

OCCUPATIONAL SAFETY AND HEALTH ACT COMPLIANCE AT DEPARTMENT OF ENERGY FACILITIES: A CASE STUDY OF 29 C.F.R. 1910.120 COMPLIANCE AT THE ROCKY FLATS PLANT

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ABSTRACT

On May 5, 1993, the Secretary of Energy announced initiatives that reemphasize the Department of Energy's commitment to occupational safety and health. In an effort to sustain this commitment, the Department of Energy Rocky Flats Office formed a Working Group to assess the adequacy of the occupational safety and health program at the Rocky Flats Plant. The first review by the Working Group concentrated on compliance with the Occupational Safety and Health Act implementing regulation for hazardous waste operations and emergency response - 29 CFR 1910.120.

The Working Group identified inconsistencies throughout the Department and its maintenance and operating contractor regarding compliance with 29 CFR 1910.120. For example, inconsistencies exist in the management of 1910.120 compliance within environmental restoration, waste management, and construction areas of work. Furthermore, the organizational infrastructure of the Department is different to its contractors, regarding health and safety professionals. Consequently, accountability for health and safety compliance issues is a problem. The Working Group noted other concerns and provided recommendations to appropriate personnel to enhance the Department's effort to comply with the Occupational Safety and Health Act, and foremost to prevent occupational injuries and illnesses.

INTRODUCTION

During the 1970's, Congress enacted several laws that were intended to protect the public and environment. Congress has regularly updated and strengthened most of these laws. For example, the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), which govern the management and cleanup of hazardous waste. This is not true of the Occupational Safety and Health Act (OSHA), which is intended to protect the worker's environment. Not only has the OSHA itself been neglected, but the enforcement agency, the Department of Labor's Occupational Safety and Health Administration (OSHA) has been neglected as well. Inadequate funding and staffing plagues the agency. Consider Fig. 1 and Fig. 2, which compare the OSHA's budget and staffing to that of the Environmental Protection Agency (EPA).

Although the disparity in budget and staffing between the two agencies may be rationalized somewhat by the number of different statutes under the EPA's jurisdiction, the caliber of the disparity seems unreasonable. Particularly when considering that 2000 OSHA inspectors safeguard 88 million workers in the nation's six million worksites.*

In addition to differences in budget and staffing, the penalties assessed for violations of the two agencies' laws differ dramatically. OSHA's average penalty per enforcement is \$2,863 - the EPA's is \$51,329.** This contrast parallels the contrast in Figs. 1 and 2. Perhaps, if the OSHA had a greater budget and more manpower, then it could better enforce its regulations. A prime example of both agencies enforcement

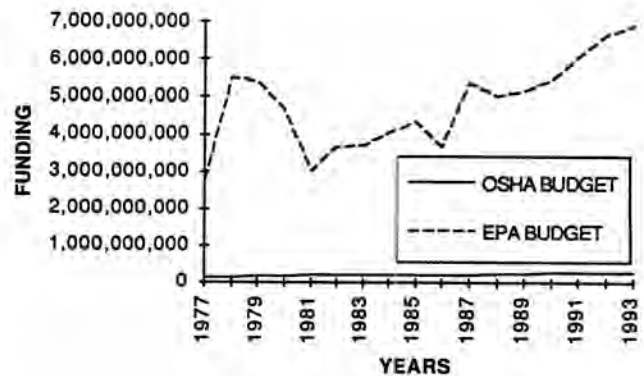


Fig. 1. OSHA versus EPA budget. (AFL-CIO Report pg. 11)

power is the Protex Industries case, whereby the EPA won a lawsuit against Protex. Protex had to pay a \$7.63 million criminal fine for knowingly endangering its workers. The OSHA assessed a civil fine of \$720 dollars for the same condition.

These enforcement inconsistencies enable compliance efforts to be based on something other than worker safety. For example, if a contractor has limited resources available to comply with the RCRA, CERCLA, and OSHA provisions, then the contractor confronted with a potential multimillion dollar penalty for noncompliance with a RCRA or CERCLA regulation versus \$70,000 from OSHA, will likely choose to comply with the former. The compliance priority chain appears to be dictated by the risk of administrative, civil or criminal penalties - not risk to the worker. The fallacy of this

* GAO Report, December 1992, pg. 6.

** AFL-CIO Report pg. 11

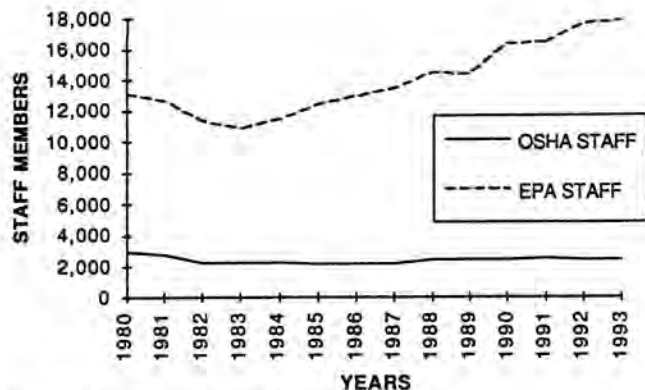


Fig. 2. OSHA versus EPA staff members.
(AFL-CIO Report pg. 11)
(AFL-CIO Report pg. 12)

priority chain is that each year, an estimated 1.7 million injuries occur that disable a worker and 390,000 new cases of occupational diseases are identified. In addition, 10,500 workers die each year from on-the-job injuries, and another 100,000 workers lose their lives to work-related diseases.* When acknowledging the true costs associated with occupational safety and health injuries and illnesses, one has to wonder why worker protection rates so far below protection of the environment.

OSHA COMPLIANCE AT DEPARTMENT OF ENERGY FACILITIES

OSHA compliance continues to be a struggle at Department of Energy (DOE) facilities for several reasons. First, section 4(b)(1) of the OSHA Act provides that the Department of Labor OSHA requirements do not apply to working conditions of employees with respect to which other federal and state agencies, acting under section 274 of the Atomic Energy Act, exercise statutory authority to prescribe or enforce standards or regulations affecting occupational safety and health. Under a Memorandum of Understanding between the Department of Labor and the DOE, the DOE has authority to prescribe and enforce occupational safety and health requirements for its contractor employees. In regards to federal employees, the DOE concedes that Executive Order 12196 applies to its employees. Executive Order 12196, dated February 26, 1980, requires all Federal Agencies to comply with the OSHA substantive requirements.

A second reason for the DOE's struggle is that although the DOE requires the contractor to comply with the OSHA through its Order 5483.1A, a comprehensive occupational safety and health program with strict enforcement has yet to be implemented.** Any existing enforcement penalties relate to the contract between the DOE and its contractor for non-compliance with the contract terms. For example, contract termination and the award fee process. Due to the high cost of procuring a contractor and the time required for replacement, the DOE is reluctant to terminate a contract. Conse-

quently, the sole enforcement procedure that is used for occupational safety and health compliance is the award fee process. The award fee process is part of the cost-plus award fee contracting policy. The contractor receives a base fee and a variable award fee, 51% of which is based on performance in environment, safety, and health. The third reason for the DOE's OSHA compliance struggle is that adequate staff and resources have not been delegated to occupational safety and health.*** The need for staff and resources necessary for worker protection competes with the staff and resources necessary to meet other cleanup priorities. In fact, occupational safety and health requirements are seen as a hindrance to meeting environmental cleanup milestones.****

ROCKY FLATS PLANT DESCRIPTION AND MISSION HISTORY

The DOE Rocky Flats Plant is an example of a DOE facility trying to comply with environmental cleanup milestones and maintain the health and safety of its workers.

The Rocky Flats Plant, located 17 miles northwest of Denver, Colorado, is a government-owned, contractor-operated facility. During the Cold War, the Plant's primary mission was production of nuclear weapon components. The majority of these production operations were suspended in 1989. Subsequently, due to recent changes in global politics and the defense needs of the United States, the DOE decided not to resume production operations at Rocky Flats. The Plant is now considered an environmental restoration and waste management site. The current mission is to manage waste and materials, clean up and convert the site to beneficial use in a manner that is safe, environmentally and socially responsible, physically secure, and cost-effective. The vision of the Rocky Flats Office is to be the model facility for environmental cleanup and economic conversion with community recognition and support.

SUMMARY OF 1910.120 REVIEW

Working Group Background

In harmony with the vision to be the model cleanup facility, the Rocky Flats Office formed a Working Group to concentrate on the OSHA compliance. The Working Group consists of health and safety specialists from the Occupational Safety and Health Division at Rocky Flats and the Rocky Flats Program Office at headquarters. The first assessment by the Working Group involved the OSHA implementing regulation - 29 CFR 1910.120. The Working Group determined this was a good starting point, because 1910.120 governs the development of a site-specific health and safety plan. A well constructed health and safety plan is the cornerstone to a successful occupational health and safety program.

Overview of 29 CFR 1910.120

Section 1910.120, issued under the authority of section 126 of the Superfund Amendments and Reauthorization Act of 1986 (i.e. SARA, which amended the CERCLA), is the

* GAO Report, December 1992, pg. 27.

** GAO Report, October 21, 1993, pg. 6.

*** GAO Report, October 21, 1993, pg. 4.

**** OTA Report, pg. 51, 20.

OSHAct implementing regulation for hazardous waste operations and emergency response activities (a.k.a. HAZWOPER). An employer must comply with the requirements of section 1910.120, unless the employer can demonstrate that the operation does not involve employee exposure or the reasonable possibility for employee exposure to safety or health hazards.

One requirement of 1910.120, a written health and safety program requires at a minimum:

- a. organizational structure;
- b. comprehensive workplan;
- c. site-specific safety and health plan;
- d. safety and health training program;
- e. medical surveillance program; and
- f. employer's standard operating procedures.

A site-specific health and safety plan must contain at a minimum:

- a. safety and health risk or hazard analysis for each site task and operation in the workplan of (b) above;
- b. employee training assignments to meet requirements of 29 CFR 1910.120(e);
- c. identification of personal protective equipment to be used for each of the site tasks and operations being conducted as required by 29 CFR 1910.120(g)(5);
- d. medical surveillance to comply with 29 CFR 1910.120(f);
- e. identification of frequency and types of air monitoring, personnel monitoring, and environmental sampling techniques;
- f. site control measures required by 29 CFR 1910.120(d);
- g. decontamination procedures required by 29 CFR 1910.120(k);
- h. emergency response plan required by 29 CFR 1910.120(l);
- i. confined space entry procedures; and
- j. spill containment program required by 29 CFR 1910.120(j).

The Working Group developed an approach for the review of 29 CFR 1910.120 compliance assessment that would yield the best data so that the Working Group could evaluate the adequacy of oversight for health and safety compliance at the Rocky Flats Plant. DOE Order 5480.1B requires that field offices to conduct oversight of the contractor's compliance with the OSHAct. The Occupational Safety and Health Division at Rocky Flats monitors the contractor's compliance with the OSHAct through the Surveillance process. The Surveillance process is a review by monitoring or observing ongoing work and/or document reviews for the purpose of verifying whether an item or activity conforms to specific requirements. Due to the size of this project, the Working Group limited the review to environmental restoration activities. Waste management activities will be reviewed in a future study.

Review Procedure

The review was divided into the following selected tasks:

TASK 1:

Review all applicable laws, regulations, DOE Orders, and other governing health and safety rules;

TASK 2: Identify status of all Rocky Flats Operable Units (OU) and prepare an overall organizational chart of contractors and subcontractors regarding health and safety;

TASK 3: Analyze DOE/contractor/subcontractor health and safety contract provisions and procurement process;

TASK 4: Review overall contractor oversight role on environmental restoration projects;

TASK 5: Surveillance of several health and safety plans;

TASK 6: Surveillance of several OU activities; and

TASK 7: According to the DOE Orders, prepare and organizational chart for health and safety communication within the DOE.

Completion of these tasks took approximately five weeks, whereby the Working Group prepared a list of key concerns and provided recommendations to appropriate DOE and contractor personnel.

Key Concerns and Recommendations

In general, the Working Group concluded that the contractor's compliance with 1910.120 for environmental restoration activities needs improvement. Several key concerns and recommendations are as follows:

- a. Concern: Existing site-specific health and safety plans do not meet the requirements of 29 CFR 1910.120. Moreover, workers are at risk due to a lack of hazards identification. Recommendation: Develop one health and safety plan for DOE Complex and one site-specific for each facility. Due to the large number of tasks and operations, one site-specific health and safety plan that addresses the hazards of each task and operation would not be a workable document. Consequently, it is suggested that the contractor identify all hazards on-site for each task and operation, then compile a series of smaller, more manageable health and safety plans that may be used by each contract involved in that specific task or operation. An organized approach to safety and health expectations must be implemented and conveyed to subcontractors.
- b. Concern: DOE and its contractor do not coordinate and effectively manage, define, communicate and ensure uniform compliance with 29 CFR 1910.120. Recommendation: Managers and appropriate staff should participate in training regarding compliance with 29 CFR 1910.120 and develop a consistent management approach that allows for integration of the communication lines between environmental restoration, waste management, and construction employees. In addition, a team approach between the DOE and its contractor should be encouraged through co-meetings.
- c. Concern: DOE and its contractors do not have a common understanding of which subcontractors are actually working on-site, where they are working and what they are doing. Consequently, oversight of the adequacy of health and safety programs is difficult,

because location of health and safety plans is unknown at times. Furthermore, when reviewing a health and safety plan, it is unclear as which hazards should be discussed in a particular plan. Recommendation: With the number of contractors on-site, the Working Group believes that health and safety professionals responsible for oversight should have an understanding of which contractor is operating on-site, and what type of operations they are involved in. The Working Group developed charts specific to each OU, whereby each subcontractor, project manager, safety and health point of contact, and their task(s) was identified. The DOE tasked the contractor to maintain the charts current. See Recommendation to (a) above.

- d. **Concern:** Accountability problems exist at Rocky Flats regarding health and safety compliance. Recommendation: DOE and the contractor should uniformly define the roles of health and safety personnel, project managers, and technical representatives. Problems with conflicts of interest should be corrected. For example, at several OUs, the project manager and contract technical representative are the same individual. These two individuals have different interests. The project manager is concerned with getting the job done on time and in budget, whereas the contract technical representative is concerned with technical compliance with the contract provisions.
- e. **Concern:** Lack of a consistent follow-up procedure after a violation is identified. Often times a violation is cited in a Tiger Team Report, Compliance Schedule Approval (CSA) or Surveillance, yet a corrective action is not implemented in a timely manner. Many of these violations come back to the DOE stamped "unfunded". Moreover, many return to the DOE stamped "closed out", yet no corrective action has been implemented - only a written procedure exists. Thus, the risk to worker injury remains. Recommendation: DOE and the contractor must be more aggressive in tracking identified violations and ensuring that a corrective action has been implemented before a CSA or Surveillance is closed. Furthermore, resources must be allocated to correct these occupational safety and health violations. A compliance strategy that prioritizes based on risk should be developed. Compliance issues meeting a certain category should not be unfunded.
- f. **Concern:** The selection criteria for award of a contract to work on-site does not involve adequate health and safety input. Furthermore, contract provisions between the DOE and contractor lack adequate health and safety provisions. Recommendation: Include appropriate health and safety professionals throughout the procurement process, beginning with the Request for Proposal.
- g. **Concern:** Radiological protection is treated inconsistently with other types of occupational injury risk. Recommendation: Educate DOE management on the risk of a radiological injury to that of another occupational injury or illness and stress the importance of protecting the worker against all potential work related injuries and illnesses.

- h. **Concern:** Compliance with other environmental laws is prioritized often times over OSHAct compliance. Numerous health and safety compliance issues are noted as "unfunded" in work packages, however the work is still funded and performed without adequate safety and health compliance. Recommendation: Training to educate the managers and appropriate employees of the consequences should be implemented. Emphasize that the OSHAct is an environmental law, as well as RCRA or CERCLA, i.e. work environment. There is enough money for OSHAct compliance, however funds will need to be shifted and made available. See Recommendation (e) above.
- i. **Concern:** OSHA's lack of enforcement authority. Recommendation: The award fee process should be used more aggressively as the enforcement tool to hold the contractor accountable for safety and health noncompliance. The DOE's denial of any award fee to its contractor in fiscal year 1993 was a good start. Furthermore, more enforcement procedures need to be developed. The DOE needs to continue to enhance its occupational safety and health program. Until the OSHA has jurisdiction to enforce, the DOE must be more aggressive and not allow OSHAct compliance to be an option.
- j. **Concern:** Most DOE health and safety programs have been directed towards applicable DOE contractor workers. Protecting the health and safety of the federal worker has been a low priority. Recommendation: Because the Memorandum of Understanding between the DOE and the Department of Labor expressly provides that DOE federal employees are required to comply with the OSHAct, a more comprehensive program must be developed to insure the health and safety of federal employees. In addition, DOE line managers must be held accountable for OSHAct noncompliance.

The Working Group's review provided the Occupational Safety and Health Division at Rocky Flats a better understanding of the contractor's written safety and health procedures, along with actual safety and health practices. Moreover, this review enables the Occupational Safety and Health Division to conduct more thorough oversight of the contractor.

CONCLUSION

Although several key changes occurred as a result of the Working Group's effort, until DOE management commits to prioritizing the health and safety of its workers, facilities such as Rocky Flats will remain in a struggle for OSHAct compliance and the development of sound worker injury and illness prevention strategies. DOE upper management must begin a proactive approach to OSHAct compliance that includes their active involvement. Staff and resources must be dedicated to such compliance. In its effort to be the model environmental restoration site, the Rocky Flats Office has an opportunity to pioneer a compliance strategy that integrates OSHAct compliance with that of the RCRA and CERCLA. The workplace has truly become a forgotten environment and it is time this integration occurs.

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