

May 23, 2012 (11:45 am)

Rulemaking Comments

From: tomclements329@cs.com
Sent: Wednesday, May 16, 2012 8:49 PM
To: Rulemaking Comments
Subject: For Docket No. PRM-70-9/Docket ID NRC-2010-0372 - comment for record

OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

On behalf of the Alliance for Nuclear Accountability (ANA), I hereby submit this email and the article below for the following docket: Docket No. PRM-70-9/Docket ID NRC-2010-0372

(Re: "Francis Slakey on Behalf of the American Physical Society; Receipt of Petition for Rulemaking" for "proliferation assessments as part of the licensing process." - Federal Register notice of December 23, 2010 at: <http://www.gpo.gov/fdsys/pkg/FR-2010-12-23/html/2010-32242.htm>)

I request that this comment also be filed in ADAMS, to ease public access to it.

See EIS comments by Alliance for Nuclear Accountability, on need for proliferation assessment on laser enrichment, May 10, 2012:

<http://www.ananuclear.org/Issues/GlobalNuclearEnergyPartnership/Library/tabid/56/articleType/ArticleView/articleId/545/ANA-Comments-on-GE-Laser-Enrichment-Plans.aspx>

<http://ananuclear.org/Portals/0/2012%20may%20laser%20enrichment%20EIS%20comment.pdf>

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National Journal Group

Global Security Newswire

May 16, 2012

(This article can be found online at: <http://www.nti.org/gsn/article/us-congress-research-arm-nuclear-agency-can-demand-proliferation-assessments/>)

U.S. Congress Research Arm: Nuclear Agency Can Demand Proliferation Assessments

May 16, 2012

By Elaine M. Grossman
Global Security Newswire

Template = SECY-067

WASHINGTON -- The U.S. Congressional Research Service has found that the Nuclear Regulatory Commission can require domestic facility license applicants to evaluate any potential proliferation dangers related to their proposed work, despite NRC resistance to such an approach (see *GSN*, April 5) (<http://www.nti.org/gsn/article/us-nuclear-body-decision-stalled-proliferation-review-proposal/>)

“It would appear that the commission could reasonably conclude that it has sufficient existing authority to promulgate a regulation requiring that applicants provide the commission with a proliferation risk assessment as part of the license application process,” according to a March 27 CRS memo obtained by *Global Security Newswire*.

The four-page advisory, requested by Representative Jeff Fortenberry (R-Neb.), was written by a CRS legislative attorney and cites an array of provisions in U.S. law as the basis for its argument. Through a spokeswoman, the lawmaker on Tuesday provided a statement saying he was “in the process of reviewing the information,” but understood the mandate for a proliferation appraisal “falls within the jurisdiction of the Nuclear Regulatory Commission.”

An NRC staff report on a related matter is expected in October. The nuclear agency is expected to offer its five commissioners a formal response to an American Physical Society [petition](#) (<http://www.regulations.gov/#!documentDetail;D=NRC-2010-0372-0001>), which in June 2010 argued that the nuclear agency should adopt a new rule that would make a proliferation risk assessment a standard part of the licensing process.

A resolution of the issue by majority vote of the agency’s commissioners could follow the staff recommendation, but that timing is uncertain.

The Nuclear Regulatory Commission issues licenses for U.S. commercial nuclear activities and facilities, such as atomic reactors and uranium enrichment plants.

Fortenberry’s request to the Congressional Research Service focused on license applications for uranium enrichment, a process that can be used for processing sensitive materials for either nuclear power plants or atomic weapons. However, several issue experts said a more pertinent issue would be NRC consideration of potential proliferation associated with any new nuclear energy technologies.

To date, commission staff has found that proliferation assessments would be “beyond the scope” of NRC responsibilities, according to an [environmental impact statement](#) (<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1938/>) completed in February for one high-profile license application. The February document also indicates the agency perspective is that a stand-alone analysis of proliferation risks is unneeded.

“Given the NRC’s comprehensive regulatory framework, ongoing oversight, and active interagency cooperation, it is the NRC’s current view that a formal nuclear nonproliferation assessment is not necessary to ensure the protection of the common defense and security,” the document states.

The existing NRC license application review process includes an evaluation of a company’s ability to safeguard materials and information inside its facility. Agency officials have said the “net effect” of this licensing approach is to discourage the spread of sensitive technologies, according to the 113-year-old physicists’ organization.

Some issue experts, however, insist that the nuclear agency’s standard approach is not enough to stem global proliferation.

The APS rule-change request was made amid growing concern about a proposed GE-Hitachi nuclear facility in Wilmington, N.C., that would for the first time use a laser-based process to enrich uranium for commercial reactors.

If commercially successful, the laser enrichment approach might significantly cut reactor fuel costs. Other nations would be likely to redouble their efforts to develop similar techniques to remain competitive in the marketplace, according to nuclear energy experts.

An ability offered by lasers to produce uranium in smaller facilities and consume less power -- compared to today's centrifuge approach -- could also make the new enrichment technique attractive to proliferator nations interested in hiding clandestine efforts at developing a nuclear weapon, many issue specialists assert (see *GSN*, July 30, 2010). (<http://www.nti.org/gsn/article/agency-forgoes-proliferation-review-of-new-nuclear-technology-despite-worries/>)

It is possible that an illicit laser enrichment site could be built with a small "footprint," making it virtually undetectable from the outside, observers say.

The congressional research arm did not address whether the Nuclear Regulatory Commission should mandate proliferation risk assessments for laser enrichment or other new nuclear technologies. Rather, it looked only at whether there exists in U.S. law sufficient NRC authority to require such evaluations by uranium enrichment license applicants.

One federal public health and welfare statute cited by the congressional memo gives the Nuclear Regulatory Commission the power to "prescribe such regulations or orders as may be necessary or desirable to promote the nation's common defense and security with regard to control, ownership, or possession of any equipment or device ... capable of separating the isotopes of uranium or enriching uranium in the isotope 235."

Uranium 235 can be used as a key ingredient in a nuclear weapon, as it is capable of sustaining a fission chain reaction.

The Congressional Research Service noted that even though license applications are geared mostly toward ensuring health and safety, the NRC role of advancing "common defense and security" through its rules and regulations offers a basis for demanding a proliferation risk assessment.

"A requirement that an applicant submit an assessment that details the technological and material proliferation risks associated with a facility, in addition to the steps the applicant has taken, and will take, to combat unauthorized disclosure of technological and material information, could be characterized by the commission as a measure designed to promote 'the common defense and security,'" the CRS memo states.

David McIntyre, an NRC spokesman, said this week he was unaware of the Congressional Research Service advisory and could not comment on it.

However, other NRC staffers have previously spoken to the issue.

"The NRC considers a nuclear nonproliferation impact assessment to be outside the scope of the agency's statutory responsibilities," Michael Weber, then the director of the NRC Nuclear Material Safety and Safeguards Office, said in a March 2010 [letter](http://pbadupws.nrc.gov/docs/ML1003/ML100321787.pdf) (<http://pbadupws.nrc.gov/docs/ML1003/ML100321787.pdf>) to nonproliferation advocate Tom Clements. Neither the Atomic Energy Act nor the National Environmental Policy Act calls for "such an assessment in the context of domestic licensing," he said.

The CRS legal analysis also notes an NRC obligation under U.S. law to avoid issuing a license that “would be inimical to the common defense and security or would constitute an unreasonable risk to the health and safety of the public,” according to Title 42 of the U.S. Code.

“Given this mandate, the commission could reasonably consider a new proliferation risk assessment requirement to be within its general authority to issue such regulations” as necessary to carry out its responsibilities under the 1954 Atomic Energy Act, the congressional analysis states.

That law requires licensing for civilian uses of nuclear materials and facilities, and empowers the nuclear commission to create and enforce standards to govern these uses in protecting public health and safety.

If the commission itself similarly concludes that it has the authority to require proliferation evaluations, such a rule change for license applicants “would likely have to be implemented through [federal] notice and comment rulemaking procedures,” the CRS memo notes.

Some issue experts this week hailed the CRS finding.

“As a simple matter of good governance, the NRC should support a proliferation risk assessment when there are legitimate uncertainties,” said R. Scott Kemp, an associate research scholar at Princeton University. “Even [if] the responsibility is not within the legal mandate, they should do what they can to facilitate such an assessment.”

Others are questioning whether the nuclear agency is the appropriate U.S. agency to oversee this type of proliferation review.

“I am not convinced the NRC is the best organization to do this,” said James Acton, a senior associate at the Nuclear Policy Program of the Carnegie Endowment for International Peace. “Personally I think [an] interagency task force led by State would be better.”

There are few indications, though, that another agency such as the State Department -- which typically takes a leading role in U.S. nonproliferation efforts around the globe -- would spearhead such risk assessments. Thus, it is “far better that the NRC conducts the study than no one does it,” Acton opined.

As it stands, the APS petition requests that responsibility for conducting a proliferation risk assessment be assigned to a facility license applicant, a detail that troubles some issue experts.

“Apart from the obvious conflicts of interest, a proper nonproliferation assessment is a sufficiently esoteric and nuanced thing that I do not believe that any industrial corporation can, by itself, perform an assessment of its own technology,” said Kemp, a former State Department science adviser for nonproliferation and arms control. “Nor do I believe that it is sufficient merely to hire one or two outside experts who work under the purview of the corporation.”

“Any nonproliferation impact assessment must not be conducted by the company -- or its appointees -- partly because of the risk of a pro forma submission but mostly because the issues at stake are political and industry assessments tend to be too narrowly technically focused,” Acton agreed.

Frank von Hippel, a professor of public and international policy at Princeton, said one way of ensuring a clear-eyed and balanced treatment in a license applicant’s proliferation evaluation would be to subject the document to expert review.

- For its part, the physicists' organization recommended in its petition that NRC staff enlist the aid of other federal entities -- such as the Energy Department's semiautonomous National Nuclear Security Administration -
- in reviewing an industry-submitted proliferation analysis.

A useful historical model could be a decision by the George W. Bush administration to circulate a draft 2008 Energy Department proliferation assessment of its Global Nuclear Energy Partnership, von Hippel said. The partnership initiative was aimed at expanding peaceful power generation while limiting sensitive enrichment and reprocessing activities, but experts said it was found to run some unintended proliferation risks.

Acton also cited the draft GNEP proliferation assessment (http://nnsa.energy.gov/sites/default/files/nnsa/inlinefiles/GNEP_NPIA.pdf) as "a substantial document and an example of the level of detail that should be required."

He noted that one version of a future proliferation risk appraisal could remain classified to protect sensitive details, while an unclassified copy could be made available for public comment.

"The process should be as open as possible," said von Hippel, who co-chairs the International Panel on Fissile Materials.

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