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Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
ATTN: Rulemakings and Adjudications Staff

February 11, 2000

Dear Ms. Annette Vietti-Cook:

I am submitting a public comment in partial support of Petition for Rulemaking (PRM-26-2) regarding 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.

It is clear to me that the petitioner has experience with working under the NRC's existing guidance in the area of working hour limits (i.e., the guidelines of GL 82-12 as embodied in the Technical Specifications of most, if not all, licensees). He has also done a considerable amount of work in an attempt to make the case that the NRC needs codified working hour limits for key licensee employees as well as changes to the existing Fitness For Duty rule (10 CFR Part 26) to address employee sleep disorders. However, as the petitioner found out, it is very difficult to make a clear connection between employee fatigue due to working an excessive number of hours and performance incidents at NRC licensees. From my 15 years experience reviewing many hundreds of Licensee Event Reports (LERs), internal corrective action requests and employee allegations, I am sure that this task would be very daunting. 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 numbers of hours worked. Thus, the NRC has never codified definitive working hour limits, but rather relied on the guidelines of GL 82-12 that 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 if needed.

Along with the petitioner, I also believe that more incidents in the nuclear industry are, at least in part, attributable to fatigue and excessive working hours 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 are overly fatigued due to excessive working hours or outside factors over which they have some control (i.e., an excessively long commute, inability to sleep during the daytime, and other outside distractions unrelated to company business). Moreover, errors due to fatigue are also likely not immediately identified (i.e., an equipment failure due to poor engineering or maintenance), in which case it is impossible to attribute the failure to

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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 great importance of having key 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.

I too believe it is now time for the NRC to publish clear and enforceable working hour limits for key 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 cost containment pressures, 2) the scope of employees once voluntarily subject to the guidelines of GL 82-12 has been reduced in recent years by some licensees, again for cost related reasons, 3) the deregulated marketplace for electricity will put increasing pressure on key employees (e.g., licensed operators) to work longer hours due to the very high cost of training and developing new employees, and 4) many other federally regulated industries where human performance is critical to safe performance (e.g., aircraft pilots, truck drivers, railroad engineers) have already codified working limits that are more restrictive than the NRC's current guidelines. Therefore, I believe that now is the time to move toward codifying a reasonable set of working hour limits that will help prevent risk significant performance lapses by employees due to fatigue, but at the same time not be unduly burdensome to NRC licensees at a time when they need to become more cost competitive.

Regarding the petitioner's specific points, I would like to comment first on the petitioner's request to add a criterion to 10 CFR Part 55.33 to require evaluation of known sleeping disorders and to revise NRC form 396 to include self-disclosure of sleeping disorders by licensed operators. While I am not familiar with the intricacies of these requirements, the petitioner's request appears reasonable at first glance and should seemingly constitute very little burden for all but a few NRC license applicants. In fact, it is surprising to me that this information has not been required in the past given the range of other health conditions that the NRC and licensee's already evaluate for their potential impact on human performance. I see no reason why sleeping disorders should be treated differently than any other health condition that could impair an operator's fitness for duty.

On the issue of revising the NRC Enforcement Policy to include examples of working hour violations warranting various NRC sanctions, I believe this request is an obvious fallout of any significant change in this area of NRC regulation. While I may not agree with the petitioner's specific examples of such violations, it is logical that the NRC would publish examples of such violations as part of any new regulation in this area.

On the issue of the specific working hour limits proposed by the petitioner, I find the petitioner's request realistic overall, but his overly complicated guidelines would require licensees to hire additional time clerks just to keep track of work hours, particularly when workers call in sick or bump up against these multiple guidelines. As an alternate, I would propose a much more streamlined policy with only four logical overtime limits based on my experience with GL 82-12: 1) no more than 28 hours in a 48-hour period; 2) no more than 80 hours in any 7-day period, 3) no more than 280 hours in a 28-day period, and 4) no more than 2,800 hours in any calendar