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Research Institute

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August 27, 1996

The Honorable Shirley Ann Jackson, Chairman
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Subject: Policy Issues Pertaining To The AP600 Design

Dear Chairman Jackson:

The purpose of this letter is to endorse Westinghouse positions detailed in reference 1, submitted to the NRC in response to NRC staff recommendations to the Commissioners regarding AP600 policy issues (reference 2). This endorsement of the Westinghouse positions is provided on behalf of the Advanced Light Water Reactor (ALWR) Utility Steering Committee (USC), which is the body that directs the utility community's financial and technical support for the national effort to develop and certify advanced light water reactor designs.

References 1 and 2 disagree on two policy issues, "Prevention and Mitigation of Severe Accidents" and "Post 72-Hour Actions", for which near-term decisions by the Commissioners are sought by reference 2.

The USC's principal concern is with the following portion of the staff recommendation on "Prevention and Mitigation of Severe Accidents":

"Therefore, in light of the enhanced safety that is expected from the AP600 design, the staff recommends that the Commission approve for the AP600 the use of non-safety-related system(s) to address the uncertainties associated with the passive natural fission product removal mechanisms for design basis analysis ..."

Use of a "non-safety-related" system in the context of a "design basis analysis" involving fission product removal capabilities required to meet established regulatory requirements for the protection of public health and safety is inconsistent with the fundamental requirement for sole utilization of "safety-related" systems, components, and structures for adequacy to meet such requirements. In addition, such use of a non-safety-related system would introduce a potential challenge during the rulemaking phase of the design certification process.

8/27...To EDO to Prepare Response for Chairman's Signature...Date due Comm:
SEPT 13...Chairman Comms. RF...SECY to Ack....96-0928

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Additionally, the staff request for a policy decision is premature. The staff cannot have completed its evaluation of the latest Westinghouse input on fission product removal in AP600 (reference 3). Reference 3 was submitted by Westinghouse following its review of relevant information generated by NRC's contractor (Sandia National Laboratory) and only very recently made available to Westinghouse. In addition, very recent discussion between Sandia and Westinghouse is expected to lead to some refinement of the Sandia input to the NRC. There is a good basis for anticipating that these continuing interactions will lead to a conclusion that the AP600 passive safety-related features for fission product removal are clearly adequate to meet the stringent regulatory requirements.

The USC is also concerned with the following staff recommendation on "Post-72 Hour Actions":

"Therefore, staff recommends that the Commission approve the position that the site be capable of sustaining all design basis events with onsite equipment and supplies for the long-term. After 7 days, replenishment of consumables such as diesel fuel oil from offsite suppliers can be credited."

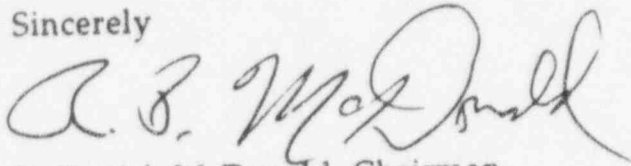
As detailed in the Westinghouse response (reference 1), the AP600 design approach involves a very remote need for a few pieces of portable equipment from off-site, within 72 hours of a design basis accident, to assure maintenance of long-term safe shutdown. As documented in the Utility Requirements Document (reference 4), the USC chose to require dependence on off-site resources for this limited case. Such dependence would require maintaining detailed plans for readily and reliably obtaining the specific equipment from an array of off-site commercial stocks. (This commitment is included as a combined license information item in the AP600 SSAR.) The USC required off-site over on-site resources to assure an in-depth supply of reliable equipment over an extended period of time.

The USC is also concerned that the staff's recommendation on "Post 72-Hour Actions" would reverse NRC's prior acceptance of the relevant clauses of the ALWR Utility Requirements Document, with which the AP600 complies. These clauses were the result of a thorough assessment by the industry, as to the long-term reliability of the various options. NRC expressed its acceptance (of the use of off-site equipment) in its Safety Evaluation Report on the Utility Requirements Document. A withdrawal of NRC's prior acceptance would be inconsistent with the reference 1 characterization of the extremely low probability (less than one in a billion per year) that the relevant AP600 features would not prove entirely adequate.

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The USC respectfully requests your consideration of its concerns on these matters.

Sincerely



R. Patrick McDonald, Chairman
ALWR Utility Steering Committee

References

1. Brian A. McIntyre, W, to John Hoyle, NRC, WESTINGHOUSE COMMENTS ON POLICY AND KEY TECHNICAL ISSUES PERTAINING TO THE WESTINGHOUSE AP600 STANDARD PASSIVE REACTOR DESIGN (SECY-96-128), DCP/NRC0583, Docket No: STN-52-003, August 20 1996
 2. James M. Taylor, NRC, to the NRC Commissioners, POLICY AND KEY TECHNICAL ISSUES PERTAINING TO THE WESTINGHOUSE AP600 STANDARDIZED PASSIVE REACTOR DESIGN, SECY-96-128, June 12 1996
 3. Brian A. McIntyre, W, to T. R. Quay, NRC, POSITION PAPER ON THE REMOVAL OF AEROSOLS FROM THE AP600 CONTAINMENT ATMOSPHERE FOLLOWING A POSTULATED LOCA WITH CORE MELT USING ONLY NATURAL REMOVAL PROCESSES OF SEDIMENTATION AND DEPOSITION, NSD-NRC-96-4787, DCP/NRC0568, Docket No: STN-52-003, August 5 1996
 4. EPRI, Advanced Light Water Reactor, Utility Requirements Document
- c. Kenneth Rogers, Commissioner, NRC
Greta Dicus, Commissioner, NRC
- James M. Taylor, Executive Director for Operations, NRC
- Sterling Franks, Director, Light Water Reactors, DOE
Robert M. Vijuk, Project Manager, AP600 Design Certification, Westinghouse