

From: Patricia Borchmann <patriciaborchmann@gmail.com>
Sent: Wednesday, May 20, 2015 6:30 PM
To: Akhavannik, Huda
Cc: Patricia Borchmann; Donna Gilmore
Subject: Fwd: Add a Public Comment - NRC Meeting 05 18 15 - NEI Comments; Regulation Issue Summary (RIS) Licensing High Burn-Up Fuels

Follow Up Flag: Follow up
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Huda Akhavannik @ nrc. gov

RE: Add Public Comment - NRC Cat.2 Public meeting on 05 18 15 -
NEI Comments; Draft Regulations Issue Summary (RIS) Licensing High Burn Up Spent
Fuel

I am forwarding my email comments, which I was unable to deliver during the Public Comment/Question Agenda item, before the Category 2 Public Meeting was adjourned. I tried to alert the NRC Panelists that I also wished to present brief public comments, but apparently no one could hear me, because I didn't activate the necessary function properly during the Teleconference call.

I would appreciate having you receive and preview my additional public comments. through this informal email submittal format. As we discussed yesterday, you agreed to preview my email comments here, and make them available to your NRC colleagues at your next NRC High Burn Up Task Force Committee meeting. As understood, my supplemental email comments here cannot be formally considered by NRC as a formal public comment for NRC's Public Meeting Monday (05 18 15; 2-4 pm EST) pertaining to NEI Comments; and Regulation Issue Summary (RIS) on Licensing High Burn Up Spent Fuel for Storage and Transportation. However you agreed to followup with an email response, to confirm if my personal comments in this email generate any discussion, or additional comments/concerns by members of NRC's High Burn Up Spent Fuel Task Force Committee.

At your earliest opportunity tomorrow, I would appreciate an email reply, just to confirm that this email transmittal was received, and if my email comments will be processed in the manner described. Thank you.

----- Forwarded message -----

From: **Patricia Borchmann** <patriciaborchmann@gmail.com>
Date: Wed, May 20, 2015 at 1:29 PM
Subject: Add a Public Comment - NRC Meeting 05 18 15 - NEI Comments; Regulation Issue Summary (RIS) Licensing High Burn-Up Fuels

To: Patricia Borchmann <patriciaborchmann@gmail.com>

Background:

I was an active listener during NRC's entire Category 2 Public Meeting (remotely from California), by Teleconference on Monday May 18, 2015 from 2-4 pm EST). I found the comments informative, especially the series of brief public comments before the meeting adjourned, about High Burn Up Fuel.

During our phone call yesterday, you agreed to accept an email, to informally reflect the personal comments which I was unable to make during the live Teleconference call. I'm sorry I was unable to activate the function necessary on the system, to enable you to hear me. I appreciate your allowing me to make this supplemental email submittal.

You indicated this extended contact could only be an informal process. You agreed to review my comments, and plan to make them available to your NRC colleagues, at your next High Burn Up Fuel Task Force meeting. You indicated you would prepare an informal followup email, to reflect if my email comments on High Burn Up Fuel generates any responses by your NRC colleagues.

Since I live in north San Diego County, I am among over 8 million public stakeholders who reside within 50 miles of San Onofre (SONGS 2 & 3) reactors, which were prematurely retired in late June 2014, due to unexpected vibration and damage in recently replaced Steam Generators caused system shutdown in early 2013, and SCE determined it was not economically viable to Restart Unit 2. Since then, the Licensee here (SCE Edison) has spent time over the last year (since 2014) in a series of public meetings with a Community Engagement Panel (CEP), to exchange technical information, and provide details about steps and permit processing sequences they propose for Decommissioning Plans at San Onofre, detailed cost estimate, and schedule projection for performance and completion of specific tasks, for a benchmarking system. Many outstanding issues still remain unresolved, and unfortunately there are still more questions, than answers or certainty at this point.

While other NRC sections continue reviewing multiple technical reports, cost estimates, PSDAR and various submittals from SCE Edison, which were released publicly over the last year, many local public stakeholders have invested personal time and interest (from San Diego, Orange County, LA County and beyond) to become familiar with complex, and highly technical materials.

As understood, SCE proposes to utilize up to 37 HOLTEC underground dry cask storage casks for 'indefinitely prolonged' onsite storage at San Onofre at expanded ISFSI storage pad. Large new inventories of High Burn Up spent fuel at SONGS 2 & 3 will be stored onsite at San Onofre for 'indefinitely prolonged' period. Many Stakeholders in California have expressed extreme concerns about short and long term public health and safety impacts, which may be caused by prolonged onsite storage of high burn up spent fuel in seismically active, exposed coastal location, in high density population areas between multiple counties. The San Onofre station is located in a densely populated region where transportation infrastructure is limited (a single Interstate 5 freeway is adjacent to the east boundary of SONGS station.) Many residents have credible concerns about durability, structural integrity, and adequacy of proposed 1/2" - 5/8"

thick single layer steel dry storage casks proposed by HOLTEC, and believe independent local experts may be correct (San Onofre Safety.org). Donna Gilmore (San Onofre Safety.org) has produced an extensive technical website which examines dry cask storage design issues extensively. Conclusions from her technical analysis and comparisons indicate that alternate dry cask storage containers fabricated in Germany (up to 20" thick), and commonly used in Europe have certain important design features and performance capabilities that make them superior to the thin steel HOLTEC underground dry casks proposed by Licensee SCE. Viewers can examine the technical materials, and reference materials from the San Onofre Safety.org website. A partial brief summary of advantageous cask design features from the German fabricated casks commonly used in Europe include: performance capabilities for real time monitoring of spent fuel stored inside the casks, casks with lids that are capable of being opened for examination, if needed, casks are much more retrievable, and ready for transportation, thicker cask walls up to 20" thick provide a much more robust containment barrier which would become less susceptible to rapid thinning, from corrosive effects caused by constant exposure to harsh marine atmosphere and moisture levels which are conducive to forming hydride salt corrosion, especially at weld locations, or pitted surfaces.

On a daily basis, there are heavy volumes of drivers using I-5, which often causes extreme traffic congestion impacts, and travel delays. Traffic constraints causing delays may limit transportation options during potential emergency events at SONGS 2 & 3, which could impact potential Alert Conditions, or possible Emergency Evacuations or decisions by responsible agencies for residents to shelter in place, if needed. Many residents recently expressed opposition to Licensee's multiple License Exemption Requests, and an approval process by NRC, without any opportunity for public oversight, or public comment, especially for the extensive reductions proposed by SCE, to eliminate at least 39 onsite critical fire safety functions at San Onofre station, and severe reductions to Emergency Response Plans. Concerns expressed about how SCE proposed Emergency Response reductions could cause serious unanticipated fiscal impacts on staffing, or funding gaps by local agencies in San Diego, and Orange County, requiring additional performance capabilities during fire, or increase demands on first responders during potential emergency conditions at San Onofre which are no longer performed, or funded by SCE. .

Extreme public interest, controversy, and uncertainty continue to exist about how Licensee will plan for either onsite storage of High Burn Up Fuel at San Onofre (prolonged indefinitely); or if other offsite storage options exist. Elected officials in some local jurisdictions have adopted Resolutions (south Laguna Beach) to notify NRC of an explicit preference for the immediate removal of spent fuel from 2 large storage pools, and transfer of spent fuel to dry cask storage containers for removal, and relocation to an alternate inland remote location as rapidly as possible.

As recently as late April 2015, CEP Panel (formed by SCE Edison) met with state agency California Energy Commission, to examine other potential alternative spent fuel storage options.

It appears unlikely that any formal decision making will be taking place in the near future, so conditions still remain largely uncertain.

Unless state, federal, and local agencies develop alternate plans to locate spent fuel from San Onofre at a currently unknown, nonexistent inland location in a remote area possibly in

California, or possibly a consolidated regional interim spent fuel storage facility, any ultimate solution still remains large unknown on what next steps will apply. Stakeholders are anxious to learn how Licensee plans to handle large inventory of spent fuel assemblies at San Onofre, stored currently either in overly-dense storage racks in spent fuel pools, or in the interim NUHOMS dry cask storage containers already located at the ISFSI at San Onofre.

Personal Concerns - NRC Panelists Discussion during 05 18 15 Meeting -
My personal concerns regarding NEI Comments for Draft Regulation Issue Summary (RIS) on Considerations in Licensing High Burn Up Fuel In Dry Storage and Transportation include following

My first initial observation about NRC's 05 18 15 Public Meeting (via Teleconference):
It seemed as if the carefully scripted slide presentations prepared by various NRC sections involved with Storage and Transportation of High-Burn UP Spent Fuel had been rehearsed, or practiced in advance. It was obvious how NRC, NEI, and other panelists had already formed conclusions, and announced consensus positions on many topic areas about High Burn Up Spent Fuel had already been reached. As an external participant listening to the NRC Meeting via Teleconference Call, it appeared that Panelists speaking during today's meeting mostly reaffirmed certain conclusions, without citing specific reference sources, or specific evidence supporting numerous positions, which was disappointing. I am grateful that comments from a few members from the public noticed the same pattern. It is disturbing how sometimes during NRC Public Meetings, it appears obvious that Panelists often made compatible conclusions which were not fully supported by evidence already contained in public record, or consisted of more than vague 'assurances' about potential future capabilities, or about potential technological advances expected to be made after testing in the future.

I thought it was interesting, premature, and revealing how quickly, or readily most speakers from NRC, NEI Panelists, or private industry participants indicated how most NRC regulations are either already met, or how suggested further changes in draft regulatory language could be justified, pertaining to Licensing High Burn Up Spent Fuel in Dry Storage, and Transportation considerations.

On several occasions during the prepared Agenda, a number of Speakers from NRC, NEI, and industry specialists took similar positions that perhaps the proposed path for further process sequencing may be overly conservative.

Some panelists discouraged use of 'careless language' in reports, or draft legislation such as 'gross ruptures, or operational safety problems'. and also indicated there may be instances where language can be toned down to reduce unnecessary perceptions of risk associated with High Burn Up Spent Fuel. Generally, it seemed as if there was consensus among Panelists, that as long as consistency with NUREG 1927 can still be found, and the process still generates the necessary outcome where proposed Licensing regulations are based on a risk-informed process, that those were appropriate suggestions, and should be further examined.

Many Panelists indicated a perception that possible opportunities might also exist to bypass certain procedural steps if it can be shown that there is no need.

Many expressed their personal observations that to a certain extent, data analysis requirements applied so far to High Burn Up Spent Fuel has already lead to limits or sequences which may be unnecessary, such as whether the proposed Radiation Issue Summary (RIS) is necessary.

As an external stakeholder just listening to Panelists as they advanced rapidly through Agenda topics, and discussions by Panelists, I found it alarming (disturbing) how quickly, readily, and easily NRC staff, NEI, and private industry collaborated on a nonexplicit, but still an apparent targeted goal to find ways to expedite and simplify permit sequences whenever possible, as Licensing regulations for High Burn Up Fuel in Dry Storage and Transportation undertake the next stage of changes to reach finalization.

Despite the absence of having any actual testing data results on High Burn Up Spent Fuel yet, it appears the industry has already convinced NRC Panelists that projected concern areas on cladding temperatures, whether thermal variations, drying processes, and limits on residual water basket canister design are sufficient to dismiss subcriticality issues, or if actual temperatures will behave as expected, (with lower actual temperatures). It seems as if Panelists expect test results won't matter, since expected results can rely on additional confidence from cladding pellet bond, that High Burn Up Fuel degradation is not expected. .

Currently the industry 'expects' certain upper range temperature variations during the future Demonstration project using High Burn Up Fuel, will behave consistently compared to the 400 degree limit. Industry experts currently 'expect' that actual differences in thermal variations between Low-Burn Up Spent Fuel, and High-Burn Up Spent Fuel are not as significant as they were expected, when examined by earlier experts. Industry Experts apparently now believe that cladding data (about DBTT) will show that earlier experiments performed were overly conservative, and applied limits that may not be necessary. NRC Panelists seemed to express a certain confidence that High Burn Up Fuel in Storage won't degrade, and that current cask designs and regulations currently provide adequate assurances. Panelists indicated studies on HBF will reflect lower leakage rates, with better efficiency and performance, Suggestions that the topic of backfits be changed, and to instead emphasize the time spent, and money spent on making substantial safety benefits, by having already made certain regulatory changes, and to reduce emphasis on earlier test results from Idaho which may not be applicable any longer. Today, NRC has other regulatory frameworks available, and other methods to demonstrate compliance with Part 71, possibly through COC's.

Stakeholders in southern California are still extremely skeptical, and find the current extent of 'non' evidence, or absence of any actual Demo testing results far less convincing than NRC Panelists, NEI, or the private industry speakers at the NRC's Category 2 Meeting on 05 18 15.. I am extremely grateful that the Public Speakers who were allowed to make comments already provided NRC Panelists with better understanding about why Public Stakeholders in reactor communities continue to have credible public health & safety concerns, and cask design concerns about sufficiency of SCE 's chosen HOLTEC casks.

In addition to those, many stakeholders here also share credible concerns about realistic differences between 'ideal conditions that may be found to exist during laboratory testing', but

which are rarely found to exist in real onsite in situ conditions. Much remains to be proven, and careful NRC analysis needs to be applied, to ensure that Industry Experts haven't cut too many corners. In the past few decades, the public has seen patterns where NRC regulations get relaxed, or routinely streamlined for expedited processing. The continued mandate and ongoing expectation and mandates for public health and safety are Important. Public confidence in NRC Licensing relies on NRC staff's responsiveness of expressed public concerns, during every stage. Stakeholders want, and deserve assurances that Licensing considerations for High Burn Up Fuel won't be allowed to contain obvious technical gaps, or allow excessive license relaxations, or fail to require licensees to submit verifiable proof they have not skipped too many technical requirements, or haven't yet fully demonstrated compliance with NRC performance capabilities.

NRC licensing regulations for High Burn Up Fuel need to apply requirements which Licensee must fulfill, to prove how all necessary performance capabilities can be easily identified during the Licensing process, and not just deferred until a later point (such as COCs), after NRC License approvals have already been issued. All these considerations need to be part of the 'NRC process' that is fully performed, applying citizen oversight, and authentic public outreach in public meeting(s), and a process where public comment opportunities are presented along the way.

My final comment applies to my personal observations about obvious shortcomings contained in the Decommissioning Plan, and proposed cask design submitted earlier by Southern California Edison (SCE) for San Onofre (SONGS 2 & 3). I was disturbed because all the technical materials submitted by Licensee SCE for the San Onofre Decommissioning Plan (SONGS 2 & 3) may include a series of HOLTEC exhibits, however so far, there are ZERO details, graphics, descriptions, photos, or other submittals to demonstrate exactly how the HOLTEC dry storage casks can ultimately be readily removed, or transported.

The SCE submittals for use of HOLTEC casks fails to demonstrate how proposed changes to HI STORM FW MPC Storage System will ensure that 'protections of the cladding against degradation is expected to allow ready retrieval of spent fuel for further processing or disposal', or transportation. The SCE submittals for HOLTEC don't display any exterior 'cask removal' features, hooks, eye loops, or other specific design features necessary for ready cask retrieval, and transportation.

Again, it seems as if NRC regulations pertaining to Decommissioning Reactors are grossly outdated, and although a series of proposed legislative changes are still changes are still underway, in various stages of completion, NRC's latest projections do not indicate completion is expected for another several years.

During this interim, it is imperative that NRC develop reasonable interim processing guidelines, to apply to Decommissioning Plans already pending for San Onofre, and a number of other retired, or soon to be retired reactors (including Vermont Yankee, and a few others). Public stakeholders in reactor communities all over the United States deserve explicit NRC assurances that all public health and safety concerns, and performance capabilities will be ongoing, including Emergency Response Plans carefully coordinated with adjacent Counties, and cities, Emergency Response Centers, local Fire Departments, Interjurisdictional Planning Agencies, and

public schools, hospitals, convalescent centers.

Thank you for this opportunity to present my personal comments and concerns on this important pending Licensing Regulation for High Burn Up Fuel for Storage and Transportation.

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