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OFFICE OF SECRETARY RULEMAKINGS AND ADJUDICATIONS STAFF

# **PUBLIC SUBMISSION**

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**Docket:** NRC-2010-0372 Francis Slakey - Nuclear Proliferation Assessments

**Comment On:** NRC-2010-0372-0003 Francis Slakey on Behalf of the American Physical Society; Receipt of Petition for Rulemaking

**Document:** NRC-2010-0372-DRAFT-0046 Comment on FR Doc # 2010-32242

## **Submitter Information**

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## **General Comment**

See attachment (aps-glaser.pdf)

#### Attachments

NRC-2010-0372-DRAFT-0046.1: Comment on FR Doc # 2010-32242

Template = SECY-067

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I support the petition of the American Physical Society to require a Nuclear Proliferation Assessment (NPA) for emerging sensitive nuclear technologies and, specifically, the proposition that:

Each applicant for the license of an enrichment or reprocessing facility shall include an assessment of the proliferation risks that construction and operation of the proposed facility might pose.

In the case of laser enrichment, the main considerations are the following:

- 1. Proof-of-concept demonstrations have proven to be hugely important to perceptions of proliferation feasibility. Knowing that it can be done on a practical scale is itself one of the greatest motivators behind technology choices. States tend to replicate the technologies used in the advanced world, frequently despite the existence of better alternatives.
- 2. The detectability of nuclear facilities is becoming more and more important for the viability and sustainability of the nuclear nonproliferation regime. Over the past years, we have learned that certain types of sensitive nuclear facilities are hard to detect. It is therefore critical to demonstrate that laser enrichment plants would have a clear and robust signature (e.g. electromagnetic emissions) that reveal their presence and operation. Ideally, the nature of these signatures will have to be made public and assessed by independent experts; if they are considered sensitive instead, it is likely that they cannot be considered robust, and are likely be defeated eventually. The developers of the laser enrichment process have confirmed that such robust detection signatures exist, and the NRC should review and discuss them in its licensing process.

While not all emerging technologies will be game-changers, it is imperative that we understand what world we are about to create instead of discovering the proliferation consequences after the fact. When considering the overall licensing process, it is highly doubtful that the addition of a nonproliferation assessment requirement would significantly alter timelines. The long-term consequences of an imprudent decision, however, could mean grave changes to the security of the United States. We cannot afford to cut corners.

In conclusion, nonproliferation assessments are needed as a matter of good governance and ought to become the norm in a world, where nuclear power may be used on a much larger and broader scale.

Alexander Glaser, Assistant Professor, Princeton University nuclearfutures.princeton.edu

#### **Rulemaking Comments**

From: Sent: To: Subject: Attachments: Gallagher, Carol Wednesday, March 09, 2011 8:42 AM Rulemaking Comments Comment letter on PRM-70-9 NRC-2010-0372-DRAFT-0046.pdf

Van,

Attached for docketing is a comment letter from Alexander Glaser on the above noted PRM (75 FR 80730) that I received via the regulations gov website on 3/08/11.

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Thanks, Carol