

Southern California Edison Company

P O BOX 800
2244 WALNUT GROVE AVENUE
ROSEMEAD CALIFORNIA 91770

DOCKET NUMBER 50 misc notice
PROPOSED RULE 1.8 Reylunde

January 29, 1981

TELEPHONE
(213) 572-1742

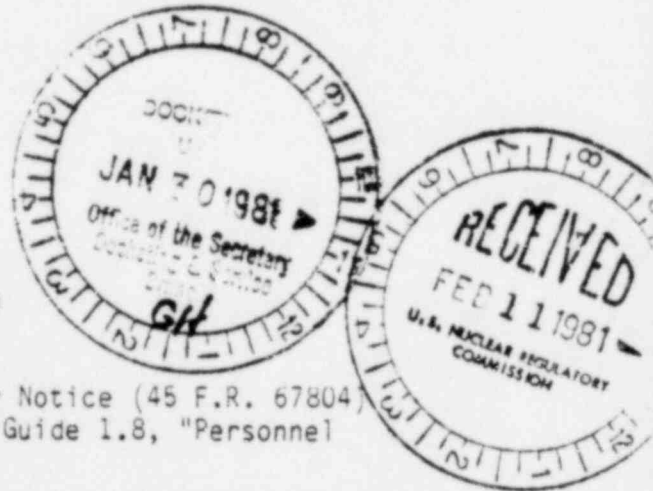
J. G. HAYNES
MANAGER OF NUCLEAR OPERATIONS

Secretary of the Commission
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Docketing and Service Branch

Dear Sir:

Subject: Personnel Qualification and Training
San Onofre Nuclear Generating Station
Units 1, 2 and 3



The October 14, 1980 Federal Register Notice (45 F.R. 67804) solicited comments on Revision 2 of Regulatory Guide 1.8, "Personnel Qualification and Training."

The Nuclear Operations Organization of Southern California Edison Company has reviewed this Regulatory Guide. We have the following comments to offer:

A. General Comment

By the proposed revisions to Regulatory Guide 1.8, the NRC would unilaterally establish requirements which we feel are not appropriate. Our specific reasons for this general comment are indicated in the comments listed below.

It should be noted that in the past, the NRC and industry has participated jointly and effectively in the preparation and revision of ANS 3.1, the American National Standard for Selection and Training of Nuclear Power Plant Personnel.

Please note that our main objection concerns the educational requirements which would be imposed on operators.

B. Specific Comments

- (1) Section B, para. 2.2.6, pg. 8: Comparison of NRC, Commercial and Naval Procedures for Qualification of Personnel

The validity of comparing the U.S. Navy with the civilian nuclear program is questionable. The following perspectives highlight some of the differences between the military and civilian programs.

ACKNOWLEDGED BY ... 1/30/81

I-42-11

The U.S. Navy nuclear program utilizes personnel who are subject to enlistments of finite and firm periods. These people also have a somewhat restricted choice of assignments and can remove themselves from such assignments only through a painstaking process. Such factors tend to stabilize manpower.

The relative availability of personnel, in all potential jobs at a nuclear power plant, however, is dictated by the open market, which includes a large number of individuals who as civilians, have a much greater freedom of choice. The rewards of additional money are often insufficient compensation to retain their talents. In addition, it is our understanding, that even with this advantage of control, the Navy nuclear program suffers from great turnover.

We, therefore, suggest the Commission proceed with caution when comparing military with civilian programs. The environments in which the programs exist are totally different.

- (2) Section C, para. 1.4.c, pg. 13: This section states that 60 semester hours of college level education would be required for a senior operator.

We feel that this amount of education is too high for the nature of the position and that the ANS 3.1 requirement for 30 semester hours of college level education for SRO's should apply.

- (3) Section C, para. 2.1, pg. 14: This section limits the number of exceptions to required qualifications to 5%.

ANS 3.1 requires a rigorous evaluation on the part of plant management to determine qualified exceptions. These evaluations should stand on their own merits and not be overridden by any arbitrary number. Therefore, an arbitrary limit of 5%, or any other number, should not be specified.

- (4) Section C, para. 2.3.1, pp. 15-16: This section would require a shift supervisor to have a Bachelor of Science degree.

Upgrading the qualifications of the shift supervisor are unnecessary and in fact counter to efforts to enhance safe plant operation for the following reasons:

- (a) A degree of itself provides no assurance of the competency of the degree holder to perform as a shift supervisor. Rather, this confidence is achieved through a sound education in related engineering disciplines and on-site evaluation of the individual by appropriate management personnel. The seeming presumption that a degree makes a qualified supervisor out of an otherwise technically qualified person may not be valid and thereby provides a false sense of assurance.

- (b) Higher turnover rates of shift supervisors would be expected to result from a requirement for them to have a BS degree. The net effect would be detrimental to safe plant operation rather than an enhancement. Experience at the San Onofre Nuclear Generating Station indicates that degreed engineers are reluctant to assume duties involving shift work or to continue these duties after obtaining a degree. This has been most evident in attempts to recruit Shift Technical Advisors (STA's) where the most frequent reason for job refusal has been lack of enthusiasm for shift work. Success in recruiting STA's has been only recently achieved after establishing that position as the entry level for nuclear engineers, assigning duties on a daily basis rather than shift work and fixing the length of service as an STA to about three years or less. Neither of the two methods currently identified for providing shift supervisors with a BS degree are conducive to personnel retention. Providing the necessary college education for present shift supervisors in addition to other required retraining, as well as their normal shift duties, will require a substantial amount of overtime hours. It has been estimated by one academician that 60 semester hours of college credit alone could entail as much as 2700 hours of student time. BS degree requirements would be greater. It is likely that most persons completing such a course on an "over and above normal duties" basis would be anxious to try something else as soon as he attains a BS degree.

The second method available is to hire degreed engineers and qualify them for a senior operators license. The lengthy qualification and experience requirements mandated by the NRC for SRO candidates would require these engineers to be "in training: for shift supervisor for over two years at a minimum and possible as much as four years (four years power plant experience including two years nuclear power plant experience required by ANS 3.1 - Draft revision 12/6/79). The prospect of a long apprenticeship at subordinate position is not expected to be a recruiting inducement for BS degreed personnel of the caliber desired for shift supervisor duties.

- (c) A BS degree requirement for the shift supervisor would eliminate or severely retard an upward career path for Reactor Operators and limit ability to recruit top personnel. This could create higher turnover rates at this position as well, further contributing to reduced plant safety.

The position of Shift Technical Advisor (STA) was established in order to provide at least one person in the control room under off normal condition with an advanced technical education to act as an advisor to the shift supervisor. The functions assigned the STA, Accident Assessment and Operating Experience Assessment, both require a measure of independence and detachment from routine operations of the plant. This is intended to provide a perspective and time for assessing these functions unencumbered by the requirements of commercial operation.

It is believed that the STA position in lieu of requiring a BS degree for shift supervisors is preferable for the following reasons:

- (a) The technical education requirements for the STA are essentially the same as proposed for the shift supervisor. Upgrading the STA educational requirements to a BS degree in an engineering subject including the same technical subjects is both reasonable and achievable. This would provide on shift at least one person with the desired educational background.
- (b) Having a person with a strong technical education on shift is desirable for the same reasons as used in establishing the Shift Technical Advisor position, that independence and detachment are provided.
- (c) A viable career path for STA's can be readily established while this is not true for engineers who would become shift supervisors. SCE has identified the STA position as the entry level for nuclear engineers. After a period of training of about nine months and approximately two years performing STA duties, a typical STA would transfer to nuclear engineering duties and a new STA would start on tour. The engineer who has completed STA duties is expected to be much better equipped to carry out his engineering duties as a result of his experience and has a broad career path available. A turnover of STA's approximately every three years will not impact plant operation as would a similar or more frequent turnover of shift supervisors.

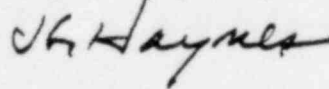
A similar career path for shift supervisor advancement is not practical. A plan similar to the one for STA's would not be desirable due to the high turnover rate required. Additionally, the more narrow scope of

experience gained by the shift supervisor, who is devoted exclusively to operations, would not give him the exposure necessary to make him competitive with his peers who have spent their time in varied engineering assignments.

- (d) Recruitment of STA candidates who possess a BS degree with exposure to the desired technical subjects can be sustained if a preplanned career path and finite period of shift duties are defined. It is doubtful that BS degreed shift supervisor candidates can be recruited in the necessary numbers.

The Southern California Edison Company appreciates the opportunity to comment on this Regulatory Guide.

Very truly yours,



cc: E. P. Wilkinson,
Institute of Nuclear Power Operations
1820 Water Place
Atlanta, GA 30339