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), Jerome “Jerry” M. Kern (CEP Secretary/Oceanside City Representative), Donna Boston (Orange County Sheriff’s Department), Ted Quinn (American Nuclear Society), Hon. John Taylor (San Juan Capistrano City Council), Dan Bane (Mayor Pro Tem, San Clemente City Council), Rich Haydon (California State Parks), Hon. Doug Woodyard (Land Development), Orange County, 5th District), Hon. Jim Desmond (Supervisor, San Diego County, 5th District), Jim Leach (South Orange County Economic Coalition), Martha McNicholas (Capistrano Unified School District Board of Trustees) and Marni Magda (Sierra Club), Garry Brown (Orange County Coastkeeper), Valentine “Val” Macedo (Laborers’ International Union of North America, Local 89), and Captain Mel Vernon (San Luis Rey Band of Mission Indians)
   b) Absent: Hon. Paul Wyatt (Dana Point City Council), Tom Caughlan (Camp Pendleton) and Hon. Lisa Bartlett (Supervisor, Orange County, 5th District),
   c) Guest Speaker: Scott Morris (NRC Regional Administrator, Region IV) and Linda Howell (NRC Deputy Director, Region IV) and Jearl Strickland, Holtec Executive Director
   d) Southern California Edison (SCE) Representative: Tom Palmisano, Vice President External Engagement, Doug Bauder, Chief Nuclear Officer and Vice President of Decommissioning

2) Welcome & Opening Comments: (Meeting Convened by Chairman Victor at 5:39 p.m.)
   a) Chairman Victor welcomed guest speaker, Scott Morris, NRC Administrator, Region IV and Linda Howell, NRC Deputy Director, Region IV; the region responsible for overseeing the San Onofre plant, and Jearl Strickland, Holtec Executive Director; responsible for the on-site spent fuel offloading campaign. Jearl Strickland will present information about Holtec’s response to the download event and the path forward. The NRC will be presenting information on oversight, the inspection response, and the path forward.
   b) Chairman Victor reminded the audience that the engagement panel is a two-way conduit between the communities affected by the decommissioning process of the San Onofre plant and Southern California Edison (SCE); adding the fuel transfer operations topic is one of the areas where the two-way conduit is vitally important. He welcomed and thanked CEP alternates Debra Lewis, Kathy Ward, and Doug Woodyard for attending. He also discussed the process for public questions, submitting items for public record and the public comment period.
   c) SCE education booths are available to the public with a variety of information related to decommissioning. The meeting is being live-streamed on SONGScommunity.com. Members of the public interested in making a public comment were instructed to complete a public comment card, which are sequentially numbered in order of receipt. The public was invited to submit questions anytime via e-mail nucomm@songs.sce.com.

NOTE: VIDEO OF THIS MEETING, SPEAKER PRESENTATIONS, AND TRANSCRIPTS ARE AVAILABLE ON SONGScommunity.com AND THEREFORE THIS DOCUMENT CONTAINS SUMMARY CONTENT

3) CEP General Updates, Chairman Victor, Jerry Kern and Dan Stetson [Please refer to the CEP General Community Update presentation on SONGScommunity.com]
   a) CEP General Community Updates:
i) Chairman Victor discussed the passing of San Clemente Mayor, Steve Swartz. He recognized Hon. Steve Swartz for his years of service as a CEP member, an elected official and public servant, and San Clemente resident for 30 years. A moment of silence was observed.

ii) Dan Stetson discussed the significant steps SCE has made in an ongoing effort to address questions from the public. He provided information on submitting questions in advance of meetings and directions on how to access the SONGSCommunity.com website to review the questions not addressed during the meeting presentation. He also discussed the new webpages dedicated to the canister downloading and fuel transfer operations.

b) Community Initiatives & Engaging Local City Councils:
   i) Jerry Kern discussed CEP panel member efforts to reach out to cities in North San Diego County and Orange County by attending council meetings and providing presentations with representatives from SCE. He recently attended several city council meetings. He provided briefings to the Oceanside and San Clemente city councils and was in discussions with Solana Beach and San Juan Capistrano. Jerry offered his services to attend council meetings and provide information on the CEP and SCE decommissioning.

c) Congressional Briefing and Congressional Field Hearing:
   i) Tom Palmisano provided a brief update on the May 29 briefing SCE provided for Representative Mike Levin and staff members, Representatives Harley Rouda and Scott Peters, and select members from Representative Levin's task force. This was actually the second meeting that SCE held with the Congressmen. The focus of this meeting was to address questions about dry cask storage and canister technology. SCE agreed to some follow-up actions to continue the dialogue. Tom stated that he thought the meeting was very productive and added SCE was encouraged by the interest in finding a solution for long-term off-site storage of spent fuel, and is looking forward to that continued dialogue. Tom added that the presentation provided to the Congressmen during the briefing is attached to the CEP presentation as a reference.
   
i) Dan Stetson informed the CEP members and public that Representative Harley Rouda was conducting a field hearing on June 7 entitled, “House Committee on Oversight and Reform – Subcommittee on Environment” in Laguna Niguel, California. He shared the purpose of the meeting as described in a recent news release. Dan added that four speakers will testify including Mr. Scott Morris, (NRC Regional Administrator, Region IV), Tom Isaacs, (SCE Siting and Licensing Expert Team member and former Director, Office of Policy within the U.S. DOE), himself and another gentleman.

b) Industry Update:
   i) Dan Stetson shared his recent speaking engagements at the Electric Utility Consultants Inc. (EUCI) Nuclear Decommissioning Symposium, April 4-5 in Herndon, Virginia and the Nuclear Energy Institute (NEI) Nuclear Energy Assembly, June 3-5 in Washington, DC. In Virginia, Dan was primarily speaking to other utilities about the importance of community engagement and some of the issues that have come up in establishing engagement panels, and working to set up guidelines. During his visit to Washington, DC, Dan stated that he met with different representatives. Two things he learned while at the symposium; 1. many of the utilities are being purchased along with their trust funds by other companies to expedite the decommissioning process themselves, which is not the case with SONGS and SCE, 2. the
other was how much spent fuel storage is costing the American taxpayer by not coming up with a solution to move the spent fuel. The total cost is over $35 billion, and $2.2 million a day and there is still no solution.

ii) Chairman Victor discussed speaking at NEI events including one focused on used fuel management, helping to bring people up to speed on what the CEP and SCE are doing here at San Onofre. The NEI annual assembly topics included climate change and nuclear power, which is an issue that is becoming relevant to the rest of country as people get serious about reducing emissions and look at all the technological options.

c) Advancing Offsite Fuel Storage:

i) Chairman Victor provided a summary of what to expect in the coming weeks and months regarding authorizations and appropriations. Most of the action will be in the House of Representatives. He explained how authorization is about changing law and appropriations is about getting money for the changes. There will be hearings on nuclear waste policy amendments and other legislation, including legislation that involves what order spent fuel might be moved from. This is crucially important politically because the longer there isn't authorization activity inside the House, the harder getting the money for interim storage will be. Adding that to continue the pilot programs and spending resources on making interim storage a reality is vitally important. Chairman Victor also discussed the storage facilities that are moving through the licensing process in New Mexico and in West Texas. He explained how the House and Senate are working on a budget deal. The Senate will not be able do the same kinds of things that people expect to see from the appropriations process in the House, but overall Chairman Victor thinks the news is good. He is starting to see serious appropriations activities in both the House and in the Senate and Congress may get things done this year in terms of appropriations.

ii) Ted Quinn provided an update on the Department of Energy (DOE). He explained that the DOE does a number of things within their current charter to help in the process of moving spent fuel. He discussed recent reports involving the qualification of a railcar, which will move our qualified canisters, and a transportation report completed this year for five sites within the United States; Crystal River, Rancho Seco, La Crosse, Zion and Yankee Rowe. The reports are fully scoped deep dives into all of the items that need to be addressed in moving spent fuel to a federally authorized facility. He explained that San Onofre was not on that list. The DOE has been asked to include San Onofre in their budget to perform a deep dive report in 2020.

iii) Chairman Victor shared how he asked the California Energy Commission (CEC) to help get the process started to send spent fuel to interim storage facilities and will make another request to help jump start the process in California. He added there is a federal solution for moving the spent fuel involving railcars. A model railcar is being developed and tested. There are also private entities that would use the same railcars or other transportation technologies, and with private resources, move spent fuel to interim storage sites. Chairman Victor also discussed the NEI organized a tabletop exercise at Prairie Island on May 21. The Prairie Island Nuclear Plant involved a commissioner of the NRC and Prairie Island worked through in detail what would be involved to have a private movement of spent fuel from a place like Prairie Island (eventually a place like San Onofre) to an interim storage site.
2) **SONGS Decommissioning Update: Tom Palmisano** [Please refer to the *Decommissioning Update* presentation on SONGScommunity.com]

a) Tom Palmisano provided an update regarding work on topics of interest. He discussed SCE’s commitment to develop a strategic plan to identify actions that SCE could take to help facilitate the off-site storage for SONGS spent fuel. And as part of that commitment, SCE formed a team of industry experts to advise SCE on what should be considered in that plan and feasibility of potential options. SCE continues to work on the development of the strategic plan and is in the process of selecting a contractor to develop and write the plan in conjunction with the expert team. SCE will provide an update on the strategic plan during a future CEP meeting.

b) Tom Palmisano provided an update on the SCE commitment to putting a permanent radiation monitoring system around the dry cask storage facility, which will be in place prior to the start of decommissioning activities. The commitment was made in the Environmental Impact Report (EIR) of the California State Lands Commission (CSLC). The engineering is actively underway and SCE is on track to meeting that commitment. SCE is also working to set up agreements to stream the data live to appropriate off-site agencies who will then review the data and disseminate the information to the public.

c) Tom Palmisano informed the panel and public that SCE has not lost track of the commitment to have an extreme events workshop and wanted to clarify that the planning process slowed down due to the need for SCE to focus on fuel transfer operations. SCE will be working with the CEP and the interested parties on the appropriate way to provide the workshop.

d) Tom Palmisano discussed canister licensing, license renewal and aging management. He explained that the canisters are initially licensed by the NRC for storage for 20 years. The canisters will go through a license renewal process where the canisters are reviewed and then licensed for an additional 40 years. That will be an additional 40 years on top of the original 20-year license life for the system, which is a standard mechanism that is used for reactors as well as dry cask storage, and the process is going on across the country. The AREVA (horizontal) system is approaching the 20-year point. The license is held by a company called Orano, which is a successor to AREVA Trans-Nuclear. Orano recently filed to renew the license for the San Onofre AREVA system for 40 years. This is an important milestone and SCE wants to make sure the panel and public are aware of the process. SCE is writing a white paper that will be reviewed with the CEP and then posted on the website that provides the background on canister relicensing and the aging management programs.

e) Tom Palmisano continued with the licensing of the Holtec UMAX system, which is the system that SCE is in the process of loading spent fuel into. The Holtec system was licensed for use at SONGS in 2015 and is due for renewal in 2035. The NRC requires the utility to develop an aging management plan which provides detail on how the canister system and its associated structures will continue to be maintained and monitored, and inspected over the future life of the system. For the first 20 years there’s some basic requirements. The canister inspections start with the license renewal period. The Holtec system that SCE uses is also in used at other sites, a sister system which is very similar, but not as seismically designed has already had licenses renewed at several sites, including the Rancho Seco, a retired nuclear plant outside Sacramento. Which means there was good experiences with the requirements for our AREVA system that is going into the renewal process. The aging management program for the AREVA system will be in place by the fourth quarter 2021. SCE will do the first set of inspections for the AREVA system.
The NRC expects us to do baseline inspections on those canisters and that is targeted for the fourth quarter of 2021.

3) **Fuel Transfer Operations, Tom Palmisano, Doug Bauder and Jearl Strickland** [Please refer to the Fuel Transfer Operations presentation on SONGscommunity.com]

a) Tom Palmisano provided an update on the canister downloading event, including the significance of the wear and the work performed to resolve the issue. Tom explained that the canister can make contact with the shield ring and the seismic restraints as the canister travels 20 approximately 25 feet to the bottom of the storage vault. Incidental contact is not unexpected in a vertical system. In fact, incidental contact occurs in horizontal systems and vertical systems of all different designs. The Holtec statements that clearance was sufficient and contact would not occur was an incorrect statement. When contact does occur, there may be some shallow wear marks, rub marks or scratches on the outside of the canister. So the question is: How significant are the scratches? Do the scratches present a problem for either confinement or the structural integrity aspect of the canister? SCE has performed inspections and the analytical work to resolve those questions, and is satisfied with the conclusion. Tom discussed the details of how the canister inspections were performed using remote tooling and a robot with magnetic wheels down the sides of the divider shell. The robot used very high resolution cameras from GE. The technology is accurate enough to actually size the depth of indication. SCE was able to inspection eight canisters, (including the August 3 and July 22 canisters) and randomly selected other canisters for a good statistical view of the 29 canisters that have been downloaded. SCE was able to see 99 percent of the shell of the canister, other than the last one inch of the bottom plate, which is three inches thick and not a concern. Tom provided an overview of the observed wear marks stating that most of the scratches were shallow, had no depth to them, and were rub marks on the side of the canister. He pointed out that the shield ring is carbon steel and coated, the seismic restraints are stainless steel, and is the equipment that can rub on the canister as the canister is lowered with about a quarter of an inch clearance. Tom explained that the canisters are designed in accordance with the ASME Code, which is used to judge the acceptance criteria for the canisters. The code would allow a depth with no action required of .0625 inches or 62.5-thousandths of an inch. Most of the numbers SCE identified were well below that. Even the deepest wear was well below the limit, and not a concern for the short-term or the long-term. Tom explained that what is important is these are stainless steel canisters, and there’s a protective oxide layer that the rub mark or scratch can disturb. That oxide layer reforms relatively quickly to provide future protection. SCE did not see any initiation of corrosion and canister integrity remains robust.

a) Jearl Strickland (Holtec) provided an overview of operational enhancements and sustainability. Jearl was added as the leader of the Holtec team at SONGS after the August 2018 incident. He is the executive director supporting Holtec International with the overall responsibilities for movement of spent nuclear fuel from wet to dry storage. He provided his background and insight on the response that Holtec implemented after the August 2018 event, including some of the changes that were put into place. Jearl spent over 38 years with Pacific Gas & Electric in many different roles, including chief civil engineer and the responsibilities for developing the spent fuel storage programs for both Humboldt Bay Nuclear Plant and the Diablo Canyon Nuclear Plant. In both of those cases, Holtec was the vendor that he utilized to safely put spent fuel into dry storage. He was responsible for the establishment of the PG&E technical services division of the generation of business unit, including strategic projects, license renewal, the
2) SCE Oversight Enhancements and Path Forward, Doug Bauder [Please refer to the SCE Oversight Enhancements and Path Forward presentation on SONGScommunity.com]

a) Doug Bauder provided an overview on the changes to SCE oversight and the path forward. Doug explained that SCE did not have the proper oversight in place and addressed those weaknesses. SCE changed leadership, brought in people who are trained and have experience in the Holtec systems. SCE trained all of the oversight people on Holtec systems and gave them the exact same training as the craft. The oversight program requires five managers of the station to be in the field every week. And when a campaign starts, managers will split up and work 24 hours / 7
days a week to support operations, as required. The new program reports out to senior leadership once a week. Everything observed is captured in a database and used to learn and improve performance. SCE brought in specific personnel who are experts in fuel transfer and SCE will do assessments periodically throughout the fuel transfer operations campaign. Doug added that at some point, SCE will be staffed up enough to do fuel movement on both Units 2 and 3 at the same time. Doug explained that the question will be: Are we (SCE) ready to do that? As Holtec and SCE work through the first few campaigns, SCE will use the comments from workers and everything in the corrective action database, and go through a review process to find out if the station is ready to perform fuel movement on both units. SCE will conduct a formal challenge review process and include industry experts. Doug said SCE will not start without his approval and with recommendations from the team. The reason SCE is implementing the challenge review process is because experts, supervisors, project managers, iron workers, other workers came from all across the country back to San Onofre. Remobilization involved retraining in key jobs, responsibilities and requalification. Even if a worker had been involved in fuel handling here before, SCE will assess, reference the training matrix, and verify that the workers are task-qualified for the job each worker will be doing. SCE and Holtec are going to work through all the final equipment checks to verify everything’s certified and put everything through that final challenge process. Doug added that he could not provide a specific date as to when SCE would transfer fuel again, but he could say SCE would not handle fuel until SCE and Holtec are totally ready. SCE will communicate with the public to announce the restart of fuel transfer operations and Doug will call the NRC to let them know when SCE is ready.

b) Scott Morris provided an NRC update. He explained how the NRC wants to be able to deliver the documents associated with the licensing actions or through the inspection reports and how those processes can be 45 to 60 days before the artifacts are made available to the public for review. He explained how the NRC made a conscious decision in the case of San Onofre and the decision was not unprecedented, and how the most expeditious way to communicate the information was through the recent webinar process. He added the NRC is doing webinars to get the information to the public as soon as possible. The NRC is committed to openness and transparency to the maximum extent practical. All of the basis for the NRC’s decisions and the things that were reviewed, everything that formed ultimate decision-making will be captured in that inspection report. Scott informed the CEP panel and audience that the NRC is planning a town hall meeting (after the restart of fuel transfer operations) in the local area, but did not have the date or venue confirmed. Scott explained that he wanted to give credit to SCE for making the changes that were made with respect to the scratching issue and how the scratches were the singular issue that was essentially holding up the resumption of the fuel handling. He explained that two other issues were technical concern; 1. Is a certain amount of scratching, gouging, technically okay from a safety standpoint? And 2. What’s the regulatory process that has to be engaged in order to move forward once the safety issue has been addressed? Scott added that SCE has been able to supply the needed information. The NRC has been able to independently validate and verify through their own inspectors, independent calculations and reviews, and addressed the issue, and everything will be captured on an inspection report. In this case, SCE determined that by using the 72.48 process, the scratching issue can be resolved. Which means, SCE was able to make the change to their system or their safety analysis without prior regulatory approval. SCE could have started to move fuel, but elected to wait for the NRC
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...to review and approve the process. The NRC agreed that the assessment SCE performed under 72.48 process was appropriate. SCE didn’t need NRC approval, but waited for our review, anyway. The NRC report will provide the basis for why the SCE evaluations were appropriate.

c) Linda Howell provided an overview of the work performed by the NRC. She explained how ultimately SCE performed institute visual assessments using robotics and three dimensional video imaging. The NRC was able to look at canisters that had already been downloaded and see what the effects were from impact between the canister and most likely the seismic restraints on the inside of the storage vault. Linda pointed out that the NRC challenged SCE not to just look at what has been observed from downloading, but to take a look at what might happen in the future when a canister is withdrawn. The NRC also asked SCE to look at what the impact would be if you had overlay of a scratch that occurred during insertion with a scratch that occurs during withdrawal, and what happens if those two scratch models are overlaid over topical flaws. The NRC asked SCE to apply the most conservative set of assumptions that would address trying to look at the impact of incidental contact between the canister and the storage vaults during the operations, the whole life cycle of the use of the Multi-Purpose Canister (MPC). And SCE did that. Linda stated that the video imaging helped get real physical data that was very useful to the NRC. SCE did a statistical analysis to see what those additive impacts would be and their results did come up within the allowable ASME Code limits. Linda added that the NRC had a subject matter expert in statistics review the analysis SCE submitted and perform additional modeling to see if the SCE results reasonably bounded the maximum scratch depth. The conclusion was, yes. The data provided the basis for the NRC’s approval to resume fuel transfer operations. Linda also informed the CEP panel and the public that the NRC will be performing unannounced inspections at San Onofre and the NRC will be onsite when SCE resumes canister loading. She said an NRC team was on site at SONGS this week observing some of the training that was being done with the Holtec staff, and will be able to observe the heightened level of the oversight in place.

3) Chairman Victor Facilitated the Public Comment Period

a) Public Comments were made by the following individuals:
   i) Madge Torres (Citizens Oversight): safer storage of nuclear waste
   ii) Ray Lutz (Citizens Oversight): storage of nuclear waste
   iii) Donna Gilmore (San Onofre Safety): safety analysis report for scratches and engineering
   iv) Torgen Johnson (Samuel Lawrence Foundation): nuclear waste storage
   v) Gary Headrick (San Clemente Green): lessons learned
   vi) Kyle Krahel (Rep. Mike Levin): legislative update for congress
   vii) Mandy Sackett (Surfrider Foundation): coastal development permit
   viii) Amy Foo (Surfrider Foundation): federal prioritization of nuclear waste transfer
   ix) Christa Gostenhofer (local citizen): canister scratches
   x) Peter McBride (local citizen): nuclear storage tank design
   xi) Patricia Borchmann (Citizens Oversight): ASME Code and wall thinning over time
   xii) Jeff Steinmetz (local citizen): SCE data submitted to the NRC
   xiii) Ron Rodarte (Green Party of Orange County): canister deficiencies
   xiv) Mike Aguirre (Attorney): Questions to the NRC regarding San Onofre
   xv) Maria Severson (Attorney): NRC lessons learned
   xvi) Dr. Steven Vogue (local citizen): Stainless steel deterioration
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xvii) Charles Langley (Public Watchdogs): 72.48 changes
xviii) Lacey Johnson (local citizen): San Onofre waste canisters
xix) Harold Breen (citizen of Dana Point): SCE land owning or easement east of I-5 freeway

b) During the facilitated comment period, Tom Palmisano addressed questions related to where canister 30 was in the downloading process; heat load and temperature of the canister, and the SCE inspection and maintenance program going forward. Scott Morris and Linda Howell responded to questions about the NRC’s observation of temperature monitoring, the decision not to have a full-time inspector on site, provided details regarding future periodic inspections, and discussed Part 72 reportability requirements. Doug Bauder responded to questions regarding the ASME code and technical specifications of the license. Jearl Strickland provided additional information related to his background before being contracted with Holtec.

4) Closing Remarks:
   a) Chairman Victor shared his views regarding the bill that Congressman Levin has introduced to put SCE fuel at the top of the priority list, the Energy Committee which will be looking at three bills, including one from Congresswoman Matsui from the Sacramento area; and also a bill that’s been introduced by Congressman McNerney and Shimkus, which is very similar to the Shimkus Bill from last year, and had Scott Peters as a co-sponsor. A lot of the attention on that hearing is going to be focusing on the McNerney, Shimkus Bill. And the process of building a coalition to get that through the House and ideally get something similar through the Senate. He also discussed the resumption of fuel transfer operations, aging management and defense-in-depth, including going back to these topics because new technologies have emerged over the past year.

5) Meeting adjourned at 8:58 p.m.

6) Action Items:

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<th>Action Item Description</th>
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<td>1</td>
<td>Discuss the canister inspections being performed around the country and the results during a future CEP meeting</td>
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<td>2</td>
<td>Discuss I&amp;M, AMP and Mitigation (Spent Fuel Pools) in greater detail during a future CEP meeting</td>
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