

DOCKET NUMBER 26
PROPOSED RULE
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DOCKETED
USNRC

December 22, 2005 (12:39pm)

US Nuclear Regulatory Commission
Office of Nuclear Reactor Research
Washington, DC 20555-0001
ATTN: Ms. Rebecca Karas

OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

December 21, 2005

Dear Ms. Karas:

I am submitting a public comment in support of the proposed rule to amend the requirements of 10 CFR Part 26, focused principally on the establishment of enforceable working hour limits for certain employees of NRC licensees. While I am an employee of NRC Region I, I am submitting these comments on my own initiative as I have a strong opinion in this matter. The opinions reflected in this document are solely my own. However, a copy of these comments will be provided to my management for their information.

On February 11, 2000, I submitted comments on this subject in the course of responding to Petition for Rulemaking (PRM) 26-2. In those comments, I noted the importance of having workers who operate and maintain nuclear power plants to be fit for duty and not overly fatigued. Unfortunately, the NRC's past research efforts in this area have also revealed how difficult it is to make a direct correlation between employee error rates due to fatigue and the number of hours worked. Thus until now, the NRC has never codified definitive working hour limits, but rather relied on the guidelines of GL 82-12 that were incorporated into the Technical Specifications of most, but not all, reactor licensees. These guidelines are limited in the scope of employees covered, do not address the cumulative effect of excessive working hours over a period greater than one week, and can be readily waived by plant management.

I believe it likely that more incidents in the nuclear industry are, at least in part, attributable to fatigue than the very few that have been reported to the NRC in the past. I believe this is, in part, because employees often fail to freely admit after an event that they were overly fatigued due to excessive working hours or outside factors (e.g., an excessively long commute, inability to sleep well during the daytime, and other distractions unrelated to company business). Moreover, errors due to fatigue are also likely not immediately identified (e.g., an equipment failure due to poor engineering or maintenance), in which case it is impossible to attribute the failure to employee fatigue months after the fact. As a result, the potential risk significance of employees working excessive working hours is not truly known. Nevertheless, given the importance of having plant workers fit for duty, the NRC previously saw fit to publish guidelines on working hour limits as well as ensuring that workers are drug-free via enacting 10 CFR Part 26.

I agree it is now time for the NRC to codify clear and enforceable working hour limits for

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licensee employees for the following reasons: 1) there has been a steady increase in overtime usage by many licensee employees in recent years due to staffing reductions, 2) the scope of employees once voluntarily subject to the guidelines of GL 82-12 has been reduced over the years by many licensees, 3) the deregulated marketplace for electric generators puts increasing pressure on key employees to work longer hours due to the very high cost of training and developing new employees, 4) many other federally regulated industries where human performance is critical to safety performance (e.g., aircraft pilots, truck drivers and railroad engineers) are already subject to regulations more restrictive than the NRC's current guidelines, and 5) most nuclear regulatory agencies in other nations also impose working hour limits more restrictive than the NRC's current guidelines. Therefore, I believe that now is the time to move ahead with the proposed rule to help prevent risk significant performance lapses by employees due to fatigue.

With regard to the specific working hour limits proposed in the rule, they differ notably from the proposal laid forth in PRM 26-2 and the streamlined policy I suggested in February 2000. However, the guidelines appear to me as though they will serve to ensure that worker fatigue will be managed, particularly at those licensee facilities with critical, long-term staffing shortages where the heavy use of overtime for extended periods has become a routine practice. Overall, I believe these working hour limits are reasonable and would only impose a regulatory burden on licensees commensurate with the safety benefit achieved.

With regard to the scope of workers affected by the proposed rule, I believe the proposed working hour limits should be imposed on all licensee employees and supervisors who perform safety-related work, versus being limited to the work groups listed in the proposed rule. It is important that all workers who perform safety-related work, as well as the individuals who supervise that work, be fit for duty. If such an expansion of the rule is not possible, then I strongly suggest that as a minimum, system engineers be included in the scope of this rule. Their job task assignments often require prompt response to the facility and decision-making that can immediately affect the operability of safety-related equipment. Thus their jobs have become as important as the work groups listed in the proposed rule. While other engineers perform important tasks as well, the nature of their job tasks is much longer-term and benefit from multiple opportunities for other individuals to review their work in advance of implementation.

In summary, it is important that workers who perform safety-related work in nuclear power plants be fit for duty, which includes being drug-free and not excessively fatigued. As Probabilistic Risk Assessments and Accident Precursor studies have revealed, the most likely way to have a severe accident at a nuclear power plant is to experience a transient with equipment complications and for operators to make multiple human errors of commission while responding to this event. To minimize the chances of workers who perform safety-related work, particularly operators, making multiple errors of commission, we need to ensure that operators are properly trained and qualified, plant equipment is designed (to the extent practical) with human factors in mind, staffing is adequate to respond to events and on-shift personnel are fit for duty. Ensuring that workers have time to adequately rest, so that they are alert and not overly fatigued, is a key element in ensuring that they are fit for duty.

Richard S. Barkley, P.E.

From: Carol Gallagher
To: Evangeline Ngbea
Date: Thu, Dec 22, 2005 10:19 AM
Subject: Comment letter on FFD proposed rule

Van,

Attached for docketing is a comment letter on the above noted proposed rule from Richard Barkley that I received via the rulemaking website on 12/21/05.

Carol

