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April 18, 2003

Chairman, Nils Diaz
Nuclear Regulatory Commission
Washington, DC 20555

Dear Chairman Diaz:

I enclose a copy of a letter sent to Commissioner McGaffigan, which will explain further the context for the following request.

Commissioner McGaffigan and others at the NRC have indicated an unhappiness with the article by Alvarez, et al, which is to be published in the journal I edit, *Science and Global Security*. In the open hearings of March 27, 2003, McGaffigan and others raised the possibility of an NRC staff study critiquing the article.

I would welcome the opportunity to publish such a critique in the journal, along with the authors' response. It would be my intention to publish the critique unaltered as long as it wasn't extremely long – say 8,000 words or more. If the critique was of such length, I would ask that the NRC staff provide a summary.

I enclose the final version of the article for the staff's convenience. I also enclose Per Peterson's and Allan Benjamin's reviews of the article in question and the authors' responses.

Sincerely,

Harold A. Feiveson
Editor, *Science and Global Security*

A/5

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April 18, 2003

Commissioner Edward McGaffigan
Nuclear Regulatory Commission
Washington, DC 20555

Dear Commissioner McGaffigan:

As editor of the journal, *Science and Global Security*, I read with some anger your comments at the NRC open hearing on March 27, 2003, concerning the paper on spent fuel pools by Alvarez, et al, which we are publishing. Among your remarks are these:

[The paper] was allegedly peer reviewed for publication in this Princeton journal. Apparently peer review at Princeton means you get somebody like Per Peterson, a distinguished professor at the University of California Berkeley telling you it is not a very good paper and you say 'Thank you very much, and we're going to publish it.' And that apparently is what peer review means in the house journals of some of these anti-nuclear activists, which I guess Princeton has become."

Well, well, well! Allow me to make a few points. First of all, I too esteem Per Peterson, and I call to your attention that we have published in our journal two long articles by him in the past few years, and also other articles by strong proponents of nuclear power. You don't know what you are talking about when you refer to a house journal of anti-nuclear activists.

Secondly, Peterson's review did not say the paper reviewed was not a very good paper, and indeed Peterson in his comment to me, noted that "I can not find any obvious deficiencies in the technical analysis presented in the paper, except for a lack of analysis of what actual release fractions might occur due to a spent-fuel pool fire." He raised some technical questions which the authors then clarified further. It is true that he argued that the article and others like it should "make some attempt to compare the consequences of spent fuel pool fires with the consequences of attacks employing similar terrorist resources on other civilian infrastructure." Fair enough, but it did seem to me valuable for the authors to study the risks of spent fuel pools without demanding of them parallel studies of the risks inherent in other civilian infrastructure.

Finally, and most importantly, the paper in question was very thoroughly peer reviewed by five highly qualified scientists, including Allan Benjamin, who led the Sandia study of 1979 on spent fuel pool vulnerability, much relied upon by the article's authors. Benjamin did not find any technical problems with the paper but came to a

different view than did the article concerning the benefit-cost analysis of the solutions propounded by the authors. Benjamin's review (edited by him into a publishable comment) will be published along with the original article in the forthcoming journal issue. All in all, no major errors were identified in the reviews, and each review was responded to carefully and in detail by the authors. Where errors or omissions were pointed out, the article was corrected and improved. The peer review process worked very well indeed.

Peterson and Benjamin have been willing to make their reviews public, and I attach them here (Benjamin's in the form of his edited comment that will be published), along with the final version of the article itself, and authors' short responses to the Peterson and Benjamin comments. I have not asked the other three reviewers for permission to publish their comments (all of which supported publication) – our reviewing is generally done in a double-blind manner, with the authors not knowing who the reviewers are and the reviewers not knowing the authors.

Since you are such a devotee of peer review, I trust you will support making public any NRC critique of the spent fuel pool article (consistent of course with security concerns). I would very much like to publish such a critique in the journal along with a response by the authors – a suggestion I am putting forward to Chairman Diaz in a separate letter.

Finally, since your comments were made in a public forum, I consider this letter an open letter, also available to the public.

Sincerely,



Harold A. Feiveson

Editor

Science and Global Security

Cc:

Commissioners Dicus, Diaz, Merrifield

Encl: