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The Secretary of the Commission U.S. Nuclear Regulatory Commission Washington, D.C. 20555 Attn: Docketing and Service Branch

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Dear Secretary:

This letter is being sent in regard to the proposed rule listed in the Federal Register, Vol. 53 No. 250, 10CFR50 and 55 titled "Education and Experience Requirements for Senior Reactor Operators and Supervisors at Nuclear Power Plants". As a Shift Technical Advisor (STA) at the Callaway Nuclear Power Plant, I would like to offer some comments concerning the two alternatives identified which are aimed at upgrading the operating, engineering and accident management expertise on-shift.

The most desirable alternative to adopt would appear to be Alternative 2, "Requirements for Supervisors". This would enhance engineering experience on-shift while maintaining a career path for the non-degreed Reactor Operator (RO) into the Operating Supervisor (OS) management position. This is important for the following reasons:

- 1) Union Reactor Operators as well as other union employees would maintain a higher morale knowing that they still have an opportunity to advance into the management ranks should they desire to.
- 2) Allowing ROs to advance into the OS position will maintain a high degree of hands-on operating experience in the supervisory ranks of the-on-shift organization.
- 3) In addition to the obvious increase in technical background gained by having a Shift Supervisor (SS) on-shift with an engineering degree, another benefit may exist. It is no surprise that a barrier usually exists in the working relationship between non-degreed personnel and engineers, no matter how small. If the SS holds a bachelor's degree in engineering, perhaps a better working relationship can be developed between the Operations on-shift organization and other on-site organizations.

Alternative 2 would appear to be more effective and easier to implement if the requirements were as follows:

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- 1) A bachelor's degree in engineering from an accredited (ABET) college or university program. Bachelor's degrees in mathematics or other non-engineering programs should not be acceptable since the intent of the proposed rule is to incorporate more <u>engineering</u> expertise into the on-shift organization. It would seem too difficult and inconsistent to try and evaluate a "demonstration of engineering competence" on a case-by-case basis.
- 2) Individuals who currently maintain positions as SS at the time the amendment is approved and becomes effective, should be "grandfathered". This would eliminate the burden of acquiring a degree while being a full-time employee which would be imposed upon personnel who do not meet the educational requirements. At the same time, there would be no interruption of existing operations which would take place if all current Shift Supervisors were required to go back to college. This in itself would seem to pose somewhat of a threat to the existing level of safe operation due to the juggling of personnel required to support the temporary loss of Shift Supervisors who would be pursuing the educational requirements prior to the four year deadline.
- 3) Three years of responsible nuclear power plant experience. At Callaway the RO position is filled by Union employees and engineering management personnel would be unable to fulfill the requirement of "1 year as Reactor Operator at greater than 20% power". SO license candidates currently perform numerous RO functions "at the controls" for qualification card checkout and approval. Perhaps this could be enhanced so SO candidates who are degreed management employees could meet this requirement.
- 4) Six months at the specific plant for which the individual would be licensed. This is the same as has been proposed.

I would also like to emphasize that the concept of two on-shift employees with engineering experience/degrees, which is an integral part of Alternative 1, is a good one. Therefore, I would suggest that the STA position be maintained even though the SS were to have an engineering degree, <u>provided</u> the following measures were taken to enhance the position and effectiveness of the STA.

- 1) More specialized training in the areas of:
 - a) Accident analysis. If the NRC is concerned about additional expertise for accidents beyond design basis

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conditions as well as a more thorough understanding of the design basis accidents, in on-shift individual needs to be dedicated to this. Simply requiring the SS to have a B.S. in engineering will not address this need.

- b) Emergency response issues. It would appear to be beneficial to have someone on-shift with a better technical understanding of health physics, radiological, etc. evolutions which are taking place, or could take place during an emergency.
- c) Core physics and design.
- d) Technical Specifications and FSAP. The STA could serve the on-shift organization more effectively if more in-depth Technical Specifications and design bases training were employed.
- 2) The STA position should be a part of the Operations organization with specific and definel responsibilities and functions, such as making field inspections of critical components or taking locs of critical parameters. This would ensure that the STA was more active in the on-shift organization.
- 3) The STA should review and become familiar with planned plant modifications which could affect normal operations. Control room personnel are not usually thoroughly familiar with the technical aspects of plant modifications which are to be installed. As an engineer with operations experience, the STA could greatly enhance the on-shift awareness of plant modification details which have a direct affect on plant operations.

In conclusion, if no steps are taken to enhance the position that the STA currently serves, it may no longer be viable to maintain if the SS holds a B.S. in engineering. But simply transferring the technical engineering background from one individual to another would not appear to me to ensure that levels of operating, engineering and accident management expertise on-shift have been upgraded. I would appreciate any response you could return regarding this.

Sincerely,

Rich 2. Rice

Rick L. Rice

RLR/dch