From: <u>Dricks, Victor</u>

To: <u>Murray, Jenny; Tannenbaum, Anita</u>

Subject: FW: NRC Inspection Charter to evaluate the near-miss load drop event at San Onofre 8/17/2018

Date: Friday, August 31, 2018 12:35:04 PM

Please enter this into ADAMS and make it publicly available in the SONGS docket.

Victor Dricks Senior Public Affairs Officer U.S. Nuclear Regulatory Commission / Region IV 1600 E. Lamar Blvd. Arlington, Texas 76011 (817) 200-1128

----Original Message-----From: Dricks, Victor

Sent: Friday, August 31, 2018 12:34 PM

To: 'donnagilmore@gmail.com' <donnagilmore@gmail.com>

Subject: RE: NRC Inspection Charter to evaluate the near-miss load drop event at San Onofre 8/17/2018

Dear Ms. Gilmore: Thanks for your e-mail and questions regarding the Aug. 3 fuel handling event at the San Onofre Nuclear Generating Station. We have received many inquiries and detailed questions from members of the public regarding this event and regret that we are unable to respond to them at this time. We do not have answers to all of your questions and will be exploring areas related to those during the special inspection that will begin on Sept 10. We are attaching the charter authorizing the special inspection in case you have not seen it. Southern California Edison officials have told the NRC that they have stopped fuel loading operations until NRC completes its review of the incident. The team will evaluate the licensee's cause analysis and adequacy of corrective actions. We think that many of your questions will be answered in an inspection report documenting the team's findings that will be publicly available within 45 days of the end of the inspection.

Victor Dricks Senior Public Affairs Officer U.S. Nuclear Regulatory Commission / Region IV 1600 E. Lamar Blvd. Arlington, Texas 76011 (817) 200-1128

----Original Message----

From: Donna Gilmore [mailto:donnagilmore@gmail.com]

Sent: Thursday, August 23, 2018 6:59 PM

To: Katanic, Janine <Janine.Katanic@nrc.gov>; Layton, Michael <Michael.Layton@nrc.gov>; Pruett, Troy <Troy.Pruett@nrc.gov>; Howell, Linda <Linda.Howell@nrc.gov>; Davis, Marlone <Marlone.Davis@nrc.gov>; Kennedy, Kriss <Kriss.Kennedy@nrc.gov>; Morris, Scott <Scott.Morris@nrc.gov>; Weisenmiller, Robert@Energy <Robert.Weisenmiller@energy.ca.gov>

Cc: ken.alex@gov.ca.gov; Cy Oggins <cy.oggins@slc.ca.gov>; Joseph Street <Joseph.Street@coastal.ca.gov> Subject: [External_Sender] NRC Inspection Charter to evaluate the near-miss load drop event at San Onofre 8/17/2018

In the linked San Onofre August 17, 2018 NRC memo it states "This load drop accident is not a condition analyzed in the dry fuel storage system's Final Safety Analysis Report (FSAR)."

- (1) Please do not allow loading to resume until that condition is analyzed, investigated and resolved.
- (2) Please elevate this to an Augmented Inspection Team (AIT), as referenced in NRC Item 10.

An approved Holtec technical document states a Holtec MPC (canister) that drops more than 11" inside a transfer cask must be opened and the fuel assemblies and other contents inspected for damage. I could not find load drop accident analysis for a thin-wall canister loaded with fuel, but not inside a transfer or transport cask.

- (3) Please provide the load drop accident analysis that identifies the load drop safety limit for a loaded canister (not in transfer or transport cask).
- (4) Please provide the requirements needed to resolve a drop that exceeds the allowable limit.

This is one more example of the NRC claim that nothing can go wrong in dry storage is proven false. Add this to the Holtec defectively designed basket shim canisters still loaded with spent nuclear fuel at San Onofre and elsewhere that Tom Palmisano admits cannot be unloaded. See Edison CEP video clip: https://youtu.be/migna2atn7Y

According to Holtec technical specifications, the fuel assembly baskets and basket shims are required to prevent criticality. Holtec did not inspect the inside bottom of the canisters (as required by their license) before loading the four San Onofre canisters and now there is no way to unload them.

- (5) What is the status of the NRC investigation on the basket shim issue?
- (6) How can canisters be unloaded, if needed?

Holtec loaded over half the Diablo Canyon canisters incorrectly -- with hotter fuel assemblies on the outer diameter of the fuel baskets. This may work for roasting a pig, but not storing spent nuclear fuel, since it can damage the fuel assemblies. Since these canisters have not been opened, the NRC has no idea the damage this is causing the fuel in these canisters.

These are all examples of Holtec poor quality engineering, and poor quality loading and management. It also shows mismanagement by Southern California Edison and PG&E. The fact Edison was warned about the loading problems at Diablo Canyon and yet still chose Holtec to do the loading, is one more example of poor contract management by Edison, similar to the steam generator mismanagement cited by the NRC in this Notice of Violation.

http://pbadupws.nrc.gov/docs/ML1335/ML13357A058.pdf

(7) Has or can Holtec be cited by the NRC for these poor design and poor management issues? There is too much at stake to allow this to continue.

NRC's assumption loading errors can never happen has been proven false over and over, yet this is one of the justifications the NRC uses to allow facilities to destroy their spent fuel pools.

- (8) Please do not give an exemption that allows Edison to destroy the San Onofre spent fuel pools until they have another system in place to unload canisters. As you know, the only other NRC approved method to unload canisters is with a hot cell. Edison should be required to install a hot cell if they cannot return fuel assemblies to the pool.
- (9) Please provide a copy of the "reflooding" analysis that explains how a loaded canister at 200 to 300 degrees Celsius can be returned and unloaded back into the spent fuel pool. I have found no technical evidence this can be done safely. In addition, San Onofre has damaged and high burnup fuel, which adds to the risks of unloading canisters in the pools.

Edison claims they can use a thick-wall transport cask or other thick-cask, if there is a leaking canister. However, as you know, the fuel would likely overheat due to lack of an adequate cooling system.

(10) Has a vendor submitted an application for a thick-wall cask to store a leaking or cracking canister?

Regarding the metal flange that the canister was precariously hung up on, this raises another issue in addition to the ones identified in the NRC memo.

(11) Is it possible one or more of the canisters was scratched by the metal flange as they were being loaded into the

holes? As you know this could result in damage to the canister that can accelerate corrosion and cracking. Since canisters cannot and are not inspected for cracks or depth of cracks, this is a significant safety issue.

The industrial safety inspector that spoke at the August 2018 Community Engagement Panel meeting said this Holtec design is an engineering problem, not just a quality control problem, not just unqualified, untrained and understaffed workers. See David Fritch and related speakers on this issue in this video clip from the Edison CEP meeting:

https://youtu.be/fnM9rfhWmic

(12) Please include an analysis of whether you agree this is a Holtec engineering design problem and if or how it can be adequately remediated. Systems should be designed to minimize human error, not increase the likelihood of human errors. The latter appears to be the pattern of Holtec engineering designs and Holtec "quality" control.

I know you have had major staff reductions at the NRC, but this should be a high priority project, due to high risk significance.

Thanks,

Donna Gilmore SanOnofreSafety.org SanClemente, CA 949-204-7794

NRC Inspection Charter to evaluate the near-miss load drop event at San Onofre Nuclear Generating Station, August 17, 2016

https://adamswebsearch2.nrc.gov/webSearch2/main.jsp?AccessionNumber=ML18229A203