

Nuclear Information and Resource Service

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U.S. Nuclear Regulatory Commission
Washington, DC 20555
Attn: Chief, Docketing and Service Branch

Petition for Rulemaking re: Y2K issues and emergency planning for nuclear facilities

The Nuclear Information and Resource Service (NIRS) submits the following petition for rulemaking under 10 CFR 2.802.

Although NIRS normally believes in and advocates ample public comment periods, the nature of this petition and the date-specific issue it addresses require that this petition be placed on an expedited schedule. Therefore, we respectfully request that the NRC file this petition immediately and that public comment be limited to 30 days.

The purpose of this petition is to provide reasonable assurance that licensees operating nuclear power reactors have developed and can implement adequate contingency and emergency plans to address potential major systems failures that may be caused by the Y2K computer problem. We also believe that other major fuel cycle facilities should be subject to a similar rule.

Under this petition, every nuclear utility must conduct, during 1999, a full-scale emergency planning exercise that involves coping with a Y2K-related failure. This petition would return, for one year only, the requirement that nuclear utilities conduct an annual, rather than biannual, emergency exercise. Each utility should address different aspects of the Y2K problem that run the gamut from unforeseen and severe challenges to critical safety systems leading to potential core meltdown; to problems with internal telecommunications systems; communications with off-site authorities during accident conditions; to problems with non-critical systems that may challenge other systems; to problems of electrical grid instability and station blackout. In this manner, utilities can build a shared storehouse of knowledge that can be used in the event of actual Y2K-related problems.

The probabilities of Y2K-related events occurring that would require emergency response and implementation of contingency plans are unknown, but from all credible reports,

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certainly fall within the range of safety matters for which the Nuclear Regulatory Commission requires emergency planning exercises. Moreover, addressing Y2K-related problems will necessitate using potentially-unfamiliar contingency plans; relying upon ingenuity to work-around failures of essential communications systems and/or failure of off-site emergency responders to perform their tasks effectively; and generally coping with issues not normally tested during emergency exercises.

It is therefore simple prudence to require licensees to conduct one exercise each to provide some familiarity with the possible range of issues that may develop and to create an overall industry capability to effectively address the potential problems. Some exercises should test problems initiated by Y2K-related failures (in both computer systems and embedded chips) while others should test problems exacerbated by Y2K-related failures.

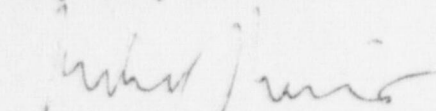
Exercise scenarios should be developed by the licensees and approved, in a timely and expedited fashion, by the NRC. In this manner, the NRC can help assure that the full gamut of potential Y2K problems are addressed by the industry. The NRC shall publish and provide to each licensee, within 30 days of the date of this rule, a Regulatory Guide that outlines potential emergency exercise scenarios. The NRC shall publish and provide to each licensee, by December 1, 1999, a Regulatory Guide that describes the various scenarios that have been undertaken and the successful responses to the problems posed.

NIRS requests that the NRC adopt the following text as a rule:

"All licensees subject to 10 CFR Part 50 and Appendix E will conduct a full-scale emergency planning exercise (as normally required under 10 CFR 50.47) during 1999. This exercise shall include a component that includes failure of one or more computer or other digital systems (this is popularly known as the "Y2K bug") on January 1, 2000 or other relevant date. Licensees that do not conduct, or that fail, this exercise shall close their facilities licensed under this Part by December 1, 1999 until such time as the licensees have conducted a successful exercise.

"The NRC shall publish and provide to each licensee, within 30 days of the date of this rule, a Regulatory Guide that outlines potential emergency exercise scenarios. The NRC shall publish and provide to each licensee, by December 1, 1999, a Regulatory Guide that describes the various scenarios that have been undertaken and the successful (and unsuccessful) responses to the problems posed."

Respectfully submitted,



Michael Mariotte
Executive Director