

CHAIRMAN Resource

From: Mark Leyse <markleyse@gmail.com>
Sent: Monday, August 08, 2016 8:49 AM
To: CHAIRMAN Resource; CHAIRMAN Resource; CMRSVINICKI Resource; CMRBARAN Resource; RulemakingComments Resource; PDR Resource
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Subject: [External_Sender] Why are you censoring science, NRC Chairman Burns?

Dear Chairman Burns:

You and the Commissioners approved the publication of a Federal Register notice on the NRC's denial of a petition on spent fuel pool fire evaluations, provided that the Staff's draft of the notice was "**subject to the attached edits.**"

But what were the "edits" that you insisted upon? The "edits" were the censoring of a few pages on the science of spent fuel pool fires. The censored pages discussed the fact that the nitrogen content of air would intensify a spent fuel pool fire.

In the petition on spent fuel pool fire evaluations, I (the petition's author) pointed out that the NRC's computer model for evaluating spent fuel pool fires (MELCOR) is flawed because it doesn't simulate the effects of nitrogen. I alleged that your MELCOR computer model under-predicts the severity of spent fuel pool fires. I asked that MELCOR be improved; mainly, that it simulate the effects of nitrogen.

Incidentally, a May 2016 National Academy of Sciences report, which discusses spent fuel pool fire evaluations, points out that MELCOR "cannot model nitriding reactions with zirconium."

The NAS report recommends improvements to MELCOR, including: "Modeling the thermal and chemical behavior of spent fuel assemblies in partially drained pools." I essentially asked for the same things when I submitted my petition in June 2014.

Among the sentences that you and the Commissioners redacted from the Staff's draft was the simple statement: "The NRC recognizes that the phenomena discussed in the petition are important to

realistically evaluate the initiation and progression of SFP fires in the unlikely event of a beyond design basis accident."

Isn't that something? The NRC recognized phenomena discussed in my petition are important to realistically evaluate spent fuel pool fires. So why did you deny the petition?

I would guess you denied it because you'd rather have unrealistic evaluations of spent fuel pool fires. A realistic evaluation would show that discharged fuel rods should promptly be removed from spent fuel pools and placed into dry cask storage. But the industry you appear to serve wouldn't like that, would they? It'd cost millions.

You and the Commissioners also redacted the following statement from the Staff's draft: "Nitriding is most relevant when nuclear fuel is undergoing a severe accident in an air environment and oxygen-starved conditions develop because of rapid consumption of oxygen from the air."

That censored statement sums up one of the primary reasons why I submitted my petition. I cited reports asserting that the cladding of fuel rods degrades quickly when oxygen isn't present and the effects of nitrogen prevail.

Instead, of publishing scientific statements, you published dogmatic platitudes like: "The MELCOR computer code represents the current state of the art in severe accident analysis."

Meanwhile, back in 2000, Dana Powers, Chairman of the ACRS, wrote a letter to NRC Chairman Richard Meserve, complaining that the NRC's evaluations of spent fuel pool fires didn't consider the effects of nitrogen. Sixteen years ago, he said the evaluations "relied on relatively geriatric work."

Chairman Burns, if you really think MELCOR's so great, why did you resort to redacting information on the science of spent fuel pool fires when you denied my petition?

Why do you insist on censorship, when the NRC professes to embrace transparency and open government?

Chairman Burns, you undermine the NRC's policy of public participation through your acts of censorship. As a member of the public, if you deny a petition, I expect it to be a science-based decision, not a decision based on dogma.

I have actually submitted a petition that the NRC accepted (PRM-50-84). In 2012, the NRC Commissioners voted unanimously to approve a proposed rulemaking—revisions to Section 50.46(b), which will become Section 50.46(c)—that is partly based on the safety issues I raised in PRM-50-84.

In her comments for the Commission Voting Record, Chairwoman Allison Macfarlane wrote: "Finally, I want to highlight that a portion of this proposed rulemaking...is the result of a petition for rulemaking submitted by a member of the public, Mr. Mark Leyse. I'm encouraged by continued public participation in our regulatory processes and I believe it's particularly important that we highlight the contributions of members of the public to the agency's mission."

Chairman Burns, your predecessor encouraged public participation. You suppress it. As a member of the public, who spent weeks researching and writing the petition on spent fuel pool fire evaluations, I personally resent the way you disrespect science and the efforts of the public.

Even worse, much worse, your cynical actions undermine public safety. The NRC has used the results of unrealistic MELCOR simulations to justify not expediting the transfer of spent fuel from pools to dry cask storage. This endangers the very public that the NRC is congressionally mandated to protect.

Sincerely,

Mark Leyse

P.S. Here are links to documents I refer to:

1) The censored Federal Register notice is in the April 4, 2016 Commission Voting Record:

<http://www.nrc.gov/docs/ML1610/ML16103A375.pdf>

2) My petition on spent fuel pool fire evaluations (PRM-50-108):

<http://www.nrc.gov/docs/ML1419/ML14195A388.pdf>

3) Dana Powers's letter to Chairman Richard Meserve:

<http://www.nrc.gov/docs/ML0037/ML003704532.pdf>

4) January 7, 2013 Commission Voting Record on Section 50.46(c):

<http://www.nrc.gov/reading-rm/doc-collections/commission/cvr/2012/2012-0034vtr.pdf>

5) National Academy of Sciences, "Lessons Learned from the Fukushima Nuclear Accident for Improving Safety and Security of U.S. Nuclear Plants: Phase 2." May 2016:

<http://www.nap.edu/catalog/21874/lessons-learned-from-the-fukushima-nuclear-accident-for-improving-safety-and-security-of-us-nuclear-plants>