

ACRSR-0959
PDR 011982



UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
WASHINGTON, D. C. 20555

January 8, 1982



MEMORANDUM FOR: William J. Dircks
Executive Director for Operations
FROM: J. J. Ray
Acting ACRS Chairman
SUBJECT: SYSTEMS INTERACTIONS

In its report dated July 13, 1978 regarding a proposed power level increase for the Indian Point Nuclear Generating Station Unit 3, the Committee recommended that attention be given to a review of this station for "systems interactions that might lead to significant degradation of safety." In a subsequent report dated October 12, 1979, the Committee provided further specific advice regarding the scope and substance of such a study based in part on the more limited study performed for the Zion Nuclear Station.

Over the years, systems interactions have arisen in terms of specific issues in several instances. For example, internal flooding received new emphasis after rupture of the circulating raw water system at Quad Cities in the early 1970's. The ACRS identified it specifically as a generic subject in a letter to L. Manning Muntzing dated November 8, 1974 and provided illustrative examples of items which warranted attention.

A memorandum from H. Denton, NRR, to R. Fraley, ACRS Office, dated November 20, 1981 states that an approach to the systems interactions study for Indian Point 3 is still in the process of being formulated, more than three years after the ACRS recommendation of July 13, 1978. The memorandum states that the NRC staff has now completed its review of PASNY's draft proposal for a systems interactions study at Indian Point 3 and that the Staff has requested that an appropriate ACRS Subcommittee meeting be held.

The ACRS scheduled such a subcommittee meeting to be held on January 5, 1982, only to be advised by the NRC Staff that PASNY was not ready and that the meeting should be postponed.

The Committee believes that it is already past the time when its recommendation for a systems interactions study on Indian Point 3 should have been completed. The ACRS is also disappointed with the absence of even a limited review of systems interactions by either the NRC Staff or the applicant in some of the recent operating license reviews.

The Committee believes that the matter of systems interactions has been delayed for too long. Rather than delay another several years for most plants while the Staff decides on the ultimate approach, it appears that a staged approach may be preferable, with latitude to the licensee to do as good a job as he now can.

The Committee notes that the current probabilistic risk assessments (PRAs) do not usually include a systematic examination of systems interactions and cannot be counted upon to provide adequate insight regarding possible improvements in safety and reliability.

The ACRS would appreciate hearing from the NRC Staff in the near future as to its plans for systems interactions study of Indian Point Unit 3, as well as for other plants. The Committee wishes to understand the priority given to the matter by the NRC Staff in the past and the basis for its future priorities.

cc: Chairman Palladino
Commissioner Gilinsky
Commissioner Bradford
Commissioner Ahearne
Commissioner Roberts
H. Denton, NRR