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HEALTH AND SAFETY

Protecting Workers and
the Public Continues to
Challenge DOE

Statement of Jim Wells,
Associate Director, Energy and Science Issues,
Resources, Community, and Economic
Development Division



Madam Chairman and Members of the Subcommittee:

We are pleased to participate in this hearing on the efforts of the Department of Energy (DOE) to protect the health and safety of the workers at its facilities and the people living in communities nearby. Recently, we have issued reports on two key functions of DOE's Office of Environment, Safety, and Health (ES&H)--health surveillance and nuclear safety oversight.¹ To assist the Subcommittee in its oversight responsibility, today we would like to discuss the findings and recommendations of these reports and the actions DOE has taken in response, as well as outstanding issues related to the transition of DOE's facilities to regulation by the Occupational Safety and Health Administration (OSHA).

In summary, we found the following:

- DOE's ES&H Office manages a Health Surveillance Program that is designed to analyze data about workers' health and on-the-job exposures in order to detect work-related health problems as early as possible. Although DOE hoped to fully implement its program by 1992, we reported in December 1993 that only 40 percent of DOE's workers were covered, the program would not be fully implemented until 1998, and some data on workers' health were not included in the program's analyses. To address these problems, we recommended that DOE (1) develop an implementation plan for the program that outlined the tasks to be performed as well as specific milestones and (2) correct the problems with data collection in the current program before expanding it to additional sites. DOE has taken steps to correct the data collection problems, making plans for a data coordinator and establishing deadlines for data submission. As of September 1994, DOE cannot project when all workers will be included in the program because the ES&H Office is reconfiguring its overall approach to workers' health surveillance.
- DOE's ES&H Office is responsible for overseeing nuclear safety performance at the Department's facilities. Our June 1994 report discussed the Office's lack of a systematic process for elevating safety issues up the chain of command and ultimately to the Secretary; the potential impairment of the Office's independence as a result of a new emphasis on assisting line management;

¹Health and Safety: DOE's Implementation of a Comprehensive Health Surveillance Program is Slow (GAO/RCED-94-47, Dec. 16, 1993); Nuclear Safety: Unresolved Issues Could Impair DOE's Oversight Effectiveness (GAO/RCED-94-129, June 7, 1994).

and the Office's lack of an adequate number of qualified staff. We recommended that DOE take steps to address these issues. To date, the ES&H Office has formulated a reorganization plan aimed at maintaining the independence of its oversight functions and has started implementing plans to greatly increase the number of oversight staff.

- The Secretary of Energy announced in May 1993 that DOE would begin consultations with OSHA with the aim of establishing regulation by OSHA of DOE's facilities. The Secretary stated that her announcement signaled the Department's determination to operate more openly and by the same health and safety rules that govern private industry. In October 1993 testimony before this Subcommittee, we said that specific milestones to guide the transition to OSHA regulation and the exact roles to be played by OSHA, the ES&H Office, and DOE's line management had not been defined.² This is still the case.

Before discussing these points further, we would like to provide some background information on the hazards posed by DOE's operations and the role played by the ES&H Office in ensuring that DOE adequately protects its workers and the public from these hazards.

BACKGROUND

Operations at DOE's facilities pose many potential hazards to workers at the facilities as well as to the communities located nearby. Over the past five decades, in addition to producing tens of thousands of nuclear weapons, the DOE complex also produced huge volumes of radioactive and other toxic substances. These included the radionuclides uranium, plutonium, and cesium; toxic metals; organic solvents; and chlorinated hydrocarbons. All of these represent potential threats to the over 600,000 men and women who have worked at the complex over the last 50 years and the people in the surrounding communities. Furthermore, workers face numerous safety hazards, such as the risk of fire, explosions, or industrial accidents. DOE's new tasks of cleaning up environmental contamination, decontaminating and decommissioning plants and equipment, and dismantling nuclear warheads pose continued risks to workers and the public. For example, much of the weapons complex is old, presenting serious risks to individuals who work in and around the aging facilities. In addition to posing safety problems because of their poor physical condition, inactive facilities can contain known and unknown contaminants that increase the dangers for workers.

²Safety and Health: Worker Safety and Health Oversight Issues Facing DOE (GAO/T-RCED-94-54, Oct. 21, 1993).

DOE's ES&H Office plays a key role in ensuring that the Department adequately protects workers and the public from these hazards. The functions of the Office include a medical surveillance program for workers that emphasizes the prevention of illnesses and injuries in the workplace. The Office also formulates the agency's standards related to safety and health, provides technical assistance to line management--DOE headquarters offices, field offices, and contractors--in implementing these standards, and conducts independent internal oversight of line management's safety and health performance. The Office's oversight activities include a variety of programs for assessing safety and health performance, such as a program in which representatives are stationed at DOE sites to routinely monitor safety and health practices at DOE's facilities. The Office also is responsible for nuclear safety enforcement functions associated with the Price-Anderson Amendments Act of 1988.³

Now we would like to discuss the three areas mentioned earlier in greater detail.

KEY HEALTH AND SAFETY PROGRAM
DOES NOT ADEQUATELY PROTECT WORKERS

Because DOE's workers are often exposed on a daily basis to hazardous conditions that can seriously affect their health, it is essential that DOE evaluate its health and safety procedures to determine their effectiveness and to identify areas for improvement. One of the key programs we recently reviewed, the Health Surveillance Program, is designed to systematically collect and analyze data about workers' health and workplace exposures in order to provide an early warning of health problems at the sites. The goals of the program are to limit workers' exposures, identify the causes of adverse health effects, intervene to minimize or eliminate the causes of the adverse effects and institute policies and procedures to prevent reoccurrences. At the time of our review, these goals were not being met.

Limited Coverage of Workers and Data
Problems Reduce Program's Effectiveness

Although DOE intended to fully implement the Health Surveillance Program by March 1992, at the time of our review last year, only 7 of DOE's 33 facilities were participating in

³This act, among other things, authorized DOE to prescribe regulations for its contractors' nuclear activities and to issue civil monetary penalties for violations of these regulations. DOE has begun to issue nuclear safety rules and expects to publish many in their final form during 1994.

the program. Although the seven facilities are among the largest DOE sites, only about 40 percent of DOE's 150,000 contract workers were included in the program. Since our review, DOE has added to the program approximately 8,100 workers from three sites that had begun developing health surveillance operations in 1993. With these additional sites incorporated, the program now covers approximately 45 percent of DOE's workers.

However, the program's effectiveness in protecting workers from hazards at DOE's sites is limited because information on workplace exposure is not routinely collected and analyzed. Although DOE's goal is to limit workers' exposures and identify potential causes of health problems, the program currently analyzes only data on workers' injuries and illnesses based on information provided by the participating sites. As a result, DOE cannot systematically determine if hazardous conditions at the sites could adversely affect workers' health. DOE is currently developing the exposure component of the Health Surveillance Program and expects to test procedures for assessing exposures at five sites during 1995.

We also found that some information on grave illnesses among workers at DOE sites may not be reported to the Health Surveillance Program. For example, the program's primary source of data on injuries and illnesses is the "return-to-work medical clearance." After a worker's absence, this form is completed by a physician in the site's medical department, certifying that the employee is physically able to return to work. The form reports the employee's coded identification, the number of days absent, and, most importantly, the type of illness or injury. But we found that an employee with a major illness or injury who does not return to his or her job is not issued this clearance. Thus, some major illnesses and injuries are not reported to the program. For example, in 1991 a University of Washington contractor compared cancer data submitted to the program by the Hanford Site with national cancer data over the period 1985 to 1990. Among the 60 to 64 age group at Hanford, he found only 39 percent of the cases expected. The most plausible explanation, according to the contractor, is that people who become sick and have cancer diagnosed often simply retire and do not report back through the site's medical departments.

Technical Problems, Understaffing, and Lack of Planning Delay Program's Implementation

According to an Office of Health official, technical problems and understaffing have complicated the effort to develop and implement the program. The official told us that because multiple contractors manage and operate the sites, different methods are used to track and maintain information on employees. Contractors' automated data processing resources vary, which also affects contractors' ability to collect and store records. In

addition, in 1990 the official planned for a staff of five to carry out the development and management of the program. In mid-1992 however, the staff level was frozen and, at the time of our review, only one full-time epidemiologist was working on the program. Since then, the Office has hired a second full-time epidemiologist for the program.

We also found that a lack of program planning within the Office of Health has contributed to the delay in the program's implementation. For example, during our review, the most recent Health Surveillance Program Plan, dated September 1993, did not contain an implementation strategy that outlined the specific tasks to be accomplished or established milestones for their completion.

As a result of the weaknesses we found in the Health Surveillance Program, our December 1993 report recommended that DOE (1) develop an implementation plan that outlines the tasks to be performed, as well as specific milestones, and (2) correct the problems with data collection in the current program before expanding it to additional DOE sites. DOE has taken steps to correct some of the problems discussed in our report but other issues remain unaddressed. To correct data collection problems, program officials are exploring alternate sources, including both workers' disability claims and states' tumor registries, for identifying any additional cases of cancer occurring in the work force. In addition, the Department has implemented deadlines for each site to submit data and plans to hire a full-time data coordinator and programming staff.

However, DOE has not yet developed an implementation plan for the program and, as a result, we still have concerns about overall strategic planning within the Office of Health. Specifically, in July of 1993 the Deputy Assistant Secretary of Health assigned responsibility for developing components of the program to three suboffices of the Office of Health and took responsibility for managing the program's overall development, including coordinating each suboffice's efforts. But without an office-wide plan to guide and coordinate each suboffice's efforts, including precisely defined goals and milestones, it will be difficult to measure the Office's progress. According to an Office of Health official, although the Office intends to develop the plan, both a reconfiguring of the program and the recruitment of a new Deputy Assistant Secretary to replace the one who recently left have thus far delayed the effort.

Timeframe for Effective Workers' Health Surveillance is Unknown

We are also concerned, Madam Chairman, that DOE still does not know when all DOE's sites and workers will be covered by the program. Initially, DOE intended to fully implement the Health

Surveillance Program by March 1992. During our review last year, the Program Director then estimated full program implementation by 1998. Currently, DOE is reconfiguring its overall approach to medical surveillance and, until the new procedures are developed, DOE cannot project when a fully functioning program will be implemented at its sites.

According to a DOE official, the Health Surveillance Program currently is being reconfigured to increase its focus on preventing dangerous workplace exposures in order to effectively prevent diseases. This new focus on prevention requires that program components be developed to analyze the hazards at each site of each particular job or task, as well as to detect types and concentrations of potentially harmful substances. Together, analyzing job tasks and assessing exposures provide the information needed to identify and group workers by exposure. The reconfigured program requires that if the data show that workers are experiencing high exposures to toxic substances, actions can immediately be taken to alter job tasks and reduce exposures that could be harmful. To DOE's credit, this new approach is superior to the earlier program's design that could not provide an effective early warning of health problems because of the long latency period between exposure and development of disease.

According to a DOE official, the Office of Health currently is developing new orders and guidance specifying the contractors' roles in assessing workers' tasks and potential exposures. The official expects these assessments of exposures and job tasks to take place at each of five sites annually until assessments of all sites have been completed. Until these components can be developed and implemented, however, DOE continues to operate a program that analyzes only illnesses and injuries and that, as a result, is of limited effectiveness in protecting workers' health and safety.

UNRESOLVED ISSUES COULD IMPAIR EFFECTIVENESS OF DOE'S NUCLEAR SAFETY OVERSIGHT AND ENFORCEMENT

In response to persistent safety problems at DOE's nuclear facilities, GAO and others have recommended that DOE perform strong independent internal oversight of its contractors' nuclear operations.⁴ In addition, as previously noted, the Price-

⁴See, for example, Better Oversight Needed for Safety and Health Activities at DOE's Nuclear Facilities (GAO/EMD-81-108, Aug. 4, 1981); Nuclear Health and Safety: Oversight at DOE's Nuclear Facilities Can Be Strengthened (GAO/RCED-88-137, July 8, 1988); The Nuclear Weapons Complex: Management for Health, Safety, and the Environment, National Research Council (National Academy Press, Dec., 1989); and Hazards Ahead: Managing Cleanup Worker

Anderson Amendments Act of 1988 authorized DOE to prescribe regulations for its contractors' nuclear activities and to enforce these regulations through the issuance of civil monetary penalties. To be effective, the organization responsible for the independent oversight and enforcement of nuclear safety within DOE must possess certain basic characteristics, including adequate authority to raise safety concerns up the chain of command, independence from line management, and an adequate number of technically qualified staff. In our recent report on the Department's nuclear safety oversight and enforcement activities, we reported on issues related to each of these characteristics.

Regarding raising safety concerns up the chain of command, in its December 1989 report on DOE, the National Research Council recommended that, if responsible line managers do not take appropriate actions to correct identified safety and health problems, the ES&H Office should have the authority to raise concerns up the chain of command in DOE. In our June 1994 report, we found that the ES&H Office has some capability to elevate issues to higher levels of management and, ultimately, to the Secretary of Energy. For example, according to the Secretary's staff, the Assistant Secretary for ES&H has free access to the Secretary and can seek the Secretary's involvement in resolving nuclear safety issues when necessary. However, we found that no overall systematic approach exists for elevating issues and that the current methods for doing so do not always ensure that significant issues will be elevated up DOE's hierarchy when necessary. For example, the former Director of DOE's Nuclear Safety Office was unsuccessful in attempting to obtain the Secretary's involvement in 1993 in relocating workers from a plutonium-contaminated facility at the Los Alamos National Laboratory.

Without a systematic process for raising issues up the chain of command, line management may not take adequate or timely actions to correct safety problems identified by the ES&H Office. In a previous review of the ES&H Office's occupational safety site representative program, we found that, in the absence of a systematic approach for elevating issues to the Secretary, DOE's line management did not adequately address some significant problems cited by the site representatives.⁵ During our review of the ES&H Office's oversight of nuclear safety, senior ES&H Office representatives responsible for monitoring nuclear safety at DOE sites told us that in some cases line managers do not take

Health and Safety at the Nuclear Weapons Complex, Office of Technology Assessment (Feb. 1993).

⁵See Safety and Health: Key Independent Oversight Program at DOE Needs Strengthening (GAO/RCED-93-85, May 17, 1993).

adequate action to correct nuclear safety problems they have identified.

Past reviews by GAO and the National Research Council have stressed the importance of vigorous independent internal oversight in helping to ensure safe operations at DOE's nuclear facilities. In addition, the International Atomic Energy Agency and the Nuclear Regulatory Commission have emphasized that regulating nuclear safety requires independence.⁶ However, we found that recent changes within the ES&H Office could impair the Office's ability to independently oversee and regulate nuclear safety within DOE. In response to directions from the Secretary, the ES&H Office is working more actively with managers of the line programs to help them improve their ES&H performance. For example, the ES&H Office launched a major long-term assistance project at the Hanford Site in September 1993. While this new emphasis on providing assistance could help to improve line management's performance, it could also impair the independence of the ES&H Office. Specifically, senior officials in the Office may be less inclined to report on and penalize poor nuclear safety performance by line management if, at the same time, their staff are helping line management to solve nuclear safety problems.

The Defense Nuclear Facilities Safety Board has repeatedly found, during its 4 years of operation, that DOE lacks an adequate number of technically qualified staff to ensure that its nuclear facilities are operated safely. At the time of our review, the ES&H Office did not have an adequate number of qualified staff to oversee nuclear activities and enforce nuclear safety standards. Although the ES&H Office plans to expand its overall staff level, the Office had not yet determined how many additional positions would be allocated to nuclear safety oversight and enforcement. Therefore, it was not clear whether the Office would have an adequate number of qualified staff to effectively carry out these functions.

Actions Are Needed to Resolve These Issues

To address these problems, we recommended that DOE (1) establish a systematic approach for the ES&H Office to elevate safety issues up the chain of command and ultimately to the Secretary, (2) separate the ES&H Office's oversight and enforcement functions organizationally from the Office's assistance functions, and (3) ensure the availability of adequate

⁶See Code on the Safety of Nuclear Power Plants: Governmental Organization, International Atomic Energy Agency, Safety Series no. 50-C-G, rev. 1 (Aug. 1988) and Five Year Plan, Fiscal Years 1991-1995, U.S. Nuclear Regulatory Commission (Nov. 1990).

qualified staff within the ES&H Office to oversee nuclear safety and enforce nuclear safety standards. DOE has already taken some steps toward implementing these recommendations. In particular, DOE officials told us that they recognize the importance of maintaining the independence of the ES&H Office's oversight efforts and will try to accomplish this by reorganizing the Office. Specifically, to keep oversight efforts separate from assistance efforts, DOE plans to place the ES&H Office's environment, safety, and health oversight functions within one suboffice responsible solely for oversight. However, DOE has not yet made a final decision about where to place its nuclear safety enforcement function. The ES&H Office has also started hiring more oversight staff and, according to a senior official in the Office, plans to nearly double the number of representatives at the sites by the end of fiscal year 1994.⁷

DOE'S TRANSITION TO OSHA REGULATION IS STILL NOT WELL DEFINED

In May 1993, Secretary O'Leary announced that DOE would begin consultations with OSHA with the aim of having OSHA regulate all of DOE's facilities. The Secretary stated that her announcement signaled the Department's determination to operate more openly and by the same health and safety rules that govern private industry. Because OSHA's existing responsibilities for regulating workplaces nationwide are considerable, the transition of DOE's facilities to OSHA regulation needs to be planned carefully to ensure that the current level of oversight of DOE's facilities will be maintained or strengthened after OSHA takes over.

In our October 1993 testimony, we said that specific milestones to guide this transition and the exact roles to be played by OSHA, the ES&H Office, and DOE's line management had not been defined. This is still the case. DOE and OSHA have engaged in discussions and have agreed that, during the next year, OSHA officials will visit DOE sites to learn more about what would be involved in regulating them. According to both OSHA and DOE officials, the main reason for the slow progress in planning the transition is uncertainty over resources--including

⁷After our report was issued, the Senate, in July 1994, amended the Fiscal Year 1995 Defense Authorization Bill to require DOE to take actions to ensure that (1) the Department has a system for bringing nuclear safety issues to the attention of senior officials, (2) officials in the ES&H Office responsible for nuclear safety oversight and enforcement maintain their independence from line management, and (3) an adequate number of qualified personnel are assigned to perform nuclear safety oversight and enforcement. Senate and House conferees have agreed to include this provision in the bill.

how much this regulation will cost and how it will be funded. OSHA officials explained to us that, given OSHA's current significant responsibilities and limited resources, the agency is cautious about taking on this additional responsibility until they analyze the resources that would be needed and obtain these resources. DOE officials acknowledge that OSHA cannot regulate DOE's facilities without additional resources. But these officials believe that taking these resources from DOE's budget could impair their ability to protect workers. A bill (H.R. 1280) that is currently pending in the Congress would give OSHA regulatory jurisdiction over workers' safety and health at DOE's facilities to the extent that the Secretary of Energy reimburses the Secretaries of Labor and Health and Human Services for the costs associated with this regulation.

SUMMARY

In summary, Madam Chairman, ensuring the health and safety of workers at DOE's facilities and people living nearby will continue to be a vital concern of the Department, particularly as the cleanup of environmental contamination at its sites progresses. As of September 1994, DOE cannot project when all workers will be included in the program because the ES&H Office is reconfiguring its overall approach to workers' health surveillance. In addition, DOE needs to ensure that its ES&H Office has the authority, independence, and resources it needs to effectively oversee and enforce nuclear safety. We also continue to believe that the transition of DOE's facilities to regulation by OSHA must be carefully planned.

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Madam Chairman, this completes our prepared statement. We will be glad to respond to any questions you may have.

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