



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

TAP - A-17

MAR 15 1979

MEMORANDUM FOR: John Angelo, Light Water Reactors Branch 1, DPM
FROM: V. Benaroya, Chief, Auxiliary Systems Branch, DSS
SUBJECT: TASK ACTION PLAN A-17 AND COMPRESSED AIR SYSTEM

In most plants, only a small part of the compressed air system, (selected valve actuators with air accumulators supplied by instrument air) is considered as safety related. In multi-unit sites, the air system is often shared. Regulatory Position 8 of Regulatory Guide 1.80, "Pre-operational Testing of Instrument Air Systems" recommends "Conduct a loss-of-instrument-air-supply test on all branches of the system simultaneously, if practicable, or on the largest number of branches of the system that can be adequately managed...." To our knowledge, the failure of the complete instrument air system as part of the pre-operational testing program has not been tested, or the interaction on other safety related systems as a result of failure of instrument air under different operational modes has not been evaluated. On August 18, 1978, the total loss of the shared compressed air at Browns Ferry resulted in shutting down of two units (the third unit was already shut down) simultaneously. In some areas of the U.S., simultaneous loss of units may result in an unacceptable perturbation of the utility grid system. In order to get a better handle on the implications of loss of compressed air, I recommend that as part of Task Action Plan A-17, you consider the systems interaction of loss of instrument air in multiple unit as well as single unit sites.

V. Benaroya, Chief
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