



PAR

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GEORGE C. CREEL  
SENIOR VICE PRESIDENT  
(410) 260-3890

December 29, 1992

The Honorable Ivan Selin  
Chairman  
U. S. Nuclear Regulatory Commission  
Washington, DC 20555

SUBJECT: Suggestions to Improve the Regulatory Process

Dear Chairman Selin:

Baltimore Gas and Electric Company is pleased to respond to your invitation to comment on areas where the regulatory process can be improved and generation costs can be reduced while the current high degree of safety is maintained.

We recently wrote NUMARC describing three specific suggestions to improve the current regulatory process. A copy of that letter is enclosed. First, both NRC and nuclear industry must strive to revise the regulatory structure. It must become more effectively geared to actual performance and risk than the current programmatic, deterministic approach.

Second, there are several current programs - including security, containment testing, and reporting requirements - that are overly prescriptive and unnecessarily expensive. These can be immediately revised without degrading safety. Additionally, we encourage and support merging the maintenance and license renewal rules to avoid duplication of efforts.

Third, we encourage NRC to re-focus their enforcement of current regulation to emphasize safety-significant issues. NRC management must take strong and unambiguous actions to motivate their staffs to carefully determine the safety significance of issues they are working on. Pursuing programmatic details of issues that have no safety significance is a wasteful diversion of public and industry resources which we can ill afford.

Finally, we have reviewed the letter you received from Mr. John C. Brons, President and Chief Operating Officer of New York Power Authority. It contains an excellent discussion of how procurement practices have driven up operating and maintenance costs. We agree with every point that he makes. Industry and NRC must revisit the procurement arena and correct the problems he describes.

The general public and our customers know, or at least are again starting to concede, that generating electricity from nuclear power is technically and environmentally sound. The quality of energy produced versus its impact on the environment - a lot for a little - should not become a lost opportunity. We are, however, concerned that the nuclear option may not remain fiscally sound. It is unfair for the public to lose the nuclear option. Rising nuclear operating costs are caused in part by the inability of NRC and industry to work together, assess regulatory "lessons-learned" and revise regulations as necessary. We must ensure the public only pays the correct cost of nuclear power

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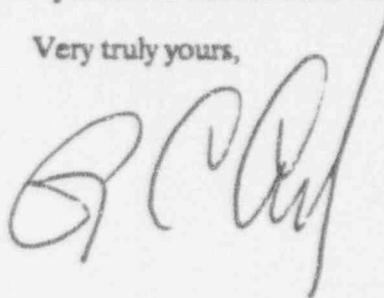
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through regulation that ensures safety by resolving risk-significant issues without wasteful distractions.

We look forward to discussing our ideas with you either personally or through NUMARC. Should you have any questions regarding this matter, we will be pleased to discuss them with you.

Very truly yours,



GCC/JMO/dlm

Enclosure

cc: C. H. Poindexter  
Commissioner K. C. Rogers, NRC  
Commissioner J. R. Curtiss, NRC  
Commissioner F. J. Remick, NRC  
Commissioner G. DePlanque, NRC  
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GEORGE C. CREEL  
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(410) 260-3690

November 3, 1992

Nuclear Management & Resources Council  
1776 Eye Street, NW, Suite 300  
Washington, DC 20006-2496

SUBJECT: Industry-wide Initiative to Reduce Nuclear Generation Costs

Gentlemen:

Baltimore Gas and Electric Company considers the issue of how to improve the regulatory process to reduce nuclear generation costs while at the same time maintaining the current high degree of safety vital. We greatly appreciate Chairman Selin's invitation to identify areas where economies can be achieved without appreciable detriment to safety. We strongly urge NRC to pursue actions in response to this initiative.

Our suggestions fall in three areas. First, we should strive to establish a revised regulatory structure more effectively geared to actual performance and risk than the current deterministic, programmatic approach. Properly conceived, we believe this offers the long-term hope for regaining the nuclear option's competitive advantage in the nation's energy strategy.

Second, we believe that there are several current programs which are unnecessarily prescriptive and expensive - security is a prime example - and which could be immediately revised without degrading safety. We strongly urge the Commission to move promptly on these issues to demonstrate the practicality of reasoned reductions in regulation, thereby reversing the long-standing trend of expanding regulation.

Third, we encourage NRC to take strong and unambiguous actions to encourage its staff to execute current regulation with a constant emphasis on safety. Pursuit of programmatic details without safety significance are an inappropriate allocation of both the regulator's and the utility's resources.

#### SHIFTING TO PERFORMANCE-BASED OR RISK-BASED REGULATION

This is the area in which we feel the greatest economies can be achieved. The initial basis for regulatory review of licenses was a deterministic approach in which nearly every plausible scenario was evaluated, all equipment involved in the plant response was scrutinized, and detailed programmatic controls were established to assure the reliability of these components. We can now do better. As the technology has matured, we have developed extensive operating experience to focus our attention on the truly risk-significant equipment. Probabilistic Risk Assessment has been established as a meaningful quantifier of risk. These tools have enabled us to recognize and resolve many issues not fully apparent at initial licensing. They have also created the means to eliminate or reduce regulation in areas where safety is not materially affected.

### Procurement

The prime impact of a proposed shift to risk- and performance-based regulation is in procurement. We have many components designated as safety-related (SR) which do not contribute measurably to overall plant risk. The additional pedigree required for SR parts imposes a huge expense which is only justified for the limited number of components which truly affect plant safety. Restoring the ability to use commercial-grade parts in the non-essential applications would substantially reduce costs. In many cases, it would also improve the availability of these systems by allowing the utility access to the whole range of suppliers rather than the very limited (and dwindling) number who maintain the certification required for SR parts. A second aspect of the burden created by overly-restrictive designation of systems or components as SR is the quality assurance/quality control standard imposed on their installation. Detailed procedural controls and oversight requirements add significantly to our expense in areas which are often marginal to safety.

### Surveillance

Another area in which a risk-based approach could yield substantial benefits is surveillances. Given the hundreds of surveillance tests performed with successful results, there should be a performance-based methodology to easily change test intervals based on the trend of these results. The current regulatory process to amend surveillance periodicity is too cumbersome to allow routine adjustments. Modifying surveillance periodicity based on performance will lead to reduced resources demands and shutdown or system out-of-service time devoted to testing. It should improve true safety system availability by leaving the equipment in service.

A long-term objective should be a Safety Goal quantifying an appropriate assurance of safety while empowering the licensee to select the appropriate method to accomplish it. Because of the large potential savings involved through improving current deterministically-derived regulatory rules, BG&E is ready to devote significant resources in cooperation with the industry and NRC to move forward in this area.

## IMPROVEMENT OF CURRENT RULES

We have reviewed SECY-92-263, "Staff Plans for Elimination of Requirements Marginal to Safety." We strongly encourage the NRC to aggressively pursue rulemaking to reduce the regulatory burden of containment structure leakage testing procedures (Appendix J), fire protection features (Appendix R) and features for post-accident combustible gas control contained in it. The following other examples illustrate areas where we feel an opportunity exists to quickly attain results:

### Security

For approximately the last twenty years, the security plan has been based on a specific threat concept. Has the NRC re-evaluated the credibility of the threat that the security plan is designed to address? Have actual security threats justified the need for the current elaborate security plan? Do we need a paramilitary force or an enhanced industrial security force? A reduction in the postulated threat (which appears to be more suitable for a DOE weapons-grade plant) and commensurate reduction in staffing and equipment could result in substantial annual savings. We would be pleased to participate in a NUMARC-sponsored effort to make specific recommendations regarding the relaxation of security requirements.

#### Appendix J Containment Leakage Testing

Our type A Containment Leakage Tests are performed roughly every thirty months. Over the remaining life of our present licenses, we will perform about 21 more Type A tests. Including set-up and restoration time, each test takes two-to-three days on critical path at a replacement power cost of about \$340,000 per day. The direct cost of performing the test is about \$200,000. We believe that the demonstrated reliability of our containment justifies reducing the frequency of this test to once every six years. This could reduce the total number of remaining tests from 21 to 7. These would represent an avoidance of over \$8 1/2 million with no appreciable reduction in safety.

#### Reporting Requirements

- We believe there is substantial economy in reducing the many bureaucratic requirements that have cropped up over the years. The recent NUMARC letter on Reporting Requirements is an excellent compilation of the scope of the problem. The cumulative effect of reducing these requirements should afford substantial savings.

#### IMPROVED ENFORCEMENT OF CURRENT RULES

Beyond the issue of the commitment and readiness of NRC management to institute change, we anticipate significant implementation difficulties. Our own organizational experience shows that in addition to conceptual acceptance by management, there must be a parallel effort to revise the organization's culture. A well-conceived revision of regulation can be effectively nullified if inspectors in the field or mid-level supervisors are not on board. Strong upper-echelon encouragement and clear incentives from management are necessary to accomplish the desired results at the working level. The groundwork for this can be laid by continual reinforcement that safety impact is essential in regulatory activities under the current rules.

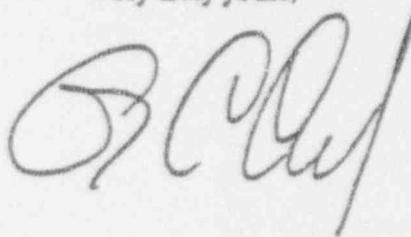
While current enforcement policy makes distinctions between safety-significant and non-safety-significant regulatory matters, there is often substantial effort consumed in review and discussion of many pure compliance concerns. Openness to change and innovation by the licensee is not always characteristic of NRC staff, and Staff review of licensee internal process revisions, for example, can discourage change just through inertia. Aggressive management leadership can go far to eliminate these undesirable characteristics and thereby set the stage for effective implementation of new rules as they are adopted.

In summary BG&E considers it essential that the nuclear industry and NRC aggressively revise the current regulatory framework. The long-term vision must be established and energetically pursued. Equally important, we must take immediate action to reduce those marginal requirements already identified. We must act now! This industry is slowly bleeding to death with our own and regulator influenced bureaucracy. A joint effort aimed at a healthy review of these initiatives can lead to enhanced safety by focusing our mutual efforts in less prescriptive and more rational areas.

NUMARC  
November 3, 1992  
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Should you have any further questions regarding this matter, we will be pleased to discuss them with you.

Very truly yours,

A handwritten signature in dark ink, appearing to be "B. C. [unclear]", written in a cursive style.

GCC/TMO/dlm