



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

August 9, 1983

Honorable Nunzio J. Palladino
Chairman
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Dr. Palladino:

SUBJECT: ACRS REPORT ON A PROPOSED RULE REQUIRING ON-SHIFT ENGINEERING EXPERTISE

During its 280th meeting, August 4-6, 1983, the ACRS reviewed a new rule, proposed by the NRC Staff to be issued for public comment. This rule would require licensees of nuclear power plants to provide personnel with engineering expertise on each shift. The matter was also discussed with the NRC Staff during a meeting of our Subcommittee on Human Factors on June 30, 1983.

The proposed rule would require that, by 1987, at least one person on each shift at an operating nuclear power plant have a bachelor's degree or equivalent* and also hold a Senior Reactor Operators (SRO) license. Further, the rule would require that, beginning in 1987, each licensee have a plan and schedule to assure that all shift supervisors will have bachelor's degrees. The NRC Staff believes these requirements will provide enhanced on-shift diagnostic and response capability, cross-fertilization of the operations and engineering groups within each utility, and increased professionalism of the operating staff. The proposed rule is part of a package of new regulations, related to qualifications and training of nuclear power plant personnel, being developed in response to Section 306 of the Nuclear Waste Policy Act of 1982.

We note that this proposal is a move away from the concept of a Shift Technical Advisor (STA) who is independent of the operations staff. The Committee has previously (letter of December 14, 1982) endorsed a proposal for combining functions of the SRO and the STA (i.e., engineering expertise) in one person. We continue to endorse that proposal and thus are in agreement with the central thrust of the proposed rule which is to combine these qualities in the shift supervisor.

We note that the proposal for implementation would permit flexibility in applying the requirement for a degree during Phase 1 of the implementation; it is not explicit in the Phase 2 implementation as described to us. We urge

* A more complete definition is given in the proposed rule.

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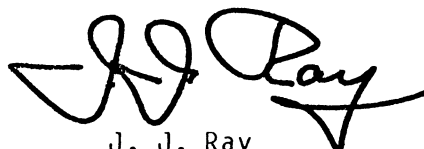
that this flexibility be interpreted in a manner to permit currently well-qualified shift supervisors who do not have bachelor's degrees to continue to hold this responsibility. If the shift supervisor does not have the bachelor's degree, then it should be required that another SRO on-shift have this technical qualification.

We disagree, however, with defining the necessary engineering expertise as "a baccalaureate degree or equivalent in engineering or a related field." While this, or a similar definition, may be an appropriate minimum requirement or selection criterion, it is not a sufficient description of the qualities desirable in the shift leadership. Existing requirements for an STA provide a more comprehensive definition of the qualities required for engineering expertise. We recommend that the NRC develop a more complete set of requirements for shift supervisors at nuclear power plants. These requirements should be embodied in a license for shift supervisors separate from and at a higher level than the present license for SROs.

While the proposed rule is not necessarily incompatible with the above recommendation, we believe it does not address all of the essential issues with regard to providing engineering expertise on-shift. The particular issue addressed by this rule has been singled out by the Staff for development in advance of the remainder of the Section 306 package. We believe that more time is needed to consider our recommendations and suggest that it might be better to consider the rule along with the rest of the package.

Additional comments by ACRS Members M. W. Carbon, J. C. Ebersole, C. Michel-son, and C. P. Siess are presented below.

Sincerely,

A handwritten signature in cursive script, appearing to read "J. J. Ray". The signature is written in dark ink and is positioned above the printed name and title.

J. J. Ray
Chairman

Additional Comments by ACRS Members M. W. Carbon, J. C. Ebersole, C. Michel-son, and C. P. Siess

We do not agree with the proposed requirement that, some time after 1987, the shift supervisor must have a bachelor's degree or equivalent. We believe that a technically competent and knowledgeable person should be in the control room or available on short notice, and that this person should have a bachelor's degree, an appropriate amount of experience, and should hold an SRO license. We see no reason, however, why this person must be the shift supervisor, and we have some doubts as to whether he should be.