



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, DC 20555 - 0001**

December 1, 2003

Mr. Robert Meyer
President of Domestic and Foreign Affairs
Professional Reactor Operator Society
P.O. Box 1074
Byron, IL 61010

Dear Mr. Meyer:

Thank you for your November 9, 2003, e-mail to Chairman Diaz concerning the proposed worker fatigue rulemaking. In your e-mail you expressed concern regarding draft language for the proposed requirements. As you are aware, the staff has engaged stakeholders in a series of public meetings to inform the rulemaking process. These meetings have been attended regularly by representatives of the International Brotherhood of Electrical Workers, the Nuclear Energy Institute, the Union of Concerned Scientists, and the Professional Reactor Operator Society. At recent meetings the staff has shared draft rule language to solicit feedback concerning the practical implications of options for meeting the NRC's objectives. Through this process the staff has gained valuable insights from each stakeholder group. However, it is important to keep in mind that the draft rule language discussed at these meetings is only a preliminary staff proposal. It will be subjected to a process of review and concurrence by the appropriate NRC offices and, following resolution of staff comments and concerns, it will be offered to the Commission as a proposed rule. If approved by the Commission, the proposed rule will be published for public comment. The public comment period will provide all stakeholders a formal opportunity to identify any concerns which they believe the NRC has yet to effectively resolve. Nevertheless, we appreciate stakeholder input early in the rulemaking process and are providing the staff's views regarding your specific concerns so that you might better understand the basis for the current draft language.

In your e-mail you question the proposed 16-hour limit on individual work hours and whether the NRC wants nuclear power plants "run by operators who can barely drive home from work." I assure you that the NRC wants nuclear power plant personnel to be fit to perform their duties. This expectation is reflected in the current requirements of Part 26, "Fitness for Duty Programs." Although the draft amendment to Part 26 does not prohibit the use of 16-hour shifts, we believe that it includes requirements that are consistent with our expectations concerning worker fitness for duty, and that collectively address your concern. These requirements include:

Maximum of 26 Hours Work in any 48-hour Period - The draft amendment includes provisions that limit the maximum hours worked in any 48 hour period to not more than 26 hours. This limit prohibits individuals working 16-hour shifts on two consecutive days.

Minimum 10 hour Break Between Work Periods - The objective of this requirement is to ensure that workers have the opportunity for the 7 to 8 hours of sleep that most individuals require to prevent a sleep debt and impaired performance. The practical

implications of this requirement create a substantial disincentive for using 16 hour shifts. Specifically, individuals that work 16 hour shifts would not have a sufficient rest period to be eligible to return to work at the beginning of the next normally available shift. This would also cause the need for adjusting other workers' schedules if the individual is part of a minimum shift complement.

Training - The draft amendment includes training requirements addressing the potential effects of fatigue on job performance, the contributors and symptoms of fatigue, and fatigue countermeasures. The objective is for licensees to provide workers and supervisors the knowledge and abilities that support effective fatigue management decisions and practices. The staff acknowledges that 16-hour shifts can substantially increase the probability for human error. Accordingly, the staff believes that fatigue management includes limiting the use of 16-hour shifts to the extent practicable and applying effective behavioral observation and fatigue mitigation strategies when such conditions are unavoidable.

Self-Declaration - The draft amendment requires licensees to establish a process to be followed if an individual declares he or she is not fit for duty, for any reason, including fatigue. The objective is to ensure that an individual's fitness for duty concerns are appropriately resolved prior to returning the individual to duty. The staff would expect that individuals who believe that they are not capable of safely and competently completing a 16-hour shift would make an appropriate self-declaration.

Collectively, the requirements of the draft proposed rule would be expected to: (1) substantially limit the frequency of 16-hour shifts, (2) provide assurance that, when such work hours are necessary, licensees have the knowledge and abilities to assess the potential for degraded performance and need for fatigue countermeasures, and (3) ensure workers have a process for resolving concerns regarding fatigue from extended work hours. As a consequence, the staff believes that the draft requirements are appropriate for maintaining worker fitness for duty and the protection of public health and safety.

We also note that you expressed concern in your e-mail about the well being of workers driving home following a 16-hour shift. I share your concern regarding the potential for drowsy driving following long work shifts, however, as noted above, we expect that the proposed requirements would cause 16-hour shifts to be infrequent. We also anticipate that the training licensees will conduct, if the rulemaking is approved, will sensitize workers and their supervisors to such concerns and provide insights regarding appropriate actions for managing worker fatigue in a way that addresses both public and worker safety.

Thank you for your interest and comments concerning this rulemaking.

Sincerely,

/RA/

Bruce A. Boger, Director
Division of Inspection Program Management
Office of Nuclear Reactor Regulation

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