

Project No. 669

November 28, 1989

Mr. E. E. Kintner, Chairman
ALWR Utility Steering Committee
GPU Nuclear Corporation
One Upper Pond Road
Parsippany, New Jersey 07054

Dear Mr. Kintner:

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION ON EPRI ALWR REQUIREMENTS DOCUMENT

As a result of our review of your July 3, 1989 response to our request for additional information relative to the ALWR Requirements Document Chapter 6, and your August 18, 1989 response relative to Chapters 6, 7, 8, 9, 12, and 13, we require additional information in order to complete our review of the design. The additional information is needed in the area of reactor safeguards and is covered in the enclosed questions.

Please respond to this request within 60 days of the date of this letter. If you have any questions regarding this matter, call me at (301) 492-1120.

The reporting and/or recordkeeping requirements contained in this letter affect fewer than ten respondents; therefore, OMB clearance is not required under P.L. 96-511.

Sincerely,

/s/

Thomas J. Kenyon, Project Manager
Standardization and Life Extension
Project Directorate
Division of Reactor Projects - III,
IV, V and Special Projects
Office of Nuclear Reactor Regulation

Enclosure:

As stated

cc: William Sugnet

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UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D. C. 20555

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DOCUMENT (TACS M71248/M71803/M71804)

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Sincerely,

A handwritten signature in cursive script that reads "Thomas J. Kenyon".

Thomas J. Kenyon, Project Manager
Standardization and Life Extension
Project Directorate
Division of Reactor Projects - III,
IV, V and Special Projects
Office of Nuclear Reactor Regulation

Enclosure:
As stated

cc w/enclosure: William Sugnet
Nuclear Power Division
Electric Power Research Institute
P.O. Box 10412
Palo Alto, California 94303

REQUEST FOR ADDITIONAL INFORMATIONChapter 6

- 910.1 The July 3, 1989 response to question 1 (and the August 18, 1989 response to question 5 on Chapter 9) state that the ALWR Requirements Document has no specific requirement at this time for ALWR designers to do more than comply with security system requirements of 10 CFR Part 73 for protection against insiders. However, haven't some design requirements been included, perhaps to reduce operator error concerns, that inherently would result in less risk from insiders? Discuss any new reactor system requirements that could result in reduced opportunities (compared to current reactors) for radiological sabotage to result from action of a single insider. The NRC's desire, as expressed in the Severe Accident Policy Statement, is to decrease the reliance on security measures in protecting against radiological sabotage by increasing inherent protection designed into the reactor.
- 910.2 The July 3, 1989 response to question 1 states that Section 5 of Chapter 9 describes the measures to protect against insider sabotage. Which of the provisions in that referenced section are intended to protect against an insider with authorized access to vital equipment?
- 910.3 The July 3, 1989 response to question 5 refers to NUREG 1398, which does not exist. The Access Delay Technology Transfer Manual issued by Department of Energy's Office of Safeguards and Security would be a good reference for this data, but its distribution is restricted by DOE as Unclassified Controlled Nuclear Information.

Chapter 8

- 910.4 The August 18, 1989 response to question 1 agrees to add to Chapter 5 of the Requirements Document a requirement for remote positive indication of correct manual valve isolation valve alignment, and that position indication switches on both manual and motor-operated valves be tamper-indicating and line supervised. However, that response appears to limit the scope of this to valves "of each bypassed or deliberately induced inoperable condition that meets all three of the guidelines specified in Regulatory Guide 1.47." To meet the intent, why wouldn't a better scope be either all systems and components required (by Criterion 20 of Appendix A to 10 CFR Part 50) to be automatically initiated by the protection system, or those designated as vital systems? (Also, the July 3, 1989 response to question 4 on Chapter 6, which stated that no specific requirements are imposed to detect equipment disablement by an authorized insider, should be updated to be consistent with this position.)

REQUEST FOR ADDITIONAL INFORMATION

Chapter 9

- 910.5 The August 18, 1989 response to question 6 states that EPRI believes that personnel access constraint procedures are compatible with the cited ALWR access requirement, but that "careful evaluation and appropriate design planning are needed to achieve this." Discuss why that design planning should not be included in the Requirements Document as a requirement in order to assure compatibility.
- 910.6 The August 18, 1989 response to question 9(b) says that there are no words in the Requirements Document that specifically reject the concept of an alternative dedicated shutdown facility. Section B.1.3 of Chapter 9, discussion of Generic Issue A-29, states:
- "This issue is addressed in Section B.1, Appendix B, of Chapter 5 which concluded that addition of such a system was not warranted for ALWR plants."
- 910.7 The August 18, 1989 response to question 9(c) notes that requirements in Chapter 5, Section 6.6.3.4, require alternatives to reliance on the essential service water intake structure for introducing water into containment. However, the cited section only requires means independent of station normal or emergency ac power supplies. It would be possible for a reactor designer to meet that requirement with a diesel powered pump located within the same intake structure as the service water pumps. Discuss whether a requirement should be added that specifically requires provisions for connecting a portable pump to an existing system as a means for introducing water into containment independent of the intake structure.
- 910.8 Discuss how the August 18, 1989 response to question 14 would apply to BWR designs.
- 910.9 The NRC's Regulatory Effectiveness Review program has reported, in restricted distribution documents, instances where traditional security barriers in subterranean passages were judged to be ineffective in preventing individuals from gaining undetected access to the protected area. Some barriers could be penetrated within minutes with hand carried tools. Please reconsider NRC comment 20 in light of this information.