

# PUBLIC SUBMISSION

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**Docket:** NRC-2011-0087

Non-Power Reactor (NPR) License Renewal and Emergency Preparedness (EP) Rulemaking

**Comment On:** NRC-2011-0087-0004

Non-Power Reactor License Renewals

**Document:** NRC-2011-0087-DRAFT-0005

Comment on FR Doc # 2012-16115

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USNRC

August 7, 2012 (3:00 pm)

## Submitter Information

OFFICE OF SECRETARY  
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ADJUDICATIONS STAFF

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**Government Agency:** NIST

## General Comment

See attached file(s)

## Attachments

Non-Power Reactor License Renewals NIST

Template = SECY-067

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July 31, 2012

Secretary  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001  
ATTN: Rulemaking and Adjudications Staff

Subject: Non-Power Reactor License Renewals

Ref: Docket NRC-2011-0087

Sirs:

The following are comments on the Regulatory Basis Document, Non-Power Reactor (NPR) License Renewal Rulemaking.

1. The authors comment frequently in the document that changing the current license renewal process for NPR will save the licensees and the NRC a great deal of time and money when the currently licensed facilities renew their operating licenses in approximately 20 years. The majority of the NPRs recently relicensed or currently in relicensing are now in their fifth decade of operation. It stands to reason that some, if not many, of these facilities might not relicense for an additional 20 years when their current licenses expire. If this were the case, changing regulations to require periodic updates to the FSAR, periodic safety reviews, or more frequent inspections would represent a significant increase in regulatory burden (and NRC staff resources) over the remaining license without an increase in public safety. The NRC should consider an Option Eleven that allows a facility to continue to operate within the existing NPR licensing regulations (i.e. No Action) based on an early decision to shutdown and decommission after the third licensed period (approximately 60 years). The NRC might require an immediate facility shutdown as a license condition if the facility management were to decide at a later date not to decommission the facility. The facility would be expected to remain shutdown until brought back into compliance with full submission of all updated documents.
2. For a well-maintained facility intending to operate longer than three 20 year licensing periods, Option 5 appears to have the most promise because it is a continuous licensing process rather than infrequent, high effort licensing activities. Periodic Safety Reviews (PSR) (Option 4) are risky to the licensees because they will not be well defined until a guidance document is created. A PSR evaluation that assesses "new technical developments and new siting aspects" during a review would make regulatory compliance a moving target for the licensee and lack long-term consistency. The current non-power reactor inspection program and procedures have been successful and tested over many decades.

Elimination of license renewals while requiring periodic FSAR updates is an appropriate method to spread the burden of license maintenance over many years. The concern for

maintaining an up-to-date FSAR but still requiring license renewal is that the facility may still have a significant number of RAIs during renewal, perhaps on material previously reviewed by the NRC. The NRC staff acknowledges this fact several times in the referenced document. There is absolutely no guarantee that maintaining an FSAR and licensing documents over a 20 year (for example) license will eliminate or significantly reduce the number of RAIs produced by NRC staff or contractors. Thus the administrative burden on the small research and test reactor staffs over a decade or more might not produce the savings expected during license renewal.

3. The NRC staff should revise or clarify the definitions of “non-power reactor” and “testing facility.” Testing facility implies some manner of materials or fuels testing activity where there is higher probability of test or experiment failure increasing the potential public risk. The 10 MW(th) power level for a testing facility is as arbitrary a defining power level as 2 MW(th) which is used frequently by NRC staff as a measure of non-power reactor risk. The 10 MW(th) seems to have come from a document referenced in 10 CFR 100.11, Technical Information Document 14844. In this document, the authors modeled fission product release from several non-power “testing facilities” with power levels ranging from 48 to 60 MW(th) but the data included power reactors up to 630 MW(th). When the authors plotted the results of their calculations they used semi-log graph paper with 10 MW(th) as the lowest point on the y-axis. Therefore, the arbitrary defining power level for “testing facilities” of 10 MW(th) was not selected based on a risk analysis but because it was the lowest point plotted on a graph in 1962.

As discussed in the Regulatory Basis Document, the NRC staff should clarify definitions but also examine the basis of those definitions. In this regard it would make it much easier to define non-power specific regulations if all applicable non-power regulations were consolidated into one chapter as suggested in Option 10 (Section 5.5).

Thank you for the opportunity to comment on the document and proposed changes to the non-power reactor regulations and licensing. As always, please keep in mind that these facilities have small staffs, small budgets and relatively small amounts of time. Any increase in regulation, inspection frequency or administrative burden as a serious impact.

Sincerely,

Sean O’Kelly, Ph.D.  
Deputy Director, Chief of Reactor Operations and Engineering  
NIST Center for Neutron Research  
National Institute of Standards and Technology

## Rulemaking Comments

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**From:** Gallagher, Carol  
**Sent:** Tuesday, August 07, 2012 2:50 PM  
**To:** Rulemaking Comments  
**Subject:** Comment on Non-Power Reactor License Renewal and Emergency Preparedness  
**Attachments:** NRC-2011-0087-DRAFT-0005.pdf

Van,

Attached for docketing is a comment letter from Sean O'Kelly on the above noted proposed rule (77 FR 38742; June 29, 2012) that I received via the regulations.gov website on July 31, 2012.

Thanks,  
Carol