

June 1994

# NUCLEAR SAFETY

## Unresolved Issues Could Impair DOE's Oversight Effectiveness



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**Resources, Community, and  
Economic Development Division**

B-256472

June 7, 1994

**The Honorable William S. Cohen  
United States Senate**

Dear Senator Cohen:

In April 1993, the Secretary of Energy announced the transfer of the oversight functions of the Department of Energy's (DOE) Office of Nuclear Safety to the Office of Environment, Safety and Health (ES&H) as part of a broader restructuring of the entire Department aimed at streamlining DOE and focusing it on its current missions. You asked us to review DOE's restructuring of nuclear safety oversight and evaluate whether the proposed changes would improve or detract from DOE's ability to ensure nuclear safety. Because DOE has continued to develop its new approach for overseeing nuclear safety, we subsequently agreed with your office to (1) determine the process DOE used in deciding to consolidate the Nuclear Safety and ES&H Offices and (2) identify issues that could influence the effectiveness of the nuclear safety oversight carried out by the ES&H Office.

**Results in Brief**

In deciding to consolidate the Nuclear Safety and ES&H Offices, DOE did not conduct a formal analysis of the potential impacts of such a change. According to the Secretary's staff, the plan for restructuring DOE was based on the Secretary's views on organizational management and structure. In addition, the Secretary's staff consulted with senior managers both at headquarters and in the field about the effectiveness of DOE's existing oversight structure. DOE's rationale for transferring nuclear safety oversight functions to the ES&H Office was to streamline the Department's headquarters safety and health oversight activities. DOE also sought to strengthen the ES&H Office by having the Assistant Secretary for ES&H report directly to the Secretary.

To be effective, the organization responsible for the independent oversight of nuclear safety within DOE must possess certain basic characteristics, including adequate authority, independence from line management, and an adequate number of technically qualified staff. Although the Secretary has given the ES&H Office additional authority to, for example, curtail or suspend operations in certain situations involving imminent danger, the Office does not have a systematic approach in place to elevate safety issues up the chain of command—and ultimately to the Secretary—if necessary to ensure their resolution. Without such a process, line

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management may not take adequate or timely action to resolve safety issues identified by the Office. Furthermore, the ES&H Office may not have adequate independence because of the Office's new emphasis on assisting line management. Finally, although the ES&H Office plans to increase its overall staff level, it is not yet clear whether the Office will allocate an adequate number of qualified staff to effectively carry out its nuclear safety oversight and enforcement functions.

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## Background

Since the early 1980s, we as well as others have studied DOE's nuclear facilities and have identified numerous environmental, safety, and health problems posing risks to workers and the public. A number of these studies have cited DOE's lack of adequate independent internal oversight of contractors' nuclear operations as contributing to these problems. (See app. I.) In particular, we repeatedly recommended during the early 1980s that DOE increase the authority, independence, and visibility of its internal organization charged with overseeing safety and health performance at the agency's facilities. In response, DOE established the ES&H Office in 1985, giving it responsibility for developing DOE's environmental, safety, and health policies and conducting internal independent oversight of the implementation of these policies at DOE facilities. The Assistant Secretary for ES&H reported to the Office of the Under Secretary.

In May 1989, the previous Secretary of Energy removed nuclear safety policy and oversight responsibilities from the ES&H Office after determining that the existing management and oversight system failed to ensure that DOE's nuclear facilities were operated in a safe manner. The Secretary reassigned nuclear safety policy responsibilities to the Office of Nuclear Energy in May 1989 and oversight responsibilities to the new Office of Nuclear Safety in September 1989.<sup>1</sup> The Nuclear Safety Office's Director reported to the Secretary, as did the Assistant Secretary for ES&H on oversight matters. Also, the Secretary made the Nuclear Safety Office responsible for nuclear safety enforcement functions associated with the Price-Anderson Amendments Act of 1988. This act authorized DOE, among other things, to prescribe regulations for its contractors' nuclear activities and to issue civil monetary penalties for violations of these regulations.

In April 1993, the current Secretary of Energy reassigned responsibilities for nuclear safety policy and oversight to the ES&H Office as part of a consolidation of all safety and health policy and internal independent

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<sup>1</sup>From May to September 1989, no headquarters DOE office had responsibility for internal independent oversight of nuclear safety at DOE facilities.

oversight functions. As part of this consolidation, she transferred to the ES&H Office the functions of federal employee occupational safety and health policy and oversight, which had previously been the responsibility of the Office of Human Resources and Administration. In June 1993, she also made the ES&H Office responsible for nuclear safety enforcement functions associated with the Price-Anderson Amendments Act. This consolidation of safety and health policy and oversight functions within the ES&H Office was part of a broader restructuring of the entire Department aimed at streamlining DOE and focusing it on its current missions. The Secretary also sought to strengthen the ES&H Office by having the Assistant Secretary for ES&H report directly to her rather than to the Under Secretary. Appendix II compares DOE's former and current organizational structures for ES&H policy and internal independent oversight.

Regarding its responsibilities for regulating its contractors' nuclear activities, DOE has begun to issue nuclear safety rules and expects to publish many in their final form during 1994. However, the House Natural Resources Committee, which is concerned that self-regulation by DOE of its nuclear facilities has been unsatisfactory, is considering legislation that would give the Nuclear Regulatory Commission (NRC) responsibility for licensing and regulating DOE's new nuclear facilities. The proposed legislation would also establish a commission to determine, and to recommend to the Congress within 18 months, an approach for subjecting DOE's existing nuclear facilities to independent regulation. According to the Acting Deputy Assistant Secretary for Nuclear Safety, estimates of the time that would be required to shift DOE's nuclear facilities to external regulation range from several years to a decade. Furthermore, according to this official, such a transition to external regulation may never occur for some facilities because it would be too costly.

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## DOE Merged Nuclear Safety Office With ES&H Office in Order to Streamline Oversight

In deciding to restructure the Department's oversight of nuclear safety, DOE officials did not conduct a formal analysis of the advantages or disadvantages of various organizational structures. According to the Secretary's Chief of Staff, the plan for restructuring DOE was based on the Secretary's ideas about how organizations should be managed and structured. The principal Secretarial aide responsible for developing the plan to restructure DOE told us that, in carrying out this responsibility, he discussed various organizational options with the Secretary but did not prepare any written analyses of these options.

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The Secretary's staff told us that, in formulating ideas on how to structure ES&H oversight, they obtained the views of some senior field and headquarters officials about the effectiveness of DOE's existing oversight structure. Some of these senior officials expressed concern about the fragmented structure of the oversight for environment, safety, and health, which had led to multiple and duplicative layers of review.

According to the Secretary's staff, the rationale for changing DOE's oversight structure was to make internal independent oversight more efficient and effective by consolidating all headquarters safety and health oversight functions under the Assistant Secretary for ES&H and having this individual report directly to the Secretary. Previously, the Nuclear Safety and ES&H Offices had used different approaches for overseeing nuclear safety and occupational safety and health, respectively, and had not coordinated their efforts. In addition, the Secretary's staff told us that the Secretary wanted to ensure that all ES&H issues were accorded the same level of importance within the Department. The Secretary has maintained that the restructuring will facilitate an integrated approach to environmental, safety, and health policy and oversight.

The Nuclear Safety Office was transferred intact to the ES&H Office in June 1993. To date, the main organizational change in DOE's oversight of nuclear safety is that the Nuclear Safety Office is no longer functionally autonomous. The head of this Office no longer reports directly to the Secretary. He is a Deputy Assistant Secretary, and he reports, instead, to the Assistant Secretary for ES&H, who reports to the Secretary.

However, this organizational structure is only temporary because the ES&H Office plans to reorganize in order to streamline its operations. For example, it plans to combine its nuclear safety site representative program, run by the Nuclear Safety Office, with its occupational safety and health site representative program, run by the Office of Safety and Quality Assurance, another suboffice of the ES&H Office. These two programs maintain representatives at DOE sites to monitor nuclear safety and occupational safety and health performance, respectively. DOE officials plan to transfer these programs to a new Office of Oversight, which will assume responsibility for all oversight functions of the ES&H Office.

## Some Unresolved Issues Could Impair Effectiveness of Nuclear Safety Oversight and Enforcement

To be effective, the organization responsible for the independent oversight and enforcement of nuclear safety within DOE must possess certain basic characteristics. These include (1) adequate authority, (2) independence from line management, and (3) an adequate number of technically qualified staff. Although the Secretary has given the ES&H Office additional authority, the Office does not have a systematic approach in place for raising safety concerns up the management chain of command—and ultimately to the Secretary—if necessary to ensure their adequate resolution. Furthermore, it is not yet clear whether the ES&H Office will have adequate independence and a sufficient number of qualified staff to effectively perform the Office's nuclear safety oversight and enforcement functions.

## The ES&H Office Has Acquired Additional Authority

Both the National Research Council and we have recommended in the past that safety overseers within DOE have adequate authority.<sup>2</sup> In addition, the International Atomic Energy Agency (IAEA) has recommended that governmental bodies responsible for regulating nuclear power plants and other nuclear facilities for safety have adequate authority.<sup>3</sup> The types of authority called for by these organizations include the authority to assess safety performance as well as to ensure the resolution of identified problems.

The Secretary has given the ES&H Office formal authority to perform assessments that neither it nor the Nuclear Safety Office previously possessed. Specifically, the Secretary rescinded the requirement that the ES&H and Nuclear Safety Offices give line management 60 days' notice before assessing its performance and mandated that the ES&H Office lead investigations of all serious accidents at DOE sites. However, according to the Acting Deputy Assistant Secretary for Nuclear Safety, the Nuclear Safety Office had previously performed assessments without giving 60 days' notice when circumstances indicated that advance notice was not feasible or appropriate. The Secretary has also reinstated the authority of the Assistant Secretary for ES&H, in the absence of the Secretary, to curtail or suspend operations at DOE facilities when the ES&H Office determines that an imminent danger to workers or the public exists and line

<sup>2</sup>See *Better Oversight Needed for Safety and Health Activities at DOE's Nuclear Facilities* (GAO/EMD-81-108, Aug. 4, 1981); *DOE's Safety and Health Oversight Program at Nuclear Facilities Could Be Strengthened* (GAO/RCED 84-50, Nov. 30, 1983); and *The Nuclear Weapons Complex: Management for Health, Safety, and the Environment*, National Research Council (National Academy Press, Dec. 1989).

<sup>3</sup>Code on the Safety of Nuclear Power Plants: Governmental Organization, IAEA (Safety Series No. 50-C-G Rev. 1, Aug. 1988).

management has not taken appropriate action. This is an important authority for ensuring that safety problems are adequately resolved. According to the Acting Deputy Assistant Secretary for Nuclear Safety, the Nuclear Safety Office had the authority to stop unsafe operations under the previous Secretary, although this authority was not specified in writing.

### ES&H Office's Ability to Elevate Safety Issues Remains Limited

In 1989, the National Research Council recommended that, whenever DOE overseers find safety problems at the Department's facilities, they should bring the matters to responsible line managers for resolution. If these line managers do not take adequate actions to correct the identified problems, the oversight office should have the authority to raise its concerns up the management chain of command, and ultimately to the Secretary, if necessary. The ES&H Office has some capability to elevate safety issues up the chain of command and, ultimately, to the Secretary. However, no overall systematic approach exists for elevating issues, and the existing methods for doing so do not ensure that safety issues will always be elevated up the DOE hierarchy when necessary. As a consequence, line management—contractors, DOE field office officials, and DOE headquarters officials—may not take adequate or timely actions to correct safety problems identified by the Nuclear Safety Office, potentially posing unnecessary risks to workers and the public.

### Existing Methods for Elevating Issues Are Limited

Because of limitations in DOE's existing methods for elevating issues, senior line management and the Secretary may not be aware of significant nuclear safety issues identified by the Nuclear Safety Office. For example, the Nuclear Safety Office has not formally reported its findings of safety problems to senior line management on a routine basis. Although the Office's procedures state that the Office will issue quarterly reports to senior line management officials on significant issues identified by its representatives at DOE sites, the issuance of such reports has been significantly delayed. In particular, the quarterly reports of the Idaho; Oak Ridge, Tennessee; and Richland, Washington, representatives for the period from October 1992 through June 1993 were not issued until January and February 1994. According to the Acting Director of the Nuclear Safety Office's representative program, the representatives had sent draft reports to the Office's headquarters on schedule but staffing constraints at headquarters had caused delays in reviewing and revising the reports.

The Nuclear Safety Office also has not formally reported to the Secretary on the status of significant safety issues it has identified. The Office's



procedures state that the Office will issue monthly reports to the Secretary on the status of corrective actions taken in response to assessment findings of the Nuclear Safety Office. However, while the Office did issue such reports to the previous Secretary, it has not issued any to the current Secretary. According to the Acting Deputy Assistant Secretary for Nuclear Safety, the Nuclear Safety Office no longer needs to send such reports to the Secretary because it is now able to resolve nuclear safety issues at lower levels in the Department's organizational hierarchy.

Two DOE procedures cite specific instances in which the Assistant Secretary for ES&H may elevate safety issues to the Secretary. Under one procedure, the Assistant Secretary for ES&H shall advise the Secretary when the ES&H Office determines that responsible line managers are not taking action to curtail or suspend operations posing a clear and present danger to workers or the public. Under the second procedure, the Assistant Secretary for ES&H may raise concerns to the Secretary about the readiness of DOE's nuclear facilities to be started up or restarted if the ES&H Office has determined that a significant safety problem affecting readiness is not being properly corrected.

**Existing Methods Do Not  
Ensure That Unresolved Issues  
Will Be Elevated**

The ES&H Office also has some informal methods for elevating nuclear safety issues to the Secretary because the Assistant Secretary for ES&H has access to the Secretary and may raise such issues with her. According to ES&H Office officials, if the Office has a concern about any safety issue and cannot reach agreement with line management about appropriate action, the Assistant Secretary for ES&H can seek the Secretary's involvement, although this is occurring less frequently now than in the past. However, these informal methods do not provide assurance that oversight officials will always be successful in obtaining the Secretary's involvement.

In the past, according to the previous Energy Secretary, when the former Director of the Nuclear Safety Office disagreed with line management about a nuclear safety issue, the Director was expected to try to resolve the issue with the responsible senior manager. If the issue could not be resolved in this manner, the Director could seek the Secretary's help. The previous Secretary would then get the parties involved together and adjudicate a resolution. According to the previous Secretary and the former Director of the Nuclear Safety Office, this occurred often. In contrast, the current Assistant Secretary for ES&H, now DOE's chief nuclear safety oversight official reporting directly to the Secretary, told us that she has not needed to obtain the Secretary's involvement in resolving any environmental, safety, or health issues. In addition, the official who served

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as Acting Assistant Secretary for ES&H before the current Assistant Secretary's confirmation in October 1993 told us that he had sought and obtained the involvement of the Secretary in resolving disagreements with line management over environmental, safety, and health issues but that this did not occur very often. According to these ES&H Office officials, the current Secretary wants her senior oversight and line officials to try and work out their differences, and they have been successful in doing so. They stressed that DOE has become a "more cooperative workplace."

The Secretary's staff told us that the Assistant Secretary for ES&H has free access to the Secretary and may elevate nuclear safety issues to the Secretary when necessary to achieve satisfactory resolution of those issues. However, according to the former Director of the Nuclear Safety Office, from February 1993 until his departure from DOE in April 1993, he was unable to obtain access to the Secretary to discuss with her some nuclear safety issues. (During this period, before DOE was restructured, the Nuclear Safety Office's Director reported directly to the Secretary.) According to the Secretary's staff, the Nuclear Safety Office's former Director had access to the Secretary through general staff meetings held twice per week and through two brief meetings that focused on DOE's restructuring of nuclear safety oversight. They stated that they did not grant the former Director greater access to the Secretary because he did not present them with a clear agenda of what he needed to discuss with her.

However, during this period, the Director of the Nuclear Safety Office wrote a memo to the Secretary asking for her involvement in resolving a specific safety issue. The Secretary did not respond to the memo. In this memo, dated March 29, 1993, the Nuclear Safety Office's former Director asked the Secretary to direct the immediate evacuation of workers from a plutonium-contaminated facility at Los Alamos National Laboratory, in order to protect them from health and safety hazards. The Nuclear Safety Office had been tracking this issue for over a year and concluded that line management was moving too slowly to relocate workers. According to the Secretary's staff, when they received this memo, they asked the Office of Defense Programs to write a memo in response. The Secretary's staff did not take any other action on this issue. Since that time, further study by the contractor has indicated that conditions at the facility warrant moving the workers but that no immediate threats to workers' health and safety exist. Los Alamos is planning a phased relocation of workers at this facility and began moving workers from the most contaminated building in December 1993. According to the Acting Deputy Assistant Secretary for

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Nuclear Safety, Los Alamos has addressed the Office of Nuclear Safety's concerns to the Office's satisfaction.

**Without a Systematic Approach, Issues May Not Be Adequately Resolved**

Without a systematic approach for elevating issues and, consequently, enhancing their visibility, line management may not take adequate or timely action to correct safety problems. In reviewing 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 these site representatives, posing unnecessary risks to workers.<sup>4</sup> While line managers had initiated many actions to address occupational safety problems cited, they were often slow in addressing problems or undertook actions that were not adequate to resolve the problems. In its August 1993 response to our recommendation, the ES&H Office committed itself to developing such an approach for occupational safety findings but has not yet done so. According to the Acting Deputy Assistant Secretary for Nuclear Safety, the Nuclear Safety Office has not needed such an approach for nuclear safety findings because, in the past, the Director of the Office could raise concerns about line management's responsiveness directly with the Secretary. Since the former Director has left, the Nuclear Safety Office has resolved all such concerns through meetings with senior line managers and has not needed to involve the Secretary, according to this official.

Although officials in the headquarters ES&H Office state that line management has become more cooperative under the new administration, in some cases line management does not adequately respond to the Nuclear Safety Office's findings of significant safety problems. We asked the Nuclear Safety Office's senior representatives at DOE sites for their assessment of the performance of line management in correcting the nuclear safety problems they had identified. Most responded that this performance has been mixed; in some cases, line managers have performed well in correcting problems cited, but in other cases they have not. Some noted that, while line managers generally correct individual safety deficiencies cited, such as unlabeled waste containers, they tend to respond less adequately to findings of significant weaknesses in safety programs, such as inadequate monitoring by management of safety conditions. Some also noted that line management's responsiveness to the findings of the representatives has declined over the last year. Finally,

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<sup>4</sup>See *Safety and Health: Key Independent Oversight Program at DOE Needs Strengthening* (GAO/RCED-93-85, May 17, 1993).

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most expressed concern about their inability to ensure that line management corrects nuclear safety problems they have identified.

The ES&H Office's Principal Deputy Assistant Secretary told us that he agrees that, without a systematic approach for elevating safety issues within DOE, issues may not be adequately resolved. According to this official, as part of its reorganization efforts, the ES&H Office is in the early stages of developing a consistent process for elevating issues within the Office and transmitting them to line management for action. However, it is not yet clear whether this effort will include a means for elevating issues to the Secretary when efforts to resolve them with senior line managers are unsuccessful.

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### Recent Changes Could Impair the Independence of the ES&H Office

The ES&H Office's independence from DOE's line management is important for the Office to carry out its nuclear safety oversight functions as well as its responsibilities, under the Price Anderson Amendments Act of 1988, for enforcing nuclear safety regulations. Past reviews of DOE by the National Research Council and us have stressed the importance of independent internal oversight. According to the National Research Council, although line management is responsible for ensuring compliance with environmental, safety, and health standards, independent internal oversight is still essential to "provide a second set of eyes" to monitor compliance and ensure that any issues are resolved before an accident or other adverse effect occurs. In addition, IAEA and NRC have emphasized that the regulation of nuclear safety requires independence. In 1988, IAEA recommended that nuclear regulatory bodies be functionally autonomous and that their independence in evaluating safety issues not be compromised. In 1990, NRC issued, as guidance for the agency's activities, five "Principles of Good Regulation," one of which was independence.<sup>5</sup> According to the NRC Commissioner who was the principal author of these principles, independence is important because it enables regulators to withstand pressures to sacrifice safety for mission or production concerns and therefore helps to "maintain a solid course for safety."

Recently, the Secretary of Energy has begun to change the role of the ES&H Office. The Secretary has stated that her vision is for a Department "less founded on punitive oversight and more based upon mutual trust and cooperation." While the Secretary has declared that she wants the ES&H Office to continue conducting independent oversight of line management's performance, she has also emphasized that she wants the Office to place

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<sup>5</sup>The other four principles were openness, efficiency, clarity, and reliability.

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equal importance on providing expert advice and assistance to line management.

In response to these directions from the Secretary, the ES&H Office is working more actively with the line programs to help them improve their ES&H performance. For example, as part of an effort to expand assistance to line management, the ES&H Office has launched a major long-term assistance project at DOE's Hanford Site. Unlike earlier smaller-scale assistance activities of the ES&H Office, this project covers all environmental, safety, and health disciplines and includes staff from throughout the ES&H Office. Also, this project has adopted a new "mentoring approach," which is focused on helping DOE and contractor management at Hanford to develop effective programs for improving performance in the areas of environment, safety, and health. For instance, staff from the Nuclear Safety Office are helping to establish a "lessons learned program" at the Hanford Tank Farm. The ES&H Office is also considering ways to allow line management to become involved in the Office's oversight activities, such as by direct participation in assessment teams.

According to the Acting Deputy Assistant Secretary for Nuclear Safety, the Nuclear Safety Office is also following up its assessments with efforts to help line management develop solutions to identified nuclear safety problems. Furthermore, Nuclear Safety Office representatives say that they often engage in technical assistance during the course of their oversight activities. Such assistance includes discussing identified nuclear safety problems and suggested solutions with line managers during routine facility walkthroughs, providing advice to line managers on developing and implementing radiation control plans, and performing assessments at the request of line management. While Nuclear Safety Office representatives have always emphasized helping line management to improve its safety performance, most of the representatives said that they are now placing more emphasis on assistance than they did a year ago. The Office's emphasis on assistance contrasts with the approach used by NRC. According to NRC officials, while NRC does assist its licensees to some extent—for example, by providing them with technical information—it does not participate in licensees' development of plans to ensure nuclear safety.

While the ES&H Office's new emphasis on providing assistance to and collaborating with line management may help to improve line management's safety performance, it could impair the Office's ability to

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independently oversee and regulate nuclear safety within DOE. Oversight conducted by the ES&H Office is the only departmental source of information about safety performance at DOE facilities that is independent of line management. By expanding its assistance activities, the Office may have less staff available to perform this oversight function. For example, the Acting Deputy Assistant Secretary for Nuclear Safety told us that the members of his staff assigned to help establish the lessons learned program at the Hanford Site could never be used to assess this program in the future because they "own" it. In addition, senior Office officials 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 Office of Enforcement, which is responsible for enforcing DOE's nuclear safety regulations, is located within the Nuclear Safety Office. According to the Director of Enforcement, when enforceable rules are implemented at facilities, perhaps by the end of 1994, the ES&H Office will need to reconsider whether the Office of Enforcement has adequate independence. According to this official, a possible way to enhance his office's independence would be to make it into a separate office reporting directly to the Assistant Secretary for ES&H or to the Secretary.

ES&H Office officials have told us that they recognize the importance of maintaining the independence of their oversight efforts while conducting assistance. They will try to deal with this issue partly through reorganizing the ES&H Office. The Office's Principal Deputy Assistant Secretary told us that they will "put a fence around oversight" by putting all of the Office's oversight functions, including the site representatives, under one Deputy Assistant Secretary. However, this new office's oversight approach has yet to be defined. The official who will assume the position of Deputy Assistant Secretary for Oversight told us that he believes the site representatives must be the ES&H Office's "ambassadors" in the field, providing expertise and assistance as well as oversight. He also stated his belief that the Office's new oversight approach must help make sites safer by being in the form of a partnership with the field offices.

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### Availability of Adequate Qualified Staff Not Yet Certain

The Defense Nuclear Facilities Safety Board (Board) has repeatedly found during its 4 years of operation that DOE lacks an adequate number of technically qualified staff to ensure that the Department's nuclear facilities are operated safely. In response to recommendations of the Board, DOE has

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begun initiatives to improve training and qualifications programs for its employees associated with defense nuclear facilities.

The Board told us that the ability of the ES&H Office to effectively oversee nuclear safety depends on its having an adequate number of qualified staff. However, the ES&H Office does not currently have an adequate number of qualified staff to oversee nuclear safety. As part of DOE's response to a Board recommendation that the number of DOE personnel qualified to develop and implement nuclear safety standards be increased, the Nuclear Safety Office estimated in August 1993 that it needed 19 staff, in addition to its 76 existing staff, to help develop DOE's nuclear safety standards and assess the implementation of these standards. Furthermore, the Nuclear Safety Office's Director of Enforcement told us that he will need more staff than his current level of six professional staff when the Office begins to initiate Price-Anderson enforcement investigations and actions relating to violations of DOE's nuclear safety regulations. The ES&H Office does plan to expand its overall staff level. According to the Assistant Secretary for ES&H, the Office plans to expand by 50 full-time equivalent positions in fiscal year 1994 and by another 50 such positions in fiscal year 1995. Furthermore, she has stated that she plans to greatly expand the site representative program. However, the ES&H Office has not yet determined how many of these additional positions will be allocated to oversight and enforcement functions.

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## Conclusions

The ES&H Office lacks a systematic approach for elevating concerns about line management's responsiveness to findings up the organizational hierarchy, and ultimately to the Secretary, in order to enhance the visibility of these concerns. Experiences of the former Director of the Nuclear Safety Office demonstrate that, without a systematic approach for elevating issues to the Secretary, attempts by oversight officials to obtain access to the Secretary may not be successful. An institutionalized approach for elevating such concerns, along with existing informal methods for doing so, can help ensure that, regardless of changes in administrations and styles of management, senior line managers and the Secretary are made aware of significant unresolved safety problems and become involved in resolving those problems before any adverse effects occur.

The Secretary's vision for a more cooperative DOE, working together as a team, is laudable. However, the ES&H Office's new emphasis on assisting line management could impair the Office's ability to independently oversee

and regulate nuclear safety within DOE. Independent internal oversight of operations at DOE facilities is important in order to provide the "second set of eyes" that the National Research Council envisioned and to ensure that problems are identified and addressed before workers or the public are placed at risk. The Office of Enforcement, in particular, needs to be able to independently pursue enforcement activities. By separating its assistance functions organizationally from its oversight and enforcement functions, the ES&H Office could help to ensure that the independence of its oversight and enforcement activities is not compromised or does not give the appearance of being compromised. Furthermore, in developing the approach to be used by its new Office of Oversight, the ES&H Office needs to place priority on ensuring the independence of its oversight activities.

Finally, although the ES&H Office plans to increase its staffing levels, it is not yet clear whether the ES&H Office will have an adequate number of qualified staff to carry out its nuclear safety oversight and enforcement functions. The Office's expansion of its assistance activities could limit the number of staff available for these functions.

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## Recommendations

We recommend that the Secretary of Energy

- establish a systematic approach for the ES&H Office to elevate safety issues up the chain of command, and ultimately to the Secretary, when necessary to obtain their adequate and timely resolution. Such an approach should include (1) the routine issuance of formal reports on significant unresolved issues to senior line officials and the Secretary and (2) direction to the ES&H Office to notify the Secretary when significant unresolved issues require the Secretary's involvement.
- ensure the independence of the ES&H Office's oversight and enforcement functions by separating these functions organizationally from the Office's assistance functions and by developing an oversight approach that places a priority on independence; and
- ensure the availability in the ES&H Office of an adequate number of qualified staff to oversee nuclear safety and enforce nuclear safety standards by determining the number of staff needed to perform these functions and reassigning staff accordingly.

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## Agency Comments

We discussed the facts in this report with the Principal Deputy Assistant Secretary for ES&H, the Acting Deputy Assistant Secretary for Nuclear Safety, and other senior officials of the ES&H Office, who generally agreed



with the facts presented. They emphasized that they recognize the need for (1) a systematic approach for resolving safety issues, (2) independent internal oversight, and (3) an adequate number of qualified staff, and they are trying to address these needs. As requested, we did not obtain written agency comments on a draft of this report.

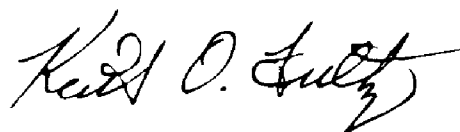
## Scope and Methodology

To obtain information on DOE's decision-making processes and changes in DOE's oversight of nuclear safety, we reviewed relevant DOE documents and interviewed former and current senior DOE officials, including the previous Secretary of Energy and Director of the Nuclear Safety Office and the current Assistant Secretary for ES&H and Acting Deputy Assistant Secretary for Nuclear Safety. To identify criteria for assessing changes in DOE's nuclear safety oversight, we relied on our previous work in this area; reviewed other independent studies; obtained the views of experts on nuclear safety at DOE facilities; and studied approaches endorsed by domestic and international nuclear safety organizations. We conducted our review from May 1993 through April 1994 in accordance with generally accepted government auditing standards.

As arranged with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days after the date of this letter. At that time, we will send copies to appropriate congressional committees; the Secretary of Energy; and the Director, Office of Management and Budget. We will also make copies available to others upon request.

This work was performed under the direction of Victor S. Rezendes, Director, Energy and Science Issues, who may be reached at (202) 512-3841 if you or your staff have any questions. Major contributors to this report are listed in appendix III.

Sincerely yours,



Keith O. Fultz  
Assistant Comptroller General

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## Abbreviations

DOE	Department of Energy
ES&H	Office of Environment, Safety and Health
GAO	General Accounting Office
IAEA	International Atomic Energy Agency
NRC	Nuclear Regulatory Commission



# Studies Used in Preparing This Report

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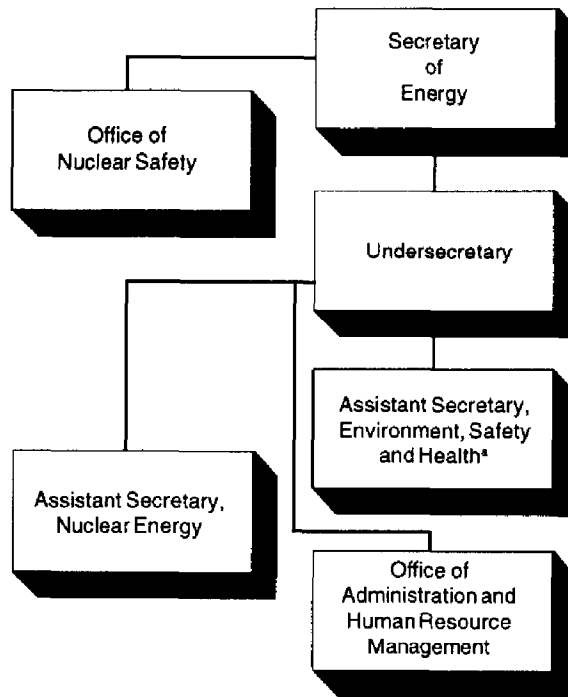
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Better Oversight Needed for Safety and Health Activities at DOE's Nuclear Facilities, (GAO/EMD-81-108, Aug. 4, 1981).

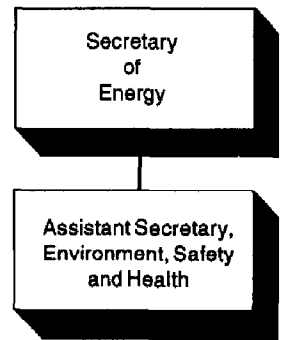
A Safety Assessment of Department of Energy Nuclear Reactors, DOE Nuclear Facilities Personnel Qualifications and Training Committee (DOE/US-0005, Mar. 1981).

# Department of Energy's Former and Current Organizational Structure for ES&H Policy and Independent Internal Oversight

**Former Structure**



**Current Structure**



Note: ES&H = Environment, Safety and Health.

\*Direct access to the Secretary on matters of independent oversight.

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