July 6, 1987

Docket No. 50-601

Mr. W. J. Johnson, Manager
Nuclear Safety Department
Westinghouse Electric Corporation
Water Reactor Division
Box 355
Pittsburgh, Pennsylvania 15230

Dear Mr. Johnson:

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION REGARDING SABOTAGE PROTECTION FEATURES FOR RESAR SP/90

Enclosed are review questions Q910.1 - 910.10 regarding sabotage protection features for the RESAR SP/90 application. This request for additional information is the result of staff review of Module 2 and Module 3 (through Amendment 1) against physical protection requirements of current regulations, as well as with respect to the following portions of the Commission's Severe Accident Policy Statement (50FR 32141, August 1985):

> "The Commission also recognizes the importance of such potential contributors to severe accident risk as human performance and sabotage. The issues of both insider and outsider sabotage threats will be carefully analyzed and, to the extent practicable, will be emphasized in the design and in the operating procedures developed for new plants."

In addition, we understand the response to Q410.1 on Module 2 (see August 27, 1984 letter, C. Thomas to E. P. Rahe) was delayed due to the stage of the design of RESAR SP/90. Response to that question would seem appropriate at this stage of the review as well.

Please respond to this RAI within 90 days of receipt of this letter. If you have any questions concerning this matter, please contact me at (301) 492-8206.

Sincerely,
Original signed by
Thomas J. Kenyon, Project Manager
Standardization and Non-Power Reactor
Project Directorate
Division of Reactor Projects III, IV,
V and Special Projects
Office of Nuclear Reactor Regulation

Enclosure:
As stated

cc: See next page

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

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Docket No. STN 50-601
RESAR-SP/90

cc:

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Box 355
Pittsburgh, Pennsylvania 15230

REQUEST FOR ADDITIONAL INFORMATION
ON RESAR SP/90
SABOTAGE PROTECTION FEATURES

910.1 The discussion in Section 5.1 of Module 2, on Generic Issue A-29, includes the statement:

"The WAPWR design will incorporate several features which should provide improved protection against industrial sabotage. These features include safeguards fluid system designs with reduced or eliminated interconnections, reduced or eliminated normal operation functions, improved redundancy and diversity, and improved plant layout. Also, the WAPWR plant layout provides improved physical separation between safeguards trains A and B as well as between the safeguards trains and the control systems. This layout allows improved control of access to vital areas and also allows free access to most normally operating equipment."

a) Does the statement regarding improved protection provided by the layout depend upon controlling access in a way that restricts persons with authorized access to safeguards train A from having authorized access to safeguards train B, or persons with authorized access to the control systems from having authorized access to the safeguards systems? If so, are there any emergency conditions, or situations that could lead to emergency conditions, for which this could result in interference with rapid ingress or egress of personnel? Do you intend to restrict access to paths between trains A and B of control systems?

b) Discuss if and how the layout would benefit protection against outsider sabotage threats.

910.2 What assumptions about saboteurs' capabilities will be used in the sabotage assessment indicated in Section 5.1 of Module 2 ?

910.3 Section 6.1 of Module 2 states clearly that:

"Plant physical protection plans (including access controls to nuclear power plant vital areas) are the responsibility of each utility using the WAPWR design."

While it is reasonable that physical protection equipment and organization be utility specific, it would simplify licensing of sites if the identification of equipment to be protected as vital within the nuclear power block, which is within the W scope, was standard, rather than utility specific. Please identify the systems and components (including piping runs and valve motor control centers), and their locations, within your scope that should be considered vital in the sense of 10CFR73.2(i). It would suffice to limit the list of components to those outside of containment. Also address what systems not within your scope, such as the service water system, should be vital. (This response should be protected as Safeguards Information in accordance with 10CFR73.21.)

910.4 As some equipment within the nuclear power block will be vital, consideration of the needs of vital barriers during building design could be beneficial. Consideration could be given in Section 6.2.3 of Module 2 to the regulatory position on physical barriers in Regulatory Guide 5.65, which could impact on design of some ducts and penetrations.

910.5 Clarify whether the plot plan of Figure 1.2-1 of Module 3 is simply illustrative or intended to be a standard plot plan or, for physical protection purposes, a "bounding" plot plan.

910.6 There are inconsistencies between the areas cross-hatched in Figure 1.2-1 (Mod. 3) as areas of the nuclear power block and the NPB scope specified in Section 1.2.3. For example, the figure shows the Turbine Building and Guard House are in the NPB, but they are not. Please clarify.

910.7 Discuss how many decay heat removal systems would have to be defeated to prevent mitigation of a loss of offsite power transient. How would this be affected by loss of cooling water to the diesel generators, or other loss of the service water system?

910.8 Discuss the protection afforded the Emergency Feedwater Storage Tanks and Emergency Water Storage Tanks by their locations inside the Reactor Building.

910.9 Page 1.9-1 of Module 3 states that:

> "Table 1.9-2 provides a listing of programs and analyses to be developed on a site specific basis that must interface with programs initiated during the design of the NPB. This table identifies the PDA module where the interface requirements are described."

That table identifies Module 16 for "Industrial Security." Where are interface requirements for physical protection identified in Module 16?

910.10 Although not part of current safeguards regulatory requirements, we request you address the sabotage protection design features discussed in the January 15, 1987 ACRS letter to Chairman Zech, "ACRS Recommendations on Improved Safety For Future Light Water Reactor Plant Design."