

22.39 Integration of Reactor Design, Operations, and Safety  
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Problem Set #3  
Due: October 2, 2006

Criticality accidents are prevented or controlled by the following regulations (<http://www.nrc.gov/>):

- 10 CFR 50.68 or 70.24 for fuel in spent fuel pools
- 10 CFR 71.55 and 71.59 for fuel in transportation packages, and
- 10 CFR 72.124 for fuel in dry storage casks

In the current regulations, licensees must comply with both 10 CFR 50.68 and 10 CFR 72.124 when loading casks in a spent fuel pool. This creates unnecessary regulatory burden and the NRC is proposing to change the regulations to address this issue. The rule package titled “Criticality Control of Fuel within Dry Storage Casks or Transportation Packages in a Spent Fuel Pool” is attached.

Write an executive summary addressing the following questions:

- What is the issue?
- What is the NRC proposed amendment to the regulations?
- What is the technical basis for this amendment?

Your summary should not be longer than two single-spaced pages.