From: <dlochbaum@ucsusa.org>
To: OWFN_DO.owf4_po(RFD)
Date: Thu, Apr 15, 1999 9:26 AM
Subject: Comments on Risk-informing Decommissioning Regulations

April 15, 1999

Dear Mr. Dudley:

I am providing these written comments to supplement the oral remarks provided during the public meeting conducted on April 13, 1999, entitled "Exploring Risk-Informed Rulemaking for Decommissioned Plants."

I acknowledge the characterization by the NRC staff that this meeting was but the first step in the process. However, I left the meeting with the strong feeling that it was a step in the wrong direction.

NEI's proposal was ill-founded and unsound. NEI's approach was totally inconsistent with the NRC's stated policy towards risk-informed regulation. I realize that the NRC staff viewed the meeting as an information gathering exercise and neither endorsed nor refuted NEI's proposal.

NEI's proposal seems to be based on the flawed assumption that a flat risk profile is appropriate. Hence, their efforts were directed at reducing the high -- and presumably out-of-line -- risk down to the level of the other risks. Thus, they ignored factors which may have increased or decreased these other risks and concentrated exclusively on reducing that high risk, namely the seismic risk.

NEI failed to justify their "flat risk profile" assumption. Such a justification is necessary because it defies all logic and experience. For example, the risk of a healthy teenager dying within the next 365 days from an auto accident is not the same as the risk from heart attack or the risk from prostate cancer or the risk from being hit by a meteor. For some reason, NEI deems the dominant risk factor during decommissioning to be technically invalid despite every nuclear power plant in the country having dominant risk factors (e.g., station blackout or fire) when they operate.

NEI also failed to point out the reason for the "low" risks from spent fuel pool structural failures caused by missiles, aircraft crashes, and heavy load drops or drainage caused by pneumatic seal failures and inadvertent drainage (Table 4.7.1 from NUREG-1353 or Slide 17 from NEI's presentation). The real reason that these risks all fall in the range of 10E-8 is that the accepted cut-off is 10E-6. If the accepted cut-off was 10E-9, then mathematical manipulation would drop these risk factors to below that level. Once any risk drops below the accepted cut-off, further number-crunching wastes resources. Hence, this is the primary reason that the risk factors cluster around 10E-8.

Since the seismic risk factor was the only risk above the 10E-6 cut-off, NEI selectively applied effort to lower that number. Since there are very few standards
applied to PRAs, it is a relatively simple matter to adjust the inputs until the desired output is obtained. Lo and behold -- NEI was able to drop the seismic

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risk to 10E-7, or below the 10E-6. There is little doubt that if the cut-off was 10E-8, NEI would have been equally able to mathematically massage the seismic risk until it dropped to 10E-9.

NEI's reduction of the seismic risk was based on "new and updated information." Curiously, NEI neglected other "new and updated information" regarding spent fuel pool risk factors. For example, AEOD's study of fuel pool risks (reference NRC Information Notice 97-14 dated March 28, 1997) reported that, based on actual reactor operating experience, the chances of a spent fuel pool draindown of at least one foot is 1 in 100 reactor years. During the NRC Commission briefing in November 1996, AEOD reported that the risk from spent fuel pool draindown was higher than previously reported by a factor of about 20. But since NUREG-1353 (circa 1989) reported the draindown risk to be less than 10E-6, NEI opted not to consider any new data that might bump up this risk factor.

Such one-sided "gaming" of risk information is precisely the concern that I've heard Commissioners express during several Commission briefings. Rightly so, the Commissioners have consistently advised the industry that risk-informed regulation means taking the good with the bad and not just "cherry-picking." Sadly, NEI seems not to have taken these admonitions to heart with this decommissioning proposal.

While critical of NEI's proposal, I think it is possible to develop risk-informed decommissioning regulations. The proper conceptual approach would be for the regulations to define all the credible risk factors to both public health and plant worker health that must be considered. Among the factors that this would include would be sabotage and spent fuel demineralizer resin fires. The regulations should establish minimum standards that plant-specific risk assessments must meet in evaluating these credible risk factors. The regulations should establish criteria for protection standards (i.e., offsite emergency planning can be downgraded when the risk drops below xx / year).

During the meeting, the NRC staff reiterated the importance of public confidence in the regulatory process. Clearly, UCS agrees with this viewpoint. To achieve this goal, any rulemaking on risk-informed decommissioning regulations must go through full public review and comment periods. There has been a tendency recently to pursue expedited rulemaking on the flimsy grounds that there were public through which NEI and NRC reached consensus on the wording of the proposed rule. The NRC must realize, and take into account, that most members of the public have jobs and duties which do not permit them to attend these consensus-building meetings. The majority of the public therefore can only participate in the rulemaking process through the public comment periods. Eliminating or shortening the public comment periods infringes on the public's rights. There are times when expedited rulemaking is warranted, but it is definitely not warranted just to rush out a rule after months or years of negotiations between NRC and industry.

Sincerely,

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