

NORTHEAST UTILITIES

THE CONNECTICUT LIGHT AND POWER COMPANY
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 NORTHEAST UTILITIES SERVICE COMPANY
 NORTHEAST NUCLEAR ENERGY COMPANY

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*Barbara - attach
 copy of Secy 84-106*

March 23, 1984

② vs - any guidance

Docket Nos. 50-213

③ Tom Cox

50-245

50-336

50-423

B11097

Mr. Victor Stello, Jr., Deputy Executive Director
 Regional Operations and Generic Requirements
 U. S. Nuclear Regulatory Commission
 Washington, D. C. 20555

Dear Mr. Stello:

Haddam Neck Plant
 Millstone Nuclear Power Station, Unit Nos. 1, 2, and 3
Proposed Rulemaking Concerning Requirements for
 Senior Managers at Nuclear Power Plants

We have been aware for some time that the NRC Staff has been developing generic requirements in the areas of engineering expertise on shift and upgraded reactor operator training and qualifications. Due to the potentially large impact which these proposed requirements would have on our operating units⁽¹⁾ and on Millstone Unit No. 3, which is presently under construction, we have maintained a general awareness of the ongoing Staff efforts. In this regard, we have recently been provided with copies of Enclosures A and B to SECY 84-106, "Proposed Rulemaking Concerning Requirements for Senior Managers." These enclosures represent the current NRC proposal for a requirement that a degreed, SRO-licensed individual be assigned to each shift of a nuclear power plant. While we have had only a brief period of time to review these documents, there are many aspects of this proposed rulemaking that continue to cause us great concern. We are particularly concerned that the current Staff efforts appear to be moving forward with increasing momentum, without adequate consideration of supporting justification, in conflict with past NRC guidance, and in total isolation from both generic industry and our utility-specific initiatives. Our efforts, which have consumed significant resources, have included both responses

(1) Northeast Utilities is presently responsible for the safe operation of the Haddam Neck Plant and Millstone Unit Nos. 1 and 2.

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to firm NRC requirements and longer term activities designed to enhance the available on-shift expertise. We have attempted to maintain a continuous dialogue with the Staff (2),(3),(4),(5),(6),(7),(8),(9) concerning these issues, however this effort has been somewhat one-sided.(10)

Our primary concern with the current rulemaking effort is that the proposed rule would essentially invalidate our licensed operator upgrade program which was designed in part to meet earlier NRC Staff guidance.(11),(12) The significance of this point should not be underestimated. Our STA upgrade program was structured specifically to meet the post-TMI "requirements" of NUREG-0737. We have been aggressively implementing this program, which was reviewed and approved by the Staff,(13),(14) for over four years; promulgation of the proposed rule would effectively invalidate this good faith effort. We have tried to interact with the Staff to provide our perspective on the engineering expertise

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- (2) W. G. Council letter to D. G. Eisenhut, dated December 31, 1980; Post-TMI Requirements, Response to NUREG-0737.
 - (3) W. G. Council letter to D. G. Eisenhut, dated September 28, 1981; NUREG-0737 Item I.A.1.3, Shift Staffing.
 - (4) W. G. Council letter to D. G. Eisenhut, dated March 1, 1982; NUREG-0737 Item I.A.1.3, Shift Staffing.
 - (5) W. G. Council letter to S. J. Chilk, dated September 27, 1982; Proposed Rule Governing Licensed Operator Staffing at Nuclear Power Plants.
 - (6) W. G. Council letter to D. G. Eisenhut, dated August 25, 1983; Final Rule on Licensed Operator Staffing at Nuclear Power Units.
 - (7) W. G. Council letter to S. J. Chilk, dated September 23, 1983; Draft Policy Statement Regarding Engineering Expertise on Shift.
 - (8) W. G. Council letter to D. G. Eisenhut, dated November 18, 1983; NUREG-0737 Item I.A.1.1, Shift Technical Advisor.
 - (9) W. G. Council letter to W. J. Dircks, dated January 28, 1983, Plant Specific Simulators.
 - (10) H. Thompson letter to W. G. Council, dated February 25, 1983, regarding plant-specific simulators.
 - (11) NUREG-0578 Item 2.2.1.b, Shift Technical Advisor.
 - (12) NUREG-0737 Item I.A.1.1, Shift Technical Advisor.
 - (13) D. M. Crutchfield letter to W. G. Council, dated March 31, 1982; NUREG-0737 Item I.A.1.1, Shift Technical Advisor.
 - (14) J. J. Shea letter to W. G. Council, dated February 22, 1982; NUREG-0737 Item I.A.1.1, Shift Technical Advisor.

question, however, the Staff has not responded and continues to move forward with rulemaking. We are directing our comments and concerns to your office with the hope that they will receive appropriate consideration and response. Our general comments are provided in the paragraphs below; detailed comments on Enclosures A and B to SECY 84-106 are contained in the attachment to this letter.

We agree in concept that it is necessary to have the engineering expertise and accident assessment function available on shift. However, the approach taken by the Staff in the proposed rulemaking is fundamentally flawed and, in our opinion, has the definite potential to degrade rather than improve safety. We do not mean to imply that the rule would necessarily decrease safety, but we believe the Staff's assessment of the overall impact of the rule to be grossly inadequate and short sighted in assessing the potential negative impacts. We elaborate more on the basis for this position in the attachment to this letter.

The current Staff proposal would require the addition of a third SRO licensed individual on shift who has a Bachelors degree in engineering or related science, with no allowance for demonstrating equivalency. We believe strongly that the Staff is placing an inordinate amount of emphasis on obtaining a degree, which emphasizes an end product of less than ideal applicability to the exclusion of course content. We emphatically endorse the position publicly expressed by several members of the Advisory Committee on Reactor Safeguards that the Staff is focusing on a degree requirement with no evident consideration of specific curriculum requirements. During an ACRS Human Factors Subcommittee meeting on June 30, 1983, several ACRS members and their consultants expressed reservations concerning degree requirements for licensed operators. For example, a comment by one consultant (Mr. Catton):

"It seems to me that what you have to do is sit down and lay out the kind of curriculum that an engineer or science student or whatever ought to have had. Without doing that, it is meaningless. Somebody can get a science degree and the courses can be almost totally unrelated to nuclear power plant operation. Nuclear power plant operation is a field all its own. Very few schools that I know of would do a good job in preparing a person to do that. I think you should have curriculum requirements, not degree requirements."

We are extremely concerned that the Staff has not heeded this advice, and insists on promulgating a degree requirement which, in and of itself, has little if any relevance to nuclear plant operation. While the Staff has been attempting to justify the degree requirement, we have been aggressively implementing, for over four years, our own technical upgrade program which, we are confident, is far superior in content to the Staff's vague⁽¹⁵⁾ proposed requirements. Yet, under the Staff's proposal, this program would be worthless. We urge the Staff

(15) "Vague" in this context refers to the lack of specificity in course curriculum. The proposal rule is not vague in that the degree requirement itself is quite explicit.

to evaluate this program again before embarking on a rulemaking that would invalidate what we believe to be a significant contribution to shift complement capabilities.

In the final rule on licensed operator staffing published in the Federal Register on July 11, 1983 (48FR31611), the Staff conceded that there is no empirical data base which specifies the exact number and qualifications of licensed operators needed on shift. Enclosure A to SECY 84-106 makes a similar statement. We agree completely with this conclusion. However, rather than focus on an end product such as a degree requirement, we have developed a technical upgrade curriculum for licensed operators that provides college-level education specifically tailored to nuclear power plant operation. Rather than establish qualifications based on a degree requirement, we established curriculum requirements based on the INPO guidelines for the STA position and on our own corporate management requirements. An evaluation of the engineering curricula available at a number of reputable institutions determined that no single engineering degree would satisfy our requirements. Although the nuclear engineering curriculum came close to meeting our guidelines, even it fell considerably short in specific areas. Thus, a decision was made to develop, in concert with a local State technical college, a curriculum that would be responsive to our needs.

After an extensive comparative evaluation of a number of institutions, Northeast Utilities selected Thames Valley State Technical College (TVSTC) to implement the technical upgrade program. NU and TVSTC jointly developed the curriculum for a two year, newly designed Associates Degree program in Nuclear Science Technology. We have also received formal licensure for the program from the State of Connecticut. We believe that the following points support our position that this program is superior to the Staff's proposed degree requirement:

- o The program is specifically tailored to nuclear power plant operation, an essential factor that is lacking in all other available degree curricula.
- o The program is conducted for senior licensed personnel. These operators have considerable plant experience and most have worked their way "up the ranks" from the position of plant equipment operators. This makes them intimately familiar with the plant, something a degree requirement does not do.
- o The program meets or exceeds the INPO guidelines in terms of subject matter and contact hours for the STA position. (STA Level I)
- o The program meets NU corporate requirements for additional education to STA Level II.
- o The program combines formal college level education in nuclear related subjects and general education for a total of approximately 85 credits.
- o NU input is solicited to ensure that the curriculum, course content, and laboratories are kept up-to-date and relevant. Additionally, NU will have representation on the program Advisory Committee, a board of five to ten industry-wide experts.

- o NU will provide advice on qualifications and hiring of faculty and may provide adjunct faculty in areas where the College lacks expertise, e.g. - nuclear operations.
- o The program will provide the necessary academic background to staff a variety of other positions at our nuclear facilities.

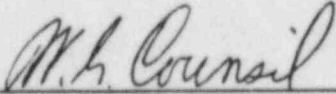
We firmly believe that this program offers a much better solution to the issue of engineering expertise on shift than would the Staff's proposed degree requirement. Our program was structured around what we determined to be necessary qualifications and education. The Staff's proposal would require a degree, with essentially no consideration of the specific areas in which education is needed. It is inconceivable to us that the Staff would not accept our program in lieu of a Bachelor's degree, if nuclear safety is the objective. We strongly urge the Staff to redirect their efforts away from the prescriptive degree requirement and toward more specific educational requirements. We believe that our program could serve as a model for this effort and we are confident that the Staff would find it more responsive to the need for providing engineering expertise on shift.

Based on our brief review of Enclosures A and B to SECY 84-106, we are providing specific comments in the Attachment to this letter. One conclusion we have reached is that the existing requirements of 10CFR50.54(m) are adequate with respect to the number of licenses required on shift. A requirement for a fifth licensed individual on shift is unnecessary, and would divert some of our most valuable talent to an area where their contribution to nuclear safety would be drastically reduced. We intend to conduct a detailed review of this information and provide comments on the draft rule when, and if, it is published for public comment. The attached comments serve to reinforce our position that there are fundamental flaws in the proposed rulemaking effort. While some comments may seem minor, others we view as very significant, and when taken in the aggregate raise some serious concerns related to the need, justification, bases, and potential negative effects on safety of the proposed rule.

We remain available to discuss this issue at your convenience.

Very truly yours,

CONNECTICUT YANKEE ATOMIC POWER COMPANY
NORTHEAST NUCLEAR ENERGY COMPANY



W. G. Council
Senior Vice President

Docket Nos. 50-213

50-245

50-336

50-423

Attachment 1

Haddam Neck Plant
Millstone Nuclear Power Station Unit Nos. 1, 2, and 3

Comments on SECY 84-106
(Enclosures A and B)

March, 1984

Comments on Enclosure A to SECY 84-106

o Page 3, First Bullet

The NRC states that STAs have not provided the necessary engineering expertise in part because non-degreed individuals have been used to staff the STA positions. We do not concur with this statement. Most of the STAs that were used at our operating units held degrees. For those non-degreed STAs, we submitted detailed qualification information to the NRC to justify using these individuals. The NRC specifically approved, by name, those non-degreed individuals who were used as STAs. We do not understand how the Staff can criticize utilities for using non-degreed individuals that the NRC specifically approved.

o Page 3, Second Bullet

Another factor cited by the NRC as contributing to the lack of operating knowledge and experience is that the STA position does not require an operator's license. We note that while the NRC guidance for STAs never "required" the STA to be licensed, all of the STAs presently used at our operating units are required to hold current SRO licenses.

o Page 4, Third Paragraph

One factor cited as a basis for creating a new position is that it would require utility management to become directly involved in nuclear power plant operation. We believe that there are better ways to achieve this objective, involving approaches which do not result in such a negative impact on other elements of our organization.

o Page 5, Second Paragraph

We find some major flaws in the Staff's proposal, as described here. The proposed rule would create a new position which would be responsible for managerial direction of all plant functions including chemistry, health physics, maintenance, operations, security, and technical services. This would effectively place that individual in a position in the organizational structure above the unit superintendent and station services superintendent. Yet the qualifications for this individual are less than the requirements for those two positions. This concept was apparently developed by the Staff without regard to the organizational structure embodied in each units' Technical Specifications. The position proposed by the Staff is exactly that of our existing station superintendents, the highest ranking individuals at our two sites.

This paragraph goes on to state that additional responsibilities of the senior manager would be to ensure that the plant is in a safe and stable condition in the event of an off-normal situation and to provide appropriate response in emergencies, among other duties. We strongly object to this. We have developed and implemented extensive and detailed emergency response organizations that are responsible for responding to emergencies. The Staff's proposal would conflict with the duties specified in NRC-approved emergency plans and in their implementing procedures. Our emergency

response organizations are fully capable of responding to emergencies.⁽¹⁾ Several full scale emergency exercises at the stations have demonstrated this. No shortcomings in emergency response have ever been identified that suggest the need for an individual of the type suggested by this proposed rule. In the Staff's proposal, it is unclear as to what the division of responsibility would be between the shift manager and the NRC-approved emergency response organization -- and most importantly, who would be in charge? For the short period of time from the start of abnormal conditions and mobilization of the emergency response organization, our existing shift crews are fully capable of responding to the situation.

o Page 5, Last Paragraph

The Staff states that establishment of the new position would allow shift supervisors to concentrate on the activities of the operating shift crew by relieving them of some administrative duties. We note that the position of Shift Supervisor Staff Assistant (SSSA) has been established at each of our operating units. This position, which is staffed on each shift by a degreed engineer, was created specifically to assist the Shift Supervisor in his administrative and notification duties. Thus, no additional personnel are needed to achieve this objective.

o Page 6, First Paragraph

This entire paragraph, aside from being extremely subjective, is outdated in that it does not consider the positive effects of a number of post-TMI upgrades or the emergency response capabilities requirements of Supplement 1 to NUREG-0737. Significant hardware improvements have been implemented in accordance with the TMI Action Plan. Regulatory Guide 1.97 upgrades, the Safety Parameter Display System, Control Room Design Reviews, and emergency operating procedures upgrades all have a very significant positive impact on the ability of operators to diagnose and mitigate accidents. All of these requirements were specifically intended to make it easier for the operator to "interpret complex operating instructions and properly apply them to constantly changing conditions." These aids, combined with the STA training and an SRO license make the operator fully qualified to handle any conceivable situation.

o Page 6, Last Paragraph

This paragraph states that

"empirical evidence does not exist to demonstrate the relative effectiveness of degreed versus non-degreed nuclear power plant operating personnel in emergency situations."

(1) NRC reviews and approvals of our plans are thoroughly documented on page 13 of the Attachment to our August 3, 1983 letter to W. J. Dircks, on Emergency Response Capabilities.

We note that in attempting to justify the increased staffing levels of 10CFR50.54(m) the Staff also conceded that no data base existed to justify the increased staffing. We are concerned that despite the lack of supporting bases, the Staff is pushing forward with a requirement for a third SRO licensed individual. If the data base did not support the requirement for the second SRO, we question the conclusion that a third SRO should be the subject of an NRC regulation.

- o Page 7, First Paragraph

The Staff has cited NUREG-0578, NUREG-0585, and NUREG/CR-1250 as supporting the degree requirement. We would suggest revised wording in this area. Simply stating that a degree should be required without a basis, which is the essence of the content of the referenced NUREGs does not lend support to the proposed rule. The facts remain the same; that is, there exists no basis for the degree requirement.

- o Page 7, Second Paragraph

Again, as stated earlier, our existing emergency response organizations are fully capable of directing plant operations in emergencies. The argument used here by the Staff should not be used as justification for the proposed rule.

- o Page 7, Third Paragraph

This paragraph discusses the situation of different units on one site, such as our Millstone Station where the three units were supplied by three different NSSS vendors. The Staff's proposal would require additional degreed, SRO-licensed managers for those sites where the senior manager does not hold an SRO license on each unit. In our case, that would require three managers for the Millstone units, since it is unlikely that one individual would be licensed on all three units. Our station services (e.g. - health physics, security, etc.) are common to all units. It would be very inefficient for these services to report to three different shift managers simultaneously while still reporting to the Station Services Superintendent.

Although this paragraph seems to imply that this situation could be handled by one manager with additional degreed, SRO licensed operators for each unit for which the manager does not hold a license, we note that this would contradict the explicit wording of the proposed rule, which would require that a senior manager who is responsible for integrated management of plant shift operations be assigned to each shift of every nuclear power unit. One "overall" manager with extra degreed, licensed individuals would not meet the proposed regulation as presently worded.

o Page 8, First Paragraph

The statement in this section that:

"Since neither shift supervisors nor senior operators would be required to hold a degree, the operating experience level on shift would not be degraded"

is puzzling. Does this statement mean that obtaining a degree somehow degrades experience level? If it is meant that the current Shift Supervisors and SROs would not be required to be demoted or removed from shift duty due to the lack of a degree, then we would suggest that this sentence be reworded.

o Page 9, Second Paragraph

The Staff apparently believes that few licensees would need up to six years to implement the shift manager requirement, since "most already have degreed senior operators or shift technical advisors who will qualify for these positions in a much shorter period of time." We do not agree with this assessment. First, even if a sufficient number of degreed SROs were available, there would not be a sufficient number of replacement SROs to enable compliance with the increased staffing levels of 10CFR50.54(m). Second, the Interim Shift Technical Advisors (ISTAs) which were used at our operating units presently occupy a number of important positions within the station staffs, including engineering supervisors, operations supervisors, and unit superintendents. These individuals could not be transferred from their current positions without consideration of the effect that would have on the station staff. The STA position was never a full-time position but rather was rotated between a number of individuals. In this way, we were able to use many of our more experienced personnel as STAs without taking them away from their concurrent duties. Therefore, these individuals could not readily be utilized as senior managers.

o Page 9, Third Paragraph

This paragraph appears to be inconsistent with the draft Policy Statement on Engineering Expertise on Shift that was published in the Federal Register on July 25, 1983. That Policy Statement would allow one of the senior operators presently required by 10CFR50.54(m) to fulfill the STA function as a part of the operating shift crew. Yet this paragraph seems to state that the STA position can be eliminated only after yet another SRO licensed individual is on shift.

o Page 9, Fifth Paragraph

One of the criteria the Staff intends to use in evaluating whether a Licensee has set a reasonable target date for compliance with the rule is whether the Licensee

"has adequately considered the potential impact of the rule on existing non-degreed shift supervisors."

We strongly believe that this factor should be addressed by the NRC before the proposed rule is issued. By ignoring the potential negative impact of the rule and passing this task on to the Licensees, the NRC is failing to fulfill its obligation to accurately assess all costs and benefits of proposed regulations.

o Page 10, Second Paragraph

Again, these are factors which must be considered by the NRC before proceeding with the proposed rulemaking. This is a point which causes us great concern. We believe that the regulatory analysis accompanying the proposed rule is grossly inadequate without explicit consideration of the potentially negative impact on overtime, number of shifts, ongoing training programs, etc. However, this needs to be evaluated before imposing new requirements. No rulemaking should proceed on the assumption that at some time in the future it will be shown to have a positive effect on safety. We are not as confident as the Staff that the benefits of the proposed rule would outweigh the negative effects. It is because of this failure to assess the potential negative impacts of the rule that we believe, as alluded to in the transmittal letter, that this rulemaking has the potential to degrade rather than improve safety.

o Page 10, "Invitation to Comment"

It is interesting that the Staff is specifically soliciting comments on only two subjects. These are the definition of "similar" nuclear power plant, and the proposed requirement for five years of nuclear power plant experience for the senior manager position. The heart of the proposed regulation is what merits public comment; specifically the need for a degreed, SRO licensed Shift Manager and on the potential negative impacts of the rule.

Comments on Enclosure B to SECY 84-106

o General Comment

We note that many of the points expressed by the Staff in Enclosure B are identical to portions of Enclosure A. In these cases, we refer you to our specific comments on Enclosure A.

o Page 4, Fourth Paragraph

In this section, the Staff states that the minimum required shift complement for the base (present) case is two licensed senior operators, two licensed operators, and an STA, for a one unit plant. This seems to contradict the draft Policy Statement⁽¹⁾ on Engineering Expertise on Shift which would allow one of the senior operators to fill the STA position, provided he meets certain qualification requirements. For each of our operating units, we presently have four individuals on each shift who collectively fulfill the requirements of 10CFR50.54(m) and the STA requirement. It is not clear to us what the actual Staff position is on this matter.

o Page 5, Second Paragraph

The assumption made by the Staff in this paragraph that STAs meet only the NRC's minimum qualification requirements causes us great concern. It appears as though the Staff is proceeding with the degree requirement without any consideration of the alternative technical upgrade programs which are presently in effect. By proceeding in this manner, the Staff is eliminating from consideration a priori other educational programs which may be far superior to the Staff's current proposed requirements. We strongly urge the Staff to evaluate these programs now, before the rulemaking proceeds any further.

o Page 8, First Paragraph

We do not disagree that education is positively related to better job performance, however, this does not mean that the only way to provide the necessary educational background is by obtaining a Bachelors degree. We believe that the studies cited here by the Staff support "education" requirements, not "degree" requirements.

o Page 8, Third Paragraph

We strongly disagree with the statement that Alternative 4, the no-degree requirement

"would decrease the level of engineering knowledge on shift since it would eliminate the STA position without replacing that knowledge base in any other position on shift."

(1) At a Commission briefing on February 28, 1984, Senior NRC management reconfirmed their position that use of one individual to fulfill the dual role of SRO and STA is acceptable provided the individual is properly qualified.

By upgrading our senior operators to STA Level II before utilizing them as STAs, there is no decrease in the level of knowledge on shift. In fact, in our view, combining the STA training with a senior operators license, as our upgrade program has done, is a better means of meeting the objectives of the proposed rule.

o Page 9, First Paragraph

We are concerned that the NRC has not adequately considered how the proposed shift manager position would be factored into the organizational structure. See our comments on Enclosure A, page 5, second paragraph.

o Page 10, First Paragraph

The statement that:

"The availability of engineering knowledge to the shift crew in an advisory capacity rather than in line management does not assure the implementation of strategies based on that knowledge"

is puzzling. If this is a legitimate concern, we question why the Staff recommended in post-TMI requirements that the STA be independent of the operations chain and line management.

With regard to the last sentence of this paragraph, it is not clear to us how the shift supervisor would be able to take advantage of the Shift Manager's perspective if he were too occupied to utilize the STA. Also, this does not take into account the roles of the Shift Supervisor Staff Assistant or of the station emergency response organizations, or account for the positive effect of the upgrades resulting from NUREG-0737 and Supplement 1 to NUREG-0737. For further elaboration on these points, we refer you to our comments on Enclosure A, page 5, second and third paragraphs, and page 6, first paragraph.

o Page 13, Fourth Paragraph

Again, we emphasize that the need for supervisors to have a broad understanding of the scientific principles underlying nuclear power plant operations cannot be satisfied by requiring degrees. Rather, this objective could be met through curriculum requirements such as through our technical upgrade program as described in the transmittal letter.

o Page 14, First Paragraph

We believe that this section is but one example of many in which the Staff's logic is flawed. This paragraph states that

"appropriate response under emergency conditions requires the ability to identify necessary resources (in engineering, maintenance, etc.) and a broad understanding

of integrated plant systems in order to communicate with and apply the assistance provided by specialists across departments."

As stated in our comments on Enclosure A, page 5, second paragraph, we have developed highly qualified emergency response organizations to do exactly what the Staff alludes would be the major role of the proposed Shift Manager. Our NRC-approved emergency plans provide all of the necessary emergency coordination and support through the site Manager of Technical Resources who is in turn supported by the Corporate Manager of Technical Resources. There is no need for additional emergency response capabilities in this area, as demonstrated by several successful full-scale emergency exercises.

o Page 18, Second, Third, and Fourth Paragraphs

While we have not had sufficient time to develop detailed cost estimates, we are confident that the Staff estimates for the proposed rule are substantially low. For example, while there are individuals present on the day shifts who would meet the proposed qualification requirements, these individuals could not simply be reassigned to the shift manager position, as that would create open positions in other essential areas. Additionally, these management personnel work a 5 day week; they are not present on every day shift. Even if they could simply be reassigned, the Staff has apparently not considered the cost of replacing those individuals.

We believe that the proposed requirement would necessitate eight (8) qualified shift managers per unit, to accommodate a six shift rotation. Given the extremely long lead time to qualify for this position, at least two extra qualified managers would be needed to accommodate for expected transfers, attrition, etc. Industry-wide, implementation of the proposed requirements on eighty plants would result in the need for approximately 640 new positions. Assuming a low estimate of \$100,000 per manager for salary, benefits, training, requalification, shift pay premium, etc. This would result in an annual cost of over \$60 million.⁽²⁾ This is far above the Staff's high-end estimate of \$24 million. It is inconceivable that the cost could be as low as \$14 million, as the Staff suggests.

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- (2) In the limited time we have had to review this proposal, detailed cost estimates have not been developed. It is nonetheless clear that the assumed \$100,000 value is extremely conservative, yet it yields a cost estimate which is more than double the Staff's high-end estimate. Significantly, the costs associated with replacing potential shift managers after they are reassigned to this newly created position have not been included.

Based on the above, we judge the Staffs analysis to be grossly inadequate. Failure to more accurately assess the costs of this proposal, especially in light of the subjective and questionable safety basis for the regulation, runs contrary to the Commission approved charter of the Committee to Review Generic Requirements (CRGR), and the principles articulated in SECY-83-321, NRC Plan for the Management of Plant-Specific Backfitting of Operating Power Reactors.

o Page 26, Third Paragraph

We note that the Staff has mistakenly characterized Regulatory Guide 1.8 as an established regulation. Regulatory Guides in general are not regulations and they impose no legal requirements on licensees. Also, discussion of the draft Policy Statement or Engineering Expertise on shift is conspicuously absent. We are unsure how this draft Policy Statement relates to the ongoing Staff efforts in this area.