

Hamilton, Brandi

From: Cook, John
Sent: Friday, February 17, 2012 1:54 PM
To: Brown, Christopher
Cc: Araguas, Christian; Weaver, Doug; Waters, Michael; Benner, Eric; Hackett, Edwin; Santos, Cayetano
Subject: FW: ACRS Subcommittee briefing on Spent Fuel Transport Risk Assessment (SFTRA)
Attachments: SFTRA_Complete_Jan-25-2012.pdf

Hi Chris-

Recalling our discussion on this subject last year (previous email chain follows), I wanted to update you on developments, and ask your assistance in scheduling a ½ day meeting on SFTRA with the ACRS Subcommittee for later this year.

Last week, SFST began the process to publish Draft SFTRA NUREG (Rev. 2.3) in the Federal Register to solicit public comments. An information copy of Rev. 2.3 is attached; note this revision is currently being edited by NRC's Publications Branch and is not for release outside the agency. We plan to publish the edited version (Rev 2.4) in the Federal Register in mid-April with a 60-day comment period, and we (and Sandia) plan to complete the public comment resolution process by mid-July 2012, producing Draft SFTRA Rev. 3.0. To support our goal of publishing the Final SFTRA NUREG by year-end, we would like to schedule the ACRS Subcommittee ½ day meeting on SFTRA Rev. 3.0 between August 1 and September 15, 2012. Please advise whether this schedule is convenient for the Subcommittee.

Please call with any questions. Thanks.

-John

From: Cook, John
Sent: Friday, January 14, 2011 7:40 AM
To: Brown, Christopher
Cc: Pstrak, David; Weaver, Doug; Ordaz, Vonna; Hackett, Edwin; Santos, Cayetano
Subject: RE: ACRS Subcommittee briefing on Spent Fuel Transport Risk Assessment (SFTRA)

Chris-

I have not forgotten your request. Basically, it was premature for staff to have engaged you regarding SFTRA at this time. As indicated in the Overview below, SFTRA is still under development, and remains in milestone 3 of 7. It does not appear likely to be ready for ACRS review in FY2011. Our latest tentative projections, although subject to considerable uncertainty, would appear to indicate that the first, or perhaps the second, quarter of FY2012 would be a candidate timeframe for ACRS review.

Please call if you have any questions. Thanks.

-John

From: Brown, Christopher
Sent: Thursday, January 13, 2011 11:56 AM
To: Cook, John
Cc: Pstrak, David; Weaver, Doug; Ordaz, Vonna; Hackett, Edwin; Santos, Cayetano
Subject: ACRS Subcommittee briefing on Spent Fuel Transport Risk Assessment (SFTRA)

John,

Dr. Ryan has once again inquired as to when does SFST want to schedule the SFTRA information briefing. Our 2011 calendar is filling up very fast and I need a response from you very soon to schedule ½ day.

Thanks,

Chris

Spent Fuel Transport Risk Assessment (SFTRA) Overview

NRC has previously studied spent fuel transport impacts in "Final Environmental Statement on the Transportation of Radioactive Material by Air and Other Modes," NUREG-0170, December 1977, in "Shipping Container Response to Severe Highway and Railway Accident Conditions," NUREG/CR-4829, February 1987, and in "Reexamination of Spent Fuel Shipment Risks," NUREG/CR-6672, March 2000. The studies found that spent fuel shipment risks are low, and staff has confidence in these results.

The purpose of SFTRA is to obtain an updated and refined spent fuel shipment risk assessment that considers new or additional factors, and to obtain explanatory materials to enhance NRC's outreach efforts. With regard to new factors, unlike previous assessments, certified (as opposed to representative) package designs are employed in the SFTRA analysis. The assessment was performed primarily by computer analysis, and in part includes the following additional new analyses:

- Analysis of high-fidelity models of 2 rail cask designs (one with and one without an inner spent fuel canister) and 1 truck cask design (without an inner spent fuel canister), their respective impact limiters, and their respective (fuel) contents;
- 3-D thermal analysis of cask and fuel assemblies to improve predictions of spent fuel cask behavior during accidents involving fire.
- Calculation of spent fuel shipment risks (dose estimates and probabilities) under routine and accident conditions using updated transportation accident statistics and an updated transport risk assessment code.

SFTRA is a generic risk assessment, not a facility specific assessment. The assessment has been informed by results of relevant security assessments, but does not evaluate security-related transportation scenarios or impacts.

The SFTRA project plan includes the following milestones: (1) update the analysis of spent fuel transport risk estimates (performed by Sandia National Laboratories) as described above; (2) prepare a draft NUREG report documenting the analysis; (3) conduct an external technical peer review (being performed by Oak Ridge National Laboratory); (4) disposition peer review comments; (5) issue a draft NUREG for public comment; (6) disposition public comments and (7) issue a final NUREG document. The project [currently on milestone (3)] is expected to conclude in the latter half of 2011.