

September 10, 2013

MEMORANDUM TO: William D. Reckley, Chief
Policy and Support Branch
Japan Lessons-Learned Project Directorate
Office of Nuclear Reactor Regulation

FROM: Kevin M. Witt, Project Manager **/RA/**
Policy and Support Branch
Japan Lessons-Learned Project Directorate

SUBJECT: SUMMARY OF AUGUST 22, 2013 PUBLIC MEETING TO
DISCUSS STAFF ANALYSIS OF JAPAN LESSONS-LEARNED
TIER 3 ISSUE ON EXPEDITED TRANSFER OF SPENT FUEL
TO DRY CASK STORAGE

On August 22, 2013, the U.S. Nuclear Regulatory Commission (NRC) conducted a Category 3 public meeting with interested stakeholders, members of the public and industry representatives. A list of individuals that were in attendance at the meeting is attached in Enclosure 1. During this meeting, the staff provided external stakeholders with information on the Japan Lessons Learned Tier 3 analysis regarding whether regulatory action is needed to require an expedited transfer of spent fuel to dry cask storage, as well as, an opportunity to ask the NRC staff clarifying questions and to provide feedback to NRC staff. The NRC's presentation outlining the items discussed during the meeting can be found in the Agencywide Documents Access and Management System (ADAMS), under accession no. ML13231A069. The staff also discussed the results of the regulatory analysis, as documented in Appendix D of the recently completed Spent Fuel Pool Study, which can be accessed in ADAMS under accession no. ML13133A132.

As the meeting was a category 3 public meeting, public participation was actively sought to fully engage the public in a discussion of regulatory issues. The staff engaged meeting attendees throughout the presentation, to gather feedback and to answer any clarifying questions. The general feedback from the individuals and organizations participating in the meeting was that they favored expedited transfer of spent fuel to dry cask storage and challenged the staff's assessment that would possibly lead to a regulatory action not being taken. As a result of stakeholder feedback, the staff will attempt to provide additional clarity in its explanation of the assumptions made in the Tier 3 analysis. In addition, the staff is planning to hold another public meeting to further engage stakeholders and gather their feedback for the future Commission paper on this topic.

CONTACT: Kevin M. Witt, NRR/JLD
301-415-2145

At the conclusion of the meeting, interested stakeholders were invited to provide any comments on the analysis being conducted by the NRC through phone or e-mail. The staff received several emails following the meeting, attached in Enclosure 2, which will be appropriately considered in the staff's documentation of the Tier 3 analysis.

The ADAMS Public Electronic Reading Room is accessible at <http://www.nrc.gov/reading-rm/adams.html> on the NRC's public website. Persons who do not have access to ADAMS, or who encounter problems in accessing the documents located in ADAMS, should contact the NRC's Public Document Room reference staff at (800) 397-4209 or by e-mail at PDR.Resource@nrc.gov.

Enclosures:

1. List of Attendees
2. Emails Received After Public Meeting

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Enclosures:

1. List of Attendees
2. Emails Received After Public Meeting

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Nuclear Regulatory Commission

Tier 3 Transfer Spent Fuel to Dry Cask Storage Meeting

Sign In List

Name	Affiliation	Phone	Email
STEVEN KRAFT	NEI		
Everest Redmond	NEI		
Doug Weaver	WEC		
BRIAN GUSTEMUS	PSEG		
DON SHAW	AREVA TN		
Jana Bergman	Sciencetech		
KETH COMPTON	NRC		
Taylor Butch	NRC		
Donald Helton	NRC		
Diane Curran	Harmon Curran		
Sophia Wang	Harmon Curran		
RAFAEL FLORES	LUMINANT		
ROBERT ALVAREZ	IPS		
Rebecca Tadesse	NRC		
Auxa Sunkhli	NRC		
James Robinson	NRC		
Steven Jones	NRC		
Brian Wagner	NRC		
CRAIG HRADAK	NRC		
Robert Taylor	NRC		
PATRICK CASTLEMAN	NRC/OCM/KLS		
Bernad Jasamit	NRC/NMSS		
Mark Leibel	NRC		
David Brown	NRC		
Tim McCorkin	NRC		

From: [Rochelle Becker](#)
To: [NRRGotoMeetingJLD2 Resource](#)
Subject: Re: Thank you for attending "Public Meeting on Tier 3 Analysis of Expedited Spent Fuel Transfer"
Date: Friday, August 23, 2013 11:57:26 AM

"Enjoyed" three hours of non-answers to important issues underling the NRC's policies and regulations is just not the word I would use. This is an important topic and so I was moved to rethink my usual stance of ignoring what the NRC does as it always disappoints, only to again be disappointed. Your slides say the NRC has considered the "cost-benefit" of its actions and the Alliance retorts you have no idea of the impacts to lives and livelihoods from ignoring independent experts who have convinced the public that SFP are an accident waiting to happen. Saving utilities money is not your mandate even if safety is becoming increasingly costly.

There are some really good people within the NRC who understand the public's frustration with the NRC's questionable decision-making and snail paced policies, sadly none of these employees seemed to be on the phone yesterday.

We will file comments even though we don't expect the NRC to pay attention.

In Peace
Rochelle

On Fri, Aug 23, 2013 at 8:45 AM, NRR JLD <GoToWebinar.Notifications@citrixonline.com> wrote:

Public Meeting on Tier 3 Analysis of Expedited Spent Fuel Transfer

Dear Rochelle,

Thank you for attending our Webinar. We hope you enjoyed our event.

Please send your questions, comments and feedback to: nrrgotomeetingild2.resource@nrc.gov.

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In Peace

Rochelle Becker, Executive Director
Alliance for Nuclear Responsibility

www.a4nr.org

From: [Lucy J Swanson](#)
To: _____
Cc: _____
Subject: Re: Thank you for attending "Public Meeting on Tier 3 Analysis of Expedited Spent Fuel Transfer"
Date: Friday, August 23, 2013 12:58:24 PM

I do appreciate the technology that made it possible for many citizens to participate in the webinar.

However, I certainly did not enjoy one minute of the meeting. On the contrary, it was extremely frustrating to AGAIN witness how caught up in regulatory jargon and circular thinking NRC Staff is. Questions and comments put forth by extremely well informed attorneys and activists were responded to by rudeness and repetition that showed a determination of the NRC to stick with its plan, regardless of the facts.

Your refusal to even CONSIDER the contents and methodology of the Draft Consequence Study was shocking and disgraceful. Given that the Tier 3 Analysis is BASED ON that study, it is illogical to fence the study out of the discussion. Is the NRC going to respond to the expert comments on the Draft Consequence Study submitted by Gordon Thompson? You certainly gave the impression that the agency intends to file and forget them.

The entire meeting showed what shams the NRC "open government policy" and "public participation" programs amount to. And the fact that you ask us the next day if we "enjoyed" the meeting is further evidence of how out of touch the agency is with the public. Allowing us access to the meeting is meaningless when we are not heard, not responded to, and our concerns and statements of facts are categorized as irrelevant, because this was a "regulatory" meeting.

For forty years, Mothers for Peace has witnessed that regulation is unrelated to factual accuracy, and that the agency sees its role as accommodating the industry at the expense of public safety. Exhibit A: "Grandfathering in" the operating license for the Diablo Canyon plant in 1984 even though it was well known then that the Hosgri Fault was classified by the USGS as major and active, and therefore against AEC regulations.

This meeting showed that nothing has changed.

Jane Swanson, Spokesperson
San Luis Obispo Mothers for Peace

On Aug 23, 2013, at 8:45 AM, NRR JLD wrote:

Public Meeting on Tier 3 Analysis of Expedited Spent Fuel Transfer

Dear Jane,

Thank you for attending our Webinar. We hope you enjoyed our event.

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From: _____
To: _____
Subject: FW: Purpose and scope of today's NRC public meeting
Date: Thursday, August 22, 2013 3:49:57 PM
Attachments: _____

From: Dave Lochbaum [mailto:DLochbaum@ucsusa.org]
Sent: Thursday, August 22, 2013 11:58 AM
To:
Cc:
Subject: Purpose and scope of today's NRC public meeting

I share your frustration at the game played by the NRC during today's public meeting on moving spent fuel from pools to dry storage.

I also echo the comment made by Lou Zeller from BREDL toward the end of the meeting regarding how disgraceful the NRC's handling of your comments was. I've seldom experienced worse behavior by the NRC during a public meeting and hope to never come close again --- even if that means never attending another sham that the NRC calls a public meeting again.

I just don't understand the NRC's filibuster when you dared to address questions and comments to the NRC draft spent fuel pool study rather than the NRC's regulatory analysis. I don't understand why the NRC claimed that today's meeting was narrowly focused on the regulatory analysis and its associated process. If that's what they wanted to discuss, they surely could have explicitly stated that in the meeting notice.

Attached is the meeting notice issued by the NRC for this public meeting.

That meeting notice stated: "The purpose of this meeting is to provide external stakeholders with information on the NRC staff's analysis regarding whether regulatory action is needed to require expedited transfer of spent fuel to dry cask storage, as well as, an opportunity to ask the NRC staff clarifying questions and to provide feedback to NRC staff."

The agenda included in the meeting notice stated that the portion of the meeting in which you spoke was devoted to "NRC Overview and General Discussion of Tier 3 Analysis on Expedited Transfer of Spent Fuel to Dry Cask Storage."

I simply don't understand why the NRC played this game designed to gag public communication by trying to narrow the discussion to only the regulatory analysis and its associated process. I also note that few members of the public, and the industry representative at the meeting, opted to ignore this feeble NRC attempt to narrow the scope of the meeting.

The regulatory analysis for this matter has not been made publicly available to date -- thus, the public had zero chance to ask clarifying questions or provide feedback on that which they have NEVER EVER SEEN.

The NRC had issued its draft spent fuel pool scoping study in June 2013. And as was mentioned during the public meeting, the public comment period on that draft study closed on August 1, 2013.

So, the NRC staff conducted a public meeting AFTER the comment period on the draft spent fuel pool scoping study and BEFORE the regulatory analysis was made publicly available.

Very clever way to conduct a meeting that provide ZERO meaningful opportunity to achieve its stated purpose.

Someone needs to take the NRC out to the wood shed. These antics must stop, or at least slow down.

Thanks,
Dave Lochbaum
UCS

From: [Barbara Warren](#)
To: _____
Subject: NRC Spent Fuel Study
Date: Friday, August 23, 2013 8:32:58 AM

We participated in NRC's webinar on 8/22/13. We were told to submit additional comments to this email address. We would like to understand if these comments will be made part of the official record.

This meeting was supposed to address Spent Fuel Pools and the Expedited Transfer of spent fuel to dry casks.

At the meeting, we were told that the Safety Analysis was not a subject for this meeting despite the fact that it was supposedly the first step in your analysis. NRC staff were only willing to address the regulatory analysis.

This fact is very telling in that the primary issue of concern to the public and knowledgeable scientists is the Safety of overcrowded spent fuel pools --- maintained at 300-400% of their original design

capacity. This Beyond Design Basis operation should have been

thoroughly studied.

The meeting focused on the Regulatory Analysis only which revealed over a process of at least a dozen steps, that the Agency had selected non-conservative assumptions for each step in the process.

This is not a scientifically recommended practice. Conservative assumptions are used to provide a margin of safety. The effect of repeatedly choosing non-conservative assumptions means that the result is completely erroneous and highly unlikely to represent reality-- each step has magnified the error in the same direction. As a result your study is scientifically indefensible.

The Analysis reflects a clear desire to limit the costs to industry, while ignoring the ongoing global catastrophe at Fukushima and what it will take to successfully contain and limit the harm to millions of people from the Unit #4 spent fuel pool.

NRC also knows that all US reactors have 4-5 times the amount of spent fuel that is in the Unit #4 pool. In this light, your analysis is ethically indefensible.

Your analysis stands in sharp contrast to the Fukushima situation and the judgment of any

prudent person. The courts routinely ask --what would a prudent person say?

We know not all NRC staff are scientifically and ethically challenged. After all NRC staff added this recommendation to the Fukushima Near Term Task Force recommendations.

NRC staff also recommended filters on the hardened vents to capture radiation in the event of a severe accident. And NRC staff have been courageous whistleblowers.

If there is a battle within NRC, we hope the courageous staff, those not scientifically and ethically challenged, win.

Sincerely,

Barbara Warren RN,
MS Executive Director
Citizens' Environmental Coalition
Albany, NY

From: [Tom Gurdziel](#)
To: [JLD Public Resource](#)
Cc: _____
Subject: Today's Public meeting on the Tier 3 Analysis of Expedited Spent Fuel Transfer
Date: Thursday, August 22, 2013 6:10:52 PM

Hello,

I attended the meeting but was not selected to make my intended comments, possibly due to some telephone (and computer) trouble I had.

I decided to take a look at the Expedited Spent Fuel Transfer study a day or two ago. The study is not as challenging as I had expected. In fact, it is not challenging at all.

In Japan a couple of years ago, the result of an earthquake and 3 operating plants resulted in 4 damaged, (maybe totally destroyed), plants with an estimated cost of at least 132 Billion US dollars to address all the nuclearplant-caused damage. Roughly, that comes out to a cost per destroyed unit of about 35 Billion US dollars. And, at the time, there was fear that the Unit 4 (elevated) spent fuel pool might be about to collapse. So, as I recall, immediate, (yet not disclosed to the public), repairs were reported as made. Additionally, the water level in the pool was unknown, possibly not even existing any more: we did not know. So I think you can say that the situation was serious.

So here is what I expected to see. Our people would assemble a model that, when applied to the subject plant, (a Peach Bottom unit), would result in the same amount of damage. They didn't do that.

Well, okay. (Forget verification & validation.) Maybe just assume you didn't make any mistakes modeling the earthquake effects and use a worst case event. They didn't do that.

It appears they configured the plant to cause the LEAST possible chance, (limited to less than 3 days), of sloshing and of water loss by modeling the spent fuel pool with the canal gates CLOSED. And, despite the lesson that should have been learned that risk-informed anything, (introduced in the days of Chairman Dr. Shirley Jackson), does not protect you from that event of very low PROBABILITY (and very high cost) that puts you into very big trouble, they were "binning", (using risk methods), the results.

The spent fuel pool configuration chosen for the study is inadequate to allow credible decisions to be made about necessary regulatory action.

Thank you,

Tom

Gurziel

Member, ASME

From: sherry.lewis66@att.net
To: [JLD Public Resource](#)
Subject: Response from "Contact Us about Actions in Response to the Japan Nuclear Accident";
Date: Friday, August 23, 2013 1:04:10 AM

Below is the result of your feedback form. It was submitted by
(sherry.lewis66@att.net) on Friday, August 23, 2013 at 01:05:38

through the IP

using the form at <http://www.nrc.gov/reactors/operating/ops-experience/japan/contactus.html>

and resulted in this email to jld_public.resource@nrc.gov

comments: I am so upset with this morning's Webinar. You say you want to be transparent and open to the public, and yet whenever there is a real concern about a safety issue that doesn't seem to coincide with your apparent objective of finding the Spent Fuel Pool high-density racking status quo quite acceptable, you thank the person for their question and then don't really deal with the substance of it.

Why would you consider in this early stage of analysis what would be the "likely regulatory approach taken based on consultation with the Office of Nuclear Reactor Regulation"? Isn't the purpose of this analysis to discover what the dangers are and subsequently to consider appropriate regulation?

I have read Gordon Thompson's Declaration of August 1, 2013, and believe that the arguments he presents deserve honest consideration by the NRC. That point was made by a caller to the Webinar, and yet you gave a placatory reply to the effect that "Every point will be considered". But I want to hear or read your responses to Dr. Thompson's contentions.

How are we to trust that the NRC is being disinterested and fair when all the final discussions and decisions are made "in-house"? Your staff receives expert opinion and can choose to ignore it with no accountability.. Where are the "checks and balances"? (independent peer review by scientists and technicians). Just because you aver that you are concerned primarily with safety does not mean that you actually are. In fact, evidence points another way.

This Webinar—far from satisfying me that the NRC is primarily concerned with the public welfare—has served to unnerve me even more than before. It's pretty clear that you are putting the cart before the horse: you are starting with chosen regulations and cost concerns and considering only the scenarios that support that choice, rather than the other way around—which is starting with all possible scenarios and event-sequences and seeing which regulations are required to deal with them.

Sherry Lewis
San Luis Obispo Mothers for Peace
Webinar caller

name:

organization: San Luis Obispo Mothers for Peace

address1:

address2:

city:

From: [Mary Olson](#)
To: [JLD Public Resource](#)
Subject: Protection is not a relative term
Date: Thursday, August 22, 2013 12:45:45 PM

To NRC STAFF

From Mary Olson, Nuclear Information and Resource Service

Re Additional Comments with respect to the Regulatory Analysis / Fukushima Lessons Learned / Irradiated Fuel Pool

Protection when it comes to preserving the Public's health and wellbeing as it is, is not a relative term. Even if you want to argue that there are relative degrees of protection, I think NRC staff have lost track of the fact that **low probability does not constitute protection**.

NRC does not deny that the Fukushima accident occurred, and I am sure there is a level of analysis that provides more data than ever before on the concrete hazard that nuclear reactors and irradiated fuel pools pose.

Given this absolute -- it happened -- hazard NRC converting that information into a purely an exercise of probability and the **likelihood** that anyone here in the USA will suffer harm from a similar hazard does NOTHING to provide additional **PROTECTION** to anyone. It is merely an explanation for why you and NRC do not care about the absolute hazard which is clear and present at every reactor site today; why you do not want to bother your pack of licensees or make them spend money.

The public and also the decision-makers (including Congress) have a right to be presented with the ABSOLUTE values of instituting dry storage now and doing nothing -- in direct comparison.

Slide 16 should include an additional section showing the absolute costs (and how you projected them) and absolute benefit (and how you projected them) of not moving the waste out of the pool -
- (with a best and worst case) and also the same for dry casks.

The impact cost used for the projection must be included without the "frequency factor" -
- so the administrator and the public know WHAT is really being gambled. They may too accept your assessment that the odds are worth it, but how can they know? It is simply not true that because something is rare that it does not matter. Did you really look yourself at the real numbers without the "it can't happen" blinders on? The old joke was that Dr. Rasmussen got hit by a meteor on his way to his car the day Three Mile Island melted.

Now, joking aside -- this is important. It is important because so many REAL COSTS are not included in any assessment you will come up with. The Price Andersen Act caps liability for the industry, then what? Then it goes to Congress, but like hurricanes Katrina and Sandy

From: [Mary Olson](#)
To: [JLD Public Resource](#)

there just too many real costs that the victims bear, or cannot bear. What about all the non "~~monitizable~~" emotional and physical costs that have very real impact on our society? I would not want to put a dollar value on miscarriage or spontaneous abortion -- but parents will tell you it is real. What about infertility? I guess with over population...well, let's not go there -- many people suffer greatly from not being

able to have children. The fact that these are never factored is an insult, but if the things that you can factor are not disclosed, it is beyond an insult -- it is unacceptable -- and that is not a relative term either.

I want share one instance of that unacceptability. I spent two days in South Carolina with members of the nuclear industry and NGO community and NRC in a sort of "focus group" setting in 2011. I was deeply moved by the unspoken, but unmistakable rage I could see in career NRC staff. This was weeks into Fukushima disaster and it was plain to me that folks in that room were experiencing the rage associated with having been told that X, Y or Z thing could and would never happen -- and then witnessing it. Unacceptable -- maybe they have managed to put the ducks and the rows back together to "get with the program" but it was clear that as human beings we know the difference.

Fuel pool catastrophes can and do happen.

The casks at Fukushima are silent testimony: the casks did not explode; the casks have not burned;

as far as we know they are not contributing in large measure to the contamination at that site.

Please hear it one more time: you are doing nothing to protect. Don't claim that you are. Disclose the reality so that those who make the decisions have the full story.

Respectfully
offered, Mary
Olson

Mary Olson
Nuclear Information and Resource Service
Southeast Office *
maryo@nirs.org www.nirs.org

NIRS functions as a networking / information clearing house on nuclear energy and its radioactive waste. Working for a non-nuclear energy policy since 1978.