra* note 215, at 21-22.

246. FIFRA § 8, 7 U.S.C. § 136f (Supp. III, 1973).

247. *Id.* § 11(a), 7 U.S.C. § 136i(a).

248. *Id.* § 9, 7 U.S.C. § 136g.

. . . since there was no convincing evidence that there was any real need for the maintenance of such records or the making of such reports or the filing of such documents the requirement that they be kept and filed would be a burden beyond the capacity of most of the farmers and not commensurate with any slight benefit that might obtain.²⁴⁹

Even more telling was the concern over the constitutionality of warrantless inspections²⁵⁰ and the spectre of house-to-house searches for misuses of no-pest strips.

Since pesticides are held or used in most homes, this amendment would authorize Federal agents to enter almost any home in the country without a warrant and without even a suspicion that there has been a violation of any law.²⁵¹

Ignored glaringly by FIFRA are the establishments most in need of regulation—the farms.

249. PROTECTION OF MAN AND THE ENVIRONMENT, *supra* note 215, at 58.

250. The issue of warrantless administrative inspections is far from settled. One thing that is clear in the case of FIFRA and the Occupational Safety and Health Act is that the question concerns commercial property, not homes. FIFRA provides for inspection of "establishments," defined as any place where a pesticide is held for distribution or sale, but not including places where pesticides are actually used. See note 248 *supra* and accompanying text.

The issue was earliest dealt with in two U.S. Supreme Court companion cases, *Camara v. Municipal Court*, 387 U.S. 523 (1967) and *See v. City of Seattle*, 387 U.S. 541 (1967). In *Camara*, the Court held that a homeowner could not be held criminally liable for refusing to permit an inspection of his residence by a municipal housing inspector not having a search warrant. *See* upheld a similar refusal by an owner of commercial property to allow a fire inspection. The Court reasoned that such searches were not to be excepted from the requirements of obtaining a warrant because it could find no indication that "the burden of obtaining a warrant is likely to frustrate the government purpose" behind routine health, fire, and housing code inspections. *Id.* at 533. It stated, however, that reasonable goals of code enforcement might outweigh private property concerns in some situations and permit warrantless inspections.

Dictum in *Colonnade Catering Corp. v. United States*, 397 U.S. 72 (1970), narrowed the broad holding of *See* by finding it inapplicable to federal regulation of the commercial liquor industry, an industry long subject to supervision and inspection. Relying on that language in *Colonnade*, the Court in *United States v. Biswell*, 406 U.S. 311 (1972), authorized warrantless searches of federally licensed firearms dealers. It recognized that regulation of firearms was not as long established as regulation of the liquor industry but looked to the need for regulation, rather than to a tradition. Warrantless searches were considered more important to the goals of enforcement than in *See*, where housing conditions were clearly more difficult to conceal or correct in a short time. If inspections were to have a deterrent effect on the sale of such weapons as sawed-off shotguns, though, "unannounced, even frequent, inspections are essential." *Id.* at 316.

Clearly, Congress has indicated a strong intent to provide the deterrent effect of warrantless searches in the Occupational Safety and Health Act, for it has backed up the inspection provisions with criminal penalties for advance notice of inspections to employers. 29 U.S.C. § 666(f) (1970).

251. PROTECTION OF MAN AND THE ENVIRONMENT, *supra* note 215, at 58.

Even if states enact more stringent regulations, such as permit systems, EPA alone possesses the authority to enforce the civil and criminal penalties imposed by FIFRA.²⁵² Because no record-keeping or inspections occur at the workplace, it is doubtful that incidences of misuse will become known to EPA. Also, placing enforcement on the federal level will likely entail greater selectivity in prosecuting offenders. Even so, a provision which would have allowed citizen suits to enjoin individual violations was rejected as an encouragement to professional litigants and a potential interference with the orderly administration of the law.²⁵³ Ignored again were the interests of those citizens whose livelihood would expose them to the user's violations.

The failure of FIFRA to reach the actual use of pesticides also casts doubt on the efficacy of the provisions dealing with manufacturer testing of pesticides. Applications for experimental use permits are available to any person in order to accumulate data necessary for registration. While EPA is authorized to supervise testing and set tolerances and other terms and conditions,²⁵⁴ no requirements similar to those in the Occupational Safety and Health Act for monitoring exposure, medical examinations, or providing employees with test results are specified. No account need be taken of the effects of regular exposure over the employee's working life or of behavioral factors.²⁵⁵ FIFRA requires only that human beings tested be fully informed of the nature and purposes of the test and of any physical and mental health consequences which are reasonably foreseeable, and that they freely volunteer to participate in the test.²⁵⁶ These minimal requirements leave testing decisions largely to those with an obvious economic interest in pushing exposure to the limits and in convincing people to participate. While provisions for OSHA supervision may not be ideal, they do embody protections after the choice to participate has been made. Such protections are imperative where complete understanding of the consequences of exposure may be imperfectly conveyed in a language other than English or where the authority of the testing personnel may be subtly connected with the employer's or labor contractor's power to discharge or deport.²⁵⁷

252. FIFRA § 14, 7 U.S.C. § 136l (Supp. III, 1973).

253. PROTECTION OF MAN AND THE ENVIRONMENT, *supra* note 215, at 39-41.

254. FIFRA § 5, 7 U.S.C. § 136c (Supp. III, 1973).

255. See text accompanying notes 197-201 *supra*.

256. FIFRA § 12(a)(2)(P), 7 U.S.C. § 136j(a)(2)(P) (Supp. III, 1973).

257. For a discussion of ethical considerations in testing effects of pesticide exposure on human subjects, see Testimony of Citizens for Farm Labor, Berkeley, Cal., Before the Cal. State Dep't of Agric. on Proposed Changes in Regulations Pertaining to Economic Poisons and Injurious Materials, Sacramento, Feb. 11, 1971, as reported in *Hearings on H.R. 10729 Before the Subcomm. on Agricultural Research and General Legislation of the Senate Comm. on Agriculture and Forestry*, 92d Cong., 2d Sess. 323-30 (1972).

OSHA is required to conduct its experiments on toxic substances through HEW, while FIFRA again emphasizes the agency reliance on the manufacturer's good faith.

Not until the judicial review stages does FIFRA open to outside input in a significant manner. District courts have jurisdiction to review an agency refusal to cancel or suspend registration or to change classifications which do not follow a hearing; they may also review other final action not committed to agency discretion by law.²⁵⁸ In the case of an actual controversy over the validity of an agency order following a public hearing, any person who will be adversely affected by such an order and who was a party to the hearing may obtain judicial review in the courts of appeal.²⁵⁹ These provisions provide an important avenue for consumer suits;²⁶⁰ but for workers effectively excluded from the regulation and enforcement stages, the right to judicial review in no sense compensates for the loss of life and health from pesticide exposure while the regulatory and judicial processes take their course. And it in no sense makes up for the loss of rights secured to them under the Occupational Safety and Health Act.

Nor may an enumeration of affirmative employee rights under OSHA ignore the inevitable growth of collective bargaining rights out of strong statutory rights. While FIFRA's regulatory scheme aims at minimizing impairment of agricultural production, even to the point of indemnifying producers for the extra amount that protection of workers and the public has cost them,²⁶¹ OSHA serves the worker's right to control his productive resources. Backed by the substantive guarantees of the Occupational Safety and Health Act, most workers may bargain with management from a position of strength. But farmworkers, dependent on an elusive ecological balancing process virtually predetermined by reliance on chemical industry self-regulation, are powerless under FIFRA to change the physical conditions of their workplaces through organizing to gain collective bargaining rights. The bureaucratic excising of farmworkers from OSHA jurisdiction deals a setback to agricultural labor in its struggle to organize.

CONCLUSION

To characterize the problem presented here as a jurisdictional overlap between two federal agencies is short-sighted. The Department of Labor's own decisions interpreting the Occupational Safety and

258. FIFRA § 16(a), 7 U.S.C. § 136n(a) (Supp. III, 1973).

259. *Id.* § 16(b), 7 U.S.C. § 136n(b).

260. FIFRA's judicial review provisions directly respond to the holdings in the *Hardin* and *Ruckelshaus* cases; see note 210 *supra*.

261. See FIFRA § 15, 7 U.S.C. § 136m (Supp. III, 1973) and note 241 *supra*.

Health Act hold that excising any group of workers from its jurisdiction requires a critical analysis of the possible consequences. The conclusions may be stated simply in terms of the *Fineberg* holding: the Environmental Protection Agency has not, by its promulgation of pesticide reentry regulations similar in form to those originally and tentatively formulated by OSHA, actually exercised authority over agricultural working conditions, because its standards envision workers as only one element in an ecological balancing process. By FIFRA's terms, EPA can give worker protection no greater weight; protection of the work force is defined as incidental to a consideration of the environment as a whole. FIFRA does not embody a "policy or purpose that is consonant with that of the Occupational Safety and Health Act," as shown both by its statement of policy and by its legislative history.

Even this conclusion understates the deep differences in purpose of each of the two agencies and their enabling legislation. On these differences hinges a vital system of rights based on a long history of neglecting the problems of the work environment. No language mandating a balance of economic, social, and ecological benefits can replace the assurance of a workers' bill of rights. Worker health and safety and the legislation which guarantees it may not be compromised, as OSHA early recognized.

[I]n applying an exemption created by the Act it should be strictly construed to the end that the exemption will not be enlarged beyond its necessary extent and in order that the Act will accomplish as fully as possible the remedial purpose for which it was designed.²⁶²

If exception is made for farmworkers, who will finally remain to enjoy the legislative promise of safe and healthful working conditions—only those safe and healthy enough to demand it?

Ellen S. Greenstone

262. *Secretary of Labor v. Southern Pacific Transportation Co.*, OSAHRC Docket No. 1348, at 18 (1973).

Appendix

TABLE I

Field Reentry Safety Intervals In Days
For Crops Treated With Organophosphorous Pesticides

Pesticide	Crop	Successive EPA Regulations					California	
		May 1, 1973		June 29, 1973		May 10, 1974a	Aug. 24, 1974	
		Dry Area	Wet Area	Dry Area	Wet Area	All Areas	All Areas	
Azinphosmethyl (Guthion)	Citrus	14	5	14	3	1	30	
	Peaches	10	5	10	3	1	14	
	Grapes	14	5	14	3	1	21	
	Apples	5	5	3	3	1	14	
Carbophenothion (Trithion)	Citrus	14	5	14	3	2	14	
	Peaches	14	5	10	3	2	14	
	Grapes	14	5	14	3	2	14	
	Apples	5	5	3	3	2	none	
Demeton (Systox)	Citrus	5	5	4	3	2	5	
	Peaches	5	5	5	3	2	7	
	Grapes	5	5	5	3	2	7	
	Apples	5	5	3	3	2	none	
Diazinon	Citrus	2	2	none	none	none	5	
	Peaches	2	2	none	none	none	5	
	Grapes	2	2	none	none	none	5	
	Apples	2	2	none	none	none	none	
Dimecron (Phosphamidon)	Citrus	14	5	14	3	none	14	
	Apples	5	5	3	3	none	none	
Dimethoate (Cygona)	Citrus	2	2	none	none	none	4	
	Grapes	none	2	none	none	none	4	
	Apples	2	2	none	none	none	none	
Dioxathion (Delnav)	Citrus	2	2	none	none	none	30	
	Peaches	2	2	none	none	none	30	
	Grapes	2	2	none	none	none	30	
	Apples	2	2	none	none	none	none	
EPN	Citrus	14	5	14	3	1	14	
	Peaches	10	5	10	3	1	14	
	Grapes	10	5	10	3	1	14	
	Apples	5	5	3	3	1	14	
Ethion	Citrus	14	5	none	none	1	30	
	Peaches	8	5	none	none	1	14	
	Grapes	8	5	none	none	1	14	
	Apples	5	5	none	none	1	none	
Imidan (Prolate)	Peaches	2	2	none	none	none	5	
	Grapes	2	2	none	none	none	5	
	Apples	2	2	none	none	none	none	

Pesticide	Crop	Successive EPA Regulations				California	
		May 1, 1973		June 29, 1973		May 10, 1974a	Aug. 24, 1974
		Dry Area	Wet Area	Dry Area	Wet Area	All Areas	All Areas
Malathion	Citrus	2	2	none	none	none	1
	Peaches	2	2	none	none	none	1
	Grapes	2	2	none	none	none	1
	Apples	2	2	none	none	none	none
Meta-Systox R	Citrus	5	5	none	none	2	none
	Peaches	5	5	5	3	2	none
	Grapes	5	5	4	3	2	none
Mevinphos (Phosdrin)	Citrus	5	5	4	2	none	4
	Peaches	5	5	5	3	none	4
	Grapes	5	5	4	3	none	4
	Apples	5	5	3	3	none	none
Naled (Dibrom)	Citrus	2	2	none	none	none	1
	Peaches	2	2	none	none	none	1
	Grapes	2	2	none	none	none	1
Parathion-ethyl	Citrus	14	5	14	3	2	21-30-45 ^b
	Peaches	10	5	10	3	2	21
	Grapes	14	5	14	3	2	21
	Apples	5	5	3	3	2	14
Parathion-methyl	Citrus	none	none	none	none	2	none
	Peaches	10	5	10	3	2	21
	Grapes	14	5	14	3	2	21-6 ^c
	Apples	5	5	3	3	2	14
Phosalone (Zolone)	Peaches	none	none	none	none	none	21
	Grapes	10	5	none	none	1	21
	Apples	5	5	none	none	1	none
Sulfur	Citrus	none	none	none	none	none	1
	Peaches	none	none	none	none	none	1
	Grapes	none	none	none	none	none	1
TEPP	Citrus	3	3	3	1	none	4
	Peaches	3	3	none	none	none	4
	Apples	3	3	1	1	none	none

- a. EPA's May 10, 1974 Final Regulations include the pesticides bidrin, an organophosphate, and endrin, a chlorinated hydrocarbon. Both have reentry intervals of two days. Neither of these compounds occurs in the two prior sets of EPA regulations or in the California Department of Health regulations.
- b. The California safety interval for parathion-ethyl used on citrus crops varies according to the quantity of pesticide applied:
- 21 days—No more than four pounds of actual parathion-ethyl per acre in a single application.
- 30 days—More than four pounds of actual parathion-ethyl per acre, but no more than ten pounds per acre, in the past 12 months.
- 45 days—More than eight pounds of actual parathion-ethyl per acre per application or more than ten pounds per acre in the past 12 months.
- c. The California safety interval for parathion-methyl varies as follows:
- 21 days—In all counties other than Monterey when parathion-methyl is used or in Monterey County when more than one pound per acre of actual parathion-methyl is used.
- 6 days—In Monterey County when no more than one pound per acre of actual parathion-methyl is used.

TABLE II

Selected Provisions of the California Department of Health
and Corresponding Provisions of the Environmental
Protection Agency for Worker
Pesticide Safety

*Note: All EPA provisions for worker protection are included.
Blank spaces in the EPA column indicate lack of any corresponding provision.*

CALIFORNIA ADMINISTRATIVE
CODE, TITLE 3, ARTICLE 23.
WORKER SAFETY.

Apr. 12, Aug. 24, 1974.

2475. Purpose of Article. This article specifies work practices for employees who mix, load, apply, store, or otherwise handle pesticides for agricultural uses as defined in Section 11408, through subsection (c), of the Food and Agricultural Code, and for employees who are exposed to residues of these pesticides after application. In general, the work practices and safety requirements stated in this article are designed to reduce risk of exposure and to assure availability of medical services for employees who mix, load, apply or otherwise handle pesticides, and to provide safe working conditions for field and other workers. This article includes, but is not limited to, pesticide use or handling in: (1) production of commercial crops; including flowers, ornamental plants and trees, whether grown outdoors or in an enclosure; (2) parks, school grounds, golf courses, cemeteries, along highways, roadsides, streets, and similar areas; (3) commercial animal production activities and, (4) other activities involving pesticides.

2476. Definitions. The following definitions apply to this article, unless otherwise apparent from the context. (b) "Closed mixing system" means a procedure for removing a pesticide from its original container and transferring it into a closed mixing tank without the exposure of any person to the pesticide. (c) "Closed loading system" means transferring a pesticide from a mixing tank into an applicator tank by a closed system of hoses, pipes, and/or couplings that connect directly or are sufficiently tight to avoid exposure of any person to the pesticide(s).

ENVIRONMENTAL PROTECTION
AGENCY PART 170. WORKER
PROTECTION STANDARDS FOR
AGRICULTURAL PESTICIDES.
MAY 10, 1974.

39 Fed. Reg. 16890 (1974).

170.1 General. This part contains occupational safety and health standards for farm workers performing hand labor operations in fields after ground (other than those incorporated into the soil), aerial or other type of application of pesticides.

170.4(c) The restrictions set forth in this part shall not apply with respect to: (1) Mosquito abatement treatments and related public pest control programs; (2) Greenhouse treatments which are applied in accordance with labeling directions and restrictions; (3) Livestock and other treatments which are applied in accordance with labeling directions and restrictions; (4) Treatment of golf courses and similar non-agricultural areas which are applied in accordance with labeling directions and restrictions.

170.2 Definitions. Terms used in this subpart shall have the meanings set forth for such terms in the Act. In addition, as used in this subpart, the following terms shall have the meaning stated below:

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(d) "Employee" means any person hired by the employer.

(e) "Employer" means any person who hires an employee and may include: (1) the farm operator, (2) a labor contractor, (3) a pesticide applicator, (4) any other independent contractor, or (5) the employer's agent.

(f) "Exposure period" means that period of time that the employee is actually exposed to pesticides while mixing, loading, applying (including flagging), maintaining and cleaning contaminated equipment or in substantial and prolonged contact with pesticides or their residues on treated crops. This does not include rest periods or any other period not involving work with pesticides or exposure to their residues.

(h) "Field" means any area upon which one or more crops are grown and includes greenhouses.

(i) "Field reentry safety interval", or "safety interval", means the period of time that must elapse after a field is treated with a pesticide, and before employees are permitted to enter the field to engage in any activity that will result in substantial and prolonged contact with the treated foliage and/or pesticide residue on the treated foliage.

(m) "Pesticides in toxicity category one" are pesticide products which are required to prominently display the signal words "DANGER" and "POISON", and to show the skull and cross-bones symbol on the label.

(n) "Pesticides in toxicity category two" are pesticide products which are required to prominently display the signal word "WARNING" on the label.

(o) "Pesticides in toxicity category three" are pesticide products that are required to prominently display the signal word "CAUTION" on the label.

(p) "Pesticides in toxicity category four" are pesticide products that are *not* required to display the signal words "DANGER", "WARNING", or "CAUTION" on the label.

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170.2(b) The term "farm worker" or "worker" means any person or persons engaged in agricultural hand labor in the field.

170.2(c) The term "field" means any treated land area, or part thereof, upon which one or more pesticides are used for agricultural purposes, all as specified by this part.

170.2(a) The term "reentry time" means the period of time immediately following the application of a pesticide to a field when unprotected workers should not enter as provided for in 170.3(b).

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(q) "Substantial and prolonged contact with foliage" means contact of skin and/or clothing (not of a special protective type) with the pesticide-treated foliage of the crop. Examples of activities which usually involve substantial contact are: picking crops, thinning fruit crops by hand, and pruning trees bearing foliage. Crop contact activities that occur at rare intervals and are of only a few minutes duration are not considered as substantial and prolonged.

2477. Safety of Persons Employed to Work With Pesticides as Mixers, Loaders, or Ground and Aerial Applicators, Including Flaggers.

(a) Age. No employer shall permit an employee under 18 years of age to mix or load a pesticide in toxicity category one or two unless closed mixing and loading systems are used.

(b) Instruction, Training and Supervision.

(1) By January 1, 1975, each employer shall have provided to each employee working with a pesticide, adequate instruction and training so that the employee understands the safety procedures required for the pesticides that he will work with, except as provided in (5) below.

(2) Employers shall require that employees who will be working with pesticides demonstrate that they understand the safety procedures to be followed, the safety clothing and equipment to be worn, the common symptoms of pesticide poisoning, the dangers of eating, drinking or smoking while actually handling pesticides, where to obtain emergency medical treatment, what medical supervision means, and the applicable laws and regulations.

(3) At the completion of training, the employer shall record in an employee record or a training record the nature and extent of training given to the employee and the job to be assigned. This information shall be verified by the employee's signature.

(4) These records shall be available for examination by the director or commissioner.

(5) Until training is completed, close supervision of the employee by the em-

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ployer is required. Step (1) above may be omitted by an employer if an employee presents written evidence of prior training, such as an appropriate license, certificate, or a letter from a previous employer documenting previous training and satisfactory job performance and the employee verifies the same by his signature in the employer's records.

(c) Emergency Medical Care

(1) For all activities involving the use of pesticides, the employer shall make prior arrangements for emergency medical care and shall post in a prominent place at the work site the name, address and telephone number of the physician, clinic, or hospital emergency room providing care.

(2) When the employer has reasonable grounds to suspect a pesticide illness or when an exposure to a pesticide has occurred that might reasonably be expected to lead to an illness, the employer shall take the employee to a physician immediately.

(3) When organophosphate or carbamate poisoning is suspected, an employee shall not be given atropine tablets or injections by his employer, other employees, or by himself unless this medication is prescribed, ordered or given by a physician, even though the pesticide labeling may appear to suggest that a physician's authorization is not necessary.

(d) Medical Supervision. For employees who will be engaged in mixing, loading, application, or flagging for more than 30 hours in any 30-day period where any pesticide in toxicity category one or two containing an organophosphate or carbamate is being used, the employer shall engage the service of a licensed physician to provide medical supervision as herein defined. Medical supervision shall include monitoring of the work force by means of red cell and plasma cholinesterase determinations or other recognized medical tests to be made on each employee before any exposure to such pesticides and as often thereafter as recommended by the physician.

(1) The employer shall keep a record of all written recommendations made by the medical supervisor. Such records

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shall be maintained for one year and shall be made available for inspection upon request to the employee or to the director, commissioner, county health official or state health official.

(2) Upon request, the employer or the physician shall make cholinesterase test results available for inspection upon request to the employee or to the director, commissioner, county health official or state health official.

(3) The employer shall follow the recommendations of the supervising physician concerning matters of occupational health. When, in the physician's opinion, continued exposure to pesticides containing organophosphates and carbamates is likely to injure an employee's health, such employee shall be removed from exposure until the physician authorizes his return. The physician may also limit the exposure period of any employee to these pesticides when cholinesterase test results and/or poisoning incidents indicate such limitations are necessary to protect the health of an employee. This subsection shall not be construed, however, to authorize violation of safety requirements prescribed by the article.

(4) The employer shall provide, when requested by the director or the commissioner, the name of the physician who is providing his employee(s) with medical supervision. The employer shall post the name, address and telephone number of this physician in a prominent place at the locale where the employee usually starts the work day.

(5) The director shall furnish the names of the physicians giving supervision to the State Department of Health.

(6) The State Department of Health shall provide these physicians giving supervision with guidelines for this medical supervision program.

These physician guidelines provided by the State Department of Health shall (a) require pre-exposure baseline cholinesterase determinations and follow-up tests at appropriate intervals for each employee specified in the first sentence of (d) above; (b) outline the considerations involved in decisions regarding frequency of cholinesterase testing and circum-

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stances under which workers should be removed from exposure; (c) require that both plasma and red cell determinations be performed on all samples tested; (d) require that baseline and follow-up tests be performed by the same laboratory and by the same method whenever practical; and (e) indicate that if an employee's plasma cholinesterase level decreases 50% below his baseline or if his red cell cholinesterase decreases 40% below his baseline, the employer will be instructed to remove the employee from all work exposure to organophosphates and carbamates until the employee's red cell and plasma cholinesterase both return to his pre-exposure baseline range.

(7) Effective January 1, 1975, a laboratory performing red cell and plasma cholinesterase tests for occupational health surveillance shall be approved by the State Department of Health and shall have a quality control program and an analytical method acceptable to that department.

(e) Working Alone with Pesticides in Toxicity Category One.

(1) An employee may work alone with a pesticide in toxicity category one during the daytime only when periodic visual supervision is provided at intervals not exceeding two hours. Radio or telephone contact at intervals not exceeding two hours may be substituted for visual supervision. A pilot, mixer-loader, and/or flagger team shall be considered as working together. In the case of two ground applicators working in the same field, no additional person is necessary if they can see each other's application vehicles.

(2) At least two employees shall be required to work together at night, except when personal, radio, or telephone contact is made every hour. A pilot, mixer-loader, and/or flagger team shall be considered as working together. In the case of two ground applicators working in the same field at night, no additional person is necessary if the workers will be operating close enough to see each other's applicator vehicle lights.

(f) Loading Agricultural Aircraft. When pilots are employed to operate agricultural aircraft, they shall not load pesti-

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cides in toxicity categories one or two containing organophosphates or carbamates into aircraft unless a closed loading system is used, nor shall they mix such pesticides unless a closed mixing system is used.

(g) Change Room or Area. For any employee who will work as a mixer, loader, applicator, or flagger with pesticides in toxicity categories one or two for more than 30 hours in any 30-day period, employers shall provide at the place where employees complete their work day an area where employees may change clothes and wash themselves. Clean towels, soap, and adequate water shall be available to allow for thorough washing. Employers shall order their employees to change into their work clothing and protective equipment at the start of the work day or that day's exposure period, and to remove such clothing and equipment and to wash themselves at the end of each work day or at the end of that day's exposure period. The employer shall provide a clean, pesticide-free place where employees may store any personal clothing not in use while they are at work handling pesticides. The employer shall order employees not to take home contaminated clothing and equipment.

(h) Personal Washing Facilities at Mixing and Loading Site. Clean water for routine washing of hands and face, and for emergency washing of the entire body shall be available for all employees at the work site where they mix or load pesticides in toxicity categories one or two. A minimum of ten gallons of water shall be present at the beginning of each work day for one employee and a minimum of 20 gallons for two or more employees. This water shall be stored separate from that used for mixing with pesticides unless the tank holding water for mixing with pesticides is equipped with appropriate break-valves to prevent back flow of pesticides into the water. Any other easily available supply of clean water within 100 feet of the mixing and loading site is satisfactory for the purposes of this section. Soap and clean towels shall be

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provided by the employer and shall be readily available at the work site.

(i) Protective Clothing, Safety Equipment, and Safety Procedures.

(1) Protective Clothing and Safety Equipment. Each employer shall provide outer clothing, such as coveralls, daily for any employee who works as a mixer, loader, or applicator (including flagger), with any pesticide in toxicity category one or two and shall provide for its cleaning after any day when the employee handles such pesticides. The person or firm doing the laundry shall be informed by the employer if they receive pesticide-contaminated clothing. There shall be at the mixing and loading site at least one change of outer clothing. If clothing of an employee becomes contaminated by a spill of pesticide concentrate, that clothing shall be immediately removed. The employer shall also provide all necessary safety equipment and provide for its cleaning when necessary. The employer shall require that any respirator filter pads and cartridges be changed in the manner and with the frequency recommended by the manufacturer. The employer shall require that all personal protective equipment be maintained and kept in a clean, specially designated place or locker when not in use. This clothing and equipment shall remain the property of the employer.

(2) Safety Procedures. Based upon the safety procedures specified in the pesticide labeling the employer shall advise the employee of the protective clothing and equipment he is to use and the safety procedures he is to follow according to the hazards of the specific job or jobs he will perform. Employers shall provide artificial light in the mixing and loading areas whenever natural light is not adequate to allow the employee to read the label and to work in a safe manner.

2478. Safe Equipment Used by Employees.

(a) Equipment Inspection. Equipment used by employees for mixing, loading, or applying pesticides shall be kept in good repair and shall be safe for em-

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170.2(d) The term "protective clothing" means at least a hat or other suitable head covering, a long sleeved shirt and long legged trousers or a coverall type garment (all of closely woven fabric covering the body, including arms and legs), shoes and socks.

170.3(b)(1) No owner or lessee shall permit any worker not wearing protective clothing (under 170.2(d)) to enter a field treated with pesticides until sprays have dried or dusts have settled, unless exempted from such requirements, or a longer reentry time has been assigned to that pesticide.

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ployees to operate. The director or commissioner may inspect at any reasonable time equipment used in mixing, loading and application of pesticides. Equipment with any safety defect shall be repaired or altered to remove the hazard before further use by any employee.

(b) **Equipment Maintenance.** Persons who own or operate pesticide mixing, loading, or application equipment shall inform each employee who may be involved in the cleaning, servicing or repair of that equipment of the hazards of the pesticides he may encounter and the methods of protecting himself against injury. Employees who clean, service, or repair mixing and application equipment shall be provided with any necessary protective equipment or clothing by their employer, and shall be instructed and supervised in the maintenance operation in a manner that will reduce work hazards.

(c) **Equipment Modification.**

(1) After January 1, 1977, each tank with a capacity of more than 49 gallons on an aerial or ground applicator vehicle, that is used to apply liquid pesticides in toxicity categories one or two, shall have either, (1) a properly functioning means to indicate externally the internal liquid level in the tank such as a sight gauge; or (2) the tank or the filler hose nozzle shall have a device that will automatically stop the filling operation before the pesticide liquid mixture spills over the top.

(2) After January 1, 1976, all hatches or doors on aerial or ground applicator vehicle tanks shall be leakproof when the vehicle is in motion to prevent spillage of this pesticide on the vehicle operator.

(3) After January 1, 1975, flexible hoses carrying liquid pesticides in toxicity categories one or two under pressure shall not pass unshielded through a closed driver's compartment of any vehicle used for ground or aerial application of pesticides.

(4) After July 1, 1975, shutoff devices shall be installed on the exit end of all hoses carrying liquid pesticides in toxicity categories one or two from mix-

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ing tanks that are adequate to prevent splashes onto the employee doing the loading when filling operations are stopped and the filler hose is removed from the inlet to the tank of the application vehicle. As an alternative, a reversing action pump or a similar system may be used that will empty the hose and will eliminate dripping of liquid from the end of the hose when the filling operation is stopped.

(d) Development and Use of Closed Mixing Systems. The elimination of hand pouring by employees of all liquid pesticides in toxicity category one shall be accomplished by January 1, 1977, by the use of a closed mixing system. By January 1, 1976, the director shall designate any liquid pesticides in toxicity category two that shall be handled by a closed system. The director may permit modification of this procedure to allow for experimentation and development of pesticides and pesticide handling procedures.

2479. Safer Formulations of Pesticides Used by Employees. (a) After January 1, 1976, wettable and soluble power pesticide products in toxicity category one shall be prepared for sale in a manner that eliminates dust particles that present safety hazards such as inhalation hazards to employees working with these formulations. By January 1, 1975, the director shall designate any wettable and soluble powder pesticides in toxicity category two that also are to be similarly prepared for sale by January 1, 1976.

2480. Safety for Employees Who May Enter Fields After Pesticide Application. (a) Personal Safety.

(1) Emergency medical care shall be planned for in advance.

(2) Handwashing facilities shall be available. Handwashing facilities provided in conjunction with toilet facilities which are required by provisions of the Health and Safety Code (which are enforced by local health departments) shall be considered adequate for the purposes of this section.

(3) Employers shall insure that field work supervisors are informed of the usual symptoms of organophosphate and

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carbamate poisoning and that when poisoning is suspected, they will take the ill persons immediately to a physician.

(b) Field Work During Pesticide Application. No person shall apply any pesticide in such manner that it contaminates the body or clothing of any person during the application process, except for persons who are involved in the application process and who are wearing the appropriate protective clothing and/or equipment.

(c) Field Reentry by Employees After Pesticide Application.

(1) Employees shall not be permitted to enter any area of a field treated with any pesticide until the pesticide spray has dried or the pesticide dust has settled unless that employee wears the same protective clothing and equipment specified for the applicator in the labeling of that pesticide. In no case does the waiting period for the drying or settling to occur need to exceed 24 hours.

(2) After the pesticide spray has dried or the pesticide dust has settled.

(A) A field may be entered by employees without restriction after the pesticide has dried or the pesticide dust has settled, except (1) when the labeling of the pesticide specifies a safety interval beyond the dried spray and settled dust provision, or (2) a safety interval is specified in this section. In case of a conflict between the pesticide labeling and that specified in this section, the longer interval shall be followed.

(B) For the crops treated with a pesticide specified as having a safety interval, employers shall not permit employees to enter any part of such treated field to engage in any activity that may involve substantial body contact with the foliage until the expiration of the safety interval unless the provisions in (G) below are followed.

(C) Whenever a mixture of two or more organophosphate pesticides is applied, the safety interval shall be prolonged by adding to the longest applicable safety interval either (1) 50 percent of the shortest applicable safety interval, or (2) 4 days, whichever is the longest.

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170.3(a) Application. No owner or lessee shall permit the application of a pesticide in such a manner as to directly or through drift expose workers or other persons except those knowingly involved in the application.

170.3(b)(1) No owner or lessee shall permit any worker not wearing protective clothing (under 170.2(d)) to enter a field treated with pesticides until sprays have dried or dusts have settled, unless exempted from such requirements, or a longer reentry time has been assigned to that pesticide;

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(F) In addition to the crops listed above, when more than one pound per acre of active ingredients of parathion, methyl parathion or EPN is applied singly or in combination to any crop, a 14-day safety interval applies.

(G) Substantial body contact during safety interval.

1. Short Duration—No special restriction need be required for very short-term activities involving substantial body contact with treated foliage that are of only a few minutes duration and which occur at rare intervals. Examples are: installing fuses in a fuse box within foliage or adjusting an overhead sprinkler nozzle within foliage.

2. Long Duration—Medical supervision similar to that specified in Section 2477(d) shall be provided by the employer for each employee who will have substantial and prolonged body contact with foliage during a safety interval. Personal hygiene and laundry of clothing of these employees shall follow provisions of Section 2477.

3. Persons determined by the director or commissioner to have only limited and intermittent exposure to treated foliage such as licensed pest control advisers, as well as federal, state, and county employees who need to enter treated areas during safety intervals in the course of their duties shall be exempt from the provisions of Section 2477 and this Section except that the employer shall require cholinesterase baseline determinations and followup tests at intervals at least every six months.

(d) If a field is suspected as having been a source of a pesticide-related illness or of having a high probability of producing a pesticide-related illness, the director or commissioner may prohibit entry of employees to that field or he may require the employer to provide medical supervision to employees who will enter the field to engage in the substantial and prolonged body contact with the foliage. The director may also specify types of protective clothing and equipment to be worn by employees under such circumstances.

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170.3(b)(3) The preceding requirements notwithstanding, workers should not be permitted to enter treated fields if special circumstances exist which would lead a reasonable man to conclude that such entry would be unsafe.

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2481. Warnings. Employees who are likely to enter a field to be treated or which has been treated with a pesticide for which the safety interval has not expired shall be orally warned by the employer. In addition, when azinphosmethyl (Guthion), demeton (Systox), dimecron (Phosphamidon), carbophenothion (Trithion), EPN, ethion, parathion, and/or methyl parathion have been applied, the posting of warning signs is also required.

(a) Posting Warning Signs During the Safety Interval.

(1) The warning shall be given by the farm operator, or his agent by posting warning signs at the usual point or points of entry and in addition in a manner prescribed by the commissioner. Where an employer has reason to believe that an employee is unable to read, he shall also give the employee oral warning. The warnings shall be given in English and any other appropriate language.

(2) Posted warning signs shall be of such durability and construction that they will remain clearly legible for the duration of the safety interval, will be of such size so that the word "Danger" is readable at a distance of 25 feet, and will read substantially as follows:

DANGER
DO NOT ENTER
This field treated with
[pesticide(s)]
Stay out until [date].
[Field Identification]

(3) These signs shall not be posted unless a pesticide application has been made or is scheduled within the next 24 hours.

(4) These signs shall not be removed by any person during the safety interval.

(5) These warning signs shall be removed by the farm operator within 5 days after the end of the safety interval and before employees are allowed to enter to engage in an activity requiring substantial contact with treated foliage.

2482. Records. (a) A record of each pesticide application involving the crops and pesticides for which there are safety

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170.5(a) Warnings. When workers are expected to be working in a field treated or to be treated with a pesticide, appropriate and timely warning to such workers shall be given. The warning may be given orally and/or by posting warning signs at the usual points of entrance to the field, and/or on bulletin boards at points where the workers usually assemble for instructions. Where any person has reason to believe that a farm worker is unable to read, he shall give the farm worker oral warning and make reasonable effort to ensure understanding of such warning. When required, warnings shall be given in appropriate language. Oral warnings should be given in such a manner as to inform workers of areas or fields which should not be entered without protective clothing, the period of time the area or field should be vacated and actions to take in case of accidental exposure.

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intervals shall be maintained by the farm operator for at least one year from the time of application, and shall be readily available for inspection and copying by the director or commissioner. These records shall contain the following information as to each application, as applicable:

- (1) Crop.
- (2) Acres or other units.
- (3) Pesticide(s) used.
- (4) Dosage, dilution rate, and volume per acre.
- (5) Location.

(6) Date application completed (including the hour completed, if the safety interval is 2 days or less).

2483. Studies on Pesticide Safety. (a) No person shall conduct any study to establish a shorter safety interval than prescribed by this article, if human subjects are to be exposed, unless the director has approved such study. Each applicant shall give assurance (1) that the health of participants is not likely to be endangered, (2) that participants shall be informed of the potential risks, and (3) that all employees that might be exposed will be under medical supervision. Any university or medical institution in California which has current approval by the U.S. Department of Health, Education and Welfare to conduct studies on human beings shall be considered to have complied with (1), (2), and (3) above.

2484. Inspection Authority. The director or commissioner shall have authority to enter and inspect at reasonable times, without prior notification, premises where pesticides are stored, mixed, and/or are loaded for application and the fields, areas, and greenhouses where pesticides are being applied or have been applied in order to determine compliance with the provisions of this article. In addition, the director or commissioner shall be permitted to examine records concerning pesticide usage, work hours of employees and medical supervision.