

From: Glenn Pascall  
Reply-To: Glenn Pascall  
Date: Thursday, January 15, 2015 at 8:03 AM  
To: "David G. Victor"  
Subject: Re: a copy of your white paper

David,

It is my pleasure and privilege to transmit to you "A National Framework for Nuclear Waste Management." This White Paper attempts to bring together current thinking on three related topics:

- Best practices that in combination offer "defense in depth" to assure the safest possible storage of radioactive waste on-site at individual nuclear power plants.
- A consent-based process to identify, certify and utilize specific locations around the country as sites for consolidated interim storage of waste.
- A call to renew the study, evaluation and location of one or more long-term remote waste storage sites, also known as geologic repositories, as a matter of national policy and priority.

The first of these sections benefits greatly from your due diligence in studying and summarizing "defense in depth" issues, as you did for the CEP in a 2014 paper.

The second of these sections similarly benefits from the work of Jim Hamilton and the National Spent Fuel Collaborative.

The third section reflects insights from national nuclear experts as well as the motivating spirit provided by members of the CEP that removing waste from San Onofre is an ultimate goal that ideally would be part of the legacy of the CEP.

I hope you find the White Paper a useful contribution to the dialog on these issues and I invite you to share it in any way you deem appropriate and beneficial.

Best regards,

Glenn Pascall, Chair  
San Onofre Task Force  
Sierra Club Angeles Chapter

On Thursday, January 15, 2015 5:14 AM, David G. Victor wrote:

Glenn

I wonder if you could “officially” send me a copy of your white paper on spent fuel—just an email with it attached—so that I can be sure to get it included with “recent correspondence” that I circulate to the CEP periodically. I think it would be useful for folks to have that paper on hand and I don’t see that I have the latest version. In the next day or so I will be sending around an update to the whole CEP and will include such materials. I attach the copy I have.

best  
david

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From: David G. Victor  
Sent: Thursday, January 08, 2015 12:31 PM  
To: Manuel Camargo  
Cc: Tom Palmisano; Chris Thompson; Maureen Brown; Liese Mosher; LOU BOSCH; John Brabec; JAMES MADIGAN  
Subject: Re: San Onofre Emergency Planning Exemption Request – FYI

Dear Manuel

thanks for your note. I suggest that we send this information around as part of the pre-read materials for the next meeting. We need to have a compilation of relevant documents to circulate, including correspondence from people and so on. In the past we've done this every few months. I think we should do the same thing here. All best wishes, David

Sent from limited typing device

On Jan 8, 2015, at 12:11 PM, Manuel Camargo wrote:

David,

We want you to be aware the NRC staff has recommended approval of our Emergency Planning exemption requests to the Commissioners as detailed in the attached document (which is publicly available on the ADAMS website). The Commissioners now will conduct a notation vote by mid-February. As you know, these types of exemptions are necessary because the NRC does not have prescribed regulations for decommissioning plants.

Note that we also have two pending license amendment requests (LARs) associated with our Emergency Planning now that San Onofre has permanently ceased operations and fuel has been removed from the reactors. One LAR is for our Permanently Defueled Emergency Plan and the other is for a revised Emergency Action Level scheme. Both LARs were submitted to the NRC along with the exemption request in March of last year. Such LARs typically take one year for approval, which means we might anticipate approval in March of this year.

Please let me know if you would like this information to be shared with the full CEP and, if so, whether you would like me to do so.

Best Regards,

Manuel

Manuel C. Camargo Jr.  
Principal Manager, SONGS Decommissioning  
Southern California Edison

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From: David G. Victor  
Sent: Tuesday, January 06, 2015 3:33 PM  
To: Tom Palmisano; Chris Thompson; Manuel Camargo  
Cc: JAMES MADIGAN; John Brabec  
Subject: Re: NRC Commission direction on Decommissioning rule making

Tom

Thanks for this.

Manuel: when we send around the pre-read for the next meeting let's include this document and I will make a note of it in my pre-read instructions.

Best  
D

From: Tom Palmisano  
Date: Tuesday, January 6, 2015 at 12:32 PM  
To: Chris Thompson, David G. Victor, Manuel Camargo  
Cc: JAMES MADIGAN, John Brabec  
Subject: NRC Commission direction on Decommissioning rule making

All,

Two items of interest:

1. The NRC Commission approved the Crystal River (Duke Energy) EP exemption requests on a 5-0 vote in December.
2. The NRC Commission directed the NRC staff to prepare a plan for rulemaking for decommissioning plants. I've attached the NRC's Staff Requirements Memo (SRM) for your information. I've highlighted the key sentences. Since the CEP has discussed the need for rule making, I wanted to provide this to you.

Let me know if you have any questions.

Tom

Tom Palmisano  
Vice President and Chief Nuclear Officer  
San Onofre Nuclear Generating Station  
Southern California Edison

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From: Manuel Camargo  
Sent: Tuesday, December 23, 2014 3:14 PM  
To: Jordan Lay  
Subject: RE: New CEP Message

Jordan,

Completely replace a carbon-free generating source such as nuclear with another form of zero emissions power is a challenge. However, in the wake of the retirement of the San Onofre nuclear plant, SCE is working on what we call a Preferred Resources Pilot that you may find of interest.

Please check out the Edison website for facts on this important effort:  
<http://www.edison.com/home/innovation/preferred-resources-pilot.html>

Best Regards,  
Manuel Camargo

From: <nuccomm@songs.sce.com>  
To: <nuccomm@songs.sce.com>,  
Date: 12/03/2014 03:01 PM  
Subject: New CEP Message  
This is an automated email response from Community Engagement Panel  
Date Sent: 12/3/2014  
First Name: jordan  
Last Name: lay  
Email address: XXXXXXXXXXXXXXXX  
City: smyrna  
State: GA

Message: I would like to know who can i talk to about a replacement energy source that can replace the reactors, have the same energy output, but also not give off any emissions?

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From: "David G. Victor"  
Date: Saturday, December 13, 2014 at 9:46 AM  
To: Jeff Williams  
Subject: Re: SONGs dry storage

Jeff

thanks for your note

We have put this question to the two vendors at our special meeting and neither saw any challenges with this—nor has Edison. But I think we have to recognize that the DOE system is very much in flux because there is no place to transport the spent fuel and won't be for a long time most likely. In my view, that means that we should best use what others in the industry are using and thus raise the odds (essentially to 100%) that DOE will accept canisters that are ubiquitous in the industry.

This is not a good state of play, but it is the world that DOE and Yucca politics have put us in.

May I share our exchange with the wider CEP the next time I send around copies of correspondence and such?

david

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David G Victor  
Professor & Director, Laboratory on International Law & Regulation  
School of International Relations & Pacific Studies, UC San Diego

From: Jeff Williams  
Date: Friday, December 12, 2014 at 7:29 AM  
To: "David G. Victor"  
Subject: Fwd: SONGs dry storage

Sent from my iPhone

Begin forwarded message:  
From: Jeff Williams  
Date: December 12, 2014 at 10:25:43 AM EST  
To: david victor  
Subject: SONGs dry storage

Dr. Victor

I was interested to see that Southern Cal Edison selected the Holtec underground system for dry storage for the decommissioned plants. I would've hoped that the community engagement panel would have

pushed Southern Cal Edison to store fuel in a configuration that would be compatible with the Department of Energy's system for transportation and disposal and facilitate off site shipment. The Department of Energy's position is that these types of canisters are not covered under the standard contract between DOE and utilities. I would be nice to have a shut down reactor site pursue this point. Most likely, these large canisters will have to be opened and the fuel repackaged prior to disposal.

The SONGs site will now have 3 types of canisters which will complicate the eventual removal of fuel from the site.

I believe that your congressional delegation should have been approached about pushing this point with the Administration with the objective to get assurances from the Federal government that they would, at least, accept the canisters or better yet work cooperatively on a storage configuration that would better integrate with the eventual waste management system. If the fuel was stored this way maybe SONGs could have risen to the top of the acceptance queue.

Sent from my iPhone

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On 12/12/14, 2:14 PM, "Lombard, Mark" wrote:

Donna,

Under the provisions of 10 CFR 72.212, SCE has the ability to choose to deploy a system under their General License provisions that has obtained NRC approval. The NRC has completed the safety and security review of the UMAX storage system. We expect to publish our approval early in 2015. This action is not covered under the provisions of 10 CFR 50.59 or 72.48 as it is not a change, test, or experiment as defined in those parts of the regulations. SCE needs to verify that the system selected meets their site requirements. While the licensee can build the independent spent fuel storage installation at risk, as has been done at other nuclear power plants, spent fuel can't be stored in the system until approval has been issued by the NRC.

Mark

-----Original Message-----

From: Donna Gilmore

Sent: Friday, December 12, 2014 4:50 PM

To: Lombard, Mark

Cc: Dricks, Victor; Michal Freedhoff for Senator Boxer; Woollen, Mary;

Shane, Raeann; Ken Alex; Michel Florio; Kevin Barker - CEC; Eric

Greene; Mary Beth Brangan; jean merrigan

Subject: ISFSI License Amendment

Given the major change for Edison to switch from the above ground NUHOMS dry storage system to an underground Holtec UMAX system, will Edison be required to do a license amendment (50.59) for their Independent Spent Fuel Storage Installation (ISFSI)?

Victor Dricks stated "the NRC will conduct inspections of the installation of the storage facility, the transfer of the spent fuel to it, and periodic inspections thereafter, to ensure it meets our rigorous safety requirements."

However, he did not mention that a license amendment is required (50.59) to San Onofre's ISFSI license. Since this Holtec UMAX underground system is complete different from the current above ground Areva NUHOMS horizontal ISFSI system, it would seem new geological studies and other design evaluations and changes will be required. This would allow the NRC to review and approve the plans for the new ISFSI installation. An underground installation near a potentially unstable cliff is a major change. Also, in the UMAX system technical specifications and safety analysis report there are additional major variables that must be considered in an underground system that are not required for an above ground system.

Since Edison announced yesterday they are procuring the Holtec system and have even stated in one press report that they are starting the manufacturing process, it would appear they do not plan to file a license amendment.

After reviewing the following NRC General License Considerations for Spent Fuel Storage in an Independent Spent Fuel Storage Installation at a Reactor Site, it seems clear a license amendment should be required. This allows the NRC to review the design before it's approved and built.  
<http://www.nrc.gov/waste/spent-fuel-storage/sf-storage-licensing/license-considerations.html>

#### D.10 CFR 50.59 Evaluation

1. Evaluate the impacts of the spent fuel storage activities and program changes resulting from the addition of the ISFSI on the reactor activities
2. Consider revision of the 10 CFR 50.59 procedure to include ISFSI issues

#### E.10 CFR 72.48 Evaluation

1. Assess engineering tasks and procedures developed to support system implementation to ensure that design changes do not create unreviewed safety questions
2. Evaluate the need to amend the reactor design control process (10 CFR 50.59) to reflect the ISFSI design control process
3. Provide for notification to operations when criteria when critical lifts are in progress so that contingency plans are ready to be initiated, if necessary...

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Manuel

our next circular email to the CEP should include this correspondence.

thx

d

From: Doug Broaddus

Date: Monday, November 3, 2014 at 1:48 PM

To: "David G. Victor"

Cc: Dan Stetson, Ted Quinn, Tim Brown, "Wengert, Thomas", "Maier, Bill", "Watson, Bruce"

Subject: Follow-up item from meeting with NRC at Omni La Costa

Dr. Victor,

During our meeting, you indicated the CEP was not aware that the Fukushima Orders (EA-12-049 and EA-12-051) for San Onofre Nuclear Generating Station (SONGS) Units 2 and 3 had been rescinded. Attached are the letters to SCE, informing them that the Orders were rescinded, and providing the bases for the rescissions. The documents are publically available, and can be viewed online at the following links (ML14113A572 and ML14111A069). Below is a brief summary of the bases for NRC taking these actions:

NRC rescinded Order EA-12-049 requiring mitigating strategies and Order EA-12-051 requiring reliable spent fuel pool (SFP) instrumentation for Southern California Edison (SCE) on June 30, 2014. The action was taken in response to SCE's requests for relief from the Orders, dated September 30, 2013 (ADAMS Accession No. ML13276A019) and August 26, 2013 (ADAMS Accession No. ML13240A130). The SCE requests were based primarily on SONGS Units 2 and 3 being permanently shutdown and defueled, and the amount of cooling the spent fuel has undergone since shutdown.

Order EA-12-049 directs the licensee to develop mitigation strategies to recover and maintain core cooling and SFP cooling following a beyond design-basis external event. For SONGS, the NRC staff concluded that the lack of fuel in the core rendered the development of mitigating strategies to restore core cooling unnecessary. The staff also concluded that the low decay heat and long boil-off period for the SFPs at SONGS provides sufficient time for the licensee to take appropriate mitigative actions without prior planning, obviating the need for the licensee to implement the guidance and strategies that would be necessary for compliance with the Order.

Order EA-12-051 requires licensees to have a reliable means of remotely monitoring SFP levels to support effective prioritization of event mitigation and recovery actions between the reactor core and SFP following a beyond-design-basis external event. For SONGS, the NRC staff concluded that with the permanent shutdown and defueled condition of SONGS, the safety of the fuel in the SFP becomes the primary safety function for site personnel, obviating the need for prioritizing actions. The focus of the licensee staff would be to maintain or restore cooling to the SFP.

Please let me know if you have any questions concerning these actions.

Doug

Douglas A. Broaddus  
Chief, Plant Licensing IV-2 and  
Decommissioning Transition Branch  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

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From: Tom Palmisano  
Date: October 2, 2014 at 2:35:09 PM EDT  
To: r johnson  
Subject: Re: question about concrete

Hello Roger.

Thanks for the email. I'll try to give you some initial answers to your questions, although we have not developed a lot of the detailed plans yet. I'm not sure which demolition video you are referring to, however, we do not intend to use any explosives for the containment demolition. We would section and remove the containment walls using mechanical means. It would also be broken up with mechanical equipment. In a simple sense, it would be the way a highway department breaks up a concrete road surface for replacement. The specifics details won't be developed for several years.

With respect to concrete removal and disposal, again we haven't developed any detailed plans yet. We will work with the decommissioning contractor we select and potential disposal sites to determine an appropriate way to break up the concrete and disposal of it in accordance with the appropriate regulations. As far as shipping offsite, we would consider rail shipment as well as truck shipment. Again, those details are several years away.

I hope this provides some of the information you are looking for.

Tom

Sent from my iPad

On Oct 1, 2014, at 5:43 PM, r johnson wrote:

Tom,

Can you tell me about the demolition of the domes? Will it be like the demolition shown in the videos at one of the NRC meetings last year, or will they be sectioned without blasting? Then how is it broken up so it can be carted away?

I take it that you scrape out the first half foot of contaminated concrete and that has to go to Clive?  
What about all the other concrete, will it be trucked to Clive or will it go to the Prima Deshecha landfill?  
What concrete will remain and be bulldozed/buried?

Thanks,

Roger  
R. Johnson