

DSI-12

(8)



MEMORANDUM FOR: John Hoyle, Secretary of the Commission

FROM: Richard S. Barkley, Project Engineer, NRC Region I

DATE: October 29, 1996

SUBJECT: **STAFF COMMENT ON THE STRATEGIC ASSESSMENT AND REBASELINING INITIATIVE**

I am providing the attached comment on the NRC Strategic Assessment and Rebaselining Initiative as requested in the September 16, 1996, Stakeholder Involvement Process Paper. I appreciate the opportunity to comment on this important initiative and feel that my extensive experience in the NRC allows me to provide meaningful comment on a number of the issue papers. However, time constraints limit me to selecting issues which I feel most strongly about and force me to summarize my comments to key points of select issues.

Please contact me at 610/337-5065 or NRC E-Mail address RSB1 if you have any questions or wish me to expand on any of my comments. Your assistance in forwarding these comments are appreciated.

A handwritten signature in black ink that reads "Richard S. Barkley".

Richard S. Barkley

Attachment: As Stated

*e-mail*  
**Acknowledged by card** 11/1/96  
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## **STAFF COMMENT ON THE STRATEGIC ASSESSMENT AND REBASELINING**

### **DSI 2: Oversight of the Department of Energy**

I strongly agree that the NRC should not actively solicit an increased oversight role of DOE activities and that in the event we are provided this opportunity, we assume these responsibilities in an incremental manner. Furthermore, we should avoid to the maximum extent practical our involvement in those activities distinctly connected with nuclear weapons construction and/or maintenance to avoid blurring the lines between the civilian and military uses of nuclear power. The commercial nuclear power industry already has enough strikes against it - it does not need this added public affairs headache. Moreover, the NRC has absolutely no regulatory experience in this area.

While oversight of DOE activities would be of great benefit to the careers of many NRC employees (mine in particular), DOE is under tremendous criticism for its slow pace at environmental restoration and its allegedly inefficient, bloated bureaucracy. I have personally heard these criticisms from a number of current and former DOE employees as well as in numerous GAO reports. Adding our complex regulatory framework on top of this organization and on nuclear facilities that were not designed and operated in accordance with our regulations will be a big regulatory challenge at best and a regulatory and public affairs nightmare at worst. As a result, the NRC will be subjected to more public criticism and far more political scrutiny than we currently experience, particularly since DOE is currently focused on very long-term, enormously expensive decommissioning projects financed entirely on taxpayer dollars. Thus I believe that the liabilities of the NRC assuming this greatly expanded regulatory over DOE may outweigh the advantages unless a very novel, flexible and negotiable regulatory approach is taken to responsibly balance public health and safety against the \$300+ billion dollar unfunded taxpayer liability for the completion of the DOE environmental restoration program.

### **DSI 5: Low Level Waste**

I agree that the NRC should assume a strong regulatory role in the national program for handling low level radioactive waste. However, this effort should only be given a minimal level of resources and capabilities given the poor prospects of siting any new low level waste repositories due to their political and social unacceptability. The last ten years of this program have reflected the enormous political difficulties in siting such facilities, with most efforts to date having little to show for the well over \$100 million expended in attempts to identify suitable sites. With the prospect of only one new LLW site opening in the coming years (i.e. Ward Valley, California which is currently in protracted litigation), the industry's volume reduction efforts eliminating the need for (and the economic viability of) more than a few LLW sites, and the political versus technical focus of LLW siting and waste handling issues, the NRC should not devote significant resources to this effort given more pressing resource needs.



**DSI 6: High Level Waste and Spent Fuel**

I agree that the NRC should retain its current regulatory role relative to the High Level Waste program, but with the same reservations as in my preceding comments on DSI 5. The HLW program consists of reviewing one and only one HLW site and to perform that review over a very extended period of time. Further, I am convinced that the ultimate decision of whether to use that one site will be based more on political considerations than the technical basis since almost any less than ideal geological site can be made suitably safe for HLW disposal through additional engineered barriers.

**DSI 9: Decommissioning - Non Reactor Facilities**

**DSI 24: Decommissioning - Reactor Facilities**

From my experience with decommissioning non reactor facilities and exposure to reactor decommissioning, the two biggest future challenges for the NRC in this area are: 1) ensuring adequate decommissioning funding for prematurely shutdown reactors, particularly if the industry is rapidly deregulated and stranded cost recovery is restricted or prohibited such that some licensees are forced into bankruptcy, and 2) establishing a radiation dose based decommissioning standard that strikes the right balance between public health and safety and cost effectiveness. Whichever DSI option(s) the Commission pursues in these areas, I believe that the NRC must soon resolve these two key issues.

**DSI 10: Reactor Licensing for Future Applicants**

It has long been evident to me that absent a sudden, sustained large rise in fossil fuels prices or an aggressive effort to take into account the environmental externalities of fossil fueled electric generation, there will be no future reactor license applications for at least a generation. Furthermore, an economically deregulated electric power industry makes the prospect of early reactor decommissioning much more likely. Thus I strongly agree that the NRC should pursue a quick but orderly closeout of advanced reactor licensing activities in a manner that preserves the value of the work already performed in the event an unforeseen future energy or environmental crisis forces a relook at the nuclear option.

**DSI 11: Operating Reactor Oversight Program**

I believe that the NRC should continue with its comprehensive licensing, inspection and performance assessment programs largely as it is currently structured, but with renewed emphasis on improving efficiency and reducing the duplication of effort. Such duplications of effort include: 1) having multiple organizations in the NRC performing event assessment functions, 2) conducting multiple briefings of senior managers from different elements of the NRC organization on the same subject topic, and 3) having overly lengthy document review and concurrence processes (although the NRC has improved substantially in this area due to the large reduction in the number of supervisors and managers). Given the current status of the nuclear power industry, ensuring the safe operation of the power reactors currently inservice will remain the NRC's largest and most important mission.



**DSI 12:****Risk Informed, Performance Based Regulation**

I believe that the NRC should continue with and accelerate current efforts to adjust NRC regulations based on risk assessment insights and reactor experience. The NRC's deterministic regulations were originally established based on engineering judgement and typical design practices in other safety critical industries at the time given the absence of any probabilistic based approach being available or considered reliable. However, several thousand years of reactor operation and the continuing refinement of PRA analyses have provided many new insights into reactor safety. Some of these insights have indicated areas where NRC regulations based on deterministic criteria were not stringent enough (e.g. station blackout and shutdown risk as well as simulator training to reduce human error rates during plant transients). Other PRA and operational experience insights, coupled new realistic source term estimates, have indicated areas where NRC regulations were overly stringent, needlessly added complexity to operating reactors (e.g. the majority of the TMI Action Plan items, safety-related ventilation and filtration systems and sodium hydroxide addition systems in PWRs). Thus in the interest of responsible and efficient regulation and in light of future NRC and licensee resource constraints, the NRC should pursue those activities already planned and ongoing in this area. A side benefit of these efforts is the reduction in the number of NRC regulations which are marginal or unimportant to safety, but which are still "on the books" and thus must be enforced.

**DSI 21: Fees**

The Omnibus Budget Reconciliation Act of 1990 stipulated that the NRC recover 100% of its fees from licensees. Given current "pay-as-you-go" federal budgetary rules, the continuing large federal budget deficits (in spite of significant tax increases and tough budget cuts) and the large unfunded liability for sacrosanct entitlement programs, the chance of the NRC succeeding in an attempt to have our budget again funded largely by taxpayer dollars is probably less than my chances of winning the Pennsylvania Lotto. Therefore, the NRC must continue to adapt to the existing budget restraints. However, in the future, if substantial numbers of reactor licensees elect to decommission early, the NRC will not be able to ignore the increasing burden which our fees pose on the shrinking pool of licensees that remain. Thus the NRC needs to prioritize programs and initiatives more than ever, operate in a more business-like fashion and pursue those activities with the most noteworthy benefit to public health and safety.

**DSI 23: Enhancing Regulatory Excellence**

I believe that the NRC must continue to strive for regulatory excellence both by improving the effectiveness of our regulatory framework as well as improving its efficiency. Elements of achieving these goals include: 1) internal NRC self-assessment activities, 2) adjustments (both increasing and eliminating) NRC regulations based on operating experience and risk insights, 3) adjusting the NRC inspection, licensing and enforcement efforts in light of industry restructuring and changing performance, 4) restructuring and rebaselining our organization and processes in order to conduct operations in a more business-like manner, 5) being more customer oriented toward the public, the press and members of Congress, and 6) rewarding employees for initiatives and ideas which improve both our regulatory performance and efficiency.