

San Onofre Decommissioning Community Engagement Panel

REGULAR MEETING

Thursday, August 9, 2018 from 5:30 - 9:05 p.m. PDT in Oceanside, California
Meeting Minutes and Action Items

1) Community Engagement Panel (CEP) Member Attendance:

- a) Present: Dr. David Victor (CEP Chairman/University of California, San Diego), Dan Stetson (CEP Vice Chairman/Trustee-Executive Director, Nicholas Endowment), Tom Caughlan (Camp Pendleton), Sara Kaminski (Orange County Sheriff's Department), Marni Magda (Angeles Chapter, Sierra Club), Ted Quinn (American Nuclear Society), Garry Brown (Orange County Coastkeeper), Valentine "Val" Macedo (Laborers' International Union of North America, Local 89), Captain Mel Vernon (San Luis Rey Band of Mission Indians), Hon. Sergio Farias (Mayor, San Juan Capistrano City Council), and Hon. Steve Swartz (San Clemente City Council)
- b) Absent: Hon. Jerome "Jerry" M. Kern (CEP Secretary/Oceanside City Council), Rich Haydon (California State Parks), Hon. Paul Wyatt (Dana Point City Council), Donna Boston (Orange County Sheriff's Department), Hon. Martha McNicholas (President, Capistrano Unified School District Board of Trustees), Hon. Lisa Bartlett (Supervisor, Orange County, 5th District), Hon. Bill Horn (Supervisor, San Diego County, 5th District), and Jim Leach (South Orange County Economic Coalition)
- c) Guest Speaker: Gary Lanthrum, Radioactive Material Transportation and Storage Consulting (RAMTASC)
- d) Southern California Edison (SCE) Representative: Tom Palmisano, Vice President Decommissioning & Chief Nuclear Officer

2) Meeting Convened by Chairman Victor at 5:38 p.m.

- a) Chairman Victor reminded the audience that Southern California Edison (SCE) had established a team of experts to support the development of a plan for the removal of the spent fuel from the site and accelerating the various laws that would make that possible. He introduced the SONGS Expert Team Chairman, Tom Isaacs who formally worked for the Department of Energy (DOE) policy office. He also introduced Expert Team member, Gary Lanthrum, a high level waste transportation specialist and former director of the Yucca Mountain repository's transportation program.
- b) Chairman Victor informed the audience that the engagement panel is a conduit created to improve communications with the communities and is an open, two-way flow of information between SCE and the public; the CEP is not a decision-making body nor an oversight body.
- c) The presentations from tonight can be found on SONGScommunity.com, as well as live streaming, meeting documents, links for signing up for public walking tours of the plant site, and more. The meeting agenda and hard to read slides are available on chairs.
- d) SCE information booths, staffed by SCE personnel, are available before the meeting and during the break, as well as community booths.
- e) A structured public comment period follows the presentations; to participate in this evening's comment period you must sign up and complete a comment card. Comments may be submitted any time to nucomm@songs.sce.com.
- f) Chairman Victor gave an overview of the meeting's agenda that includes CEP General Updates, SONGS Decommissioning Updates and Used Fuel Transportation – Current Practices.

NOTE: VIDEO OF THIS MEETING, SPEAKER PRESENTATIONS, AND TRANSCRIPTS ARE AVAILABLE ON SONGScommunity.com AND THEREFORE DETAILED CONTENT IS NOT REPEATED IN THIS DOCUMENT

3) CEP General Updates, Chairman Victor [Please refer to the *CEP Update* presentation on SONGScommunity.com]

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- a) Offsite Storage & Addressing Questions from Local Communities:
 - i) The Holtec Consolidated Interim Storage (CIS) facility and Nuclear Regulatory Commission (NRC) license application process is on schedule. The proposed CIS facility is between Carlsbad and Hobbs, New Mexico. The NRC license application was filed in March 2017, and the preliminary schedule shows a license issuance expected by 2020.
 - ii) Chairman Victor discussed the significant changes in the nuclear industry as firms emerge to decommission plants that have been shut down. On July 31, 2018, Holtec announced the purchase of subsidiaries that own Pilgrim (MA), Palisades (MI), and Oyster Creek (NJ) power plants to acquire licenses, title to the fuel, and perform decommissioning. Holtec has also acquired the decommissioned Big Rock (MI) ISFSI facility.
 - iii) Chairman Victor reported that nothing has changed in the appropriations process since the last CEP meeting. A change in federal law is needed for the Department of Energy to reliably ship spent fuel from sites like San Onofre to CIS facilities. There have been successful efforts in the House of Representatives to frame up a change in law. However, efforts in the Senate have been much more difficult due to the very close Senate race in Nevada involving Senator Dean Heller. The things that are that happening in the Senate that are advantageous to Senator Heller's campaign, include not advancing legislation or appropriations in support of Yucca Mountain. The outcome of mid-term elections could affect funding for both federally and privately managed SNF shipments.
 - iv) Chairman Victor discussed the questions received from local communities and provided the top six issues that would be addressed by Tom Palmisano during the meeting. Chairman Victor also discussed the topics to be addressed during future meetings such as making notes from the Holtec visit available on the SONGS website.

4) Decommissioning Update, Tom Palmisano [Please refer to the *SONGS Decommissioning Plan & Fuel Transfer Update* presentations on SONGScommunity.com]

- a) Ted Quinn asked Tom Palmisano to advise the panel on the NRC inspection practices during the current fuel transfer process.
 - i) Tom Palmisano explained that the NRC performs quarterly inspections using a series of inspections for a decommissioning site. The NRC takes approximately sixty days to issue the quarterly reports which are available to the public on the NRC website.
 - ii) Chairman Victor asked SCE to share the NRC inspection reports on the SONGS website.
 - iii) Tom Palmisano stated that a link to the NRC reports could be set up on the SONGS Community website.
- b) Chairman Victor discussed his meeting with SONGS Expert Team chair Tom Isaacs and the CEP officers regarding plans to refresh the CEP on the status of CIS, the strategy going forward, and how the CEP could involve the Experts Team as a future resource.
- c) Chairman Victor introduced Steve Maheras from the Pacific Northwest National Laboratory who supports the Department of Energy (DOE), adding that Steve has been an instrumental part of the DOE effort and helping the CEP panel obtain access to materials.
 - a. Chairman Victor asked when SCE expects the next DOE site visit.
 - i. Tom Palmisano responded that the DOE visits are usually every one to two years.

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- 5) **Used Fuel Transportation – Current Practices, Gary Lanthrum [Please refer to the Used Fuel Transportation – Current Practices presentations on SONGScommunity.com]**
- a) Chairman Victor discussed the letter that was sent by the CEP to the California Energy Commission (CEC), asking the commission to begin the process for regional planning and preparedness for spent fuel shipments.
 - b) Chairman Victor asked Gary Lanthrum what the time frame is for the process and approvals for shipping spent fuel, and when the process needs to begin.
 - i) Gary Lanthrum explained that the answer depends on who is shipping the spent fuel. Under current regulations, all shippers need approval from the NRC, but there is no requirement for private shippers to coordinate with or support State and local jurisdictions preparations for these shipments. Each state's emergency preparedness program receives funding under Department of Homeland Security (DHS) to prepare for a large variety of hazardous material shipments, including spent fuel. The Department of Energy has a special set of training programs for spent fuel shipments called the Transportation Emergency Preparedness Program (TEPP). TEPP includes training information that can be used by states that are preparing for shipments of spent fuel. When the Nuclear Waste Policy Act Amendment was passed in 2007, the amendment included requirements in Section 180C, that provides state funding specifically for spent fuel shipments training. The funding is designed to flow three to five years before spent fuel is shipped through the states. The implantation policies were later amended to include funding for affected tribes. There is no similar funding for private shipments of spent fuel. Private shippers can work with states and encourage states to tap into TEPP for training. If states know that spent fuel shipments will be passing through their jurisdiction, it is incumbent upon the states to transfer funding to training their emergency responders for the spent fuel shipments.
 - ii) Chairman Victor requested SCE take an action to work with the panel and Gary Lanthrum to sharpen the timeline regarding the three to five year concept for planning and preparations to move spent fuel.
 - c) Vice Chairman Dan Stetson asked if cities and counties have veto authority to stop a spent fuel shipment.
 - i) Gary Lanthrum explained that cities and counties do not have authority to stop a shipment. States have some jurisdiction for highway shipments under the Department of Transportations (DOT) Code of Federal Regulations 49CFR. States can propose alternate routes within their jurisdictions, but states cannot block a shipment. The alternate shipments would have to meet all the DOT safety criteria. There is no similar provision for states to propose alternative rail shipment routes. Routing of rail shipments is required by 49 CFR 172 to be established by the railroads in accordance based on an analysis of 27 safety and security attributes.
 - d) Vice Chairman Dan Stetson asked what agency does have the final authority over spent fuel shipments.
 - i) Gary Lanthrum explained that the NRC has the ultimate authority over the shipments. There is a dual responsibility between the NRC and DOT. The NRC has to approve the security plan for the shipments, and the shipment has to be in compliance with DOT requirements. If the shipment meets all of those requirements, there is not a provision for blocking. At that point, the shipment is part of interstate commerce.

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- e) Chairman Victor stated that it was his understanding that a multi-year appropriation is already in place for the rail car testing program and suggested the panel come back to that issue to verify that information.
 - i) Gary Lanthrum stated that in January of this year, Pat Schwab, who heads up the railcar development program for the DOE, provided a presentation that seemed to indicate that railcar testing in 2019 was contingent upon funding, and did not have the funding. Gary added that the Navy has approved railcars that could potentially be borrowed for spent fuel shipments.
 - f) Ted Quinn asked to review slide number 36 and if the slide could be turned into a critical path schedule as each item is related to when the fuel can be moved. He referred to the railcar procurement information for the three different cask designs at SONGS.
 - i) Gary Lanthrum explained that there are multiple options for procuring the hardware to ship spent fuel. When he was the transportation director for Yucca Mountain, Gary had several companies come to him and propose that in exchange for a sole source contract the companies would buy all the hardware themselves, and operate on a contract to perform the shipments.
 - g) Marni Magda commented on slide 34 cask specifications, adding that the specifications did not look like what the panel was used to seeing with the Holtec canisters in a cask.
 - i) Gary Lanthrum explained that generically the casks are very similar. Slide 34 shows a bare fuel cask. The basket arrangement depicted in this slide as part of the cask is actually inside the spent fuel canisters that SONGS is currently loading. In a SONGS canister configuration, there is another 0.5" – 2" of steel around the basket, which provides an added layer of protection. Most of the casks that are being designed now are capable of transporting bare fuel with the basket or canisters with the basket inside.
 - ii) Tom Palmisano added that SCE has the canister system specifications for the three types of transportation casks (two by AREVA and one by Holtec), and offered to bring in additional non-proprietary information during a future meeting. He also provided examples of the spent fuel shipped from the site in the late '70s and early '90s, and discussed the prior use of 12 axle railcars in 2014 for the Unit 2 generator rotor, which had been sold.
 - h) Captain Mel Vernon asked if the transportation casks are reusable.
 - i) Gary Lanthrum responded, yes. The casks are reusable. He explained that the spent fuel canisters are welded closed and are placed inside the transportation casks. The casks are then bolted closed. After transport the cask lid is unbolted and the canister is removed, ~~so~~ the transport cask may be reused.
- 6) Follow-up Questions from Communities, Tom Palmisano [Please refer to the Follow-up Questions from Communities presentations on SONGScommunity.com]**
- a) Chairman Victor asked Tom Palmisano to explain what happens to all the questions raised at CEP meetings.
 - i) Tom Palmisano explained that questions are either answered during a CEP meeting or posted on the website. The website has been improved, so the answers are more readily available, and SCE keeps a running list of the questions. Tom also welcomed any feedback on the newly designed website.
 - b) Ted Quinn asked if Tom Palmisano would talk about the Electric Power Research Institute (EPRI) research related to the temperature monitoring that is occurring and if any of the results are similar to what SONGS is currently doing.

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- i) Tom Palmisano discussed the EPRI reports he was familiar with which are related to EPRI confirming the analysis models that are used to design the canisters. Tom added that what EPRI and the industry have found is that SONGS is very conservative. The canisters function more effectively for heat removal and the fuel is actually kept cooler than the models predicted.
- ii) Ted Quinn asked if SCE could discuss the EPRI reports related to canister temperature monitoring in a future meeting, as the results become available.
- iii) Tom Palmisano agreed to either discuss the results or invite EPRI to discuss the results during a future meeting.
- c) Hon. Steve Swartz expressed concerns related to the progress on real-time 24/7 radiation monitoring and wanted to know what SCE plans to do.
- d) Chairman Victor discussed the recent petition signed by 1640 people related to real-time monitoring and requested SCE provide a game-plan and timeline regarding the feasibility of having real-time monitoring in place. Chairman Victor also requested that SCE provide a report to update the panel prior to the next meeting.
 - i) Tom Palmisano agreed to provide a game-plan and a timeline during the next CEP meeting, and provide the panel members with an update.
- e) Vice Chairman Dan Stetson asked if SCE would be willing to publicize a schedule of when the liquid discharges are occurring via the ocean conduits and if Tom could quantify the volume of water being discharged.
 - i) Tom Palmisano stated that at this point, SCE discharges liquids in accordance with the National Pollutant Discharge Elimination System (NPDES) permit and NRC permits. Tom added that SCE discharges continuously, so providing notifications wouldn't make much sense. SCE will look at future decommissioning discharges to see if there is a major discharge plan, which may be of more interest to the public. During operation, SCE would discharge approximately 2.5 billion gallons a day. Now, SCE is permitted to discharge approximately 56 million gallons a day, but only discharges about half of that, which is about 35 million gallons per day. The discharge is the ocean water taken in for things including the sewage treatment plant and sump discharges, with very little radioactivity. The plant currently discharges approximately two percent or less than when the plant was operating.
- f) Chairman Victor asked if SCE will conclude discharging liquid via the ocean conduits when SCE is finished with the spent fuel offload campaign.
 - i) Tom Palmisano explained that the spent fuel cooling islands were installed a few years ago and use air to cool the spent fuel pools, so ocean water is no longer needed. The Spent Fuel cooling islands will be shut down when the spent fuel transfers are complete. SCE will continue to have discharges due to the sewage treatment system [as well as discharges of other fluids from plant systems until those systems are fully dismantled].
- g) Chairman Victor asked why there is radiological content in the discharges to the ocean.
 - i) Tom Palmisano explained that while the plant was in operation, trace amounts of Tritium from the spent fuel pools would [collect] in the sumps, which is why there are still trace amounts of radioactivity in the discharges.

7) Chairman Victor Facilitated the Public Comment Period

- a) Public Comments were made by the following individuals:
 - i) Gene Stone (Residents Organized for a Safe Environment): Real time radiation monitoring

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- ii) Charles Langley (Public Watchdogs): Radiation Monitoring
 - iii) Madge Torres (Citizen's Oversight): Real time independent monitoring
 - iv) Ray Lutz (Citizen's Oversight): Defense-in-Depth and move fuel to Camp Pendleton
 - v) Nina Babiarz (Public Watchdogs): Improved manufacturing process for canisters
 - vi) Sarah Brady: (Encinitas resident): Transportation of spent fuel
 - vii) Christine Goreman (local resident): Real time monitoring
 - viii) Daryl Gale (local resident): Similarities to Southern California Gas Co. and Aliso Canyon
 - ix) Ramesh C. Jain (local resident): Spent Fuel Canisters
 - x) Tom Amabile (local resident): Emergency Planning
 - xi) Danika Carson (Public Watchdogs): Emergency planning and response
 - xii) Ayla Breezy (Safe Nuclear Waste Org.): Radiation monitoring
 - xiii) David Fritch (San Clemente resident): Canister loading incident
 - xiv) Donna Gilmore (San Onofre Safety): Options for leaking canisters
 - xv) Gary Headrick (San Clemente Green): Accidents and public safety
 - xvi) Torgen Johnson (local resident): Accidents and public safety
 - xvii) Jeff Steinmetz (local resident): Spent fuel transportation and canisters
 - xviii) Christa Gostenhofer (Orange County resident): Canister designs and public safety
 - xix) Michelle Anderson (KX93.5): Safe waste transportation
 - xx) William Weigel, Jr. (local resident): Nuclear waste on military installations
 - xxi) Viraja Prema (local resident): Spent nuclear fuel transportation concerns
 - xxii) Lindsay Bazett (North County resident): New Mexico waste repository
 - xxiii) Rich Van Every (local resident): Canister design
 - xxiv) Micheal Olderguard (local resident): Shared a morning song for Japan
- b) Dan Stetson and Hon. Steve Swartz facilitated dialogue based on themes conveyed during the Public Comment Period
- i) Chairman Victor discussed the extreme events workshop and the work that is underway with members of the community. He also asked Tom Palmisano to tell the CEP and public what we need to know right now and the plans to provide more information, in the future.
 - ii) Tom Palmisano agreed to send a letter to the CEP with a graphic that can be shared publically. Tom commended the contract employee who raised his concerns related to the canister loading incident, adding that the employee would be protected. Tom continued with an overview of the incident and explained that the canister did not fall and there was no risk to the spent fuel or to the public. The incident was a rigging issue and the NRC had been briefed.
 - iii) Garry Brown expressed his disappointment regarding SCE answers not keeping up with questions being raised, and the possibility of providing future topic seminars.
 - iv) Vice Chairman Dan Stetson discussed the State Lands Commission public comments meeting.
 - v) Vice Chairman Dan Stetson asked what SCE would have done if the canister had fallen and leaked.
 - (1) Tom Palmisano reiterated that the canister did not fall, but was wedged on the inner shield ring and had been analyzed for a fall of approximately twenty five feet, so the canister would not have been breached. Tom also provided an overview of the response measures SCE would take to mitigate the incident.

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- vi) Hon. Steve Swartz asked if Holtec has offered to take SCE's title for the spent fuel and the decommissioning of the San Onofre plant.
 - (1) Tom Palmisano's response was "no."
- vii) Vice Chairman Dan Stetson asked Gary Lanthrum to discuss the applicability of the canister tests that were run in his presentation and how the tests relate to the SCE canisters.
 - (1) Gary Lanthrum explained that the tests were not to demonstrate the function of the casks. The tests were performed to demonstrate the accuracy of the computer modeling of cask performance in accident situations. Modeling was done on the casks before testing and the tests revealed whether or not the models were accurately predicting the outcome impacts involving the casks. The models were revised as appropriate to ensure conservative, but realistic predictions of accident consequences.
- viii) Hon. Steve Swartz asked Tom Palmisano about emergency preparedness on the site.
 - (1) Tom Palmisano discussed the current emergency plans and the site staffing to support the emergency response.
- ix) Marni Magda mentioned earlier requests to move the spent fuel to the Mesa and hazards related to the recent fires.
- x) Tom Caughlan mentioned the Marine Corps position regarding removal of the spent fuel as quickly as possible.
- xi) Tom Palmisano reiterated the purpose of canister temperature monitoring. He clarified that temperature monitoring is not performed to detect radiation leaks.
- xii) Hon. Steve Swartz asked Tom Palmisano about current regulations for dry cask storage and the ability to retrieve damaged canisters.
 - (1) Tom Palmisano addressed the ability to retrieve a damaged canister using the spent fuel pool, but added that the NRC does not require decommissioning sites to maintain the spent fuel pools during decommissioning.
- xiii) Chairman Victor asked Gary Lanthrum if the record for spent fuel shipments is misleading since approximately one percent of the fuel has been moved. Chairman Victor also asked if the hazard analysis Gary discussed is based on historical record.
 - (1) Gary Lanthrum explained that the hazard analysis was not based on the historical record. Rather, it is based on detailed analysis of the impact that hypothetical accidents would have on the integrity of transportation casks and the net affect those impacts would have on health and safety.

8) Closing Remarks:

- a) Chairman Victor discussed the recent petition regarding extreme events. He also discussed the CEP planning meeting scheduled for October to address extreme events and the plans to have a CEP workshop in the fall. The CEP workshop meeting will include members of the community and the agenda will include additional topics related to radiation, radiation effects and real time monitoring.

9) Meeting adjourned at 9:05 p.m.

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10) Action Items:

	Action Item Description	Comments
1	Create a link to NRC quarterly inspection reports on the SONGS Community website. (Time: 0.20.39)	
2	Determine when the DOE will perform their next site visit. (Time: 0.28.58)	
3	Sharpen the timeline regarding the 3 to 5 year concept for planning, preparations, and hardware procurements to ship spent fuel. Work with the Community Engagement Panel and Gary Lanthrum. (Time: 0:46:22)	
4	Verify if multi- year appropriations are in place for rail car testing. (Time: 0:52:39)	
5	Provide additional non-proprietary information on the design specifications for the two AREVA and one Holtec transportation casks during a future meeting. (Time: 1:09:26)	
6	Discuss EPRI reports related to canister temperature monitoring or invite EPRI to discuss results in a future CEP meeting. (Time: 1:16:09)	
7	Develop a game-plan and timeline to describe SCEs plans related to real-time radiation monitoring and discuss the topic at a future meeting. Provide the plan and timeline in a report to update CEP members prior to the next regularly scheduled quarterly meeting. (Time: 1:26:20)	
8	Review future decommissioning discharge plans for any major discharges and provide the information during a future CEP meeting, including the method to be used to clean the water prior to discharge. (Time: 1:29:42)	
9	Provide a letter and a graphic to the CEP that can be circulated publicly and describes the facts surrounding the canister incident, and provide additional details regarding the incident in a future meeting. (Time: 3:01:32)	
10	Ensure the SONGS website has links to provide the information needed to answer questions related to Emergency Planning. (Time: 3:16:02)	
11	Conduct a future CEP meeting based on a focused list of topics to answer the reoccurring questions being asked by the public. (Time: 3:21:30)	