GAO

United States General Accounting Office

Report to the Honorable
Claiborne Pell, U.S. Senate

May 1992

OCCUPATIONAL SAFETY & HEALTH

Worksite Safety and Health Programs Show Promise

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GAO

United States
General Accounting Office
Washington, D.C. 20548

Human Resources Division

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May 19, 1992

The Honorable Claiborne Pell
United States Senate

Dear Senator Pell:

At least 13 workers die each day, and about 11,000 workers are injured seriously enough to require lost workdays or restricted activity at work. The economic consequences of such injuries are staggering, about $83 billion in 1989 alone, and these numbers do not include occupational illnesses. The costs associated with occupational injuries include lost wages, medical expenses, insurance claims, production delays, lost time of co-workers, and equipment damage. There are also the associated emotional costs, such as the pain and suffering of the worker and his or her family. (See app. I for a longer discussion of these costs.)

The purpose of the Occupational Safety and Health Act of 1970 is "to assure safe and healthful working conditions for working men and women." The Occupational Safety and Health Administration (OSHA) and the state-operated safety and health programs, however, cannot, through direct inspections, monitor all workplaces to determine whether they are free from safety and health hazards.

Concerned about these issues, you requested that we assess whether all employers should be required to implement comprehensive safety and health programs as an additional way to identify and correct safety and health problems in worksites. (See pp. 3-4 for definition of these programs.) As you know, in a 1990 report, Occupational Safety and Health: Options for Improving Safety and Health in the Workplace (GAO/HRD-90-66BR), we noted the importance of both employers' and employees' involvement in improving safety and health in the workplace. In that report, we described (1) implementation of worksite safety and health programs and (2) labor-management safety and health committees as options for gaining more active participation, in these areas, of both employers and employees.

To address your concerns, we focused on the implementation experience in the six states that require these comprehensive programs. But we also considered the experience of a broad range of employers, with work forces of all sizes, who have voluntarily implemented programs in these and other states. In addition, we collected available evidence about the impact of these programs, both when they are voluntary and when they

are required. We examined OSHA's position on the need for such comprehensive programs, its efforts to encourage their wider use, and its regulations requiring similar prevention efforts for specific hazards. (See app. II for additional discussion of our study's scope and methodology.)

Results in Brief

Although not conclusive, available information, including the views of enforcement officials as well as employer and employee representatives, suggests that comprehensive safety and health programs can have positive effects on safety and health at the worksite. We found that reservations about requiring employers to have these programs come primarily from concern about implementation issues, rather than concern about their value. We also found—from our review of the experience in states that require some or all employers to have these programs—that implementation problems can be overcome if program requirements and enforcement agency policies are the same as in those states. In addition, for many employers who are already required to have written plans for specific workplace hazards, the requirement for comprehensive safety and health programs could entail little additional effort. Still, some uncertainty remains about the difficulty employers of different-sized workforces and in different industries would have in implementing required programs.

Limitations in the quantitative data on program burden and impact make it difficult for us to recommend, at this time, that these programs be required for all employers. The available information does suggest, however, that the potential reductions in injuries, illnesses, and fatalities are likely to justify any additional burden associated with implementing these programs, at least for high-risk employers. These employers can be defined on the basis of (1) high incidence of injuries and illnesses and (2) a history of safety and health violations. In addition, OSHA should collect sufficient information about impact and implementation experience to determine to which other employers, if any, the requirement should be extended in the future.

Background

In 1970, the Congress passed the Occupational Safety and Health Act (P.L. 91-596), giving enforcement responsibility to the Secretary of Labor. But the act places the major responsibility for worksite safety and health on the employer; for enforcement purposes, OSHA calls this the employer's "general duty" to provide a worksite free from recognized safety and health hazards.

OSHA, which administers this act, and state-operated safety and health programs have enforcement responsibility for laws protecting the safety and health of more than 88 million employees in about 6 million worksites. (See app. III for a map showing these states.)[1] On the basis of their inspections of facilities, the agencies (1) issue citations for safety and health violations, which may specify civil penalties to be paid by the employer, and (2) may initiate criminal proceedings against an employer.[2] In fiscal year 1991, OSHA, with fewer than 1,000 compliance officers,[3] was able to inspect only 2.5 percent of the worksites it identified as high risk for health violations and under 8 percent of the worksites it identified as high risk for safety violations.[4] The magnitude of OSHA's responsibilities, combined with its limited resources, underscores the need for employers and employees to be actively involved in safety and health matters rather than relying on OSHA inspectors to identify hazards.

Federal Enforcement Initiatives

OSHA has interpreted the general duty clause of the act to mean that employers should develop effective management systems for overseeing and controlling safety and health in the worksite. Accordingly, in 1989, to assist employers who were interested in developing such management systems, OSHA issued guidelines for comprehensive safety and health programs.

These guidelines describe programs in which, as a way to reduce injuries and illnesses at the worksite, employers allocate resources to inspect their own worksites and correct any hazards they find. OSHA describes four specific components of these guidelines:

[1]The act authorizes states to develop and operate their own safety and health programs; currently 2 territories and 21 states do so; 2 other states operate their own programs for state and local government employees, but federal OSHA has enforcement responsibility for private sector employees. OSHA approves, monitors, evaluates, and may fund up to 50 percent of the cost of operating these programs.

[2]Violations fall into four categories: (1) Other than serious violation: refers to a direct relationship to job safety or health, but the violation probably could not result in death or serious physical harm. (2) Serious violation: refers to a substantial probability that death or serious physical harm could result. (3) Willful violation: refers to an employer that intentionally and knowingly committed the violation. (4) Repeat violation: refers to a violation that is substantially similar than a previous violation. Employers can also be fined for failure to abate (correct) previously cited violations.

[3]OSHA had a total of about 1,200 inspectors, but this number, in addition to the compliance officers performing inspections, also included others, such as supervisors and trainees.

[4]These percentages have declined since fiscal year 1989, when comparable inspection rates were 3 percent and 10 percent. OSHA identifies worksites as high risk for safety hazards on the basis of industrywide injury statistics gathered through the Bureau of Labor Statistics Annual Survey of Occupational Injuries and Illnesses. The survey includes the results of OSHA inspections, conducted in previous years, to identify industries that are high risk for health hazards.

- detailed self-inspection of the worksite for all existing and potential hazards,
- development of a written plan addressing the nature of the hazards at the worksite and the means to control or abate these hazards,
- safety and health training and education of employees, and
- employee involvement in development and implementation of these programs (which may, but would not have to, be through committees with employer and employee representation).

(See app. IV for more details about each of these components.)

OSHA had considered making these guidelines mandatory, but chose instead to make them voluntary.[5] At the time, OSHA observed that additional experience with program guidelines would produce refinements in methods and practices, as well as provide evidence to indicate whether further regulatory action by the agency was required. Since issuing the guidelines, however, OSHA has collected no additional information on them.

State Enforcement Initiatives

Of the 21 states with responsibility for occupational safety and health enforcement, 6 have legislated requirements for employers to develop and implement comprehensive worksite safety and health programs similar to those outlined in OSHA's voluntary guidelines. Alaska, California, Hawaii, and Washington require all employers—regardless of size or industry—to develop and implement programs. Minnesota requires them of employers, with any size work force, with above-average injury and illness rates, and Oregon requires them of self-insured employers and certain others depending on work force, size, industry type, and injury and illness history. Alaska, Oregon, and Washington also require that for some employers, employee involvement must be through committees with both employee and employer representatives. Details of requirements in these 6 states are shown in table 1.

Legislative Initiatives

As of February 1992, the House and Senate were considering legislation, the Comprehensive Occupational Safety and Health Reform Act (H.R. 3160 and S. 1622), that addresses the issue of safety and health programs. This legislation would require, among other things, (1) that employers develop and implement comprehensive safety and health programs and (2) that

[5]OSHA has, since the early 1970s, required employers in the construction industry to have safety plans. The requirements are much more general, however, than these guidelines. For example, there is no requirement for employee involvement or written plans.

employers with 11 or more employees establish safety and health committees composed of an equal number of employee and employer representatives. The legislation would permit OSHA to limit the requirement for safety and health programs to certain classes of employers if OSHA could do so without diminishing the protection of employees.

Table 1: State Requirements for Comprehensive Worksite Safety and Health Programs

States	Employers that must have a program	Employers that must have a labor-management committee
Alaska (1973)	All employers	Employers in pulp, paper, and paperboard mills industries
California[a] (1989)	All employers	None, but state encourages all employers to have them
Hawaii (1982)	All employers	None
Minnesota (1990)	All employers with specific injury and illness rates[b]	None
Oregon (1991)	All employers with 11 or more employees and high-risk employers with 10 or fewer employees[c]	All employers with 11 or more employees and high-risk employers with 10 or fewer employees[d]
Washington (1960)	All employers	All employers[e]

[a]State had a much less comprehensive requirement for programs from 1977 until 1989, with the exception of July 1987 through October 1988, when federal OSHA rather than the state had enforcement responsibility for safety and health.

[b]Programs are required of employers in industries with lost workday injury rates or injury and illness incidence rates (or both) at or above the state average for all industries.

[c]High-risk employers are defined by their workers' compensation premium rates or lost workday incidence rates. From 1982 to 1991, programs had been required of high-risk employers, as defined by their lost workday incidence rates, with 10 or more employees. Since 1988, programs have been required of (1) all self-insured employers and (2) employers whose workers' compensation experience met disabling claims criteria. Since 1980, programs have been required of all logging employers (since 1992, for those in pulpwood logging).

[d]High-risk employers are defined by their workers' compensation premium rates or lost workday incidence rates. From 1982 to 1991, committees had been required of high-risk employers, as defined by their lost workday incidence rates, with 10 or more employees.

[e]Employers with 10 or fewer employees may have foreman-crew meetings that address the required committee responsibilities.

Concerns About Potential Implementation Problems

Individual employers, business and industry groups, and employee representatives have cited several concerns about potential implementation problems. They expressed these concerns in public record comments on legislation in California and Oregon, testimony on S. 1622 and H. R. 3160, public comment on OSHA's voluntary guidelines for worksite programs, and in interviews with us. The concerns are as follows:

- Too-specific program requirements: Commenters were concerned that mandatory requirements might be so prescriptive that employers would be constrained from developing the kind of safety and health programs that would best meet needs at their worksites. In addition, there was some concern that as part of the program, enforcement agencies might establish burdensome reporting requirements, such as requiring frequent detailed reports about activities conducted.
- Cost of program implementation: Commenters were concerned that program costs might be too high, especially for small businesses. Program costs could include payment for consultants who provide technical assistance or perform some of the tasks involved in developing a program, time spent by employees to participate in the program, and materials purchased for training purposes.
- Enforcement agency ability to evaluate management commitment: OSHA voluntary guidelines and state requirements stress the importance of management commitment in order that written plans be more than an empty exercise. Some commenters agreed but were concerned that too much subjectivity may be involved if enforcement agencies attempt to cite employers for not having the "right attitude."
- Obstacles to obtaining and documenting employee involvement in safety and health programs: Employee involvement may be informal—through participation in specific aspects of safety and health programs such as hazard inspections—or formal—through membership in joint labor-management safety and health committees. Commenters had two kinds of concerns. First, if programs allow employee representation through mechanisms other than committees, how could inspectors be certain that employees were effectively involved? Second, if programs require employee involvement through joint labor-management committees, what would be the potential liability of committee members and how would employees be selected for the committees?[6]

[6]At a worksite with collective bargaining contracts, there would need to be some resolution as to whether the union would automatically determine representation on the committee. At nonunion worksites, the question would be how to select employees who would fairly represent their co-workers and how to avoid any conflict with federal labor laws concerning employer-dominated organizations.

Implementation Problems Can Generally Be Overcome

Evidence we gathered from the six states that require comprehensive programs, but particularly from our visits to Oregon and Washington, indicates that these potential implementation problems have generally been overcome. Their occurrence in other states would probably depend on how similar a state's program requirements and enforcement agency policies were to those in the states we reviewed. Our review showed the following about each of the concerns that had been raised:

- Too-specific program requirements: We found no evidence that state requirements in Washington and Oregon posed implementation problems for employers' existing safety and health programs. The states' requirements are general enough, employers said, to allow an employer flexibility in applying them to any worksite. Employers indicated that they had encountered no significant problems, either writing a hazard prevention plan or maintaining records, to documenting progress made based on the plan.
- Cost of program implementation: For some employers, the costs of implementing safety and health programs were seen as a normal cost of doing business, according to comments in the public record and our interviews. The six states requiring programs have helped reduce employers' compliance costs by providing free detailed brochures outlining state requirements and how to comply with them. These states also offer free training and consultation services to small-sized employers.

  Even when enforcement agencies provide technical assistance, however, some program costs, such as conducting self-inspections and implementing hazard-prevention procedures, must be borne by employers. But despite these costs, some small-sized employers in Washington reported that it has actually been profitable for them to implement safety and health programs. They believe the program contributed to a reduction in injuries, which in turn has resulted in savings such as reduced premiums for workers' compensation.

- Enforcement agency ability to evaluate management commitment: In judging an employer's commitment, Washington and Oregon inspectors focus on specific employer actions rather than attempting to judge such an intangible as the employer's attitude toward the program. They look for such things as (1) records of the resources allocated to carry out the safety and health programs and (2) documentation of corporate policies and goals established for safety and health. OSHA follows similar procedures in evaluating programs of employers who have voluntarily implemented

these programs, as do other states that require employers to implement safety and health programs.

- Obstacles to obtaining and documenting employee involvement in safety and health programs: In Washington and Oregon, which require some employers to have committees, inspection statistics show high rates of compliance in both union and nonunion worksites. Concerns about liability appear to have been successfully addressed by defining the employee's role as advisory and affirming that management is ultimately responsible for workplace safety and health. Although Washington and Oregon agency officials reported no litigation related to conflicts with labor laws, this concern has not been completely resolved nationwide. (For more information about safety and health committees, see app. V.)

In the states in which formal committees are not required, employers have either voluntarily established committees or used other mechanisms to meet the requirement to involve employees in safety and health programs. Other mechanisms include (1) communicating the content of the safety and health programs to employees, (2) training employees for their responsibilities under the programs, and (3) involving employees in accident investigations and in specific components of hazard inspections. State inspectors have used interviews with employees and general on-site observations of conditions to determine whether involvement such as this has taken place.

Programs Perceived to Have Positive Effects but Data Inconclusive

Many representatives of enforcement agencies, as well as industry and labor officials, perceive the programs as having positive effects on worksite safety and health, and some statistical data suggest that worksite safety and health have improved as a result of these programs. But because of the inconclusiveness of available statistics, we were unable to quantify program effects on injuries and illnesses. (See app. VI for more information about effects.)

Positive Opinions

When OSHA published the guidelines on comprehensive safety and health programs, it asserted that such programs have a positive effect on avoidance of worksite injuries and illnesses. As a result, OSHA has encouraged employers to implement comprehensive safety and health programs. In addition, it requires a broad range of manufacturing and nonmanufacturing employers to develop written plans for control of certain specific hazards in the worksite, even though employers are not required to have comprehensive safety and health programs covering all

hazards at the worksite. For example, the standard for chemical process safety management requires that employers in over 95 different industries develop written plans to manage hazards associated with processes using highly hazardous chemicals.

Overall, the view of the potential effects of the programs was positive. Reservations about implementation issues, however, were expressed in public record comments submitted in response to OSHA and state proposals. These comments (more than 100) came from representatives of employers and labor groups across a wide range of industries, employers with both large and small work forces, enforcement agency officials, and academic researchers.[7]

OSHA inspectors also view the potential effects of the programs as positive. In November 1990, we reported that over 90 percent of the almost 400 inspectors we surveyed believed safety and health would be improved if safety and health programs were required.[8] When we asked about which employers should be required to have them, 90 percent said they should be required of both repeat violators and employers in high-risk industries; 63 percent said these should be required for all employers regardless of work force size, industry category, and injury and illness rate history.

These programs have a positive effect on the efforts of state enforcement officials, they said; enforcement agencies cannot, through inspections alone, identify all workplaces that have safety and health hazards. In addition, if employers develop and implement safety and health programs, hazards can be identified and corrected without the necessity of inspection. Finally, when enforcement officials do inspect, they said, their inspection efforts can be more efficient if employers have identified hazards and outlined written plans to abate them.

Inconclusive Statistical Data

Some employers who have voluntarily implemented safety and health programs have lower injury and illness rates than employers without the programs. For example, in 1990, worksites that have chosen to participate in OSHA's Voluntary Protection Programs (which requires comprehensive safety and health programs) have injury rates about 40 percent of the

[7]These comments came only from those who chose to comment on this matter, however, which is not necessarily a representative group of those who would be affected by these programs. Many organizations representing employers, including those representing small businesses, did not comment.

[8]Occupational Safety & Health: Inspectors' Opinions on Improving OSHA Effectiveness (GAO/HRD-91-FS, Nov. 14, 1990).

average in their industries. Some other companies that have also voluntarily implemented these programs report improved injury and illness rates, which they attribute to the programs. It could be argued that those who choose to have such programs, however, may be exemplary to begin with and may have had lower-than-average injury rates.

The six states that require some or all employers to have safety and health programs are convinced of the positive impact of these programs. In the four states where program requirements have been in place long enough to look at injury and illness statistics (Alaska, Hawaii, Oregon, and Washington), state officials gave us statistics, such as injury and illness rates, that support this conclusion. Some other statistics, however, raise questions about concluding that the programs reduce injuries and illnesses. For example, in Hawaii, in the 5 years preceding implementation of the program requirement in 1983, the average lost workday incidence rate was 6.1, with a range from 5.8 to 6.3. During the next 6 years after implementing the requirement, the average rate was 5.3, with a range from 5.0 to 5.7. But the lost workday rate went up in 1989 to 6.2 after 6 years of lower rates. (See app. VI for additional state statistics.)

The combination of available statistics illustrates the need for better information about the effects of safety and health programs. Additional studies need to recognize the difficulty of drawing conclusions about effects, whether within-state, between-state, or state-national comparisons are used. For example, within-state comparisons before and after program implementation are hampered by other program changes, such as stricter enforcement of injury-reporting requirements. Between-state and state-national comparisons are hampered by differences such as the following:

- the number and nature of high-risk occupations and employment in these occupations,
- experience and age of the work populations (a younger, less experienced work force usually has a higher injury rate than a more experienced one), and
- state workers' compensation rules (more lenient ones may encourage employees to be absent from work).

Conclusion

OSHA has identified safety and health programs as an effective way to improve worksite safety and health. OSHA has also made comprehensive safety and health programs voluntary, however, rather than mandatory for

employers. It has chosen to require hazard-prevention plans only for specific recognized hazards, such as hazardous chemicals, rather than to require employers to have hazard prevention plans that comprehensively address all hazards at the workplace. At the same time, OSHA has not collected additional information about implementation of comprehensive safety and health programs or their impact; OSHA has also not determined what the additional cost or impact of a comprehensive requirement for safety and health programs would be, given the number of employers who are already required to develop prevention plans for specific hazards.

We concur with OSHA's assessment of the value of comprehensive safety and health programs and, as requested, we considered whether they should be required of all employers. We conclude that it is difficult, at this time, to recommend requiring all employers to have such programs, given the limitations in the quantitative data on program impact and the lack of certainty about the burden such a requirement would pose. Where the risk of injury or illness is high, however, consideration should be given to requiring employers to have these programs—even if there is some uncertainty about the likely burden—because the potential number of lives saved or injuries and illnesses averted is high.

At the same time, OSHA should take steps to obtain the information necessary to decide to what other groups of employers, if any, this requirement should be extended. This information, about both impact and implementation, could come from one or more of the following: (1) employers who voluntarily implement these programs, (2) employers already required by states to have safety and health programs, or (3) high-risk employers who would establish these programs in response to a new requirement that they do so. Special attention should be given to comparing the additional difficulty of having a comprehensive safety and health program with the existing difficulty of complying with the requirement for multiple prevention programs relating to specific hazards. In addition, OSHA should assess whether a single comprehensive program at the worksite, rather than multiple separate hazard-prevention plans, might increase management's effectiveness in protecting safety and health, while streamlining its efforts and reducing the compliance burden.

Title I of H. R. 3160 and S. 1622 is similar to what we believe is needed. The primary difference is that we believe it would be better to place the requirement for safety and health programs on high-risk employers, as defined by OSHA—with OSHA conducting specific studies to determine additional groups to which the requirement should be extended—rather

than to place it on all employers—with OSHA allowed to exclude certain classes of employers.

Matter for Consideration by the Congress

The Congress may wish to consider passing legislation that would require high-risk employers to have comprehensive safety and health programs. OSHA could define employers as high risk on the basis of (1) high rates of injuries and illnesses at their worksites or in their industries and (2) a past history of significant safety or health violations at their worksites or in their industries.

Recommendation

We recommend that the Congress require that OSHA (1) develop and implement evaluation procedures to determine what groups of employers should be required to have comprehensive safety and health programs and (2) place the safety and health program requirement on those groups of employers, as indicated by OSHA studies. These studies should also address the possibility of substituting a requirement for comprehensive safety and health programs in place of multiple prevention plans addressing specific hazards. If the Congress chooses to pass legislation that would require these programs of high-risk employers, then these studies would address the other groups of employers, if any, to which the requirement should be extended. Alternatively, the Congress could require that these studies include high-risk employers, and wait for the conclusion of the studies to decide whether to place this requirement on them.

Agency Comments

OSHA agreed that the available data are insufficient to impose on all employers a requirement for comprehensive worksite safety and health programs. OSHA also agreed that for specific high-risk employers, written safety and health programs can play an important role in reducing workplace safety and health hazards.

OSHA disagreed with our position that the Congress should consider legislating such a requirement for high-risk employers because, it said, the Occupational Safety and Health Act gives OSHA the flexibility to apply this requirement in situations that clearly warrant it. OSHA does not believe such additional regulation is needed. In view of OSHA's position, we believe the Congress should consider the matter we have outlined.

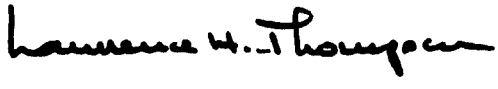
In addition, OSHA said it was concerned that a legislative mandate would reduce its flexibility to tailor programs to specific activities and force it to

mandate written programs in inappropriate situations. We disagree that OSHA would be forced to mandate programs inappropriately. In fact, we suggest that the responsibility of defining high-risk employers be left with OSHA, and we describe the kinds of data that OSHA might find useful in doing so.

Finally, OSHA noted that it has already begun evaluations of worksite safety and health programs in the states that require such programs. Should the Congress act on our recommendation to require OSHA to assess which employers, in addition to high-risk ones, should be required to have safety and health programs, then OSHA could use its ongoing evaluations as a starting point for the required studies. (Labor's comment letter is shown in appendix VII.)

We are sending copies of this report to the Secretary of Labor and other interested parties. Copies will also be made available to others on request. This report was prepared under the direction of Linda G. Morra, who may be reached on (202) 512-7014 if you or your staff have any questions about this report. Other major contributors are listed in appendix VIII.

Sincerely yours,



Lawrence H. Thompson
Assistant Comptroller General

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Table 1: State Requirements for Comprehensive Worksite Safety and Health Programs 5

Abbreviations

AFL-CIO	American Federation of Labor and Congress of Industrial Organizations
NLRB	National Labor Relations Board
OSHA	Occupational Safety and Health Administration
VPP	Voluntary Protection Programs

Costs of Injuries and Illnesses

The total costs to employers for work-related injuries and illnesses consist of both direct and indirect costs. Direct costs include medical and insurance compensation costs for an employee's injury. Indirect costs include repairing buildings, tools, or equipment; replacing damaged products or materials; making up for losses from production delays and interruptions; replacing and retraining injured employees; and investigating accidents.

Estimates of the indirect costs of an injury range from 4 to 17 times the direct costs. In 1988, the total direct and indirect costs of a lost workday injury, the National Safety Council estimated, were $26,200. For every $1 in medical or insurance compensation costs for an employee injury, a noted safety and health management expert estimated, $5 to $50 more will be spent on repairing equipment, replacing damaged products or material, and making up for production delays; an additional $1 to $3 will be spent on hiring and training replacement staff and investigating the accident.

Beyond these direct and indirect costs to employers, there are other hidden costs associated with injuries. Some of these costs are largely borne by society and employees. These include economic insecurity (for example, lost wages), as well as pain and suffering. The cost to employers is further limited because workers' compensation programs generally preclude suits for injuries sustained on the job. In addition, a significant part of the costs of occupational injuries is borne collectively by all employers in workers' compensation programs rather than directly by individual employers. All insurance spreads losses; thus, the employer does not bear the full cost of an occupational injury unless he or she is self-insured or pays premiums that are directly tied to the injury.

Scope and Methodology

The basis for Senator Claiborne Pell's request and the premise on which we designed our current report is outlined in two 1990 reports: (1) Occupational Safety & Health: Options for Improving Safety and Health in the Workplace[1] and (2) Occupational Safety & Health: Inspectors' Opinions on Improving OSHA Effectiveness.[2] In the former, based on discussions with a broad range of occupational safety and health experts—including those in management, labor, academia, business associations—we suggested that required safety and health programs could have a positive impact on safety and health. In the latter, based on a survey of a representative sample of OSHA inspection officials, we reported that an overwhelming majority (94 percent of those surveyed) thought that high-risk industries should be required to implement safety and health programs. Over half of those surveyed believed such programs should be required in general industry as well.

Our review focused on the following:

- examining worksite safety and health programs in those states that currently require them, including detailed case studies in Washington and Oregon;
- examining the experience of employers who have voluntarily implemented worksite programs;
- obtaining documentation of the views of a broad range of people on the benefits and potential difficulties associated with implementation of worksite programs;
- analyzing occupational injury and illness statistics; and
- examining OSHA efforts to encourage development of comprehensive worksite programs and regulations requiring prevention programs for specific hazards.

Through information provided by OSHA and follow-up telephone calls, we identified six states that require comprehensive worksite safety and health programs of some or all employers. In four of these six states, we (1) obtained documentation of worksite safety and health program requirements and (2) discussed specific aspects of enforcement and implementation strategies with state administrators. We conducted detailed case studies of the implementation experience in two of the six states, including examination of injury and illness statistics and inspection

[1](GAO/HRD-90-66BR, Aug. 24, 1990).

[2](GAO/HRD-91-9FS, Nov. 14, 1990).

records, document reviews, and interviews with state administrators.[3] In Washington, we met with eight employers judgmentally selected to represent large-sized and small-sized employers, with good and bad inspection histories, in construction, manufacturing, and service sectors. In addition, we met with union officials representing employees at a large aircraft and avionics worksite.

Our data on the employers' voluntary implementation experience came from two sources:

- First, we obtained detailed information about three employers that have voluntarily implemented these programs. These included a chemical manufacturer participating in OSHA's VPP, a large food service and hotel chain, and a highly diversified large-sized employer involved in activities ranging from chemical manufacturing to production and sale of sophisticated medical testing equipment. We examined how these employers have implemented these programs and what the impact of implementation has been. We did this through discussions and analysis of data—injury, illness, and workers' compensation—the employers provided to us.
- Second, we attended a training session offered by OSHA on its voluntary guidelines for the implementation of safety and health programs. We spoke with industry representatives attending this session to determine their views on implementing safety and health programs as outlined in the voluntary guidelines. Employers represented at these sessions were from about 20 different medium-sized and large-sized firms in the construction, manufacturing, and service industries.

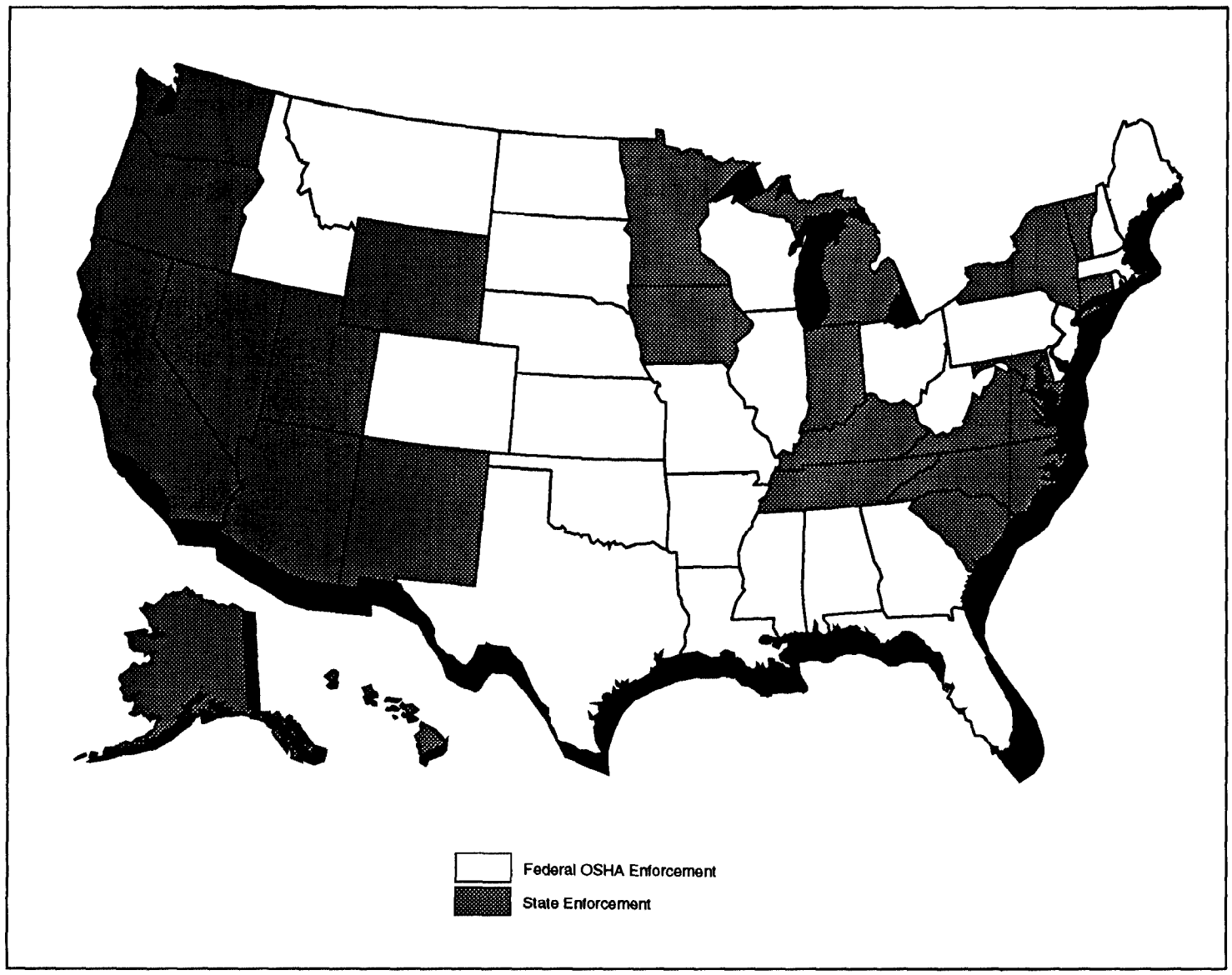
To gain a better perspective on the potential problems encountered in implementing such programs and the general view of the effects of such programs, we analyzed the public record comments provided by a wide range of people. This group represented the business and labor communities, individual employers, enforcement agency officials, and academic researchers. In particular, we analyzed over 100 sets of comments, submitted in writing and presented in testimony for hearings held in response to federal and state proposals to require worksite programs. This analysis included review of (1) the entire public record in the states of California and Oregon and (2) the public record for OSHA's voluntary guidelines on worksite safety and health programs, available at the time of our review. Furthermore, we reviewed testimony and

[3]We selected Oregon and Washington for more detailed review because they were two of the four states in which the program requirement has existed for more than 8 years. We also considered them more similar to other states than are Alaska and Hawaii, the other two of the four.

submissions for the public record and attended hearings held in both the House and the Senate on H. R. 3160 and S. 1622 (Comprehensive Occupational Safety and Health Reform Act), which would require employers to implement worksite safety and health programs.

We did our review between December 1990 and August 1991 in accordance with generally accepted government auditing standards.

Distribution of States Under Federal OSHA and Those With State-Operated Safety and Health Programs, 1991



Note: New York and Connecticut only have Public Sector Programs.

OSHA Guidelines for Comprehensive Safety and Health Programs

In January 1989, OSHA issued guidance on worksite safety and health programs for employers' voluntary use. These guidelines describe comprehensive safety and health programs in which employers inspect their own worksites and correct hazards they find in order to effectively reduce accidents and injuries. OSHA stated that its representatives had noted a strong correlation between sound management practices in the operation of safety and health programs and a low incidence of occupational injuries and illnesses.

OSHA stressed in its guidelines that effective safety and health programs are built on strong management commitment to the allocation of resources for (1) worksite hazard analysis, (2) development of hazard prevention and control plans, (3) safety and health training and education, and (4) employee involvement in development and implementation of these programs. OSHA defined these elements and outlined the basic actions that corporate management can take to implement an effective safety and health management system.

OSHA states that management commitment is reflected by management's

- clearly outlining goals and policies for its worksite safety and health programs,
- providing visible top-management involvement in the programs,
- encouraging employee participation in the structure and operation of the programs,
- assigning and communicating responsibility and accountability for all aspects of the programs,
- dedicating resources so that assigned responsibilities can be met, and
- evaluating program operations annually, at least.

Worksite analyses are defined in the guidelines as including

- comprehensive worksite surveys as baselines for safety and health;
- analysis of planned and new facilities, processes, materials, and equipment; and
- routine analysis of job hazards, including investigation of accidents and near-misses, as well as analysis of injury and illness data.

OSHA suggests in the guidelines that hazard prevention and control can be achieved through a variety of means including

- engineering techniques;
- establishing procedures for safe work;
- providing employees with personal protective equipment;
- planning, preparing, and training employees for emergencies; and
- establishing on-site medical programs and coordinating these with local physicians and emergency medical care.

Finally, in the guidelines, OSHA reinforces the importance of safety and health training to ensure that managers and employees understand their roles and responsibilities in maintaining a safe worksite and in following the necessary policies and procedures.

Employee Involvement in Safety and Health Committees

During the course of our review, two issues arose concerning the participation of employees in safety and health committees. Management and labor representatives, commenting in the public record on federal and state initiatives to require safety and health programs and committees, raised concerns about (1) how to select employee representatives to safety and health committees and (2) the potential liability faced by members of safety and health committees.

Employee Selection for Safety and Health Committees

Management expressed concerns that in electing representatives to safety and health committees, managers could find themselves in violation of section 8(a)(2) of the National Labor Relations Act. This provision prohibits the creation of employer-dominated unions, and could affect both union and nonunion facilities.

In states where safety and health committees are required for some or all employers (Alaska, Oregon, and Washington), selection of employee members differed depending on whether the worksite was union or nonunion. Compliance with safety and health committee provisions, however, has been high at both union and nonunion worksites—in 1990, over 95 percent compliance in Oregon and over 98 percent in Washington. Employees at unionized worksites are usually elected through their union locals, by their peers. At nonunionized sites, employees either volunteer or are chosen by their peers in elections held by management.

State officials were unaware, they said, of any litigation arising out of this election process. Nevertheless, some uncertainty still exists about the legality of forming safety and health committees. In a case currently pending decision before the National Labor Relations Board (NLRB),[1] the establishment of "action committees" by an Indiana employer has been challenged under section 8(a)(2) of the National Labor Relations Act. The interpretation of this provision by the NLRB may be significant to the future of collaborative labor-management committees and employers' willingness to establish such committees.

Employee Liability

The three states requiring safety and health committees have addressed the concern of employee liability by legislatively defining the employee's role as advisory and affirming that management is ultimately responsible for ensuring a safe and healthy worksite. The collective bargaining agreements of the American Federation of Labor and Congress of

[1]NLRB case no. 25-CA-19818.

Industrial Organizations (AFL-CIO), as well as United Mine Workers, specify that the employees' role is to participate in safety and health issues, union officials said, but not to be responsible for them. Washington and Oregon officials were unaware of any liability problems encountered by employers who have established safety and health committees under the provisions of state laws.

Programs Perceived to Have Positive Effects but Data Inconclusive

Many representatives of enforcement agencies, as well as industry and labor officials, perceive safety and health programs as having positive effects. In addition, some statistical data suggest that these programs have led to improvement in safety and health. This information comes from several sources: (1) the injury and illness records of employers—both those who implemented the programs voluntarily and those that did so when required by state-operated safety and health programs, (2) the opinions of a wide range of organizations and individuals, provided through public comment and a GAO survey, and (3) observations of enforcement officials from state agencies. We were, however, unable to quantify program impact on injuries and illnesses.

Employers With Voluntarily Implemented Programs Have Fewer Injuries and Illnesses

A number of employers, independent of any specific OSHA or state requirement, have voluntarily implemented worksite safety and health programs; some are part of OSHA's Voluntary Protection Programs (VPP) and some are not. Employers with these voluntary programs have lower injury and illness rates than employers without them. The voluntary employers attribute these rates to their safety and health programs.[1] It could be argued, however, that the voluntary employers may be exemplary to begin with and may, before they implemented the programs, have had lower-than-average injury rates.

Experience with OSHA's VPP suggests that effective programs can lead to improvements in the safety and health of a company. OSHA's requirement for accepting an employer into VPP is, essentially, that the employer have implemented the voluntary guidelines for safety and health programs. The approval process includes VPP staff's conducting inspections to determine management commitment, employee involvement, the adequacy of worksite hazard identification as well as of plans to implement controls, and the training and education programs in place to support the safety and health programs. Staff use the criteria outlined in OSHA's voluntary guidelines to make judgments about program quality.

On average, worksites that have received the highest level of VPP approval ("Star") have experienced injury incidence rates significantly less than the averages for worksites across the nation in this industry.[2] In 1990 (as in

[1]Some of these employers also believe that worksite programs (1) improve labor-management relations and employee morale, (2) contribute to corporate savings, and (3) improve productivity.

[2]Star worksites have comprehensive, successful safety and health programs. "Merit" worksites do not meet Star qualifications, but demonstrate the commitment and potential to achieve this status. In 1990, 60 worksites had achieved Star status; 11 were in the Merit category.

each of the last 5 years), the average Star worksite injury rate was roughly one-third that of the average, nationally, for this industry.

The experience of Mobil Chemical Company, which decided to participate in the VPP in 1982, illustrates the benefits of worksite safety and health programs. Progress in safety and health, as a result of the worksite program, has improved, company officials said. In 1983, OSHA approved Mobil's first worksites for VPP Star status. From 1983 to 1987, Mobil achieved VPP Star status for 21 of its worksites. From 1980 to 1982, Mobil's injury incidence rate, on average, was 3.9 for 100 employees, with a range between 3.5 and 4.1. During the 8 years of VPP participation, the average for the injury rate fell to 2.4 for 100 employees, with a range from 1.8 to 3.3.

Before the VPP, Mobil's average rate for lost workday cases because of injuries was 1.7 for 100 employees, with a range from 1.2 to 2.0.[3] In the 8 years, from 1983 to 1990, of VPP participation, the average lost workday case rate was 0.8, with a range from 0.5 to 1.2.

The company's improved injury record, Mobil officials said, was accompanied by several other benefits. These included (1) savings in workers' compensation costs, (2) increased employee morale and productivity, (3) increased competitiveness in the market, and (4) an improved image in the surrounding community.

Another VPP company illustrates the contribution of safety and health programs to profitability. A company with two large nuclear power plant construction worksites reduced the injury incidence rate to roughly one-third of the national average for the construction industry. For every $1.00 invested in the safety and health program, the employer reported in 1986, the company earned $4.26. The employer attributed these earnings to (1) reduction in accidents because of systematic inspections, (2) decreased medical costs because of a comprehensive on-site medical program, and (3) a decrease in workers' compensation premiums.

The experience of the DuPont Company also illustrates the positive impact of safety and health programs. The DuPont Company has been committed to effective management of safety and health programs. These programs, an official said, make good business sense. In 1987, DuPont estimated, savings of over $19.2 million were realized because injuries occurred at a

[3]The lost workday case rate is the number of cases, for 100 full-time workers, in which a worker lost 1 or more days of work or had restricted work activity as a result of an injury.

significantly lower rate than the industry average. DuPont believes employee involvement increases employees' awareness of safety and health, and the company considers it the key to successful safety and health programs.

DuPont markets safety and health services to companies interested in improvement. These services include safety and health program evaluation; implementation assistance; and training for management, supervisors, and employees. DuPont's consulting service clients total about 350; they are typically medium-sized to large-sized companies in a variety of industries, including manufacturing, petrochemical, utilities, and transportation. DuPont monitors its clients' progress; the average client, DuPont estimates, reduces injury rates by almost 60 percent in 3 years and by as much as 90 percent in 5 years. For example, in 1 year, a large transportation company significantly reduced injuries by 55 percent and lost workdays by 67 percent following safety and health program assistance, as reported by DuPont.

Positive Views About Safety and Health Programs

OSHA states, in its published voluntary guidelines, that a strong relationship exists between effective safety and health management practices and a low incidence of injuries and illnesses. We found this view also expressed in (1) comments for the public record provided at hearings and in response to requests for such comments by OSHA and the Oregon and California state-operated safety and health programs and (2) responses by OSHA inspectors to a survey conducted by GAO.

When OSHA requested comments, for the public record, on the guidelines for safety and health programs, 68 individuals and organizations, representing industry, labor, and professional associations, responded. Our analysis of these comments showed that rather than questioning the value of these programs, the respondents had concerns about implementation issues, such as cost of setting up the programs. We found similar views expressed in our analysis of comments for the public record submitted at hearings in California and Oregon.

Over 90 percent of the inspectors, we found in a GAO survey,[4] also viewed required safety and health programs as having positive effects on safety and health. When we asked about which employers should be required to have these programs, 90 percent said they should be required of both

[4]For a description of the methodology and other results of this survey, see Occupational Safety & Health: Inspectors' Opinions on Improving OSHA Effectiveness (GAO/HRD-91-9FS, Nov. 14, 1990).

repeat violators and employers in high-risk industries. These should be required for all employers, 63 percent said, regardless of size, industry category, and history of injury and illness rates.

Inconclusive Data on Required Safety and Health Programs

The states that require worksite safety and health programs have done so because they are convinced of the value of these programs, both to the employer and the employee. State officials cited injury incidence rates, fatality rates, and workers' compensation rates that had significantly improved at individual worksites and in statewide statistics; officials attributed these improvements, in part, to their safety and health program requirements. Some other statistics, however, do not support such a conclusion.

Washington state officials gave several examples of reductions in workers' compensation rates, which they attribute to the required programs. These include the following:

- In 1988, a construction employer with more than 350 employees received a refund of over 90 percent in workers' compensation premiums because of (1) the company's commitment to safety and health and (2) dramatic reductions in its injury incidence rates.
- In 1989, a small logging company with a low accident rate saved about $120,000 in premiums over the average premium rate for the industry.
- An egg farmer reduced workers' compensation premiums by over 75 percent when the state consultants helped the farmer to develop safety and health programs that emphasized management commitment.

The kind of statewide statistics used to support the impact of these programs on injuries and illnesses included the following:

- In Alaska, where programs have been required since 1973, the incidence of workplace injuries and illnesses decreased 16 percent between 1973 and 1989, from 14.7 to 12.3 for 100 employees.
- In Hawaii, in the 5 years preceding implementation of the program requirement in 1983, the average lost workday incidence rate was 6.1, with a range from 5.8 to 6.3. During the 6 years following implementation of the requirement, the average rate was 5.3, with a range from 5.0 to 5.7.
- In Oregon, logging companies have been required to have safety and health programs since 1980: statewide, the incidence of logging industry cases—in which an injury or illness led to a lost workday (lost workday

case rate)—dropped almost 15 percent between 1980 and 1989, from 16.2 to 13.8 for 100 employees.

Statewide statistics such as these suggest the positive impact of safety and health programs, but other statistics do not support that conclusion. For example, the lost workday case rate from injuries and illnesses increased in Alaska between 1973 and 1989, from 5.6 to 5.9, even though the incidence of injuries and illnesses decreased. But the lost workday case rate increased even more steeply nationwide than it did in Alaska—from 3.4 in 1973 to 4.0 in 1989. And in Hawaii, the lost workday rate went up in 1989 to 6.2 after 6 years of lower rates.

There are difficulties in looking to statewide statistics to quantify the impact of safety and health programs, whether (1) comparing before and after implementation of required programs in the same state, (2) comparing a state that has required programs with another state that does not have required programs, or (3) comparing a state that has required programs with nationwide statistics. For example, in making before and after comparisons, drawing conclusions is hampered by other program changes, such as stricter enforcement of injury-reporting requirements, which may make the number of reported injuries increase. Within-state or state-national comparisons are hampered by differences such as the following:

- the number and nature of high-risk occupations and employment in these occupations;
- experience and age of the work populations (a younger, less experienced work force usually has a higher injury rate than a more experienced one); and
- state workers' compensation rules (more lenient ones may encourage employees to be absent from work).

Comments From the Department of Labor

U.S. Department of Labor

Assistant Secretary for
Occupational Safety and Health
Washington, D.C. 20210

MAR 23 1992

Mr. Lawrence H. Thompson
Assistant Comptroller General
Human Resources Division
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Washington, D.C. 20548

Dear Mr. Thompson:

Thank you for your letter of February 21, addressed to Secretary of Labor Lynn Martin, in which you requested comments on the General Accounting Office (GAO) draft report entitled, Occupational Safety and Health: Worksite Safety and Health Programs Show Promise.

The objective of this study was to "assess whether all employers should be required to implement comprehensive safety and health programs as an additional way to identify and correct safety and health problems in workplaces." Your report reviews the issue of mandating worksite safety and health programs, as well as the difficulties in measuring the impact of such provisions.

We believe that your report demonstrates that it would be unreasonable, given current data, to impose a comprehensive legislative requirement for all employers. OSHA has long maintained that, for certain standards or specific high-hazard employers, a requirement for a written safety and health program can play an important role in reducing workplace safety and health hazards. OSHA actively implements this policy through promulgation and enforcement of provisions requiring written safety and health programs in certain standards, including the Hazard Communication Standard and the recently promulgated Process Safety Management Standard. OSHA also makes a management commitment to establishing effective written safety and health programs as part of many settlement agreements with employers which the Agency has cited for egregious violations. We believe that this policy is fully justified in these cases.

We continue to believe, however, that there is insufficient data to justify application of this policy to all employers. That conclusion is borne out by your report, which states on page 15, "We conclude that limitations in the quantitative data on the program's impact and the lack of certainty about the burden such a requirement would pose make it difficult at this time for us to recommend requiring all employers to have such programs."

Appendix VI of your report describes the difficulties involved in drawing conclusions based on injury/illness data in States which now have mandatory worksite safety and health program provisions.

OSHA has been able to implement its targeted worksite safety and health program policy under the existing provisions of the Occupational Safety and Health Act of 1970. The OSH Act gives OSHA the flexibility to apply the policy in situations which clearly warrant the requirement for a written safety and health program. We do not believe that any additional legislation is needed to implement this policy. We are concerned that a statutory requirement might reduce OSHA flexibility to effectively tailor programs to specific activities and force us to mandate written programs in inappropriate situations, thus adding to employer costs without commensurate improvements in workplace safety and health.

With respect to your suggestion that OSHA should take specific steps to obtain information on the impact of written safety and health programs, we have begun collecting some information along these lines. For example, our Voluntary Protection Program reviews indicate that benefits have accrued to those employers who have made a strong management commitment to implement such programs. More recently we directed OSHA's Office of Program Evaluation to undertake a review of the requirements and experiences of State plan states. We plan to use the results of these reviews to further evaluate the mandating of written safety and health programs, and their application to high-hazard employers.

Thank you for the opportunity to comment on your report. If you have any questions, please let us know.

Sincerely,

D. L. Strunk

Dorothy L. Strunk
Acting Assistant Secretary

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Related GAO Products

Occupational Safety & Health: OSHA Action Needed to Improve Compliance With Hazard Communication Standard (GAO/HRD-92-8, Nov. 26, 1991).

Occupational Safety & Health: Worksite Programs and Committees (GAO/T-HRD-92-9, Nov. 5, 1991).

Managing Workplace Safety & Health in the Petrochemical Industry (GAO/T-HRD-92-1, Oct. 2, 1991).

Occupational Safety & Health: OSHA Policy Changes Needed to Confirm That Employers Abate Serious Hazards (GAO/HRD-91-35, May 8, 1991).

Occupational Safety & Health: Inspectors' Opinions on Improving OSHA Effectiveness (GAO/HRD-91-9FS, Nov. 14, 1990).

Occupational Safety & Health: Options for Improving Safety and Health in the Workplace (GAO/HRD-90-66BR, Aug. 24, 1990).

How Well Does OSHA Protect Workers From Reprisals: Inspector Opinions (GAO/T-HRD-90-8, Nov. 16, 1989).

Occupational Safety & Health: Assuring Accuracy in Employer Injury and Illness Records (GAO/HRD-89-23, Dec. 30, 1988).

OSHA's Monitoring and Evaluation of State Programs (GAO/T-HRD-88-13, Apr. 20, 1988).

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