

GAO

Testimony

For Release  
on Delivery  
Expected at  
9:30 a.m. EDT  
Wednesday  
October 2, 1991

Managing Workplace Safety and  
Health in the Petrochemical Industry

Statement of  
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Before the  
Subcommittee on Employment and Housing  
Committee on Government Operations  
House of Representatives





Summary of GAO Testimony by Franklin Frazier  
on Managing Workplace Safety and Health in  
the Petrochemical Industry

GAO reviewed the John Gray Institute (JGI) study of safety and health in the petrochemical industry. GAO believes that two of JGI's recommendations were consistent with observations GAO has made based on its own work. Those recommendations were (1) improving the collection of data on injuries and illnesses and their causes and (2) requiring labor-management safety and health committees at all worksites.

**Improving Data Collection.** JGI recommended that OSHA require plants to collect and record injury and illness data for all workers at the worksite, including contract workers. JGI also recommended that employers collect information that gives clues about the root causes of accidents and that OSHA encourage managers and employees to use this information to prevent and continuously monitor safety improvements.

GAO believes that combining injury and illness statistics for direct-hire and contract employees on a worksite basis would enhance OSHA's enforcement efforts in two ways. First, combining the data would provide a better picture of the extent of problems in industries that have a large proportion of work done by contractors. Second, if employers reported these combined statistics for individual worksites to OSHA, OSHA could better target its inspections to hazardous worksites, not just to hazardous industries. GAO also agrees with the JGI study on the importance of information about the likely causes of injuries and illnesses.

**Safety and Health Committees and Programs.** JGI recommended that OSHA require all petrochemical worksites to establish joint labor-management safety and health committees that would include contract workers. GAO believes that increasing the active involvement of employers and workers, rather than relying on OSHA's enforcement efforts alone, would result in improvements in workplace safety and health. In a previous report, GAO identified options for increasing employer and worker involvement, including requiring joint labor-management safety and health committees.

Another option was to require employers, in keeping with their statutory responsibility to provide workplaces free of safety and health hazards, to establish comprehensive safety and health management systems (also known as safety and health programs). Employee involvement is an important part of such programs, as is management's commitment to allocate resources for analysis of hazards at the worksite, development of hazard prevention and control plans, and safety and health training for employees. Preliminary results of a GAO study indicate that (1) safety and health programs represent a useful way to extend enforcement agencies' limited resources, (2) can be implemented successfully by employers when they are required to do so, and (3) appear to have a positive impact on work-related injuries and illnesses.



Mr. Chairman and Members of the Subcommittee:

I am pleased to be here today to present our observations about ways to improve the safety and health of workers in the U.S. petrochemical industry. We understand that the scope of these hearings encompasses all of OSHA's efforts to improve conditions for workers--both direct-hire and contract workers--in this industry.<sup>1</sup> My remarks are based primarily on our review of the John Gray Institute (JGI) study on this topic, as well as our past work.

At your request, we have been monitoring the progress of JGI's research. We have done this primarily through attendance at steering committee meetings and review of JGI's draft reports. In correspondence to the Assistant Secretary for Occupational Safety and Health, we commented on JGI's draft report on the plant managers survey, and we have given your staff periodic briefings on the study's progress.

I will focus my comments today on two important recommendations in the study: (1) improving the collection of data on accidents, injuries, and illnesses and their causes and (2) requiring labor-management safety and health committees at all worksites. JGI's conclusion that changes are needed in both of these areas is consistent with our own observations. For example, in our report, Occupational Safety and Health: Options for Improving Safety and Health in the Workplace (GAO/HRD-90-66BR), we noted the importance of (1) better information to target inspections and thus increase the deterrent effect of OSHA's enforcement efforts and (2) increased involvement of employers and workers in improving workplace safety and health.

#### Improved Data Collection

The JGI study recommended that OSHA work with management and labor to "create a collaborative, comprehensive, proactive data collection system." Such a system would have two general features. First, OSHA would require plants to collect and record site-specific injury and illness data for all workers on site, including contract workers. Contract workers' work-related injuries and illness are currently recorded and reported only by their employers, that is, by contractor, rather than by location where they work. Second, JGI recommended that employers also collect information that gives clues about the root causes of accidents. An example would be descriptions of incidents that

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<sup>1</sup> Direct-hire workers are those employed by the primary employer at a worksite. Contract workers are those employed by a company that has a contract to perform specific work at the primary employer's worksite.

almost resulted in injuries or release of hazardous substances ("near miss events"). JGI recommended, as well, that OSHA encourage managers and employees to use this information to prevent and continuously monitor safety improvements.

We agree that OSHA's enforcement procedures would be improved by the use of site-specific data. Except for inspections conducted in response to specific fatalities, catastrophes, and complaints, OSHA targets inspections to industries it considers most hazardous rather than to individual worksites. Data limitations hamper these targeting efforts for all industries, but they are especially problematic for industries that heavily use contractors.

In the manufacturing sector, safety inspections are targeted to high-hazard industries on the basis of injury rates found in the Bureau of Labor Statistics (BLS) annual occupational safety and health survey. There are problems with use of this survey in all industries. These include employers' underreporting and time lags between collection and availability of data. In an industry such as petrochemicals, there is the added problem of the statistics not counting injuries experienced by contract employees while at petrochemical plants. Instead, injuries reported by the contract employer get counted in the BLS survey in other industries, such as construction. Based on the BLS survey, the petrochemical industry is not classified as a high hazard industry, because this industry's lost work day injury rate is lower than the average for all industries together.<sup>2</sup> Yet it is likely that its lost work day injury rate would be higher if all injuries that occur at petrochemical worksites were counted.

Combining injury and illness statistics for direct-hire and contract employees on a worksite basis could enhance OSHA's enforcement efforts in two ways. First, combining the data would provide a better picture of the extent of problems in industries that have a large proportion of work done by contractors. Thus, when inspections are targeted to hazardous industries, they would be based on better information about the industries. Second, if employers reported these combined statistics for individual worksites to OSHA, OSHA could target inspections to the more hazardous ones. This would be a more efficient use of resources than the current practice of trying to inspect all worksites in hazardous industries, regardless of the worksites' specific injury and illness records. However, we recognize that, in order to prioritize its educational, rulemaking, and enforcement efforts, OSHA would still need the kind of injury and illness

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<sup>2</sup>The lost work day injury rate is the average number of injuries that required days away from work or restricted work activity per 100 full-time workers per year.

statistics it now receives. For example, it would still need to know about accidents occurring in the construction industry as a whole, regardless of the locations at which construction work was performed.

We also agree with the JGI study on the importance of information about the likely causes of injuries and illnesses. Such information facilitates analysis of inherent problems in production, procedures, and management oversight of operations and is useful both at the worksite and the industry level. This information would also be useful to OSHA in identifying the need for educational and rulemaking efforts and in targeting inspections.

**Labor-Management Safety and Health Committees  
And Comprehensive Safety and Health Programs**

The JGI study recommended that OSHA require that "effective labor-management safety and health committees" be established at each petrochemical industry worksite. The study found that over 80 percent of the plants already have such committees, and that they are an important part of an overall comprehensive safety management system. However, the study also found that contract workers rarely participate in the host plant's labor-management committee. Thus, JGI not only recommended that committee members be trained to carry out their responsibilities and that the committees have broad authority and sufficient resources but also that they include representatives from the contractor workforce.

In our 1990 report on options for improving worker safety and health, we stressed the importance of increasing the active involvement of employers and workers rather than relying on OSHA's enforcement efforts alone to improve workplace safety and health. We identified three options for increasing their involvement.

- Strengthen OSHA's inspection processes by increasing workers' participation in OSHA's walkaround inspections, settlement negotiations, and verification of hazard abatement.
- As also recommended by the JGI study, require joint labor-management safety and health committees.
- Require employers to meet their statutory responsibility for providing workplaces free of safety and health hazards by establishing comprehensive safety and health management systems (also known as safety and health programs). These programs require management commitment to allocate resources for (1) analysis of hazards at the worksite, (2) development of hazard prevention and control plans, and (3) safety and health training for employees.

Following our 1990 report, we began a study, at the request of Senator Claiborne Pell, that further explores the value of safety and health programs and committees and the desirability of OSHA's mandating them for employers. Our preliminary results indicate that safety and health programs (1) represent a useful way to extend enforcement agencies' limited resources<sup>3</sup> and (2) can be implemented successfully by employers when they are required to do so.<sup>4</sup> Although our preliminary results have not quantified the impact of these programs on work-related injuries and illnesses, we have identified some evidence of their benefits. For example,

- The 72 worksites that chose to participate in OSHA's Voluntary Protection Program (which requires comprehensive safety and health programs) all have injury and illness rates that are at least 40 percent less than the average in their industries.
- In issuing guidelines in January 1989 recommending that employers voluntarily establish safety and health programs, OSHA referred to the Voluntary Protection Program experience and other studies when it asserted that these programs have a positive effect on injuries and illnesses.
- Six states (Alaska, California, Hawaii, Minnesota, Oregon, and Washington) have become convinced of the value of these programs and require some or all of the employers in the state to have safety and health programs.<sup>5</sup> Two critical components of all of these programs are (1) management commitment and (2) employee involvement.
- Some of these state programs report improvements in workers compensation rates, fatalities, and injury and illness rates which they attribute to the safety and health program requirement. In addition, states believe the programs and committees also provide other benefits to both employers and employees. For example, employers benefit from having

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<sup>3</sup> For example, enforcement agency officials told us that examining the minutes of safety committee meetings and talking with committee members gave them helpful information about the employer's commitment to worksite safety.

<sup>4</sup>For example, OSHA officials had questioned whether it would be difficult for employers to establish labor-management committees in non-union worksites. Yet inspectors in Washington and Oregon, where these committees are required, found less than 2 percent of the union or non-union worksites were out of compliance with this provision.

<sup>5</sup>With OSHA approval, states can operate their own safety and health program; 21 states and 2 territories currently do so.

workers report complaints to a committee as a first step, because that is a less adversarial action than requesting an OSHA inspection. And reporting hazardous work conditions to an on-site safety and health committee may result in quicker correction of the problem than does reporting the hazard to OSHA and waiting for an inspection to be done if OSHA agrees that a problem may exist.

- Opinions expressed to GAO and public comments solicited by OSHA and state safety and health programs support the value of these programs. These views come from employer and labor groups, individual employers, enforcement agency officials, and academic researchers. For example, none of the 68 individuals and groups that responded to OSHA's July 1988 Federal Register request for comment about safety and health programs questioned their value. Their only reservations about issuing voluntary guidance or requiring safety and health programs related to potential implementation problems.

The JGI recommendations regarding data collection and safety/health committees, as well as several other issues the study raises, would be addressed by requiring worksite safety and health programs. For example, the JGI study recommended that data be collected and analyzed on accidents and near misses so as to prevent serious or catastrophic events. This kind of data collection and analysis is an integral element of a worksite program. OSHA's guidelines for safety and health programs specify inspecting the facility, jobs, and operations to identify potential hazards and investigating all incidents at a worksite that might have been serious.

OSHA specifies that worksite programs should include safety and health training and education (which was addressed in another JGI recommendation). For example, programs should include training for employees on (1) their responsibilities for safety and health, (2) details of the site's hazard identification plan and the management system in place to implement this plan, (3) inherent hazards of specific operations, and (4) ways to abate and control such hazards.

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The JGI study has been helpful in highlighting safety concerns in the petrochemical industry. The study's recommendations with respect to data collection and labor-management involvement in workplace safety and health are steps that could bring about needed improvements. We look forward to the benefits that can be achieved from active consideration by OSHA, industry and labor of these issues.

That concludes my statement, Mr. Chairman. I would be happy to respond to any questions at this time.