

April 3, 1997

SECY NOTE: The following documents are being released to the public at this time:

1. Text of DSI 11 (Operating Reactor Program Oversight)
2. Staff Requirements Memorandum dated March 25, 1997.
3. Views of Chairman Jackson dated January 30, 1997.
4. Views of Commissioner Rogers dated January 23, 1997.
5. Views of Commissioner Dicus dated January 22, 1997.
6. Views of Commissioner Diaz dated January 28, 1997.
7. Views of Commissioner McGaffigan dated February 18, 1997.

*Robert for*  
John C. Hoyle  
Secretary of the Commission



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### 3.8 OPERATING REACTOR PROGRAM OVERSIGHT (DSI 11)

COMSEC-96-060

#### 3.8.1 The Direction-Setting Issue and the Options

Given the changes in the external/internal environment, what are the implications for the current strategies for the operating reactor program?

Option 1: Review the reactor oversight processes in the context of lessons learned from current issues and develop processes and mechanisms to provide for systematic reexamination of reactor oversight activities to ensure their continued effectiveness

Option 2: Seek new approaches within the existing reactor oversight framework to improve effectiveness, work with the industry to foster an environment that is conducive to continued improvements in performance, and provide increased opportunities for public involvement in the regulatory process

Option 3: Perform a Business Process Redesign

#### 3.8.2 Commission's Preliminary Views

The NRC should continue with its ongoing comprehensive review of the areas of licensing, inspection, and performance assessment to identify any areas of needed improvement. This would include development of mechanisms to provide for systematic reexamination of the reactor oversight program to ensure its continued effectiveness and to maximize agency learning in response to emerging issues (Option 1). The thoroughness of ongoing lessons-learned reviews will be key to improvement. The lessons-learned from these reviews must be applied across the industry, where appropriate, and must be verified for effectiveness. The staff should be proactive in ensuring continuing effectiveness of the reactor oversight program by considering in a systematic way how the changes in the regulatory environment might affect future reactor oversight. Currently, the changes in the regulatory environment involve such issues as industry deregulation and component and system aging.

The NRC should pursue several aspects of Option 2. These include encouraging the industry to develop generic guidelines that can be endorsed by the NRC and carried out by the industry, providing increased opportunities for public involvement, expanding the use of technology to improve the efficiency of the licensing and inspection processes where feasible and appropriate, increasing flexibility in staffing multiple-unit sites to enable improved distribution of NRC inspection resources on the basis of licensee performance, and improving the effectiveness and understanding of the performance assessment process.

With regard to performance of a Business Process Redesign (BPR) of the reactor oversight program (Option 3), the staff should consider lessons learned from the ongoing use of work process re-engineering to establish more efficient and automation-assisted processing of materials license and amendment requests. If successful, the NRC should consider similar methods to improve various aspects of the reactor oversight program. As an initial step, after the consideration of lessons learned, the staff should identify for Commission review and approval which areas, if any, of the reactor oversight program

could benefit from work process re-engineering. This could include a review of the consideration of "best practices" from regulatory agencies (foreign and domestic, nuclear and non-nuclear).

### 3.8.3 Summary of Comments

#### A. Significant/Important Comments Directly Affecting the Preliminary Views or the Direction-Setting Issue

Many commenters provided comments on one or more of the three options selected by the Commission in its preliminary view without expressing a preference for one option over another. Examples, grouped by option, include the following:

One commenter (Walker, Texas Utilities Electric Company) stated that as part of Option 1, NRC should also systematically reexamine the usefulness of oversight activities in promoting nuclear safety as determined by risk. The commenter stated that, as currently described, Option 1 connotes continued aggressive regulation, but there are some applications that NRC could be look at periodically to see whether they provide safety benefit or are being conducted because they have always been done.

One commenter (Fleming) cautioned that the public looks at the industry becoming more involved in setting the regulations and guidelines and acting more as a partner with NRC, as is provided for in Option 2, "with a jaundiced eye." The commenter emphasized that it is the NRC's responsibility as the regulator to protect the safety of the public.

Many commenters viewed the BPR, provided by Option 3, as a potentially beneficial tool. Several provided recommendations for areas to be included in the BPR. For example, one commenter (Gowers, El Paso Electric Company) stated that NRC should look at the industry's internal auditing and quality assurance programs to identify "best practices" for possible NRC application. Another commenter (Floyd, Nuclear Energy Institute [NEI]) recommended that NRC benchmark its enforcement program against that of other Federal agencies that have safety oversight responsibility, such as the Federal Aviation Administration and Environmental Protection Agency, and against the enforcement policies of foreign regulators. T. Tipton (NEI) stated that in the area of reactor oversight, several groups (internal licensee groups and various external groups, including the NRC, American Nuclear Insurers, etc.) look at the same things. Therefore, as part of the BPR, NRC should look at areas in which redundancy can be eliminated. In its written comments, NEI also stated that NRC should consider offering legislative proposals as a means of modifying or removing legal requirements that have been found to be unnecessary, unduly wasteful of resources, or unduly restrictive. NEI's written comments in their entirety were endorsed by the South Carolina Electric and Gas Company.

Several commenters (Swank, Washington Public Power Supply System, Gowers, and NEI in its written comments) stated that the BPR (Option 3) should include an evaluation of the effectiveness of the resident inspector program (outside the box) to see whether it is providing the expected gain for the resources expended. Specifically, the commenters suggested that NRC should revisit N+1 staffing policy in light of the "significant" improvements in the operational safety of the industry since the accident at Three Mile Island. This

evaluation should examine some Western European regulatory inspection programs with respect to their use of residents. NEI's comments with respect to this issue were endorsed by ABB-CE.

Finally, with respect to Option 3, several commenters cautioned that although BPRs can be valuable, NRC must be careful to ensure that time is not spent on efforts that are not worthwhile.

One commenter (Environmental Coalition on Nuclear Power) expressed opposition to all three options. The commenter stated that the wording of Option 1 is ambiguous enough to justify the conclusion that only reduction of regulation will be the result; Option 2 provides for co-regulation by the regulator and the regulated, an outcome seen as objectionable; and the BPR Option 3 approach is not suitable for strengthening reactor safety. With respect to Option 2, the commenter stated that the consequences listed in the issue paper describe the public-interest concerns and should be heeded.

#### B. Comments on Other Options

(Because the Commission's preliminary view chose elements of all three options, this section describes expressed views that would indicate commenters prefer one or more options over the remaining options.)

Most of the commenters expressed a preference for a specific option or for some options over the others. One commenter (Burton, NRC) stated that Option 1 allows for the best balance between effectively performing NRC's mission and meeting the goals of a smaller yet more effective and responsive government, while allowing maximum participation and information exchange between all stakeholders. Option 1 allows the NRC to continue its effective job of regulating the industry while at the same time making constant improvements to the way it does business. Another commenter (Public Citizen) stated its support for Option 1, but opposed Options 2 and 3. Public Citizen stated that Option 1 would help NRC reestablish credibility in the wake of recent revelations of incompetence, complacency, and corruption on the part of the NRC staff as a result of NRC's failure to identify the safety problems at the Millstone, Haddam Neck, and Maine Yankee plants. Public Citizen stated that NRC should not undertake activities to increase the role of industry in the oversight of licensing (Option 2) and that instead of "re-tooling the process" (Option 3), NRC should enforce the regulations that are on the books and hold the staff accountable.

Many commenters indicated that they believe that Option 2 represents the best means for both NRC and the industry to achieve common goals in the most efficient manner. For example, NEI, expressed this view, and Yankee Atomic Electric Company and ABB-CE endorsed NEI's comments with respect to this issue. Another commenter (Organization of Agreement States [OAS]), whose comments were endorsed by the New Hampshire Department of Health and Human Services, the Mississippi Department of Health, the South Carolina Department of Health and Environmental Control, the Georgia Department of Natural Resources, the Louisiana Department of Environmental Quality, and the Utah Department of Environmental Quality, stated that Option 2 is the best option for achieving additional needed improvements, given the maturity of the industry, its outstanding safety record, and the high level of safety standards. Other commenters endorsing Option 2 included the State of Oregon and R. Barkley (NRC).



One commenter (Advisory Committee on Reactor Safeguards [ACRS]) stated that Option 3 is the only approach that would result in an optimal program for oversight of operating reactors.

#### C. Comments on Important Omissions

In comments endorsed by Yankee Atomic Electric Company and ABB-CE, NEI identified several areas related to DSI 11 where it perceived that NRC omitted important considerations. The stated omissions include the following:

The paper omits discussion of what the NRC should be doing to establish a focus for the reactor oversight program. This program should be based on a credible standard. NEI stated that nuclear plant safety performance has improved steadily in recent years above a level that was found to be adequate. Performance increases have served to increase the margin of safety of existing plants, which challenges the economic viability of the nuclear option. NEI further stated that until there is an objective standard that is used to measure the adequacy of the existing body of regulation and the need for additional regulations, power reactor licensing, oversight, and rulemaking initiative will continue to place undue emphasis on subjective judgments, non-quantitative criteria, and an apparently never-ending upward spiral of performance expectations for licensees.

The enforcement policy or possible alternatives are not critically assessed in the Strategic Assessment and Rebaselining Initiative. This is believed by NEI to be a significant omission because the enforcement program has a pervasive effect on the relationship between NRC and its licensees.

The issue paper does not identify the present rulemaking process as a potential area for analysis and reform. NEI identified several perceived problems, such as the process takes too much time, regulatory analyses do not adequately address the issues, and the credibility of cost estimates could be improved.

The issue paper does not identify the current hearing process as a potential area for reform. NEI states that it should be possible to find better, more cost-effective ways for the public to state their views without recourse to the full adjudicatory hearing process.

Another commenter (Wight, Illinois Department of Nuclear Safety) recommended that NRC consider establishment of an independent oversight group that would be made up of knowledgeable and independent experts to oversee the effectiveness of NRC oversight activities. The oversight group would be made up of the major stakeholders in the area of operating reactor oversight. The commenter suggested that this group could report to the Commissioners on a periodic basis. Another commenter (Johnson, League of Women Voters of Rockford, IL) supported the need for responsible independent people to look at what the NRC does. Conversely, another commenter (Swank) expressed concern with the costs associated with such efforts and stated that there are already methods in place for oversight of the NRC that have been effective in the past.

#### D. Comments on Internal/External Factors

At the stakeholders' meeting in Washington, D.C. and in its written comments, NEI stated that the Northeast event has permeated the issue papers. NEI expressed a belief that the NRC must look at everything the industry has done. NEI stated that the industry has experienced a situation at Millstone and is learning from it, but NRC performance indicators indicate that the industry's performance has improved dramatically. NEI expressed concern that the NRC is throwing out everything and starting over and believes it to be a mistake. Conversely, Public Citizen stated that the problems at Millstone, Haddam Neck, and Maine Yankee have severely damaged NRC's credibility. It also stated that the nuclear industry has proven that it cannot be trusted to regulate itself, and the NRC has not been doing the job. In Public Citizen's stated view, unless this is recognized and acted upon, this current rebaselining effort is bound to fail. Similarly, the Environmental Coalition on Nuclear Power stated that the findings at Millstone, Main Yankee, Haddam Neck, and other reactors reveals that the NRC has not exercised enough oversight to realize that its licensees had been failing to abide by regulations for years.

In its written comments, NEI also stated that the estimate of the number of plants expected to prematurely shut down over the next 10 years (three to five) could be overly optimistic because of the number of additional factors, such as delays in resolution of the high-level waste disposal problem and an underestimation of the negative economic impact of the regulatory burden. NEI stated further that uncertainty regarding possible future increases in regulatory requirements and unpredictability resulting from the reactor oversight process could contribute to shutdown decisions. NEI's comments related to the internal and external factors were endorsed by ABB-CE.

In its comments, the Yankee Atomic Energy Company questioned the basis for a statement made in the issue paper that implies that the number of current NRC-mandated regulatory requirements requiring license amendments or licensee action is at a relatively low level, given the number of recent NRC initiatives.

#### E. Comments on Staff Requirements Memorandum Questions

In its preliminary views, the Commission did not pose any additional questions for public comment.

### 3.8.4 List of Commenters

#### WRITTEN COMMENTS

1. October 21, 1996, Organization of Agreement States (Robert Ceylon)
2. October 23, 1996, Eric J. Banner, U.S. NRC
3. October 29, 1996, Richard Barkley, U.S. NRC
4. November 1, 1996, William Burton, U.S. NRC
5. November 4, 1996, David Wigginton, U.S. NRC
6. November 4, 1996, New Hampshire Department of Health and Human Services

(Diane E. Tefft)

7. November 7, 1996, Mississippi Department of Health (Robert W. Goff)
8. November 7, 1996, John Thompson, et al., U.S. NRC
9. November 12, 1996, Glenn Kelly, U.S. NRC
10. November 14, 1996, League of Women Voters of Rockford, IL (Betty Johnson)
11. November 14, 1996, Oregon Department of Human Resources (Ray D. Paris)
12. November 14, 1996, South Carolina Department of Health and Environmental Control (M.K. Batavia)
13. November 21, 1996, Louisiana Department of Environmental Quality (Ronald Wascom)
14. November 21, 1996, Georgia Department of Natural Resources (Thomas E. Hill)
15. November 21, 1996, Utah Department of Environmental Quality (William J. Sinclair)
16. November 22, 1996, South Carolina Electric and Gas Company (Gary J. Taylor)
17. November 27, 1996, John T. Larkins, ACRS
18. November 27, 1996, NEI (Thomas D. Ryan)
19. November 27, 1996, Texas Department of Health (Richard A. Ratliff)
20. December 1, 1996, Environmental Coalition on Nuclear Power (Judith H. Johnsrud)
21. December 2, 1996, James Noggle, U.S. NRC
22. December 2, 1996, Ohio Department of Health (Robert E. Owen)
23. December 2, 1996, Yankee Atomic Electric Company (Jane M. Grant)
24. December 2, 1996, ABB Combustion Engineering Nuclear Systems (Charles B. Brinkman)
25. December 2, 1996, Illinois Department of Nuclear Safety (Thomas W. Ortiger)
26. December 3, 1996, Public Citizen's Critical Mass Energy Project

#### ORAL COMMENTS

Washington, D.C. (October 24 - 25, 1996) pages 52 - 62

1. Thomas Tipton, NEI

2. Jane Fleming, NNSN DNAC

Colorado Springs, CO (October 31 - November 1, 1996) pages 287 - 317

1. Roger Walker, Texas Utilities Electric Company
2. Steve Floyd, NEI
3. Fred Gowers, El Paso Electric Company
4. William Sinclair, Utah Department of Environmental Quality, OAS
5. Thomas Tipton, NEI

Chicago, IL (November 7 - 8, 1996) pages 26 - 57

1. Paul Farron, Wisconsin Electric Power Company
2. Roy Wight, Illinois Department of Nuclear Safety
3. David Swank, Washington Public Power Supply System
4. Betty Johnson, League of Women Voters of Rockford, IL
5. Heather Westra, Prairie Island Indian Community
6. Glenn Kelly, U.S. NRC



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