From: Bennett Ramberg [bennettramberg@aol.com]
Sent: Tuesday, March 08, 2011 1:50 PM
To: Rulemaking Comments
Subject: Docket ID NRC-2010-0372
Attachments: Microsoft Word - Document1.pdf; ATT00002..htm

Re NRC Rulemaking: Nuclear Proliferation Assessments Docket ID: NRC-2010-0372

March 8, 2011

Dear Sirs:

The Petition for Rulemaking submitted by the American Physical Society (APS) proposing a change in NRC fuel cycle facility licensing regulations calls for a dedicated nonproliferation assessment of new enrichment and reprocessing technologies. It comes at a time General Electric, in collaboration with Hitachi, plans to build a new enrichment plant in Wilmington, North Carolina early next year. This likely would be the first application of the proposed assessment and it merits attention.

Normally the GE-Hatchi undertaking would attract little controversy. However, the Wilmington plant could mark a milestone: the first commercialization of laser enrichment. The result could dramatically lower the costs of nuclear reactor fuel, an important benefit to the growing global atomic energy market. But laser enrichment comes with a potential global security risk. The Separation of Isotopes by Laser Excitation project -- or SILEX as it is known -- has stirred the concern of APS and others in the nonproliferation community. They contend the plant's lower costs, energy requirements and small physical footprint that better allows concealment would provide a new method for countries bent on acquiring nuclear weapons to go forward.

As someone who has devoted some decades of research and writing on nuclear proliferation and related security issues as a former faculty member at Princeton University's Center of International Studies and the UCLA Center for Strategic and International Affairs, a policy analyst in the Bureau of Politico-Military Affairs, Department of State during the George H.W. Bush Administration, a nuclear policy researcher for Committee to Bridge the Gap and consultant to the Nuclear Control Institute and the author of two books on nuclear security issues—*Nuclear Power Plants as Weapons for the Enemy*, University of California Press and *Global Nuclear Energy Risks: The Search for Preventing Medicine*, Westiew—and numerous related academic articles I share these concerns.

While APS' petition does not necessarily amount to a project killer, I concede that strict application of a

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nonproliferation standard could shutter construction of the GE-Hitachi project and potential projects. But this would not be the first time the U.S. would have abandoned a civil nuclear effort to combat proliferation. It did so when it decided to halt reprocessing of spent nuclear fuel for civil purposes in the 1970s.

The Commission would do well to recall the history. In his October 28, 1976 "Statement on Nuclear Policy," President Gerald Ford addressed the risk of plutonium commercialization. He noted that while the material was an economic resource, it could make nuclear weapons. As a result, the President concluded, "the reprocessing and recycling of plutonium should not proceed unless there is sound reason to conclude that the world community can effectively overcome the associated risks of proliferation. I believe that avoidance of proliferation must take precedence over economic interests."

President Carter expanded the plutonium barriers in the March 24, 1977 Presidential Directive NSC-8 that the United States would defer indefinitely the commercial reprocessing and recycling the plutonium produced in U.S. nuclear power program.

These prudent policies provide the foundation to make nonproliferation a priority in civil nuclear enrichment as well as plutonium recycling programs. I understand that NRC's staff believes that current licensing suffices to deal with security questions. However, NRC chairman Gregory Jaczko conceded in a July 12, 2010 speech that "the smaller footprint and lower energy needs of the laser enrichment technology have been the cause of concern." As presidents past have noted nonproliferation must remain a distinct priority. In this spirit, I urge NRC to make a rigorous and distinct assessment a new part of the licensing criteria.

Bennett Ramberg, Ph.D.

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