

EXTERNAL REGULATION OF DOE NUCLEAR SAFETY

A DIFFERENT POINT OF VIEW

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Note: The views expressed here are those of the author and do not necessarily represent the views of the Board as a whole.

EXTERNAL REGULATION OF DOE NUCLEAR SAFETY ANOTHER POINT OF VIEW

As a part of my confirmation consideration by the Senate Armed Services Committee in 1992, I was asked the question, "Should you be confirmed as a member of the Defense Nuclear Facilities Safety Board (Board), what would you view as your principal responsibilities to the Secretary of Energy . . . ?"

My reply was as follows: My responsibilities to the Secretary of Energy will be to provide independent oversight of defense nuclear facilities with respect to nuclear safety without, in any way, assuming or unduly intruding upon programmatic responsibilities that are his (Watkins). As a Board Member, I will owe to the Secretary, independent, forthright, soundly-based advisories that hopefully will contribute in a positive way to achievement of added margins of safety for both workers on site and the public at large.

As a member of the Advisory Committee on External Regulation, I found myself one of a diverse group of individuals with different agendas, different interests, and different backgrounds. It was an experience in participatory democracy with all the benefits of increased understanding and enlightenment that derives from lively exchanges among individuals with different points of view. The process is great for airing views. It is not so great for coming up with detailed solutions on complex issues. My lifetime experience has made me wary of solutions developed by committees. They generally include something for everyone. I am ever reminded of the old Aesop fable that ended with the observation that "he who tries to please everyone pleases no one."

I am not here to quarrel with the Committee structure the Secretary of Energy chose to explore this issue for her. That was her call. However, in the context of my pledge to give her forthright and soundly-based advisories, I was not able to do so as one contributor among many. Hence, I felt compelled to include, as additional comments, my advice to look much more carefully than the Committee did at the implications of the detailed recommendations before moving forward. There is an apt expression that captures the situation; namely:

THE DEVIL IS IN THE DETAILS

I will be more explicit later, but I would like to say that one of my criticisms of the report is that it implies a greater unanimity by the Committee with respect to the recommendations that can be rightfully asserted. The Committee never really reached full accord on much of anything except that:

- 1) The historic past provided little cause to believe the Department of Energy (DOE) could ever self-police itself with credibility without some outside external forcing authority.
- 2) No outside authority or authorities could or should be considered a substitute for an effective internal safety management structure and program, and
- 3) Practicality considerations made enlarged roles for existing government entities preferable over new creations.

Virtually all other more detailed recommendations had constituencies, but support was anything but unanimous on most of them. This is not surprising, given the diversity of the Committee, nor cause for castigation of those with different views. However, it should give cause for DOE to review the report with caution because controversy within the Committee surely signals difficulties for DOE if it chooses to endorse the report as a whole I understand that DOE has established a group under Thomas Grumbly, Acting Under Secretary, to study the report and to develop a response plan. I have been invited to meet with the group and have indicated my willingness to do so.

In my formal comments on the report, I indicated there were parts of the report I felt to be informative and a number of the recommendations I did support. However, I believe, taken as a whole the recommendations represent a regulatory model that will exacerbate DOE's problems, not help solve them. The safety problems of DOE require technical solutions--stabilization of residual wastes, clean up of contaminated buildings and sites, safe dismantlement of nuclear weapons, and safe stewardship of strategic materials. The solution offered is a cumbersome, complex, legal structure with dramatically increased potential for litigious proceedings that could impede DOE's mission and add unneeded cost to the taxpayer.

These observations are not post report reactions. I made the same or equivalent points during the Committee's deliberations. I also offered the concept I like to think of as incrementalism, if additives to external action-forcing authority are to be sought. This approach might be characterized as an engineer's approach to the problem in contrast to the legal one advocated. It is driven by a different set of premises and principles than formed the Committee's approach; e.g., the Committee established increased credibility of DOE as a main driver for a reformed regulatory structure. I believe DOE should seek greater confidence and acceptability through more solid performance rather than a spinoff of responsibilities assigned to it by Congress. Further, the public sectors to be better served are those most directly affected; namely, those living in the proximity to the activities that put them at risk and those called upon to foot the bill for added safety assurance measures. In keeping with this view, I would commend to DOE a different set of principles than set forth in the report to guide DOE's path forward. These are as follows:

- Attack today's regulatory problems, not those of yesteryear,
- Regulate only to the degree necessary to force the behavior sought,
- Facilitate technical solutions not construct needless process impediments,
- Allow flexibility in establishment of requirements, tailored to work hazards,
- Structure to encourage good solid safety practices, not to fear penalties,
- Minimize costs and maximize benefits,
- Minimize regulatory overlaps and duplication, and
- Encourage intra government cooperation.

The concept of establishing an added external regulatory program for the DOE nuclear complex is far more complicated than it might appear on the surface. This results both from the sheer number and diversity of facilities and activities involved, the condition and age of many of them, the national security functions some of them serve, and the changing missions to which a safety management program must adjust. The Committee rightly recognized that no one regulatory concept would fit all and that neither the Board nor the Nuclear Regulatory Commission (NRC) had programs that were suitable without modification and adaptation.

Having so observed, the matter was not pursued far enough to develop more than generalities. It deserves much closer scrutiny by DOE. One way to do this is to divide the DOE nuclear complex into component parts such as shown in [Figure 1](#) (Viewgraph) and then examine each part relative to the merits and demerits of added external regulation. Before doing so, however, it is important to understand that the often expressed statement that DOE regulates itself is misleading. DOE self-regulates today only in a limited area of nuclear materials. Regulation of the hazardous and toxic materials, control of some releases of radioactivity to the environment and disposal of mixed and radioactive wastes are externally regulated. (See [Figure 2.](#)) DOE today is not free to operate in the way that historically caused the contamination of sites now requiring major cleanup and environmental restoration. An examination of [Figure 1a](#) helps focus on key points at issue.

Facilities in Part I include the residual of the weapons program still required to fulfill DOE's nuclear weapons mission. Those under Part IIA are high hazard facilities (radioactivity) required for safe stabilization of residuals of weapons production, waste processing and safe storage. Parts IIB, III, and IV are the major targets for cleanup and environmental restoration. Part V includes nuclear facilities that are part of the non-defense nuclear activities of DOE. Added regulation by any external agency has different implications for each of these groupings. It has been estimated that facilities total on the order of 3500, operable units targeted for cleanup under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) on the order of 300, and facilities required to support the weapons program on the order of 100.

Facilities in Part I are the residual components of DOE nuclear weapons complex still required to support the weapons program. Facilities in Part IIA (left portion) are facilities required to process and stabilize hazardous residuals of the weapon's program. They are the main targets for those who most strongly advocate external regulation. External regulation is seen by some as a vehicle for greater access to information heretofore withheld and by others as a way to gain greater intervention rights in decisions relative to the production and uses of nuclear materials by the weapons establishment. Such is the thrust of any number of the detailed recommendations pertaining to changes to the Atomic Energy Act, Resource Conservation and Recovery Act (RCRA), and the Clean Water Act.

Facilities in Parts I and Parts IIA are high hazard facilities and operations that Congress targeted for special external oversight when it established the Board in 1988. The Board was given action- forcing powers rather than regulating authority because that was deemed sufficient to achieve the behavior sought. National security

considerations strongly influenced Congressional action. The Board, in its 5th Annual Report, found that no additional authority was needed to induce DOE to move forward in its safety upgrade program, although that movement was not progressing as fast as the Board sought. In response to Board recommendations and in part on its own initiative, DOE this year has undertaken a number of initiatives to move toward a flexible safety management concept that embodies safety practices comparable to the commercial industry, but more adaptable to the changing missions and needs of DOE. However, the Board is not totally satisfied with the results of DOE's efforts to date to revise its safety requirements and to institutionalize its safety management programs. The Board and DOE are working together to resolve the issues. The question of whether the Board has enough statutory authority to move DOE forward in a timely fashion is certainly appropriate. The Board on its own is assessing this matter as a part of its annual review and report to Congress due in early March. The Board has also been contacted by staffs of several of the Congressional Committees and is expected to address this issue of external regulation during hearings scheduled in early March.

Facilities and activities in Parts IIB, III, and IV are either to be deactivated for non-time critical cleanup or remediation under CERCLA or RCRA. These activities hardly need another regulator on the scene. DOE is not suffering from lack of external regulation. If anything it is just the opposite--too much. The Board has been cooperating with both EPA and State authorities in establishing effective working relationships. The objective is to facilitate DOE's work.

(See [Figure 3.](#))

In the case of facilities in Part V, to my knowledge there are no public pressures being brought to bear on DOE to change the self-regulatory programs that cover these. Why then change? If the Secretary so wished, DOE could seek the independent review and affirmation by NRC of its safety management programs for these facilities. DOE in the past had a "parallel review" of its developmental power reactors that possibly could be re-instituted.

In summary:

The report, in my view, does not make a convincing case for proceeding as recommended. Draconian measures are offered when simpler actions are likely to suffice.

REFERENCES

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2. Compendium: Federal Environmental Laws, West Publishing Company
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