Southern California Edison Company

P. O. BOX 800
2244 WALNUT GROVE AVENUE
ROSEMEAD, CALIFORNIA 91770

J. G. HAYNES
MANAGER OF NUCLEAR OPERATIONS

TELEPHONE
(213) 572-1742

June 18, 1981

Dr. Steven H. Hanauer, Director
Human Factors and Safety Division
U. S. Nuclear Regulatory Commission
7920 Norfolk Avenue, Room P-518
Bethesda, Maryland 20014

Dear Mr. Hanauer:

Subject: Southern California Edison
Comments on SECY 81-84,
Operator Qualifications and Licensing

Recently we received copies of two versions of SECY 81-84 prepared by Commissioners Gilinksy and Ahearne which relate to educational requirements for operators and shift supervisors. We reviewed these documents and have the following comments.

First is the question of whether upgraded educational requirements should be implemented by rulemaking or a more easily revised process. Discussions held thus far make it apparent that a great deal of uncertainty surrounds the effectiveness of degreed operators and the effect any change will have on the retention of present operators or the loss of expertise from engineering staffs if personnel transfers are needed to accommodate these educational requirements. It is believed that rulemaking at this time as proposed by SECY 81-84, would have a major negative impact on the industry's considerable efforts already in progress to improve operator training and qualification by causing a major diversion of effort from programs nearing fruitation to a mandated program of questionable value, especially in the short term. It is apparent that flexibility to revise the requirements to incorporate the experience gained through application of a set of requirements is a necessity for this process. Therefore, we strongly urge the commission to use the regulatory guide process or other suitable means instead of the rulemaking process to implement these requirements and to periodically review their effectiveness with members of the industry.

The second important question here involves the application of changes to presently licensed operators. The existing pool of qualified operators provides an extensive source of knowledge and experience that is absolutely necessary for proper operation of the plants and could not be replaced by academic programs. The industry, already very short on qualified operators, would be driven to a near crisis situation by the loss of personnel to long term training programs or to other vocations. Therefore, a gradual transition of requirements applicable to present license holders is essential.

X601
S
1/0

The final area of our comments involves the contents of the qualification program. We view with alarm, the proposal to require degreed personnel for RO and SRO licenses. In spite of what we consider to be compelling arguments to the contrary from virtually every segment of the nuclear power industry, including nuclear utilities, nuclear suppliers, Atomic Industrial Forum and Institute of Nuclear Power Operations, the Commission appears to be bent on imposing the BS Degree requirement on the industry. The arguments against this action have been numerous and varied and need not be repeated here. My letter of January 29, 1981, addressed Southern California Edisons specific comments on the proposed requirement. Essentially, all of the arguments against the proposal ultimately focus on a single concern that the requirements will not enhance reactor safety, but to the contrary, could precipitate actions that would jeopardize safety.

The degree requirement appears to be arbitrary, and not wholly agreed to by the NRC itself. This is particularly evident by the fact that up to the publication of SECY 81-84, the BS Degree proposal had been for the shift supervisor only. Commissioner Ahearne's version of SECY 81-84 proposes to extend the requirement to all licensed reactor operators. The only rationale for this change appears to be a conclusion that if "some is good," "more must be better."

The questions of whether the shift supervisor should hold a degree hinges on the retention of the Shift Technical Advisor. In the Navy's program, the shift supervisor does hold a degree (not necessarily in engineering or science). However, the length of service as a shift supervisor is about three years. Afterwards, the individual moves into a middle management position. All existing and proposed commercial plant programs involve a much longer period of time to qualify and gain experience as a shift supervisor. The position of Shift Technical Advisor (STA) most closely resembles the Navy shift supervisor, Engineering Officer of the Watch (EOOW), in terms of qualification, training, and career path. An STA is normally degreed, undergoes the same amount of training (one year) as an EOOW, and has a career path that leads to company management. The STA program would result in enriching company engineering groups and management with personnel who have plant experience, where as degreed shift supervisors would necessarily spend a long time on shift and thus would have a difficult time developing the broad base of experience necessary for a management position. A qualification program which tends to bottle up experience of this type at each power station tends to prevent incorporation of operating experience into design, management, and regulation. This is counter to one of the most important lessons from the accident at Three Mile Island - management, design, and regulation must develop a greater awareness of the effectiveness of plant administration and the man-machine interface.

In general, all versions of the proposed rulemaking are overly prescriptive in nature. The human qualities that result in knowledge, leadership, and quick action in an emergency cannot be quantified as though they are equivalent to an instrument setpoint. Overly restrictive requirements limit organizational flexibility and efficiency and lead to a false sense of security. The following comments address specific areas of the proposed rule where comments were requested.

10 CFR	Comment
55.33(b)	The requirement for the satisfactory completion of at least one requalification examination as a condition for license extension during Commission review was not justified in the Supplementary Information section of SECY 81-84 and unreasonably shifts the burden to the applicant who has no control over Commission review. This matter should be handled by proper NRC administrative controls.
55 App. B	The distinction between a high school diploma and an equivilancy exam becomes meaningless after completion of an RO qualification program. It is recommended that substitution of a training program for college level courses be allowed for utility training programs. The existing pool of experienced operators simply cannot yet support the proposed minimum experience requirements for shift supervisors of five years at a nuclear power plant and two years as an SRO. This is especially true for plants which have not operated. This level of experience was not justified nor do we feel that it is necessary. Successful performance as an SRO or the equivalent position during startup testing prior to receipt of a license is adequate, based on our experience, as a minimum requirement, although greater experience is certainly desired. The 60 semester hours of college level technical subjects for shift supervisors and 45 semester hours for senior operator coupled with a realistic time period for implementation is achievable. It is believed that this approach can be accommodated without major disruption to other efforts in progress and will provide the desired enhancement of senior operators' and shift supervisors' technical qualifications and abilities.

The proposal to establish an ad hoc committee of specialists from other agencies that have dealt with the training and qualification of operators of equipment similar in nature to a nuclear power plant is an excellent idea and we strongly endorse obtaining the advice of such a group prior to finalizing any program.

Whichever of the proposed programs is adopted will cause a revolution in the fundamental methods used by utilities to hire, train, and promote nuclear plant operators. We caution the Commission on the danger of embarking on a course of action that is overly restrictive or proceeds too rapidly, only to discover that the direction was wrong after irreparable damage has been done to the levels of experience and morale in the industry.

Should you have any questions or wish additional input, Edison would be pleased to participate in future discussions on this matter.

Very truly yours,

V. A. Haynes

cc: E. P. Wilkinson, INPO