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9-15-0162-W

SOUTHERN CALIFORNIA EDISON COMPANY

- Public Comments and Correspondence

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original staff report

Street, Joseph@Coastal

From: Donna Gilmore <dgilmore@cox.net>
Sent: Monday, March 09, 2015 3:25 PM
To: Street, Joseph@Coastal
Subject: Edison Permit Waiver 9-15-0162-W and Application for ISFSI

There is insufficient information on the 2/26/2015 Notice of Coastal Development Permit De Minimis Waver for Permit 9-15-0162-W to know the impact of the Edison proposal for the spent fuel pool island (SFPI). I recommend the Commissioners not grant this waiver.

I would love to see an end to the once-through cooling. However, the limited detail on this notice doesn't give me confidence the alternate system is adequate and that it will not present problems of it's own.

Please send any additional information you have on this SFPI and on Edison's application for a Coastal permit for the Independent Spent Fuel Storage Installation (ISFSI). The two have potential overlapping issues, depending on the Coastal Commissions concerns with the location of the underground ISFSI. These systems may be there for decades or longer, so it's important the best location be chosen that has minimal impact to our Coastal environment and that is configured so it's not too far from the spent fuel pool and adequate backup sources of water be available.

I only received this notice late last week and spent my weekend trying to research this technology. The NRC and Edison do not have information posted on their websites on this in any detail and Edison has not shared details on this system. There is no reason to rush this through. The fuel has to cool for years in the pool before it can be moved, so there is plenty of time to deal with this.

If this new spent fuel pool island system fails, what is the backup plan if Edison is allowed to destroy the current cooling system infrastructure?

What is the maintenance on this system?

Is it experimental? I have not been able to find details about this technology.

Where has this specific system been used before?

What is the source of the water? How will this impact our local water supply?

Where are the technical specifications?

Are we sure the system won't leak and how soon may it leak? What will the impact be on the coastal site if it leaks?

What are the chemicals used in the pool and to clean the chillers? Will they be flushed into the ocean?

How thick and what type is the stainless steel piping? What mechanisms and chemicals will be present that can degrade the steel pipe?

What is the plan to detect and deal with potential leaks? I know our coastal grounds are full of corrosive chemicals and the soil is moist all the time. Some chillers use chloride for cleaning, which is corrosive to steel and can cause it to crack in a few short years.

Different chemicals are used in these pools and the chillers needs to cool extremely hot water and maintain it below a certain temperature.
Where are the details on this? This is different than chillers used in aquariums, so how can we trust this? Where's the data to support this system performance and reliability?

This system needs to be there for an indefinite period of time. If there is a problem in one of the thin spent fuel pool stainless steel canisters (e.g., through wall cracks), the pools are the only method to reload the fuel into another canister. There are no dry storage transfer systems in the entire country that are large enough to reload fuel into another canister. I know Edison wants to eliminate the pools, but until we are assured of a plan to deal with a failed canister, they should not be given a permit to do that.

Did you know a Diablo Canyon spent fuel stainless steel canister has all the conditions for cracking after only two years of service due to our marine environment.
https://sanonofresafety.files.wordpress.com/2011/11/diablocanyonscc-2014-10-23.pdf

And the NRC stress corrosion cracking experts say once a crack initiates in can go through the canister wall within 16 years. For hotter canisters, maybe sooner.
http://pbadupws.nrc.gov/docs/ML1425/ML14258A081.pdf

I participated in NRC technical presentations in July and August of last year. Here is a slide presentation from Darrell Dunn, NRC materials engineer. It shows how our corrosive marine environment is a challenge for these canisters -- even the newer Holtec ones.
http://pbadupws.nrc.gov/docs/ML1425/ML14258A082.pdf

Edison may reference an EPRI report claiming an 80 year life. However, that report cherry picked data to reach the 80 year conclusion. If you look at Darrell Dunn slide 9, you will see actual experience shows similar components can fail in as little as 17 years -- components that are thicker than these thin canisters. Most of the rest of that EPRI report relies on assumptions and ignores the Diablo Canyon data that they themselves found.

How is this a closed-loop system? The pools are in a building that is subject to evaporation.

What are the system redundancies? What are the single points of failure?

Would any of the design change if the location of the independent spent fuel installation changes?

What is the seismic rating of this system?

What are the warning systems in case of failure or water loss in the pool?

Regarding dry storage system Edison wants to buy, the NRC plans to approve the Holtec UMAX system in April according to this NRC Notice.
However, they excluded San Onofre from that due to higher seismic requirements. Holtec needs to do an NRC license amendment with an seismic evaluation. The system approval is only for 20 years. They do not have the data to support a longer timeframe.
http://www.gpo.gov/fdsys/pkg/FR-2015-03-06/html/2015-05238.htm

The CPUC has not approved the funds for this experimental system. This system has never been installed anywhere. The only underground system in use is at Humboldt Bay and it is a completely different system. There is no ventilation system at Humboldt and it still leaked water in between the concrete and thin steel canister. The UMAX system Edison wants requires air vents for convection cooling. This draws in moist salt air and other contaminants and presents drainage challenges. The Humboldt Bay system has an additional thick steel cask that the thin canister is inserted into before inserting in the concrete hole.

All of these canisters may start to fail after about 20 to 30 years.
This means we'll be faced with spending more billions on replacements.
These thin canisters cannot be inspected or repaired. The NRC plans to allow up to a 75% crack in these canisters. However, they have not done a seismic evaluation on cracked canisters.

I participated in NRC concrete degradation technical meetings (Feb 24-25, 2015). Concrete technical experts had concerns about underground concrete system degradation and the inability to inspect the parts of the system that are underground. In addition, they have no way to inspect the interior walls of these underground systems. Here's the link to the slide presentation. The transcript will be available from the NRC soon. In the transcript you'll see there were additional concerns about "moisture-in-the-middle". The heat from the spent fuel causes the moisture to migrate to the middle. And the moisture from the outer wall is pulled into the middle. This can cause concrete structural failure that we won't be able to inspect for in an underground system.
http://pbadupws.nrc.gov/docs/ML1505/ML15051A369.pdf

What will be the impact to the coastal area if this underground concrete system fails? There are no significant advantages to using the underground system and many disadvantages. I will address this further in future comments about the ISFSI. And this or any other system should not be located too close to the cliff. Please don't approve exemptions for this. It's unnecessary.

These are just initial questions and issues that came to mind after reviewing the Notice of Permit Waiver for the SFPI. Please share with the Commissioners.

I know the Coastal Commission has no jurisdiction over issues related to radiation. However, the above systems can impact our fragile Coastal environment in areas not related to radiation. These structures and systems will be there indefinitely, so it's important we get this right and not rush into approvals and waivers. Much more detail is needed to adequately address these issues.

There is much misinformation being circulated about the dry storage issues. Please review this short document, "Reasons to buy thick nuclear waste dry storage casks and myths about nuclear waste storage"
January 30, 2015.
https://sanonofresafety.files.wordpress.com/2011/11/reasonstobuythickcasks2015-01-30.pdf

Don't hesitate to contact me for more information or references. The majority of these can be found on SanOnofreSafety.org home page or the Nuclear Waste page.

Thank you,

Donna Gilmore
SanOnofreSafety.org
949-204-7794

Street, Joseph@Coastal

From: Jeffrey Steinmetz <jeffmsteinmetz@yahoo.com>
Sent: Tuesday, March 10, 2015 11:07 AM
To: Street, Joseph@Coastal
Cc: Donna Gilmore
Subject: Edison Permit Waiver 9-15-0162-W and Application for ISFSI

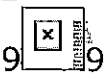
Dear Mr. Street,

Chillers often require chemicals, filters and regular maintenance to keep them running properly and cooling efficiently. This is the case with closed systems chillers as well. However, when SCE informed the CCC this was a closed system it was at best a long stretch for the these kinds of systems. A closed system typically means the internal fluids are not open to other elements. This is not the case with the storage pools at SCE. In fact the pools are open to the point that they require enough room for crane equipment to function above the pools for the loading and future unloading of spent fuel. How can SCE claim this is a closed system when they have a large amount space over the pools with industrial strength cranes on the side and above the pools? Once again SCE is not stating things as they are.

With that said and the understanding SCE, CPUC and San Onofre are currently under investigation; I would advise the CCC request the maintenance documentation requirements/manual for the chillers. Often these systems use harsh chemicals and have hazardous waste to manage. I would think the CCC would want to know what chemicals and what waste is produced by the chillers and what is the plan for disposal. If SCE claims this documentation does not exists or is unattainable then they clearly should not be given a waiver as this project has not been fully planned and scoped. Keep in mind SCE has released lethal tritium into the ocean before; so we already know they are capable of the worst.

I would also advise the CCC question how wise it is for all the chiller area storm drains to be plugged in this volatile environment. We know from Fukushima, generators, pumps and electrical equipment failures can result from flooding, so it does not seem wise they would block drainage in and around environments that must remain dry or drain quickly should a natural disaster occur. (Electric powered chillers will not function under water) I know it is not the roll of the CCC, but I have to ask if the NRC has given serious thought to plugging the drainage around electrical devices required to keep the spent nuclear fuel cool? Does the NRC even know SCE is planning on plugging these drainage systems? Did SCE provide this same project info to the NRC? Have you asked the NRC? It would not be the first time the NRC missed something vital at San Onofre.

Thank you,
Jeff Steinmetz

949-636-9859  949-636-9859

Street, Joseph@Coastal

From: Donna Gilmore <dgilmore@cox.net>
Sent: Friday, March 13, 2015 2:22 PM
To: Street, Joseph@Coastal
Cc: Jeff Steinmetz
Subject: San Onofre Spent Fuel Pool Islanding.

Just received this from the NRC. Thought you would find her comments enlightening.

Donna Gilmore
949-204-7794

-------- Forwarded Message --------
Subject:RE: Link Rulemaking
Date: Fri, 13 Mar 2015 16:47:36 -0400
From: Sampson, Michele <Michele.Sampson@nrc.gov>
To: Donna Gilmore <dgilmore@cox.net>

Donna,
I realize that Joe Sebrosky also offered to provide you with a name to help explain this issue, but below I the response I received when I requested a contact:

" 'Islanding' is a term that refers to taking the current spent fuel pool cooling system, which are installed plant equipment that will be taken out of service. When we say "islanding," that means putting in dedicated standalone cooling systems for the spent fuel pools. So we essentially island it and separate it from, disconnect it from, the rest of the installed plant equipment. That's what the term islanding means."

The licensee is still preparing the design for its islanding approach; NRC does not yet have any real specifics on the changes they plan to make. However, they have informed us that they plan to request a public meeting (scheduled for sometime this summer) to discuss its plans with the NRC staff, after the design/engineering of the spent fuel pool island is completed.

If you need any further assistance with a contact for the spent fuel pool, please let me know.

Thank you,
Michele Sampson

Chief, Spent Fuel Licensing Branch
Division of Spent Fuel Management
Phone: 301-287-9077

From: Donna Gilmore [mailto:dgilmore@cox.net]
Sent: Wednesday, March 11, 2015 3:56 PM
To: Sampson, Michele
Subject: Re: Link Rulemaking

Thanks. Did you find a contact for the spent fuel pools?

Donna

On 3/10/2015 1:26 PM, Sampson, Michele wrote:

http://www.nrc.gov/waste/spent-fuel-storage/sfs-schedule-rulemaking.html

Michele Sampson, Chief
Spent Fuel Licensing Branch
U.S. Nuclear Regulatory Commission
Office of Nuclear Material Safety and Safeguards
Division of Spent Fuel Management
Mail Stop 3WFN-14A44
Washington, D.C. 20555-0001
Phone: 301-287-9077

Street, Joseph@Coastal

From: Kim Anthony <Kim.Anthony@sce.com>
Sent: Friday, March 20, 2015 2:41 PM
To: Street, Joseph@Coastal
Subject: SONGS SFPI (response to inquiries)
Attachments: SCE Supplemental Information SFPI 3-20-2015.docx

Hi Joe,

The attached word document contains responses to both yours and Donna Gilmore's questions and concerns regarding the Spent Fuel Pool Island. Please feel free to copy/paste or use the information to respond to Ms. Gilmore that best fits your needs. I hope this adequately addresses the questions that were raised. SCE anticipates an April 15-17 public hearing for this project, but we'll wait to hear from you regarding schedule.

Thanks, and please let me know if you have further questions.

Kim

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Kim Anthony
Environmental Project Manager
Corporate Environmental, Health and Safety
Southern California Edison Company
1218 South 5th Ave. | Monrovia, CA 91016
Office: 626 462-2590 | PAX: 74590
C: 562 706-1553 | F: 626 462-8775
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Q&A about San Onofre Spent Fuel Pool Cooling Island Project

The spent fuel pool island cooling system is a method by which the spent fuel pool is isolated from its normal plant-installed support systems and is replaced by stand-alone cooling and filtration units. Spent fuel pool island cooling systems are simpler, smaller, localized to the spent fuel area and are tailored to shutdown conditions. In other words, the heat load for the current defueled condition is significantly lower than a full core offload condition when the offloaded fuel is at a much hotter and higher heat load condition. Therefore, the cooling island was designed to have a cooling capacity that is nearly twice the required cooling. This provides additional safety margin. Southern California Edison Company (SCE) has received a number of questions about this system and has provided the following information in response.

The questions were extracted from an e-mail from Donna Gilmore to Joe Street (California Coastal Commission) time stamped Monday March 9, 2015 3:25 PM

1Q: If this new spent fuel pool island system fails, what is the backup plan if Edison is allowed to destroy the current cooling system infrastructure?

A: This application filed with the CCC addresses the *addition* of an alternate cooling system to cool the Spent Fuel Pools (SFP) only. The proposed cooling system will reduce the number of components needed as compared to the current system, which was designed to cool components throughout an operating plant. The alternate cooling system will remain in service until all fuel is removed from the Spent Fuel Pools. The existing cooling systems will be decommissioned in the future in accordance with NRC regulations governing plant decommissioning. The new systems have additional capacity with cross tie capability and other features to address the failure of any components. This application request is for the addition of the new equipment only.

2Q: What is the maintenance on this system?

A: As is common with nuclear plant cooling systems, SCE would continually monitor (24 hours a day / 7 days a week) system parameters similar to the existing cooling system. Inspection and maintenance procedures are being developed and implemented prior to placing the system in service. These procedures are being developed using manufacturer recommendations for the major components (i.e., chillers, pumps, heat exchangers).

3Q: Is it experimental? I have not been able to find details about the technology.

A: No, this technology is not experimental. It is a simple water cooling system that is commonly used in energy and industrial applications. The proposed system consists of a commercially available chilled water system along with pumps and heat exchangers that are similar to the existing system. The concept of a Spent Fuel Pool cooling island has also been used at other plants in decommissioning, including Big Rock Point, Trojan, Connecticut Yankee, Millstone 1, Maine Yankee, Yankee Rowe and Zion.

4Q: Where has this specific system been used before?

A: As SCE noted in response to a question at a May 22, 2014 Community Engagement Panel meeting, which is publicly available online (www.songscommunity.com), an alternate spent fuel pool cooling system such as islanding has been used at half the decommissioned commercial nuclear plants in the U.S., including Big Rock Point, Trojan, Connecticut Yankee, Millstone 1, Maine Yankee, Yankee Rowe and Zion.

5Q: What is the source of the water? How will this impact our local water supply?

A: The proposed Spent Fuel Pool Island cooling system is composed of two (2) separate water loops. The secondary loop will continuously circulate fresh water through the chillers to the secondary side of the new Spent Fuel Pool Heat Exchanger and back through the chiller (Figure 2). It requires an initial system fill of approximately 1000 gallons, which will come from the city supplied service water system. In contrast, the existing secondary cooling system is a once through system passing approximately 16,000 gallons per minute of ocean water. The proposed Spent Fuel Pool Island cooling system is essentially a 'closed' system in that it does not require a continuous supply of once-through cooling water; however, it does require makeup as described below.

The primary loop will continue to operate in the same manner as it does now. Water from the Spent Fuel Pool is circulated through the primary side of the new Spent Fuel Pool Heat Exchanger and is returned to the pool. This loop is currently subject to evaporative losses of approximately 900 gallons per week and will not change with the new Spent Fuel Pool Island cooling system. The source of that makeup water will continue to be our demineralized water system, which ultimately gets water from the city supplied service water system. Makeup needs will continue to decrease as the fuel continues to cool.

6Q: Where are the technical specifications?

A: The project uses commercially available equipment that is designed and fabricated by qualified commercial vendors. The chillers, for example, are provided by Trane, the pumps are provided by Gould Pumps, and the heat exchanger by Alfa Laval (See Enclosure 1).

7Q: Are we sure the system won't leak and how soon may it leak? What will the impact be on the coastal site if it leaks?

A: The cooling system has been designed and fabricated to high quality American Society of Mechanical Engineers (ASME) standards to help preclude system leakage. The system is composed of a primary and secondary loop. The primary loop, located entirely within the Spent Fuel Building, will circulate the radioactive Spent Fuel Pool water to the interfacing heat exchanger. The secondary loop will circulate water from the chiller unit located outside to the interfacing heat exchanger. Any leakage of the primary system would be within the Spent Fuel Building and would be captured and treated in the same manner as the existing system. Any leakage of the secondary system would be identified as part of periodic inspections in accordance with system operating requirements and procedures and resolved in the same manner as with the existing Component Cooling and Turbine Cooling Water systems.

8Q: What are the chemicals used in the pool and to clean the chillers? Will they be flushed into the ocean?

A: The Spent Fuel Pool contains Boron, which will continue to be maintained in accordance with the existing Plant Technical Specification requirements. The borated water is circulated in the primary cooling loop only (as described above). Although not anticipated, in the event that the chiller coils require cleaning, they would be cleaned using processes similar to existing Air Conditioner Maintenance. Station practices

require covering any impacted storm drains in the vicinity of the work being performed so that no liquid enters the storm drain system. Cleaning water will not be flushed into the ocean.

9Q: How thick and what type is the stainless steel piping? What mechanisms and chemicals will be present that can degrade the steel pipe?

A: This system uses components and piping constructed of American Society for Testing and Materials (ASTM) A240 Type 304 and A312 Type 304 stainless steel. The piping is a low pressure system utilizing Schedule 10 pipe, approximately one eighth (1/8) of an inch thick. Stainless steel components are used throughout the nuclear plant because of their resistance to nuclear power plant environments. The primary system will be exposed to borated water as is the existing spent fuel cooling system, and the secondary system will be exposed to water with a rust inhibitor (NALCO brand) that is similar to the existing component cooling and turbine cooling water systems at SONGS and many other plants. The secondary system exterior will also be exposed to the ocean atmosphere and will be periodically inspected for any signs of accumulating chlorides as performed on existing stainless steel piping systems.

10Q: What is the plan to detect and deal with potential leaks? I know our coastal grounds are full of corrosive chemicals and the soil is moist all the time. Some chillers use chloride for cleaning, which is corrosive to steel and can cause it to crack in a few short years.

A: The proposed spent fuel pool island system does not have any buried piping; all piping is above ground or within a building. A combination of instrumentation and visual monitoring will be used to identify and address any leaks in this system. If a leak is detected, the system would be taken out of service to make any repairs. Note, the modular design of the system allows for quick repair and replacement of components. Presently the system could go ~5 days with no cooling without exceeding two hundred (200) degrees Fahrenheit. Repair activities would be a day or less to complete. Although not anticipated, in the event that the chiller coils require cleaning, they would be cleaned using processes similar to existing Air Conditioner Maintenance.

11Q: Different chemicals are used in these pools and the chillers need to cool extremely hot water and maintain it below a certain temperature. Where are the details on this? This is different than chillers used in aquariums, so how can we trust this? Where's the data to support this system performance and reliability?

A: The Spent Fuel Pool temperatures are approximately 70°F. It should be noted that the temperatures are not extremely high. The fuel has a high heat load, this does not directly relate to high temperatures. The systems, as described above, are robust and utilize commercially available components with a history of use. These systems have been used worldwide and for more than 20 years throughout the United States, as noted above.

12Q: This system needs to be there for an indefinite period of time. If there is a problem in one of the thin spent fuel storage stainless steel canisters (e.g., through wall cracks), the pools are the only method to reload the fuel into another canister. There are no dry storage transfer systems in the entire country that are large enough to reload fuel into another canister. I know Edison wants to eliminate the pools, but until we are assured of a plan to deal with a failed canister, they should not be given a permit to do that.

A: As described above, this application with the California Coastal Commission addresses the installation of a new Spent Fuel Pool Island cooling system to cool the Spent Fuel Pools. The issue of Long Term Spent Fuel Storage including Time Limited Aging Analyses is being addressed in the Licensing of Spent Fuel Canisters by the NRC. The existing Spent Fuel Pools and cooling systems will be decommissioned in the future in accordance with the overall Decommissioning Plan described in the PSDAR.

Q&A about San Onofre Spent Fuel Pool Cooling Island Project

13Q: How is this a closed-loop system? The pools are in a building that is subject to evaporation.

A: See Question 5.

14Q: What are the system redundancies? What are the single points of failure?

A: The primary loop includes two (100% redundant) pumps with a single heat exchanger. A spare heat exchanger will be onsite and available if replacement is needed. The secondary loop includes two (100% redundant) pumps with two chillers per unit. The current heat load of the Spent Fuel Pools requires a total of three chiller units, which will decrease to two chillers total in approximately a year for the two Spent Fuel Pools. Four chillers will be installed onsite and the chiller units can be cross tied. A review of failure modes was conducted to determine a set of replacement parts to be on hand and/or available from the vendor on short notice.

15Q: Would any of the design change if the location of the independent spent fuel installation changes?

A: No, the design of the Spent Fuel Pool Island cooling system is not dependent on the location of the Independent Spent Fuel Storage Installation (ISFSI).

16Q: What is the seismic rating of this system?

A: This equipment is structurally designed to meet the California Building Code.

17Q: What are the warning systems in case of failure or water loss in the pool?

A: The existing Spent Fuel Pool system has water level instrumentation and alarms. The proposed system will also include pressure, temperature, and flow instrumentation to alert operating personnel to any cooling system condition changes. These systems are, and will continue to be, monitored 24 hours a day / 7 days a week.

SUPPLEMENTAL QUESTIONS

The following four questions were extracted from commentary on e-mail from Joe Street (California Coastal Commission) to Kim Anthony, time stamped Tuesday, March 10. 2015 2:02 PM:

Sup Q1: How can SCE claim this is a closed system when they have a large amount space over the pools with industrial strength cranes on the side and above the pools?

A: See Question 5 above. The term 'closed' refers to the type of cooling system design.

Sup Q2: I would advise the California Coastal Commission request the maintenance documentation requirements/manual for the chillers. Often these systems use harsh chemicals and have hazardous waste to manage. I would think the California Coastal Commission would want to know what chemicals and what waste is produced by the chillers and what is the plan for disposal.

A: See Question 8 and 'Supplemental Question' 5 below.

Sup Q3: I would also advise the California Coastal Commission question how wise it is for all the chiller area storm drains to be plugged in this volatile environment.

A: SCE will require temporary barriers on storm drains to preclude debris from entering the system during implementation of work. This is common to all construction projects.

Sup Q4: I know it is not the role of the California Coastal Commission, but I have to ask if the NRC has given serious thought to plugging the drainage around electrical devices required to keep the spent nuclear fuel cool? Does the NRC even know SCE is planning on plugging these drainage systems? Did SCE provide this same project info to the NRC? Have you asked the NRC? It would not be the first time the NRC missed something vital at San Onofre.

A: See Supplemental Question 3 above, SCE has no plans to plug any drains as part of installing this Spent Fuel Pool Cooling System.

The following question/request was extracted from e-mail from Joe Street (California Coastal Commission) to Kim Anthony time stamped Monday, March 9, 2015 4:22 PM

Sup Q5: Below is a list of items that would be important additions to the file for this waiver:

1. **The make and model of the chillers proposed for use in the system, and their technical specifications.**

   A: Specifications of the chillers including make and model are provided in Enclosure 1.

2. **Plans/diagrams of the chillers and of the full SFPI system once installed.**

   A diagram of the proposed Spent Fuel Pool Island cooling system consisting of two cooling loops is presented as Figure 2. A composite rendering of the proposed equipment superimposed on an existing plant photo is provided in Figure 3.

3. **A description of the maintenance activities that will be carried out over the life of the system.**

   A: A description of maintenance activities is provided in Enclosure 2

4. **Information on the ability of the system to withstand an earthquake or tsunami (e.g., description of the "seismic design" that you mentioned in previous conversations).**

   A: Since no irradiated fuel has been added to the Spent Fuel Pools in over three years, the time it takes the Spent Fuel Pool water to reach 200 degrees Fahrenheit without any cooling has been increased from minutes to more than five days. The equipment and piping systems will be supported in accordance with the California Building Code; however, operability of the equipment post-major earthquake could require repair or restoration. In the event of a major earthquake resulting in substantial damage to the system, additional components will be available to repair the system. Also several methods of maintaining water level are in place. All of the new Spent Fuel Pool Island cooling system equipment is located at an elevation greater than thirty-one (31) feet above sea level (mean lower low water level,mllw) and the postulated tsunami height is 27 feet above sea level.

Figure 1:

SONGS Ocean Cooling Systems

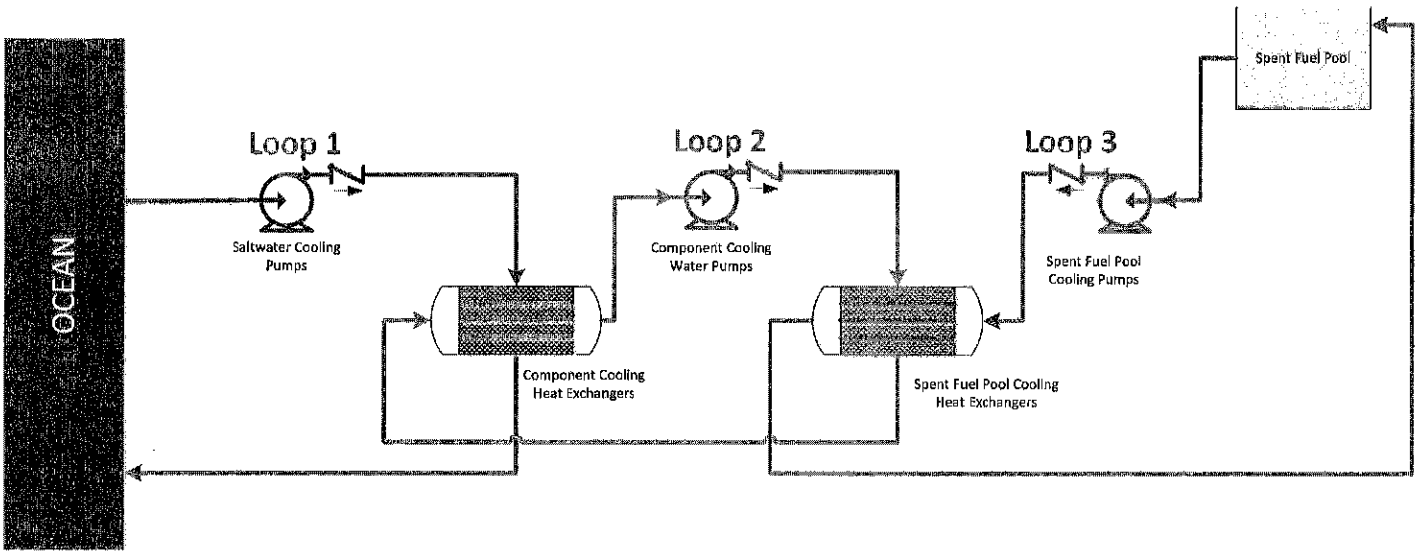


Figure 2:

SONGS Independent Spent Fuel Cooling Island

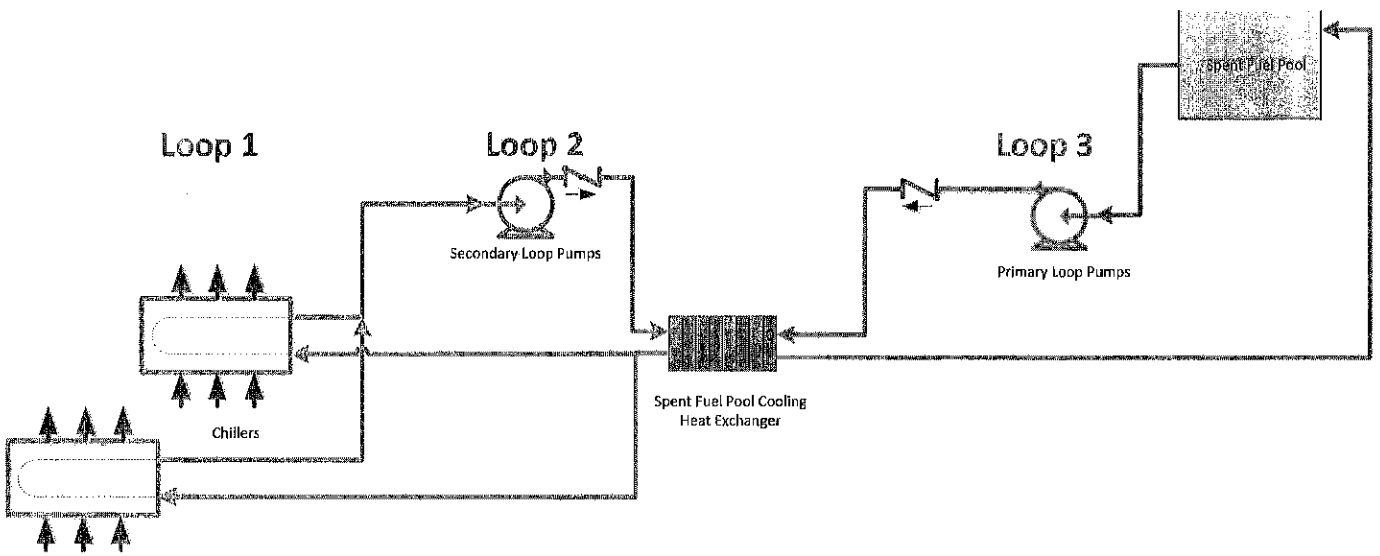
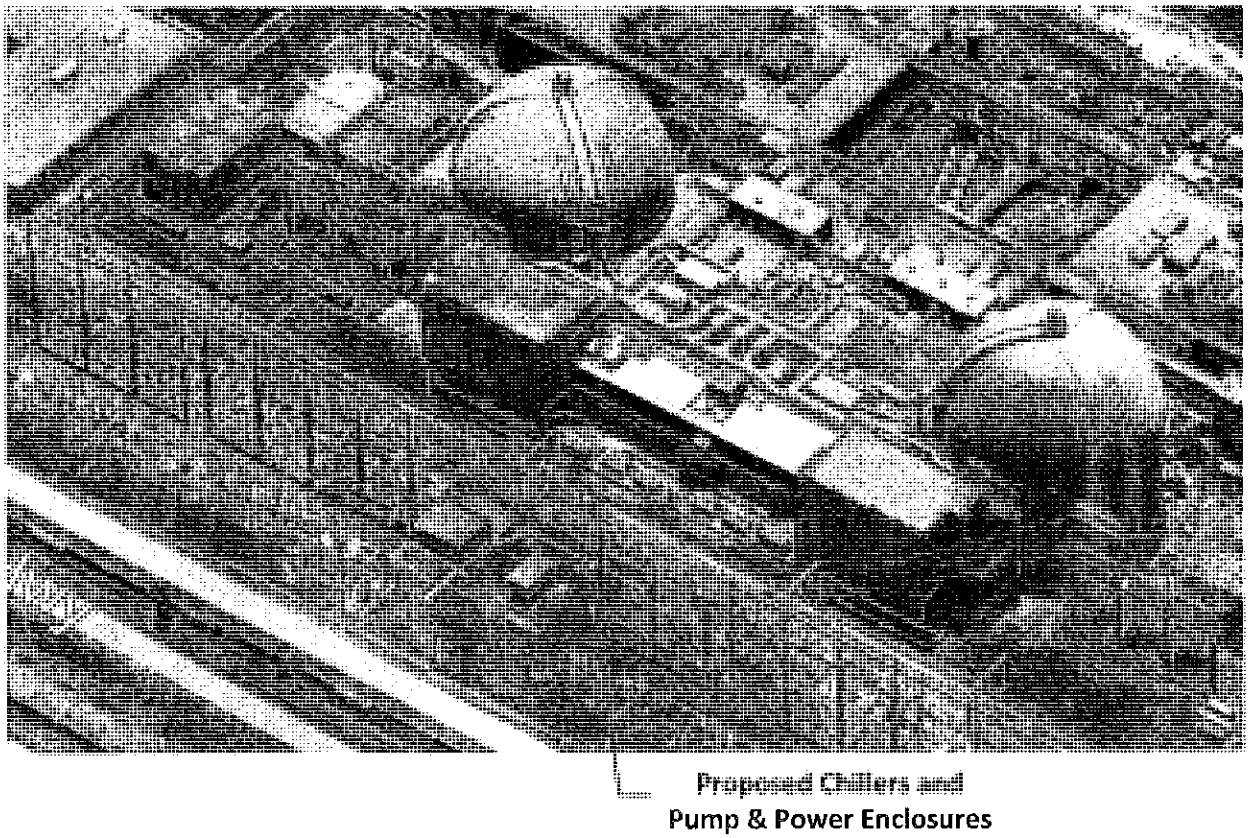


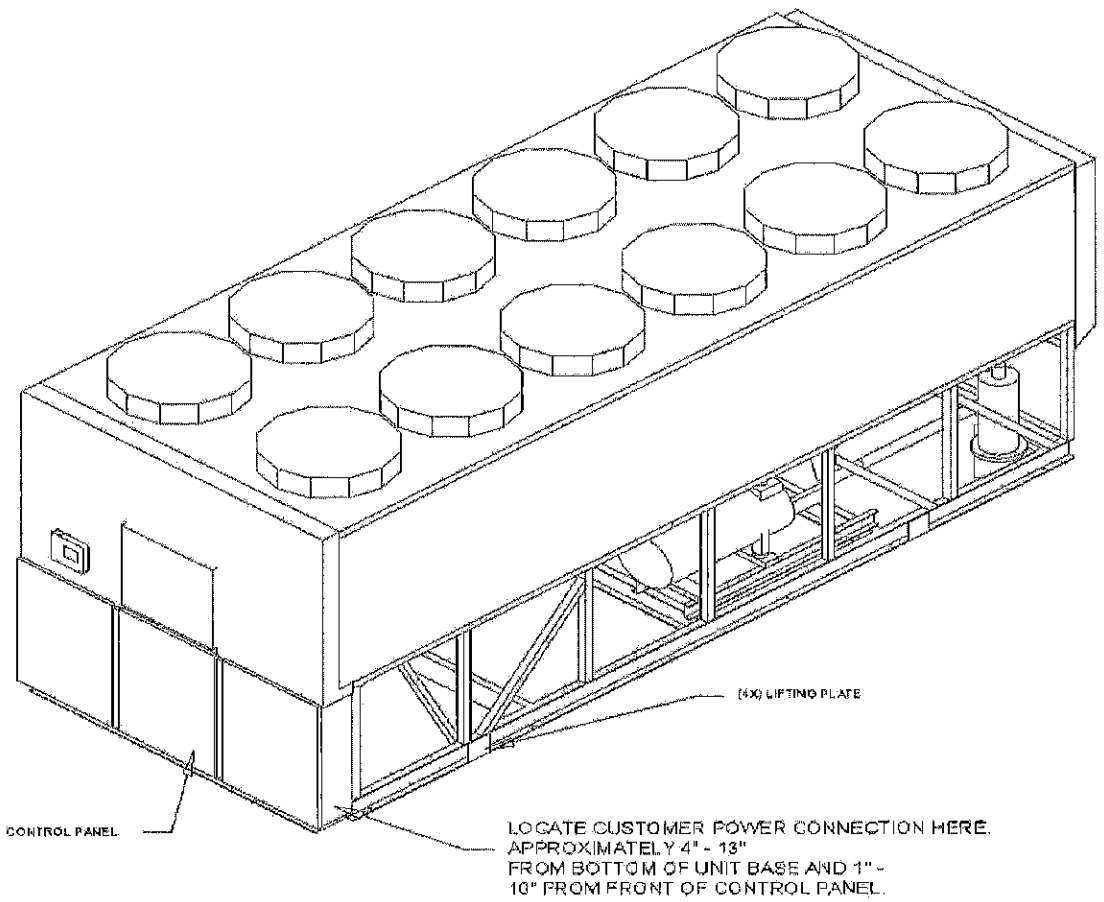
Figure 3 (rendering):



Enclosure 1

Equipment Description Trane 200 Ton Chiller Unit

Two 200-ton capacity air cooled chillers will be used within a closed loop cooling system utilizing potable water on the secondary side of the temporary fuel pool cooling system for SONGS Unit 2 and SONGS Unit 3. The designed criterion is based on information provided by SONGS of a heat load calculation of three million BTU/hr per fuel pool. Each chiller will be a 200-ton unit designed to remove 2.4 MBTU/hr and have the ability to be cross connected so the entire heat load of Units 2 and 3 spent fuel pools can be removed by three chillers. This will give SONGS the needed contingency in case of equipment shutdown due to the unlikelyhood of equipment failure or scheduled maintenance. The cooling water will leave the chillers and flow through a plate frame heat exchanger that will pull heat from the primary loop and return back to the chillers. Chillers will require 460 VAC power. The chillers will be limited to a return temperature of 100°F due to relief valves on the refrigerant side of the unit, which will lift at 108°F and release Freon into the atmosphere.



ISOMETRIC VIEW

Q&A about San Onofre Spent Fuel Pool Cooling Island Project

Enclosure 1

Manufacturer Performance Data

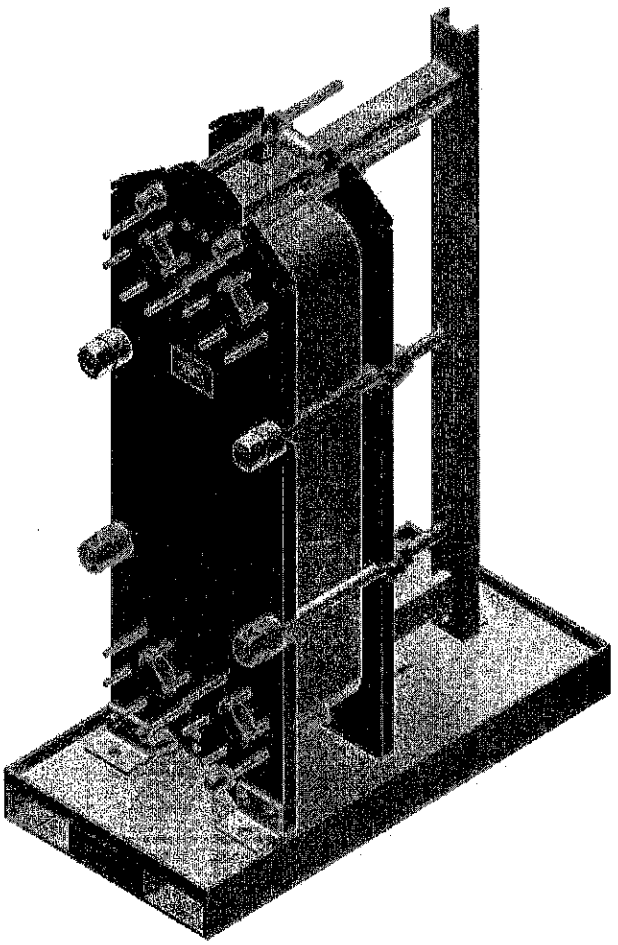
Rated capacity (AHRI)	198.90 tons	Rated efficiency (AHRI)	9.7 EER Evap application Std temp
ASHRAE 90.1/CSA compliance All versions IPLV	13.6 EER		
Refrig (HFC-134a) - ckt 1	215.0 lb.	Refrig (HFC-134a) - ckt 2	215.0 lb
Evap fluid type	Water		
Evap entering temp	54.00 F Evap	Evap leaving temp	44.00 F
Evap fluid concentration	0.00 %	Fluid freeze point	32.00 F
Evap flow rate	475.50 gpm		
Max Evap flow rate	883.00 gpm	Min Evap flow rate	241.00 gpm
H2O Evap fouling factor	0.00010 hr-sq ft-deg F/Btu	Press drop max Evap flow	36.80 ft. H2O
Evap configuration	2 pass		
Saturated Evap temp – ckt 1	40.10 F	Saturated Evap temp - ckt 2	40.90 F

Enclosure 1

Q&A about San Onofre Spent Fuel Pool Cooling Island Project

Equipment Description Plate Frame Heat Exchanger (HEX)

The Plate Frame Heat Exchanger has a 3 million btu/hr. capacity based on the inlet temperature of 100 degrees F on the primary loop side with a secondary side cold water temperature of 76 degrees F.The primary loop will take suction from the fuel pool and discharge to the heat exchanger and return back to the fuel pool. The secondary loop will discharge to the heat exchanger and return back to the electric chiller units removing the heat load generated from the primary loop. Picture below is a conceptual drawing only not to be used for dimensional information.



Q&A about San Onofre Spent Fuel Pool Cooling Island Project

Enclosure 1

Manufacturer Performance Data

		Hot side	Cold side
Fluid		Water	Water
Density	lb/ft³	61.99	62.14
Specific heat capacity	Btu/lb., F	1.00	1.00
Thermal conductivity	Btu/ft,h,°F	0.360	0.354
Viscosity inlet	cP	0.683	0.906
Viscosity outlet	cP	0.783	0.814
Volume flow rate	GPM	500.0	700.0
Inlet temperature	°F	100.0	76.0
Outlet temperature	°F	87.9	84.6
Pressure drop	psi	4.00	7.18
Heat Exchanged	kbtu/h	3000	
L.M.T.D.	°F	13.6	
O.H.T.C clean conditions	Btu/ft²,h,°F	954.4	
O.H.T.C service	Btu/ft²,h,°F	752.2	
Heat transfer area	ft²	293.6	
Duty margin	%	26.9	
Relative directions of fluids		Countercurrent	
Number of plates		46	
Effective plates		44	
Number of passes		1	1
Extension capacity			19
Plate material / thickness		ALLOY 316 / 0.50 mm	
Sealing material		EPDMP CLIP-ON	EPDMP CLIP-ON
Connection material		Stainless steel	Stainless steel
Connection diameter		See drawing	See drawing
Nozzle orientation		S4 -> S3	S1 <- S2
Pressure vessel code		ASME	ASME
Flange rating		150#	150#
Design pressure	psi	150.0	150.0
Test pressure	psi	195.0	195.0
Design temperature	°F	200.0	200.0
Overall length x width x height	in	45 x 26 x 74	
Liquid volume		2.00 ft³	2.08 ft³

Enclosure 2

Recommended Pump Manufacturer Maintenance:

Maintenance inspections

A maintenance schedule includes these types of inspections: Routine maintenance

Routine inspections

Check the level and condition of the oil through the sight glass on the bearing frame. Check for unusual noise, vibration, and bearing temperatures.

Check the pump and piping for leaks. Analyze the vibration.

Inspect the discharge pressure.

Inspect the temperature.

Check the seal chamber and stuffing box for leaks.

Ensure that there are no leaks from the seal.

Three-month inspections

Check that the foundation and the hold-down bolts are tight.

Check the packing if the pump has been left idle, and replace as required. Change the oil every three months (2000 operating hours) at minimum.

Change the oil more often if there are adverse atmospheric or other conditions that might contaminate or break down the oil.

Check the shaft alignment, and realign as required.

Annual inspections

Check the pump capacity.

Check the pump pressure.

Check the pump power.

Bearing lubrication schedule

Type of bearing	First lubrication	Lubrication intervals
Oil-lubricated bearings	Add oil before you install and start the pump. Change the oil after 200 hours for new bearings.	After the first200 hours, change the oil every 2000 operating hours or every three months.
Grease-lubricated bearings	Grease-lubricated bearings are initially lubricated at the factory.	Regrease bearings every 2000 operating hours or every three months.

Enclosure 2

Oil requirements based on temperature

Temperature	Oil requirement
Bearing temperatures exceed 180°F (82oC)	Use ISO viscosity grade 100 with bearing-frame cooling or finned-tube oil cooler. The finned-tube oil cooler is standard with the HT 3196 model and optional for all other models.
Pumped-fluid temperatures exceed 350°F (17JOC)	Use synthetic lubrication.

Frame	Qts.	Oz.	ml
STi	0.5	16	400
MTi	1.5	47	1400
LTi	1.5	48	1400
XLT-i and 117	3	96	3000

Oil volume requirements

Maintenance Schedule for Trane 200 Ton Chiller Unit:

RTAC Annual Maintenance

Description

- Report in with the Customer Representative.
- Record and report abnormal conditions, measurements taken, etc.
- Review customer logs with the customer for operational problems and trends.

General Assembly

- Visually inspect for leaks and report leak check result.
- Check the condenser fans for clearances and free operation.
- Check tightness of condenser fan motor mounting brackets.
- Check the set screws on the fan shafts.
- Chemically clean and wash down condenser coils once per year.
- Verify the performance of the fan control inverter VFD, if applicable.
- Grease bearings as required.

Enclosure 2

Controls and Safeties

- Visually inspect the control panel for cleanliness.
- Inspect wiring and connections for tightness and signs of overheating and discoloration.
- Verify the working condition of all indicator/alarm lights and LED/LCD displays.
- Verify oil pressure safety device (as required).
- Verify the operation of the chilled water pump starter auxiliary contacts.

Lubrication System

- Pull oil sample for spectroscopic analysis.
- Test oil for acid content and discoloration.
- Make recommendations to the customer based on the results of the test.
- Verify the operation of the oil heaters.

Motor and Starter

- Clean the starter cabinet and starter components.
- Inspect wiring and connections for tightness and signs of overheating and discoloration.
- Check the condition of the contacts for wear and pitting.
- Check contactors for free and smooth operation.
- Check all mechanical linkages for wear, security and clearances.
- Verify tightness of the motor terminal connections.
- Meg the motor and record readings.
- Verify the operation of the electrical interlocks.
- Measure voltage and record. Voltage should be nominal voltage ±10%.

Enclosure 2

RTAC Quarterly Operational Running Inspection

Description

- Check the general operation of the unit.
- Log the operating temperatures, pressures, voltages, and amperages.
- Check the operation of the control circuit.
- Check the operation of the lubrication system.
- Check the operation of the motor and starter.
- Review operating procedures with operating personnel.
- Provide a written report of completed work, operation log and indicate any uncorrected deficiencies detected.

Oil Sample/Spectrographic Analysis: Oil Analysis is a service provided by Trane's Chemlab in Charlotte. Oil Analysis provides an opportunity to show customers wear that is occurring in their equipment. The report is generated by the Chemlab team and can be sent to the local office to take to the customer. This is a high quality report providing the customer with data that can be used to compare year on year performance. This is a very inexpensive service that can produce strong customer satisfaction and assurance that every effort is being made to minimize their risk of equipment failure.

Campbell Hausfeld Air Compressor Recommended Maintenance:

- Check the general operation of the unit periodically.
- Change motor oil every 2000 hours or 1 year.
- Check drive belt for excessive wear or cracks every 2000 hours or 1 year.

In addition to the pump, chiller and air compressor maintenance, the Ion Exchange (IX) resin will be changed out annually. One Technician and one HP will travel to SONGS to sluice the old resin to a HIC and reload the IX columns with new resin. The new resin cost are part of the maintenance fee, however the cost of disposal of the resin is SCE responsibility.

Enclosure 2

A hose will be connected to the IX column and run through the hatch in the new fuels building to a HIC located on the ground level just below the hatch. A combination of air and water will be used to push the resin from the IX column to the HIC. After all resin has been sluiced, new resin will be loaded into the IX by drawing a vacuum in the IX with a hepa vac, and sucking the new resin into the columns.

Street, Joseph@Coastal

From: Donna Gilmore <dgilmore@cox.net>
Sent: Friday, March 20, 2015 3:34 PM
To: Street, Joseph@Coastal
Cc: Jeff Steinmetz
Subject: Spent Fuel Pool Island permit waiver request

I spoke with Tom Wengert of the NRC this morning on a conference call with other NRC staff regarding Edison's Spent Fuel Pool Island request .
He is the NRC point of contact at the NRC on this issue. Tom said the NRC has not received details on Edison's proposal. Edison is preparing a
10 CFR 50.59 to attempt to bypass the NRC license amendment process.
This would allow them to implement this system without adequate reviews by the NRC or public or independent experts.

The NRC plans to send an inspector to San Onofre in May and he will review the 50.59's that Edison has prepared. It is unclear at this time what action the NRC will take. I think Edison's plan was to have the system installed and have the NRC inspector review it after it's installed. Tom would not commit to whether the change in cooling system falls into the 50.59 process.

I asked the NRC if they had any knowledge about other nuclear plants that have created Spent Fuel Pool Islands using chillers. They did not appear to be knowledgeable on spent fuel pool islands and were not aware of what other nuclear plants may be using them and if they used chillers.

Any decommissioned plants with spent fuel pool islands would have much cooler fuel than San Onofre, so the load on the chillers will be higher at San Onofre. The NRC did not know what the heat load is at San Onofre.
I asked who the expert at the NRC is on spent fuel pools, and he just said to send my questions through him.

This system also requires heat exchangers, and water distillers. The NRC doesn't plan to inspect or review the distiller system.

I asked the NRC if they had any regulations or technical requirements that I could review on spent fuel cooling. He said they don't have anything regarding how they need to keep the fuel cooled, just that they need to do it.

Donna Gilmore

Street, Joseph@Coastal

From: Donna Gilmore <dgilmore@cox.net>
Sent: Tuesday, March 24, 2015 3:51 PM
To: Street, Joseph@Coastal
Cc: Jeff Steinmetz
Subject: Fwd: RE: Spent fuel pool cooling system island: Edison Permit Waiver 9-15-0162-W and Application for ISFSI
Attachments: Suppl. Info on SONGS SFPI 3-20-2015.docx

I forwarded this to some nuclear engineers who know a lot about spent fuel pools. Here's a response from one of them. What is your timeline on this? I wanted to get feedback from the others before making my full comments.

Thanks,

Donna

-------- Forwarded Message --------
Subject: RE: Spent fuel pool cooling system island: Edison Permit Waiver 9-15-0162-W and Application for ISFSI
Date: Tue, 24 Mar 2015 19:03:05 +0000
From: Dave Lochbaum <DLochbaum@ucsusa.org>
To: Donna Gilmore <dgilmore@cox.net>, Arnie Gundersen <sailchamplain@gmail.com>, Gordon Thompson <gthompson@irss-usa.org>

Hello Donna:

In general, I like the spent fuel pool island system for reasons SCE stated in the opening paragraph -- it's stand-alone and simpler.

But I found their replies to most of the questions unacceptable. It was termed Q&A but really should be termed Q&D for Questions and Dodges.

Their reply to the first question was a complete dodge. The question was what happens if the new cooling system fails. They utterly failed to address this question. It was a reasonable question that could have, and should have, resulted in a reasonable answer.

Their reply to the second question is a tad better, but still insufficient and unacceptable. A straight-forward question about maintenance should have included some discussion of applicability under the NRC's Maintenance Rule (see http://www.nrc.gov/reading-rm/doc-collections/cfr/part050/part050-0065.html).

Their reply to the fourth question also dodged the question. That half the decommissioned nuclear plants used an alternate spent fuel pool cooling system would have been a wonderful answer had the question been "how many decommissioned nuclear plants used something other than the original spent fuel pool cooling system?" But that was not the question so this is not an adequate answer. How many used the specific system proposed at San Onofre? Seems like a reasonable question with an unexpectedly elusive answer.

Their reply to the fourth question begs another question. If half the decommissioned nuclear plants used an alternate spent fuel pool cooling system, the other half apparently did not. Which half is the wiser half? Those that used the alternate spent fuel pool cooling system? Or those that did not do so?

Their reply to the 11th question is insufficient, especially considering that it is for San Onofre. Steam generators "have been used worldwide and for more than 20 years throughout the United States" too. Yet SCE managed to spend millions of dollars for crappy steam generators that didn't last very long at all. I would have expected far more than a dodgy, cavalier response to this reasonable question. I hope this wasn't their best effort.

Their reply to the 14th question doesn't make sense. "The secondary loop includes two (100% redundant) pumps with two chillers per unit. The current head load ... requires a total of three chillers units." There's not 100 percent redundancy when three of four chillers are needed, even if the chiller units can be cross-tied. And they dodged entirely the sub-question about single points of failure (unless providing crappy responses is the single failure).

Thanks,
Dave Lochbaum
UCS

From: Donna Gilmore [dgilmore@cox.net]
Sent: Tuesday, March 24, 2015 10:50 AM
To: Dave Lochbaum; Arnie Gundersen; Gordon Thompson
Subject: Spent fuel pool cooling system island: Edison Permit Waiver 9-15-0162-W and Application for ISFSI

Attached is Edison's response to my questions about their proposed change from once through cooling to use of chillers to cool. I think we will see more use of chillers as plants decommission. It doesn't appear they have adequately addressed the issue and they're planning to use the 50.59 process to avoid a license amendment.

What's your take on this?

I sent this emal yesterday, but it came through as jibberish, so I'm resending.

Donna Gilmore
SanOnofreSafety.org
949-204-7794

-------- Original message --------
From: "Street, Joseph@Coastal"
Date:03/23/2015 2:07 PM (GMT-08:00)
To: Donna Gilmore
Subject: RE: Edison Permit Waiver 9-15-0162-W and Application for ISFSI

Donna,

Street, Joseph@Coastal

From: Donna Gilmore <dgilmore@cox.net>
Sent: Wednesday, March 25, 2015 12:34 PM
To: Street, Joseph@Coastal
Subject: Fwd: Re: Spent fuel pool cooling system island: Edison Permit Waiver 9-15-0162-W and Application for ISFSI

Here are Gordon's comments.

-------- Forwarded Message --------
Subject: Re: Spent fuel pool cooling system island: Edison Permit Waiver 9-15-0162-W and Application for ISFSI
Date: Tue, 24 Mar 2015 19:19:45 -0400
From: Gordon Thompson <gthompson@irss-usa.org>
To: Donna Gilmore <dgilmore@cox.net>, Dave Lochbaum <DLochbaum@ucsusa.org>, Arnie Gundersen <sailchamplain@gmail.com>

Hi Donna

I'm glad that Dave has given you some of his inestimable help.

From the perspective of a potential pool fire, attention should be focused on the possibility of rapid loss of water, leaving residual water in place. Is anyone thinking about that?

Best, Gordon

At 3:47 PM -0700 3/24/15, Donna Gilmore wrote:

> Welcome to my world with Edison. It's taken me multiple tries to even get this information. I had a phone conference with the NRC regarding this, and they didn't seem to know much about the system or what their spent fuel pool requirements were other than in general terms. They had a vague idea as to who might be using an island system, but didn't know which ones or if any of them used chillers or even what they used. It felt like I was talking with a bowl of jelly. They plan to send an inspector to San Onofre in May 2015. The inspector will review the 50.59's to determine if they are ok or if a license amendment would be necessary. They evaded answering my question as to whether a change from once-through ocean cooling to a closed chiller system should require a license amendment. I also asked if they would need a seismic evaluation for this new system. Edison plans to put the pumps in a standard cargo container.
>
> Edison had told the California Coastal Commission they wanted to start installing this system March 20th and have it implemented in May 2015. Edison expected to have a Coastal Commission permit waiver approved on 3/11/2015. However, after I spoke with the lead staff

Street, Joseph@Coastal

From: Donna Gilmore <dgilmore@cox.net>
Sent: Tuesday, April 07, 2015 9:37 AM
To: Street, Joseph@Coastal
Subject: Re: Spent fuel pool cooling system island: Edison Permit Waiver 9-15-0162-W and Application for ISFSI

Would you send me an electronic copy of the 4/3/2015 Notice of Waiver for this? Also, is there anything available on the ISFSI permit request?

Also, would you please give me a call?

Thanks,
Donna Gilmore
949-204-7794

On 3/25/2015 8:55 AM, Street, Joseph@Coastal wrote:

> Thanks for forwarding the comments – I'd be very interested in the reactions from Mr. Gunderson and Mr Thompson as well.
>
> We're not facing any imminent deadlines with this project, but I am actively working on it (I'm preparing follow-up questions for SCE in response to the information they just provided). I don't know yet whether this will continue as a permit waiver or get bumped up to a full permit process, but we are likely to decide in the next week or so.
>
> Hope this helps.
>
> Joe
>
> ---
>
> **From:** Donna Gilmore [mailto:dgilmore@cox.net]
> **Sent:** Tuesday, March 24, 2015 3:51 PM
> **To:** Street, Joseph@Coastal
> **Cc:** Jeff Steinmetz
> **Subject:** Fwd: RE: Spent fuel pool cooling system island: Edison Permit Waiver 9-15-0162-W and Application for ISFSI
>
> I forwarded this to some nuclear engineers who know a lot about spent fuel pools. Here's a response from one of them. What is your timeline on this? I wanted to get feedback from the others before making my full comments.
>
> Thanks,
>
> Donna
>
> -------- Forwarded Message --------
>
> **Subject:**RE: Spent fuel pool cooling system island: Edison Permit Waiver 9-15-0162-W and Application for

Street, Joseph@Coastal

From: Donna Gilmore <dgilmore@cox.net>
Sent: Tuesday, April 07, 2015 10:52 AM
To: Street, Joseph@Coastal
Subject: Re: Spent fuel pool cooling system island: Edison Permit Waiver 9-15-0162-W and Application for ISFSI

Tomorrow is fine. I do have some concerns about the scheduling of the waiver notice approval. Edison has scheduled a San Onofre Community Engagement Panel meeting for April 16th in San Juan Capistrano. The SPFI waiver permit is scheduled for April 15-17 in San Rafael. It's physically impossible for me and others to be at both events. Also, having this item on the agenda in San Rafael is a hardship for the local residents to attend. I recommend this be pushed to a future meeting. Preferably the June 10-12 in Newport Beach. Even the May 12-15 in Santa Barbara would be an improvement.

The CPUC has not even approved funds for this project and there is no real urgency that would justify expediting this.

Thank you,

Donna Gilmore
949-204-7794

May 13-15, in Santa Barbara and June 10-12, in Newport Beach.

On 4/7/2015 10:19 AM, Street, Joseph@Coastal wrote:

> Hi Donna,
>
> The waiver notice is attached.
>
> With regard to the ISFSI application, SCE has submitted a variety of items. To start, I'll send you the project description and SCE's discussion of "Environmental and Land Use Issues", along with a list of the other documents they've provided. You can then tell me which items from that list you'd like to see (I suspect you may already have copies of some of them). I'll do this later today.
>
> I'm in meetings for much of the day, but will try to call you this afternoon. I'm relatively free tomorrow.
>
> Best,
> Joe
>
> ---
>
> **From:** Donna Gilmore [mailto:dgilmore@cox.net]
> **Sent:** Tuesday, April 07, 2015 9:37 AM
> **To:** Street, Joseph@Coastal
> **Subject:** Re: Spent fuel pool cooling system island: Edison Permit Waiver 9-15-0162-W and Application for ISFSI
>
> Would you send me an electronic copy of the 4/3/2015 Notice of Waiver for this? Also, is there anything available on the ISFSI permit request?

Street, Joseph@Coastal

From: Donna Gilmore <dgilmore@cox.net>
Sent: Wednesday, April 08, 2015 1:45 PM
To: Street, Joseph@Coastal
Subject: Fwd: Re: Meeting: Spent Fuel Pool Cooling System change - Coastal Commission meeting

I am a key liaison to groups of concerned citizens and others who are actively involved in issues regarding San Onofre. This includes counties within a 50 mile radius of San Onofre. Here is an email from Edison's newly appointed CEP member who represents environmental concerns on the CEP. He is also the liaison on San Onofre issues for the Sierra Club Angeles Chapter, one of the largest Sierra Club Chapters in the nation.

-------- Forwarded Message --------
Subject: Re: Meeting: Spent Fuel Pool Cooling System change - Coastal Commission meeting
Date: Wed, 8 Apr 2015 19:39:37 +0000 (UTC)
From: Glenn Pascall <gpascall@att.net>
Reply-To: Glenn Pascall <gpascall@att.net>
To: Donna Gilmore <dgilmore@cox.net>

Donna,

Good move on your part requesting a change in venue for this meeting.

Glenn

On Wednesday, April 8, 2015 11:37 AM, Donna Gilmore <dgilmore@cox.net> wrote:

Meeting is scheduled for April 15-17, 2015 in San Rafael to consider Coastal Commission permit waiver request by Edison to change the cooling system for San Onofre spent fuel pools. I've asked the Coastal Commission to reschedule this for a later Coastal Commission meeting that is in Southern California and one that doesn't conflict with Edison's CEP meeting. Here's a link to Edison's proposal. I haven't had a chance to finish reviewing this and the CPUC has not approved funds for this, as far as I'm aware.

The plan is to use four water chillers with municipal water to cool, rather than the current ocean cooling system. Edison has avoided providing sufficient detail to evaluate this system. There appear to be seismic issues. I'm also not aware of any similar system used with fuel that's only cooled a few years and has high burnup fuel. The NRC has not said whether they plan to review this system before it's installed and they were not able to answer my questions about this technology. Issues of redundancy, lifespan, chemicals used, corrosion factors, maintenance, etc. have not been addressed from the information provided.

As much as I'd like to see once-through cooling stopped, I don't want to have a system that has a higher likelihood of failure. Insufficient information has been provided to determine that. It's unclear if all cost related issues have been addressed in Edison's decommissioning plan, so this is also an issue for the CPUC.

https://sanonofresafety.files.wordpress.com/2013/06/9-15-0162-w-de-minimis-waiver.pdf

Donna

Street, Joseph@Coastal

From: Darin R. McClure <darin.r.mcclure@gmail.com>
Sent: Wednesday, April 08, 2015 2:20 PM
To: Donna Gilmore
Cc: Street, Joseph@Coastal
Subject: Re: Request for change of date and location for San Onofre issue(s)

Joseph, Please change the Coastal Committee meeting on San Onofre to a new date & location, preferably Newport Beach.

Sent Via My iPhone

Darin R. McClure
darin@rtgit.com
(949) 370-3069 (My iPhone)
darin.r.mcclure@gmail.com (Hangouts)

Are You In My Circles?
http://google.com/+DarinRMcClureIAm

On Apr 8, 2015, at 2:08 PM, Donna Gilmore <dgilmore@cox.net> wrote:

> The Coastal Commission would like to hear from you directly, if you would like the below meeting rescheduled. The next two meeting choices are Santa Barbara and Newport Beach.
>
> Send email to **joseph.street@coastal.ca.gov**
>
> Thanks,
> Donna
>
> On 4/8/2015 11:37 AM, Donna Gilmore wrote:
>
> > Meeting is scheduled for April 15-17, 2015 in San Rafael to consider Coastal Commission permit waiver request by Edison to change the cooling system for San Onofre spent fuel pools. I've asked the Coastal Commission to reschedule this for a later Coastal Commission meeting that is in Southern California and one that doesn't conflict with Edison's CEP meeting. Here's a link to Edison's proposal. I haven't had a chance to finish reviewing this and the CPUC has not approved funds for this, as far as I'm aware.
> >
> > The plan is to use four water chillers with municipal water to cool, rather than the current ocean cooling system. Edison has avoided providing sufficient detail to evaluate this system. There appear to be seismic issues. I'm also not aware of any similar system used with fuel that's only cooled a few years and has high burnup fuel. The NRC has not said whether they plan to review this system before it's installed and they were not able to answer my questions about this technology. Issues of redundancy, lifespan, chemicals used, corrosion factors,

maintenance, etc. have not been addressed from the information provided.

As much as I'd like to see once-through cooling stopped, I don't want to have a system that has a higher likelihood of failure. Insufficient information has been provided to determine that. It's unclear if all cost related issues have been addressed in Edison's decommissioning plan, so this is also an issue for the CPUC.

https://sanonofresafety.files.wordpress.com/2013/06/9-15-0162-w-de-minimis-waiver.pdf

Donna

Street, Joseph@Coastal

From: Rick Morgal <rmorgal@wildblue.net>
Sent: Wednesday, April 08, 2015 5:17 PM
To: Street, Joseph@Coastal
Subject: Permit NO. 9-15-0162-W Waiver for SCE's Spent Fuel Pool Island

Hello Mr. Street,

Please allow the issue related to Southern California Edison's (SCE) Coastal Development Permit Waiver for their Spent Fuel Pool Island (SFPI) to be addressed at a California Coastal Commission (CCC) meeting located in Southern California. This is a very serious topic that could have significant impacts to the greater Southern California community. Having such an important decision being made in Northern California without hearing from the affected local community will further exacerbate the public's sense of the State's regulatory system not being sensitive to the needs of the public.

Although I have been greatly troubled by the amount of sea water/life the Diablo Canyon Nuclear Power Plant and the San Onfre Nuclear Generating Station (SONGS) use on a daily basis, I am more troubled by the lack of details being provided by SCE regarding their SONGS SFPI proposal.

My initial concern prompts me to ask **Why there is no mention of back up electric power to the spent fuel pool electric chillers?** The currently installed system has back up generators to power the pumps that provide cooling water to the pools if grid power becomes unavailable.

Are the existing on-site back-up diesel generators sufficiently sized to run all four, or at least three of these electric chillers at once?

What about the electrical wiring of the diesel generators to the electric chillers, how come that isn't even mentioned in the waiver description? Because they don't plan on using any back up power to keep the pools cool, is the only thing I can imagine.

Five days seems like a long time to come up with cables and connectors to hook up onsite generators, but if the onsite diesel back up generators aren't big enough to run the chillers (known to be big energy consumers) then their only stated "defense-in-depth" solution is to resort to fresh-water-once-through-cooling of the spent fuel pools.

If that is indeed their approach, **where does SCE intend on putting the radioactive "hot" pool water that needs to be removed so cool water can be added to cool the spent fuel pools directly?** The ocean seems tempting in an emergency situation, but probably not allowed in any plan approved by the CCC.

From their waiver request, SCE seems too cavalier about having time to jury rig something up in 5 days without grid power. But if they can't provide viable defense-in-depth solutions now, that protects our coastal environment, I doubt they will come up with a viable plan in the "heat of the moment" that doesn't have objectionable environmental impacts.

Although seemingly unprecedented in recent times, it is possible that grid power could become unavailable to the SONGS plant for more than 5 days. A wildfire on Camp Pendleton would be the first possibility that comes to mind or severe damage to the nearby grid infrastructure. During the Ceder Fire of 2003 many parts of San Diego's East County were out of power for weeks. I can think of other possibilities but will omit them for the

sake of brevity.

SCE needs to provide a better solution to the lack of back-up electric chiller power to cool their spent fuel pools, than to state they can just add some water and everything will be fine.

I'd like to mention an earthquake survivability study of the proposed chiller installation and associated piping. Just because the nuclear industry has done SFPI's elsewhere in the country, doesn't mean SCE is immune from the responsibility of designing a spent fuel cooling system capable of enduring a 7.0 earthquake with no interruption in cooling. Eight million people deserve the right to know the NRC and SCE are looking out for our basic safety.

Regardless of electric power issues, if the chiller's heat exchangers become badly earthquake damaged, SCE's only solution will again become once-through-fresh-water-cooling. **What is the lead time on two chiller's heat exchangers if they are so badly damaged by an earthquake that they need to be replaced? Were does SCE plan on putting the removed radioactive "hot" water as they wait for replacement heat exchangers, which could take weeks or months?**

Since SCE is so upfront regarding how the Federal Government takes jurisdiction over the State in issues regarding radiological aspects of the project in their request for a Coastal Development Permit waiver, the CCC should make sure the NRC is paying attention. **Can the CCC formally request that the NRC actively certify that SCE's installed SFPI equipment meets all California acceptable earthquake requirements for critical safety systems including spent nuclear fuel, associated cooling pools and radiological materials?** I hope the CCC does so, and requests that the formal certification report be sent to the CCC once the NRC's certification process is complete. We have seen some very costly mistakes associated with the lax oversight the NRC has provided with this plant's steam generators, lets not allow the NRC to remain asleep at the wheel regarding Southern California's SFPIs.

I respectfully request that the California Coastal Commission ask that above **bold** questions of SCE and the NRC since their answers could impact our delicate coastal environment. It is within your jurisdiction and your responsibility to do so for the good of the California public.

Thank you,

Richard Morgal
13915 Mussey Grade Road
Ramona, CA 92065

760 788-4394

Street, Joseph@Coastal

From: Rick Morgal <rmorgal@wildblue.net>
Sent: Thursday, April 09, 2015 11:53 AM
To: Street, Joseph@Coastal
Subject: Re: Permit NO. 9-15-0162-W Waiver for SCE's Spent Fuel Pool Island

Hello Mr. Street,

Thank you so much for taking the time to review my comments and provide feedback so quickly. I will do what I can to attend the CCC meeting that addresses SCE's SFPI wavier request, if relocated in the Southern California area. Please include my email address on any announcement of the issue's rescheduling.

If I am able to attend a rescheduled meeting, I will be there to request that the CCC ensures that the NRC meets its responsibilities to certify that SCE's installation of the SFPI meets all earthquake standards related to safety critical cooling of nuclear materials.

On a related California Coastal issue, I am especially concerned about the NRC's plans for interim storage of the spent nuclear fuel for up to 160 years on our coast. Current plans are to place this material in 5/8" thin walled stainless steel canisters known to be degraded by the ocean's salt rich air found at SONGS and DCNPP.

I know the CPUC is in the process of allocating $1.3 Billion of DOE money to install these canisters at SONGS in an experimental, partially underground, interim nuclear waste storage facility to be built by Holtec.

It is inconceivable that more than one hundred, 15 foot diameter holes, drilled 15 feet deep at the base of a coastal bluff is going to be allowed by the CCC without some form of mitigation. All this excavation to be filled in with radiation shielding concrete to entomb thin walled canisters that the NRC's own metallurgists state will breech in 30 to 40 years of exposure to the California coast's marine air. But that is just the immediate issue of building a poorly thought out nuclear waste storage system...

Since there is no data on how a partially degraded spent nuclear fuel storage canister would withstand a 7.0 earthquake and no where else to put this waste, the best practice for such a situation would be to re-canister the spent nuclear fuel once every 20 to 25 years (and that is a generous timeline given the unpredictability of salt corrosion on stainless steel).

The infrastructure to support the short lived coastal canister problem described above will require that two spent nuclear fuel re-canistering plants be built on our California coastline. One nuclear waste processing plant located at SONGS and another nuclear waste processing plant located at DCNPP.

Costing the government (citizens) Billions in redundant, mostly idle infrastructure, to process nuclear waste right on the California coastline, less than 1/4 mile from thousands of cars passing by on Interstate 5 at SONGS. All the while, SCE is legally able to collect their 10.4% of the overall cost of the SONGS project.

If this plan is funded by the CPUC and allowed to begin, it will be the nuclear industry's legacy left on our California coast, bestowed to our children and grandchildren to figure out how to clean up. If your position within the CCC provides you with unique insight into how this horrible legacy could be altered, I would appreciate any feedback you could provide or direct action you could initiate.

There are several alternatives that are being explored but most of the explorers are unpaid, concerned citizens

who need time to raise awareness. Any effort the CCC can provide into delaying this flawed plan will help to change its course.

Thank you for your time and efforts,

Rick Morgal
13915 Mussey Grade Road
Ramona, CA 92065
760 788-4394

On Thu, Apr 9, 2015 at 9:23 AM, Street, Joseph@Coastal <Joseph.Street@coastal.ca.gov> wrote:

Dear Mr. Morgal,

Thanks for your comments on the project. Several commenters now have requested that the hearing for this item be moved to a later meeting in Southern California; there's a distinct possibility that this will happen. Commission staff is considering the issue and my supervisors will decide early next week at the latest. At a minimum, staff will inform the Commission that there has been a significant amount of public concern (and will provide the Commission with copies of all the public comments), at which point the Commission itself could decide to postpone the hearing.

Edison will have back-up electric power to support the chillers (and other critical equipment) from on-site diesel generators; two new back-up generators are actually being installed as part of an on-going project to "rewire" the plant's electrical distribution system in preparation for decommissioning. Based on the information provided by SCE, there is sufficient back-up generator capacity to run the chillers as well as other systems. I agree that this information should have been included in the waiver notice and apologize for the omission. SCE has also committed to having back-up heat exchangers on site to allow for rapid replacement (in days rather than weeks to months) in the event of damage to or malfunction of the operating heat exchangers.

Best,

Joe Street

From: Rick Morgal [mailto:rmorgal@wildblue.net]
Sent: Wednesday, April 08, 2015 5:17 PM
To: Street, Joseph@Coastal
Subject: Permit NO. 9-15-0162-W Waiver for SCE's Spent Fuel Pool Island

Hello Mr. Street,

Please allow the issue related to Southern California Edison's (SCE) Coastal Development Permit Waiver for their Spent Fuel Pool Island (SFPI) to be addressed at a California Coastal Commission (CCC) meeting located in Southern California. This is a very serious topic that could have significant impacts to the greater Southern

Street, Joseph@Coastal

From: Donna Gilmore <dgilmore@cox.net>
Sent: Monday, April 13, 2015 10:36 AM
To: Street, Joseph@Coastal
Subject: 4/15 meeting

Has the Edison waiver been rescheduled or is it still on for Wednesday?

That new structure should work in an earthquake and Tsunami and with other corrosion factors. It shouldn't rely on people needing access to fix it, since they may not be able to get near it for numerous reasons, let alone have all the parts needed.

Maybe this item should be combined with the ISFSI system permit, since they have interdependent functions.

Street, Joseph@Coastal

From: Donna Gilmore <dgilmore@cox.net>
Sent: Friday, April 17, 2015 12:45 PM
To: Street, Joseph@Coastal
Subject: spent fuel pool heat up time

Have you see the chart on page 6 regarding heat up time in the pool?
http://www.songscommunity.com/docs/NRCStaffRecommendationEPExemptionRequests.pdf

Exerpted
p. 1 (cover), 5-6 only

POLICY ISSUE
(Notation Vote)

December 17, 2014 SECY-14-0144

FOR: The Commissioners

FROM: Mark A. Satorius
Executive Director for Operations

SUBJECT: REQUEST BY SOUTHERN CALIFORNIA EDISON FOR EXEMPTIONS FROM CERTAIN EMERGENCY PLANNING REQUIREMENTS

PURPOSE:

The purpose of this paper is to seek Commission approval for the staff to grant Southern California Edison's (SCE's) request for exemptions from certain emergency planning (EP) requirements of Part 50, "Domestic Licensing of Production and Utilization Facilities," of Title 10, "Energy," of the *Code of Federal Regulations* (10 CFR). SCE's proposed exemptions would result in elimination of the requirements placed by the U.S. Nuclear Regulatory Commission (NRC) on the licensee for formal offsite radiological emergency plans at the San Onofre Nuclear Generating Station (SONGS) site, but would require the maintenance of certain onsite capabilities to communicate and coordinate with offsite response authorities. This paper does not address any new commitments or resource implications.

SUMMARY:

The EP requirements of 10 CFR 50.47, "Emergency Plans," and Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities," to 10 CFR Part 50 continue to apply to a nuclear power reactor after permanent cessation of operations and removal of fuel from the reactor vessel. There are no explicit regulatory provisions distinguishing EP requirements for a power reactor that has been shut down from those for an operating power reactor.

CONTACTS: Michael Norris, NSIR/DPR
301-287-3754

The staff issued a supplemental RAI to the licensee in an e-mail dated September 10, 2014, "Draft RAI RE: Emergency Planning Exemption Request (TAC Nos. MF 3835, MF 3836, and MF 3837)" (ADAMS Accession No. ML14274A210). In a letter dated October 2, 2014, "Response to Request for Additional Information Regarding Emergency Planning Exemption Request" (ADAMS Accession No. ML14280A265), SCE provided responses to the RAI, which contained information applicable to the radiological dose consequences of potential DBAs and beyond DBAs.

The staff also transmitted a supplemental RAI to the licensee in an e-mail dated September 22, 2014, "San Onofre Nuclear Generating Station, Units 2 and 3, Draft Request for Additional Information" (ADAMS Accession No. ML14274A213). In a letter dated October 6, 2014, "Response to Request for Additional Information Proposed Exemptions from Certain Portions of 10 CFR 50.47 and Appendix E" (ADAMS Accession No. ML14282A021), SCE provided responses to the RAI, which contained information applicable to the SFP inventory makeup strategies for mitigating the loss-of-water inventory. The information provided by SCE included justifications for each requested exemption. Note that this document is withheld from public release as it contains security-related information.

By letter dated October 7, 2014, "Response to Request for Additional Information Regarding Emergency Planning Exemption Request" (ADAMS Accession No. ML14287A228), the licensee corrected a factual error in its October 2, 2014, RAI response. The licensee stated that the error did not change the conclusions stated in the relevant paragraph of the October 2, 2014, RAI response.

In an e-mail dated October 8, 2014, "Request for Clarification of October 6, 2014 RAI Response Concerning Proposed Exemption from Certain EP Requirements (TAC Nos. MF 3835, MF 3836, and MF 3837)" (ADAMS Accession No. ML14296A469), the staff requested a clarification of the two items in the licensee's October 6, 2014, RAI response. By letter dated October 27, 2014, "Response to Request for Clarification of October 6, 2014 RAI Responses Concerning Emergency Planning Exemption Request San Onofre Generating Station, Units 1, 2, 3 and ISFSI" (ADAMS Accession No. ML14303A257), SCE provided a response, which contained additional information applicable to their SFP makeup and spray strategies.

In Enclosure 1 to the March 31, 2014, letter, SCE provided the accident analyses associated with DBAs and beyond DBAs as a basis for justifying the request for approval of the SONGS Permanently Defueled Emergency Plan. SCE's exemption request included radiological analyses to show that the radiological consequences of DBAs will not exceed the limits of the EPA PAGs at the exclusion area boundary. Additionally, SCE performed analyses for loss of SFP inventory events, including an event that has uncovered spent fuel with no cooling. In the unlikely event that no cooling of the spent fuel is possible, the analysis showed that more than 10 hours would be available from the time the fuel is uncovered until it reaches a temperature of 900 degrees Celsius (C) to initiate mitigative actions consistent with plant conditions and, if necessary, for offsite authorities to employ their CEMP to take protective actions.

The staff requested further clarification for the adiabatic heatup time in its September 22, 2014, RAI request, specifically for SCE to provide the actual time to heat up to 900 degrees C relative to a specific date after the reactors were shut down. In its October 6, 2014, RAI response, SCE provided the following further analysis of uncovered spent fuel with no cooling through 2016:

DATE	Decay Time (months)	Heat-up Time to 565°C (hours)	Heat-up Time to 900°C (hours)
October 12, 2014	33	10.7	17.8
February 12, 2015	37	12.0	20.0
June 12, 2015	41	13.4	22.3
December 12, 2015	47	15.4	25.6
June 12, 2016	53	17.3	28.7
December 12, 2016	59	19.0	31.6

These results show the time to reach 565 degrees C, which is the lowest temperature at which incipient cladding failure may occur and is below the temperature at which exothermic cladding oxidation may begin adding significant heat, is already also greater than 10 hours. Therefore, the results also demonstrate that, in the event ample air is available for cladding oxidation, the extra heat produced by cladding oxidation could not result in heat up times to 900 degrees C of less than 10 hours.

In addition, the significant decay of short-lived radionuclides that has occurred since the January 2012 shutdown provides assurance in other ways. As indicated by the results of research conducted for NUREG-1738 and more recently, for NUREG-2161, "Consequence Study of a Beyond-Design-Basis Earthquake Affecting the Spent Fuel Pool for a U.S. Mark I Boiling Water Reactor" (ADAMS Accession No. ML14255A365), while other consequences can be extensive, accidents from SFPs with significant decay time have little potential to cause offsite early fatalities, even if the formal offsite radiological EP requirements were relaxed.

As noted above, SCE furnished information concerning its SFP inventory makeup strategies to supplement its exemption request. The multiple strategies for providing makeup to the SFP include: using existing plant systems for inventory makeup; an internal strategy that relies on installed fire water pumps (two motor-driven and one diesel-driven) and service and firewater storage tanks; or an external strategy that uses portable pumps to initiate makeup flow into the SFPs through a seismic standpipe and standard fire hoses routed either over the SFP's edge or to a spray nozzle. The portable pumps consist of a skid-mounted pump that is capable of delivering 500 gallons per minute (GPM) and a trailer-mounted pump capable of delivering 2,500 GPM. SCE further provides that designated on-shift personnel are trained to implement such strategies and that they have plans in place to mitigate the consequences of an event involving a catastrophic loss-of-water inventory concurrently from the SFPs of both Units 2 and 3. SCE estimates that it would take approximately 55 minutes to deliver flow to one pool, with an additional 35 minutes to provide water to the second pool without relocation of the trailer-mounted pump. Relocation of the trailer-mounted pump, if required, would take approximately 30 additional minutes.

In a letter dated October 1, 2014, "Docket Nos. 50-361 and 50-362 Supplement I to Amendment Applications 266 and 251 Permanently Defueled Technical Specifications San Onofre Nuclear Generating Station, Units 2 and 3" (ADAMS Accession No. ML14280A264), SCE withdrew the proposed changes to the Mitigating Strategies License Condition for Units 2 and 3 (2.C(26) for

Street, Joseph@Coastal

From: Donna Gilmore <dgilmore@cox.net>
Sent: Tuesday, April 28, 2015 9:40 AM
To: Street, Joseph@Coastal
Subject: Fwd: San Onofre - Event Report - exceeding the daily maximum parts per million (ppm) of oil and grease in the North Industrial Area Yard Drain Sump

FYI

Power Reactor	Event Number: 51018
Facility: SAN ONOFRE Region: 4 State: CA Unit: [ ] [2] [3] RX Type: [1] W-3-LP,[2] CE,[3] CE NRC Notified By: CHET W. JOZWIAK HQ OPS Officer: DONG HWA PARK	Notification Date: 04/27/2015 Notification Time: 18:56 [ET] Event Date: 04/27/2015 Event Time: 15:27 [PDT] Last Update Date: 04/27/2015
Emergency Class: NON EMERGENCY 10 CFR Section: 50.72(b)(2)(xi) - OFFSITE NOTIFICATION	Person (Organization): GEOFFREY MILLER (R4DO)

Unit	SCRAM Code	RX CRIT	Initial PWR	Initial RX Mode	Current PWR	Current RX Mode
2	N	N	0	Defueled	0	Defueled
3	N	N	0	Defueled	0	Defueled

Event Text

OFFSITE NOTIFICATION TO LOCAL AGENCY

Notification was made to the San Diego Regional Water Quality Control Board, and a message was left for exceeding the daily maximum parts per million (ppm) of oil and grease in the North Industrial Area Yard Drain Sump. Sump pumps are currently in "OFF" and the site is investigating. The oil in the drain sump did not reach "reportable quantities" and did not require notifying other Federal Agencies.

Street, Joseph@Coastal

Donna Gilmore
RE: Nuclear Power Plants, 15-IEPR-12, California Coastal Commission SCE Waiver of Coastal Development Permit Requirements

From: Donna Gilmore [mailto:dgilmore@cox.net]
Sent: Thursday, May 07, 2015 12:38 PM
To: Street, Joseph@Coastal
Subject: Re: Nuclear Power Plants, 15-IEPR-12, California Coastal Commission SCE Waiver of Coastal Development Permit Requirements

Tom Palmisano mentioned there were a number of plants using chillers to cool spent fuel pools. When I asked him which ones, he couldn't think of any names. He was suppose to get back to me on this, but never did. Maybe you'll have better luck getting the information. It would be good to know that this isn't an experimental concept of cooling "hot" spent nuclear fuel with chillers.

Did you ever get the maintenance requirements for this system? Or the rated lifespan of this system in a coastal environment under the conditions being used, and something that needs to run basically 24x7 with a high cooling demand?

Did you receive any technical specifications for the chillers and pumps and steel piping. I know from my research steel piping near the ocean is very corrosive. It would be good to know how thick this is and how it's protected from the elements.

Is it really OK allow this to fail in an earthquake? What parts might fail? Will they have replacement parts for all of them? What if they cannot get to the site due to road damage, etc?

It would still be desirable to have this issue moved to the Newport Beach meeting. It is a hardship for many of us to travel that distance. Please move this issue to the Newport Beach meeting. What is the down side to changing the meeting location vs. the benefit to the public most affected and most interested in this issue?

Since it's been so difficult to get information from Edison, maybe more time would also allow us to obtain the information we need so we can have some level of confidence that this is a good decision. We don't need another experimental system in Southern California. Our coastal environment is a precious resource that deserves the most cautious approach. Given Edison's track record, the local residents do not have confidence we can trust Edison to make the best decisions. I know they stated they will save money and be able to eliminate positions with this new system. However, that money will disappear quickly, if this system fails. I am glad they are exploring options to the once-through cooling. However, we do not have enough information to ensure the reliability and redundancy of this proposed system.

Thanks,
Donna Gilmore
SanOnofreSafety.org

Street, Joseph@Coastal

From: Mary Beth Brangan <marybeth@eon3.net>
Sent: Thursday, May 07, 2015 5:24 PM
To: Street, Joseph@Coastal
Subject: request to postpone agenda item

Dear Mr. Street,

I'm writing to request that the issue of the spent fuel pool chiller system permit waiver be moved from May 14th Santa Barbara Coastal Commission meeting to the Newport Beach meeting scheduled for June 10-12.

Hopefully, by June 10 we'll have more information on this issue and more local residents affected by this decision will be able to be there.

Thanks,

Mary Beth Brangan

EON
The Ecological Options Network
"Media working for Another World"
www.eon3.net EON3emfBlog.net
EON's YouTube Channel
PlanetarianPerspectives.net

Street, Joseph@Coastal

From: Donna Gilmore <dgilmore@cox.net>
Sent: Friday, May 08, 2015 11:49 AM
To: Street, Joseph@Coastal
Subject: Re: Nuclear Power Plants, 15-IEPR-12, California Coastal Commission SCE Waiver of Coastal Development Permit Requirements

People from other cities have said they cannot find information on the CCC website about this item or what day it will be heard. Will it be the 14th of May if it's in Santa Barbara? Isn't there some way the website can be improved to include these items on the website agenda and sooner? I don't mind helping to communicate this information to people, but it would sure make more sense if it was available on the CCC website with all the background material. If there is time to mail out these notices, then there should be plenty of lead time to add the same information to the website. Do you know the reason this is not being done?

Thanks,
Donna

On 5/7/2015 1:02 PM, Street, Joseph@Coastal wrote:

> Donna,
>
> The only technical specifications and maintenance requirements I received from SCE were those in the appendices to SCE's response to your original questions. As part of their project, SCE has committed to daily inspections of system components, and to having replacement parts on hand in the event that one or more components needs replacement. SCE has also stated that the cooling system will be built in conformance with the California Building Code, which includes seismic specifications. This is no absolute guarantee that the system or some portion of the system will not fail during an earthquake, but it is one statewide standard to which industrial projects are held. As stated above, Edison committed to having replacement parts available, and provided an estimate of the initial response window (~5 days before the water in the pools would approach the boiling point) they would have to work with in the event that the cooling system was damaged or malfunctioned. Edison also has a set of measures in place (including scenarios with and without back-up power) for providing additional cooling water to the spent fuel pools in the event of a total cooling system failure. These are the same measures that would be in place if the pools remained on the once-through seawater cooling system. The proposed project was to *add* a cooling system, so that is what we evaluated, within the limits of our authority. As you know, we are excluded from making findings on or imposing conditions related to nuclear safety.
>
> With regard to the hearing venue, we made a compromise between the desires of an eager applicant and the three public commenters requesting a Southern California location, of whom you are the apparent leader. In a previous communication, you had indicated that you would be able to attend a hearing in Santa Barbara. That being said, the location of the hearing is a legitimate concern, and staff will communicate this concern to the Commission. Assuming that you will be attending the hearing, I also encourage you to address the Commission on this issue yourself.
>
> All of your written comments on the project, including both the substance and with regard to the hearing venue, are being provided to the Commissioners as an addendum to the waiver notice.
>
> Best,

Street, Joseph@Coastal

From: Donna Gilmore <dgilmore@cox.net>
Sent: Friday, May 08, 2015 4:33 PM
To: Street, Joseph@Coastal
Subject: Re: SCE's response to your 3/9/15 list of questions

Thanks. I'll research this, but in the way they worded it the "concept of spent fuel pool cooling island" is different than saying "what spent fuel pool islands are using chillers". I suspect most of the others are using cooling towers. This will take me awhile to research, but the question was not directly answered. A simple answer would be to list which plants are using chillers to cool their pools.

> **A**: No, this technology is not experimental. It is a simple water cooling system that is commonly used in energy and industrial applications. The proposed system consists of a commercially available chilled water system along with pumps and heat exchangers that are similar to the existing system. The concept of a Spent Fuel Pool cooling island has also been used at other plants in decommissioning, including Big Rock Point, Trojan, Connecticut Yankee, Millstone 1, Maine Yankee, Yankee Rowe and Zion.

On 5/8/2015 3:13 PM, Street, Joseph@Coastal wrote:

> Attached are SCE's written responses to your questions from 3/9/15 and 3/10/15, and to my questions from 3/9/15 and 3/26/15.
>
> Joseph Street, Ph.D
> California Coastal Commission
> Energy, Ocean Resources & Federal Consistency Division
> 45 Fremont St. Suite 2000
> San Francisco, CA 94105
> (415) 904-5249
> joseph.street@coastal.ca.gov

Street, Joseph@Coastal

From: Donna Gilmore <dgilmore@cox.net>
Sent: Sunday, May 10, 2015 4:44 PM
To: Street, Joseph@Coastal
Subject: San Onofre cooling systems and chiller waivers 9-15-0417-W and 9-15-0162-W

I have continued to research spent fuel pool cooling using water chillers, but have not found information. This 2012 IAEA report only lists cooling towers and once through cooling as options for cooling spent fuel pools.

IAEA Technical Reports: Efficient Water Management in Water Cooled Reactors, No. NP-T-2.6, November 5, 2012

http://www-pub.iaea.org/MTCD/Publications/PDF/P1569_web.pdf

The only other system it mentions is a new type in Switzerland. Here's a presentation on the Switzerland system. It provides requirements for a robust cooling system, particularly after Fukushima. You might find these requirements useful.
https://www.iaea.org/OurWork/ST/NE/NEFW/Technical-Areas/NFC/documents/spent-fuel/TM-45455/Agenda-14-SWITZERLANDExternalspent_fuel_storage_facility_at_NPP_Goesgen_Switzerland.pdf

The IAEA report also has a number of references to Diablo Canyon and other U.S. nuclear power plants and some interesting facts and suggestions for reducing water consumption at nuclear power plants. It also discusses various toxic chemicals, so you may find this document useful for other purposes.

Chillers are used at nuclear plants for air conditioning. They are referred to as "nuclear grade" chillers -- a higher standard than the commercial grade that you referenced.

Also I received the new Waiver notice (9-15-0417-W) in the mail (dated 10/4/2015). I didn't realize this was for a different chiller system and other changes. It appears these two waivers are interdependent, so I can understand why you would want to approve them at the same meeting. However, I have additional unanswered questions, in addition to my other correspondence.

Regarding the various impacts within the jurisdiction of the Coastal Commission, are the lack of impacts you state in these waivers based on the assumption that Edison will be able to meet it's promises of timely repairs, considering all the various degradation and other failure mechanisms? What are the consequences if they do not in terms of the potential impacts within the jurisdiction of the Coastal Commission?

I would like to request these waiver issues be moved to the June Newport Beach meeting. This provides us more time to research and prepare comments. Edison has been slow to provided requested information. This is another reason for needing more time. And requiring citizens most affected by these decisions to travel from South Orange County and San Diego County to/from Santa Barbara (over 6 to 8 total driving time), is an undue hardship. I am not aware of any legal or other critical deadlines that would offset the hardship to those citizens most affected by this decision. The Coastal Commission's own website states the following:

The Commission meets once a month in different locations of the State in order to facilitate public participation. Staff attempts, whenever possible, to schedule matters for hearings that will be relatively close to the location of a proposed development. However, legal deadlines for action may require that the hearing on an item take place in a different area than the proposed project.

Thank you,
Donna Gilmore
SanOnofreSafety.org
949-204-7794

Street, Joseph@Coastal

From: Marni Magda <marnimagda@gmail.com>
Sent: Sunday, May 10, 2015 4:46 PM
To: Street, Joseph@Coastal
Subject: Delay spent fuel pool decision on San Onofre until Newport Beach meeting June 10-12

Dear Coastal Commission,
Please delay your agenda item about SCE change in the cooling system for San Onofre spent fuel pools until the Newport Beach meeting June 10-12 where we can expect more people concerned about the issue in their neighborhood to attend.
Thank you.
Marni Magda

Street, Joseph@Coastal

From: Ace Hoffman <rhoffman@animatedsoftware.com>
Sent: Sunday, May 10, 2015 6:43 PM
To: Street, Joseph@Coastal
Subject: Request change of venue/date for SanO SFP meeting now scheduled for Santa Barbara CCC meeting...

Dear Sir,

It is not easy for my wife and I to travel these days, what with our various cancer treatments/doctor appointments (we are both cancer survivors) and busy work schedules.

An upcoming meeting regarding proposed changes to San Onofre's spent fuel pools is scheduled for May 14, 2015 in Santa Barbara, which is too far to drive except maybe on a Friday afternoon, if my wife can take the time off (we have friends nearby we could stay with after the meeting).

But we would be able to attend a meeting in Newport Beach some time during the June 10-12 meeting much easier.

I know of a number of people who would like the meeting on the spent fuel pool changes moved, but apparently SoCal Edison feels they need to rush this project, even while numerous activists look into what few details have been provided.

The impact locally is far greater than the impact would be in Santa Barbara from any accident involving San Onofre's spent fuel pools, so this issues deserves local attention especially and local activists should not be inconvenienced by having to travel all the way to Santa Barbara to attend the meeting.

Please let me know if the issue is going to be moved to the Newport Beach meeting.

Thank you in advance for your attention in this matter. I look forward to hearing from you.

Ace Hoffman
Carlsbad, CA

Ace Hoffman, computer programmer,
author, The Code Killers:
An Expose of the Nuclear Industry
Free download: acehoffman.org
Blog: acehoffman.blogspot.com
YouTube: youtube.com/user/AceHoffman
Phone: (760) 720-7261
Address: PO Box 1936, Carlsbad, CA 92018 Subscribe to my free newsletter today!
Email: ace [at] acehoffman.org
To unsubscribe:
Send "Unsubscribe" in subject line.

Street, Joseph@Coastal

From: Jeff Steinmetz <jeffmsteinmetz@yahoo.com>
Sent: Sunday, May 10, 2015 7:18 PM
To: Street, Joseph@Coastal
Subject: Location of San Onofre permit waiver meeting

Hello Joseph,

As the person whom first informed you that chillers can use harsh chemicals I was very disappointed to learn the coastal commission has scheduled this meeting in a location that does not allow me to travel and participate in the meeting.

Please move the decision on the Southern California Edison Coastal Development Permit Waivers (9-15-0417-W and 9-15-0162-W) from the May 14 Santa Barbara meeting to the June Newport Beach meeting.

It will take me over 3 hours one way from San Clemente to participate in this meeting that will address important issues local to San Clemente and NOT SANTA BARBARA! given the length of time and starting time of the meeting, this is an undue hardship for the people most impacted by these decisions. There doesn't appear to be any significant reason or legal deadline to justify this hardship.

The Coastal Commission website states:
The Commission meets once a month in different locations of the State in order to facilitate public participation. Staff attempts, whenever possible, to schedule matters for hearings that will be relatively close to the location of a proposed development. However, legal deadlines for action may require that the hearing on an item take place in a different area than the proposed project.

If the California Coastal Commission (CCC) is going to eliminate local public participation in a meeting then they should be obligated to provide/cite the "legal deadlines" for doing so. The CCC has not done this, and is thus risking further delays should any legal action be taken.

Thank you for your consideration,

Jeff Steinmetz
San Clemente resident.

Sent from my iPad

Street, Joseph@Coastal

From: Dorah Rosen Shuey <dorahbee@comcast.net>
Sent: Sunday, May 10, 2015 8:21 PM
To: Street, Joseph@Coastal
Subject: Request to move SCE San Onofre meeting items to the June meeting

Dear Joseph Street & CA Coastal Commission:

I am writing to respectfully request that items concerning the San Onofre nuclear plant's cooling towers, spent fuel pools etc. be changed to the agenda for the June Commission meeting.

That way it will be easier for people who actually live close to San Onofre to attend the meeting because it is in a nearby location. It really makes more sense to have agenda items that are relevant to the citizens in that location.

Please do change the San Onofre agenda items to the June meeting so that more people who live around San Onofre can participate.

Sincerely,
Dorah Rosen Shuey

Street, Joseph@Coastal

From: Jif John Massey <jifmassey@gmail.com>
Sent: Monday, May 11, 2015 7:55 AM
To: Street, Joseph@Coastal

Dear Sir,

Please move the decision on the Southern California Edison Coastal Development Permit Waivers (9-15-0417-W and 9-15-0162-4) from the May 14 Santa Barbara meeting to the June 10-12 Newport Beach meeting.

Sincerely,

Jenifer & John Massey, 211 W. Avenida Valencia, San Clelmente, CA 92672

Street, Joseph@Coastal

From: Rick Morgal <rmorgal@wildblue.net>
Sent: Monday, May 11, 2015 8:30 AM
To: Street, Joseph@Coastal
Subject: SONGS Spent Nuclear Fuel Cooling Pool Waiver

Hello Joe,

I just realized the June California Coastal Commission is in Newport Beach. That is quite a bit closer to San Onofre that Santa Barbara, eliminating a drive through LA. SCE is based in Northern Los Angeles County and their employees get paid for transportation to and from any work related meeting.

Concerned members of the public are not paid for any of the time they put into learning the issues or preparing to speak. There is no "Safe San Onofre Trust Fund" that will pay for my gas or time to get to Santa Barbara, including an overnight to be fresh during the meeting. If that fund exists please let me know about it.

If it were possible to reschedule the CCC meeting until the June Newport Beach it would sure make the commute a lot easier for folks who are concerned, including myself.

Thank you for the consideration,

Rick Morgal
13915 Mussey Grade Rd
Ramona, CA 92065
760 788-4394

Street, Joseph@Coastal

From: Ron Rodarte <ronrodarte@gmail.com>
Sent: Monday, May 11, 2015 12:11 PM
To: Street, Joseph@Coastal
Subject: Unjustifiable Logistical Hardship Assigned at Santat Barbara - Change Locale to Newport Beach!

To: Coastal Commission
Joseph Street

The many concerned stakeholders in the SONGS spent fuel cooling system waivers issue, see an unjustifiable assignment of hardship in the May 12 Santa Barbara Coastal Commission venue.

Why on Earth are the most important stakeholder discussions regarding San Onofre slated for a meeting a full 160 miles distant?

A drive to Santa Barbara is a messy, time consuming and wasteful drive that should never be assigned to public access meetings. The reality in this unjustifiable hardship is 8 hours of driving a commute in even the best of traffic conditions!

How much gas is being burned per car, per public attendee, and per carpool vehicle that must risk travel on the highways on a 320 mile round-trip voyage?

The mileage is an outrage, the carbon footprint is an outrage, our individual safety is of concern, and the cost of the fuel expenses demanded is an outrage!

We, as a body of concerned citizenry, strongly urge the Coastal Commission to change the locale of the currently scheduled May 14th meeting in Santa Barbara to the more accessible and more reasonable venue of the June 10-12th Newport Beach meeting.

Think of the safety of the public attendees, the cost of fuel savings, the carbon offset in changing to Newport Beach, and the more intelligent commentary expected from a citizenry that is not exhausted from a one-day 320 mile commute.

Change the date and location of the Permit Waivers decision meeting to June 10-12 at Newport Beach.

It is the duty of a public service to promote safety, fuel economy and carbon reduction as is possible.

This request to change the date and locale accomplishes that goal and the goal of enhanced public attendance and participation on our Democratic process within the purview of the California Coastal Commission.

Sincerely,

Ron Rodarte
Green Party of Orange County

27021 Mill Pond Road
Capistrano Beach, CA 92624

Street, Joseph@Coastal

From: torgen johnson <torgen2@hotmail.com>
Sent: Monday, May 11, 2015 1:02 PM
To: Street, Joseph@Coastal
Subject: Request moving San Onofre agenda items to Newport Beach Coastal Commission June meeting

To: Joseph Street, California Coastal Commission

Subject: **Request to move Southern California Edison San Onofre agenda items to Newport Beach meeting**

Dear Joseph Street:

Please move the decision on the Southern California Edison Coastal Development Permit Waivers (9-15-0417-W and 9-15-0162-W) from the May 14 Santa Barbara meeting to the June Newport Beach meeting.

These Coastal Development Permit Waivers are for major changes to the San Onofre spent fuel cooling systems, air cooling systems and the ocean discharge systems in an extreme seismic zone. The proposed project entails significant construction on the coast that, while intended to reduce the impact to the marine environment, may have regional negative impacts to the marine environment and public access to beaches should Edison's experimental cooling proposal not function as designed. The public has serious concerns about the regulatory oversight of Edison's San Onofre facility based on the ongoing fiasco with the Edison's steam generator failures. The Nuclear Regulatory Commission and the California Public Utilities Commission failed to regulate strongly in the public interest.

It is the California Coastal Commission's jurisdiction to protect the coastal marine environment and the public's access to the State's beaches. It is reasonable to demand that Southern California Edison clearly demonstrate that its proposed project will not adversely effect in any way or at anytime, the public's use of the beaches in and around San Onofre should their proposed spent fuel pool cooling project fail to perform as intended.

The 1,631 tons of spent nuclear fuel stored at San Onofre is 89 times the amount of radiation released in the Chernobyl nuclear accident.

http://libcloud.s3.amazonaws.com/93/22/3/3024/SONGS_Spent_Fuel_FINAL.pdf

Given the above fact is seem unconscionable that the California Coastal Commission would minimize or diminish the importance of the public's participation in any decision that affects the spent nuclear fuel stored on the coastline in N. San Diego County at San Onofre. Holding the Coastal Commission meeting almost 200 miles away from the citizens of San Diego and Orange Counties is a huge disservice to the communities that border on this immense nuclear fuel dump. The Coastal Commission's public meeting, discussion, and public input should occur close to the proposed project and be as transparent and open to public comment as possible.

The Coastal Commission website states:
The Commission meets once a month in different locations of the State in order to facilitate public participation. Staff attempts, whenever possible, to schedule matters for hearings that will be relatively close to the location of a proposed development. However, legal deadlines for action may require that the hearing on an item take place in a different area than the proposed project.

When I design homes in the Coastal Zone, the impacts are potentially minimal yet a waiver is not guaranteed. In contrast, the reconfiguration of San Onofre's spent fuel pools cooling system represents a significant change to regionally critical infrastructure. Failure of the pools to function properly at any time can potentially impact the coastline, denying public access and use of beaches for miles from the power plant. Southern California Edison should not be granted a Coastal Development Permit Waiver without proving to the public that long term storage of the spent fuel in pools cooled by an experimental cooling system in an active seismic zone, can guarantee that the public never experiences any loss of access or use of our beaches.

Again the public asks you to please move the decision on the Southern California Edison Coastal Development Permit Waivers (9-15-0417-W and 9-15-0162-W) from the May 14 Santa Barbara meeting to the June Newport Beach meeting so that the California Coastal Commission public input process can function as intended.

Sincerely,

Torgen Johnson

Solana Beach, CA

CALIFORNIA COASTAL COMMISSION
45 FREMONT, SUITE 2000
SAN FRANCISCO, CA 94105- 2219
VOICE AND TDD (415) 904- 5200
FAX (415) 904- 5400

Th 8

ENERGY, OCEAN RESOURCES, AND FEDERAL CONSISTENCY DIVISION REPORT

FOR THE

MAY 14, 2015 MEETING OF THE CALIFORNIA COASTAL COMMISSION

TO: Commissioners and Interested Parties

FROM: Alison Dettmer, Deputy Director
Energy, Ocean Resources & Federal Consistency

IMMATERIAL AMENDMENT		
APPLICANT	PROJECT	**LOCATION**
E-11-017-A2 Pacific Gas and Electric Company	Recovery and removal of four (4) ocean bottom seismometer (OBS) and an associated power and data cable within the coastal zone offshore of the Diablo Canyon Power Plant.	Diablo Canyon Power Plant San Luis Obispo County

DE MINIMIS WAIVERS		
APPLICANT	APPLICANT	APPLICANT
9-15-0162-W Southern California Edison Company	Install an independent cooling system known as a "Spent Fuel Pool Island" (SFPI) to replace the existing once-through cooling system at SONGS Units 2&3.	San Onofre Nuclear Generating Station (SONGS) San Diego County
9-15-0417-W Southern California Edison Company	Replace SONGS current salt water cooling pumps with smaller dilution pumps, install two (2) chillers that are not dependent on ocean water cooling, and reroute effluent discharge pipes.	San Onofre Nuclear Generating Station (SONGS) San Diego County
9-15-0431-W Montecito Water District	Use non-invasive geophysical survey techniques along the shoreline and nearshore waters in Montecito using geophone arrays to determine the feasibility of siting a subsurface intake for seawater desalination.	Montecito, Santa Barbara County

9-15-0436-W Southern California Edison Company	Extend the project life of two (2) temporary seawater pumps installed on a boat ramp at the University of Southern California Wrigley Institute.	Wrigley Institute for Environmental Studies Santa Catalina Island, Los Angeles County

NO EFFECTS DETERMINATIONS		
APPLICANT	PROJECT	**LOCATION**
NE-0001-15 SANDAG	Elvira to Morena Double-Track Project Action: **No effects, 4/22/2015**	East of La Jolla San Diego
NE-0002-15 San Diego Yacht Club	Disposal of 10,690 cu. yds. of dredge material Action: **No effects, 5/7/2015**	LA-5 Offshore Disposal Site Offshore San Diego

NEGATIVE DETERMINATIONS		
APPLICANT	PROJECT	**LOCATION**
ND-0005-15 U.S. Coast Guard	Install security fencing Action: **Concur, 4/30/2015**	Coast Guard Stations in Inverness (Point Reyes) and Bolinas, Marin County
ND-0007-15 National Park Service	Sacramento Landing Pier Repair in Fuel Line Installation Action: **Concur, 5/7/2015**	Tomales Bay, Pt. Reyes National Seashore, Marin Co.
ND-0008-15 U.S. Coast Guard	Pier Repairs Action: **Concur, 5/8/2015**	Coast Guard Station Monterey
ND-0009-15 Department of the Navy	Northwest Training and Testing (NWTT) Activities Action: **Object, 4/28/2015**	Offshore Humboldt and Del Norte Counties, Northern California
ND-0011-15 U.S. Fish and Wildlife Service	White Slough Tidal Restoration Project Action: **Concur, 5/1/2015**	Humboldt Bay National Wildlife Refuge Humboldt County

ND-0012-15 U.S. Army Corps of Engineers	Breakwater Repairs Action: **Concur, 4/23/2015**	Los Angeles-Long Beach Harbors
ND-0014-15 Department of Veterans Affairs	Construction of Mental health and Community Living Center Facilities Action: **Concur, 4/23/15**	VA Medical Center Long Beach, Los Angeles Co.

CALIFORNIA COASTAL COMMISSION
ENERGY, OCEAN RESOURCES AND FEDERAL CONSISTENCY DIVISION
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NOTICE OF PROPOSED IMMATERIAL PERMIT AMENDMENT

Coastal Development Permit Amendment No. **E-11-017-A2**

April 30, 2015

To: All Interested Parties

From: Charles Lester, Executive Director

Subject: Coastal Development Permit No. **E-11-017** granted to **Pacific Gas & Electric Co.** for: installation and operation of an array of short- and long-term seismic activity monitoring devices (ocean bottom seismometers) on the seafloor and approximately 11 miles of associated power and data cable within the coastal zone offshore of the Diablo Canyon Power Plant, San Luis Obispo County.

Project Site: OCEAN WATERS OFFSHORE OF THE DIABLO CANYON POWER PLANT, SAN LUIS OBISPO COUNTY

The Executive Director of the California Coastal Commission has reviewed a proposed amendment to the above referenced permit, which would result in the following change(s):

> Recovery and removal of a long-term offshore seismic monitoring array consisting of four ocean bottom seismometer (OBS) units and an associated 11 mile long power and data cable and recovery and redeployment of a temporary offshore seismic monitoring array consisting of four un-cabled OBS units from the seafloor offshore of the Diablo Canyon Power Plant.

FINDINGS

Pursuant to 14 Cal. Admin. Code Section 13166(b) this amendment is considered to be IMMATERIAL and the permit will be amended accordingly if no written objections are received within ten working days of the date of this notice. If an objection is received, the amendment must be reported to the Commission at the next regularly scheduled Commission hearing. This amendment has been considered "immaterial" for the following reason(s):

The long-term seismic monitoring array that is proposed to be removed was authorized by the Commission in CDP No. E-11-017 and installed in November of 2013. This array was placed primarily in areas of soft substrate seafloor offshore of the Diablo Canyon Power Plant. The ten square foot ocean bottom seismometer (OBS) units and roughly two-inch diameter cable were placed on the seafloor and not buried. Although intended to be operational for approximately ten years, shortly after installation, data transmission from the array's long-term OBS units ceased. Shortly thereafter, PG&E received from the Commission CDP Amendment No. E-11-017-A1 for the installation

of four un-cabled temporary OBS units in areas near the previously installed non-operational units. PG&E is now proposing to recover and redeploy the temporary OBS units (after battery replacement and data download) and to remove the non-operational OBS array. Three of the temporary OBS units would be redeployed in the same locations and one would be moved approximately one mile to its initially intended installation site (a post-installation survey revealed that it had been installed in the wrong location). PG&E is also proposing to recover and remove the long-term OBS units and associated cable. Special Condition 3 of CDP No. E-11-017 requires PG&E to obtain a permit amendment for removal of the long-term monitoring array.

Recovery of the unburied OBS units and cable would be carried out from a surface vessel using a cable winch. OBS units will be prepared for recovery through the use of surface floats and a video enabled remotely operated underwater vehicle (ROV). Project activities are expected to be completed within approximately six to eight days.

PG&E would implement the following measures to ensure that adverse impacts to marine resources are avoided: (1) recovery operations will be carefully monitored by project personnel to ensure no snagging or damage of seafloor features occurs; (2) a qualified marine wildlife monitor, approved by the National Oceanic and Atmospheric Administration, will be onboard the project vessel throughout the period of the vessel transit and OBS retrieval. This monitor will be positioned on the vessel so that he/she will have a clear view of the area of ocean that is in the direction of the course of travel in order to observe marine mammals/turtles and to institute measures to avoid potential collisions with marine mammals; (3) the vessel will maintain a minimum distance of at least 100 m (330 ft.) from marine wildlife to minimize the chance of collision or disturbance; (4) all operations will be completed during daylight to maximize marine wildlife observations and the institution of other mitigation measures; (5) the onboard marine wildlife monitor shall observe and record the presence of marine wildlife (mammals and reptiles) during the retrieval of the OBS units and shall have the authority to advise changes in operations if the actions are resulting in potentially significant impacts to the wildlife, if those actions will not jeopardize vessel or crew safety; and (6) a post project survey will be carried out using an ROV and a survey report will be developed and submitted to Commission staff for review. Based on the implementation of these measures, the project is not expected to have an adverse impact to coastal resources.

If you have any questions about the proposal or wish to register an objection, please contact Cassidy Teufel at the phone number provided above.

cc: Commissioners/File

CALIFORNIA COASTAL COMMISSION
45 FREMONT, SUITE 2000
SAN FRANCISCO, CA 94105- 2219
VOICE AND TDD (415) 904- 5200
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NOTICE OF COASTAL DEVELOPMENT PERMIT DE MINIMIS WAIVER

DATE: April 27, 2015 **PERMIT NO. 9-15-0162-W**

TO: Coastal Commissioners and Interested Parties

SUBJECT: Waiver of Coastal Development Permit Requirements

Based on the plans and information submitted by the applicant for the development described below, the Executive Director of the Coastal Commission hereby waives the requirements for a coastal development permit (CDP), pursuant to Section 30624.7 of the California Coastal Act.

Applicant(s): Southern California Edison Company
1218 South 5th Ave.
Monrovia, CA 91016

Project Background: Southern California Edison Company (SCE) proposes to install an independent cooling system to serve the existing spent fuel pools at Units 2 and 3 of the San Onofre Nuclear Generating Station (SONGS), near Camp Pendleton, in San Diego County. The proposed "spent fuel pool island" (SFPI) system is a stand-alone cooling system that would dissipate the heat generated by spent nuclear fuel submerged in large pools inside the SONGS spent fuel handling buildings. The SFPI system would allow the spent fuel pools to be isolated from the existing once-through-cooling system, which depends on the intake of seawater from the Pacific Ocean. The proposed project represents a preliminary step in the decommissioning of SONGS Units 2 and 3, and would provide an alternate system for spent fuel cooling while eliminating the plant's use of ocean cooling water, consistent with the State of California's Once-Through Cooling Water Policy.[1]

SCE permanently ceased operation of SONGS Units 2 and 3 in June 2013 and has begun the process of plant decommissioning. Prior to initiating formal decommissioning activities, which include the decontamination and dismantling of major structures (e.g., generating units and containment buildings, spent fuel pools and buildings, cooling water intake and discharge conduits, etc.), SCE must undertake several preliminary projects to enable decommissioning to proceed.

[1] Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling, effective Oct. 1, 2010. http://www.waterboards.ca.gov/water_issues/programs/ocean/cwa316/policy.shtml

SCE has stated that the proposed SFPI system would facilitate plant decommissioning because it is smaller, simpler and more localized (to the spent fuel areas) than the existing once-through cooling system, and would enable the eventual decommissioning of the Units 2 and 3 seawater intake structures. SFPI systems have been installed at other U.S. plants in various stages of decommissioning. In the present "defueled" state of Units 2 and 3, the heat load in the spent fuel pools is significantly lower than if freshly offloaded fuel was still being added to the pools. The SFPI system would have a cooling capacity roughly twice that required to handle the current heat load, and thus can provide an interim system for spent fuel cooling until the fuel can be transferred to dry cask storage. An independent spent fuel storage installation (ISFSI), approved by the Coastal Commission in 2001 (CDP# E-00-014), exists on the SONGS site. SCE is separately applying for a CDP for a new ISFSI to accommodate all the nuclear fuel currently stored in the spent fuel pools.

Federal pre-emption: The construction and operation of new facilities at SONGS are subject to the approval and oversight of the federal Nuclear Regulatory Commission (NRC) pursuant to NRC regulations. The NRC has exclusive jurisdiction over radiological aspects of the proposed project. The state is preempted from imposing upon operators of nuclear facilities any regulatory requirements concerning radiation hazards and nuclear safety. The state may, however, impose requirements related to other issues. The U.S. Supreme Court, in *Pacific Gas and Electric Company v. State Energy Commission, 461 U.S. 190, 103 S.Ct. 1713 (1983),* held that the federal government has preempted the entire field of "radiological safety aspects involved in the construction and operation of a nuclear plant, but that the states retain their traditional responsibility in the field of regulating electrical utilities for determining questions of need, reliability, costs, and other related state concerns." The Coastal Commission findings herein address only those state concerns related to conformity to applicable policies of the Coastal Act, and do not evaluate or condition the proposed project with respect to nuclear safety or radiological issues.

Project Description: The SFPI cooling systems (one for each of the two spent fuel pools) would be composed of two separate water loops designed to transfer heat from the spent fuel pool to the atmosphere. The primary loop, which includes the spent fuel pools themselves, would continue to operate as it does at present. Water would be circulated from the spent fuel pools to the primary side of a heat exchanger and then back to the pool. The only proposed changes affecting the primary loop are the installation of a new heat exchanger and the addition of new piping and water circulation pumps; no alterations would be made to the existing spent fuel pools.

The secondary loop of the proposed system would replace the existing seawater cooling system. Water would be circulated in a closed loop from the heat exchanger to a set of 200-ton electric chillers which would dissipate the transferred heat to the atmosphere. Schematic diagrams of the existing and proposed spent fuel pool cooling systems are shown in **Exhibit 1**.

The proposed SFPI system includes the following major components:

- Four 200-ton industrial electric chillers (19 ft L x 8 ft W x 8.5 ft H) (Trane, 2.4 million BTU/hour capacity per unit);
- Two plate frame heat exchangers (Alfa Laval, 3.0 million BTU/hr capacity per unit);
- Two shipping containers (20 ft L x 8 ft W x 8.5 ft H) housing four new water pumps and piping necessary to circulate water through the system;
- Approximately 100 feet of pre-fabricated stainless steel piping to connect the spent fuel pools to the chillers (50% to be installed within the existing spent fuel buildings);
- Water purification filters, added as a side-branch to the primary loop;
- New instrumentation to monitor temperature, pressure, and flow within the SFPI systems and allow for the detection of leaks.

The new equipment would be installed in and around the existing spent fuel pool buildings within the SONGS protected area. The chillers and shipping containers would be placed immediately behind the spent fuel buildings, as shown in **Exhibit 2**.

Under normal operations, two chillers would serve each spent fuel pool. However, the current heat load of the spent fuel pools requires that only three chillers be operational at a given time, decreasing to two chillers in about a year as the spent fuel continues to cool. The four installed chillers would be cross-tied to take advantage of this extra capacity, allowing for operational flexibility and back-up capability in the event that one chiller (and later, two chillers) needs to be taken offline for repairs. The chillers would be secured on reinforced concrete pads, the installation of which may require a minor amount of excavation in order to create a stable foundation. Excavated material would be repurposed onsite or disposed of at an offsite location.

Water used in the spent fuel pools and primary cooling loops would continue to be supplied from the plant's existing demineralized water system. Evaporation from the spent fuel pools currently requires the addition of approximately 900 gallons per week to the primary loop. The new secondary cooling loops would recirculate fresh water (treated with a corrosion inhibitor) provided by the local municipal water system. The secondary loops would require an initial system fill of approximately 1000 gallons, and would be replenished only if needed during maintenance.

The SFPI system is proposed to be installed beginning in late April, 2015.

Waiver Rationale: For the following reasons, the proposed project will not have a significant adverse effect, either individually or cumulatively, on coastal resources, nor will it conflict with Chapter 3 policies of the Coastal Act:

• Marine Resources: Installation of the SFPI system would replace the existing once-through cooling system, eliminating adverse impacts to marine organisms from entrainment and the discharge of used cooling water to the ocean.

• Water Quality: In order to minimize the potential for leaks of liquid containing contaminants (i.e., radioactive, borated water from the primary cooling loop), SCE would continuously

monitor SFPI system parameters (temperature, pressure, flow rate) and conduct daily inspections of critical system components, including pumps, chillers, heat exchangers and piping. If a leak were detected, the affected systems or components would be removed from service and repaired or replaced.

At present, any leakage from the primary loop is captured by the existing radioactive liquid floor drains inside the spent fuel buildings, and then collected or discharged in accordance with the existing National Pollutant Discharge Elimination System (NPDES) permit for the SONGS site. In the event of a leak from the secondary loop (containing fresh water treated with anti-corrosion agents) in an area outside the spent fuel buildings, SCE would implement existing spill response measures and BMPs, including damming and diverting strategies, designed to contain the leak and prevent fluids from entering the yard drain system. Any liquid entering the drains would be collected and/or discharged in accordance with NPDES permit provisions. Thus, the proposed project would not change existing practices or result in an increase in pollutant discharges to the ocean above currently-permitted levels.

During construction and possible excavation, site-specific best management practices would be used to control dust and loose soil, and to contain any potential runoff within the working area. All storm drains will be covered during construction to prevent runoff and sediment from entering the system.

- Sensitive Habitats and Species: The proposed project would occur entirely within developed areas of the SONGS site, distant from any sensitive habitats or species.

- Geologic Hazards & Structural Integrity: All equipment and piping systems installed as part of the proposed project would be supported in accordance with the California Building Code. However, SCE has indicated that the SFPI systems could require repair or restoration following a major earthquake. In order to facilitate such repairs, SCE proposes to maintain a supply of replacement parts on site. Any liquid leaks resulting from a seismic event would be contained and handled as described above.

  In the event of a total cooling system failure, SCE has indicated that under the current heat load it would take approximately five days for the spent fuel pools to reach a temperature of 200 ºF, affording time to make repairs. Additionally, in a more sustained emergency SCE would implement one of several existing contingency plans for supplying fresh cooling water to the spent fuel pools (e.g., via fixed or portable pump systems drawing on several emergency water sources).

  The new equipment proposed as part of the SFPI system would be located approximately 475 feet inland of the existing SONGS seawall at 31 feet above sea level (mean lower low water), above the projected inundation elevation for a suite of extreme tsunami events recently evaluated by the California Emergency Management Agency.

- Visual Resources: The project site is situated at an elevation below that of the public roads inland of SONGS. The proposed structures and equipment would be installed inside or adjacent to larger existing buildings in a heavily industrialized area. Thus, the project

would not block views to or along the coast or alter the visual character of the SONGS site.

• Public Access: The SFPI system would be located within the SONGS perimeter. No loss of coastal access would occur, and no adverse impacts to traffic on coastal access roads would occur during project construction.

Important: This waiver is not effective unless the project site has been posted and until the waiver has been reported to the Coastal Commission. This waiver is proposed to be reported to the Commission at the meeting of May 13-15, 2015, in Santa Barbara. If four or more Commissioners object to this waiver, a coastal development permit will be required.

Sincerely,

CHARLES LESTER
Executive Director

By:

JOSEPH STREET
Environmental Scientist
Energy, Ocean Resources & Federal Consistency Division

Attachments:

Exhibit 1 – Schematic diagram of existing and proposed spent fuel pool cooling systems

Exhibit 2 – Aerial photograph showing proposed location of chillers and shipping containers behind the existing spent fuel buildings

Exhibit 1a: SONGS Existing Seawater Once-Through Cooling System

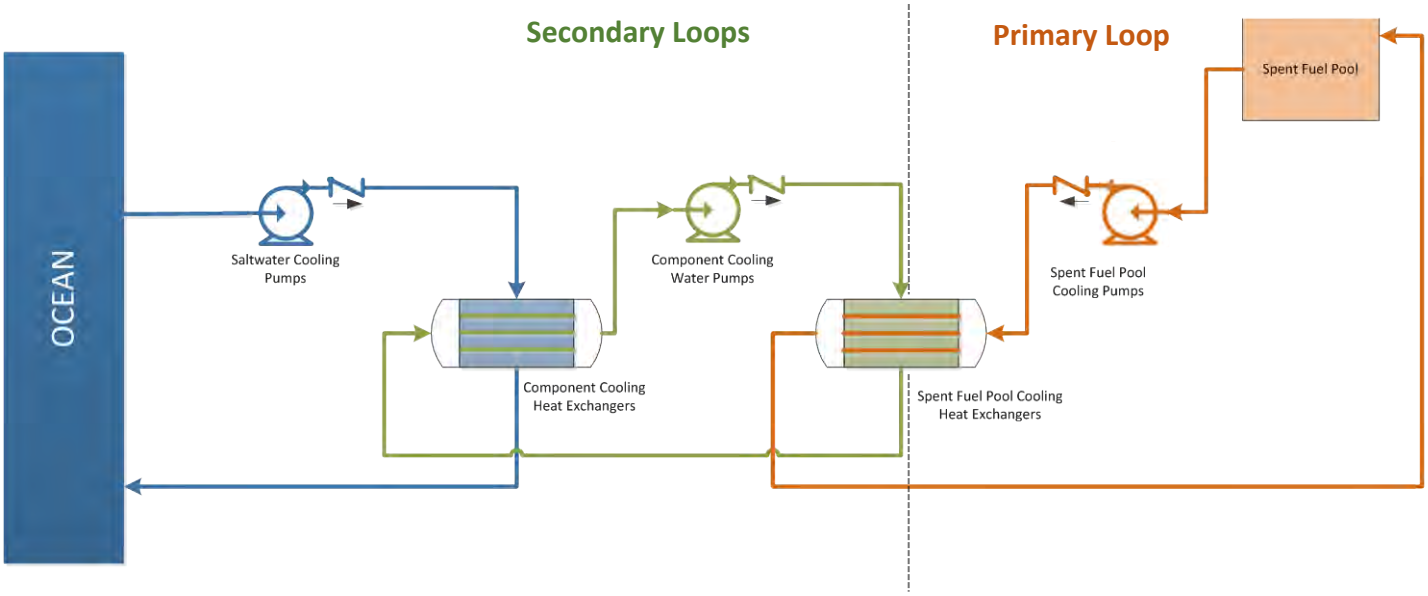


Exhibit 1b: SONGS Proposed Spent Fuel Pool Island Cooling System

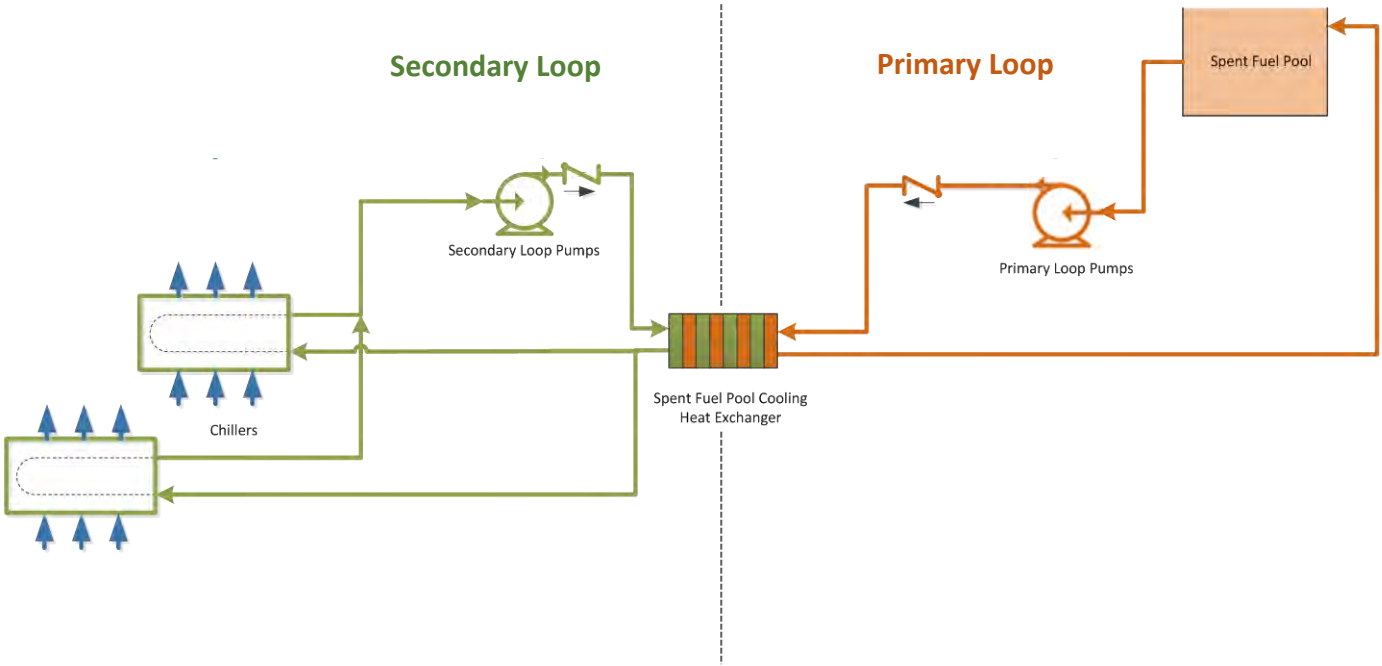


Exhibit 1
Application No. 9-15-0162-W
Southern California Edison
Cooling System Schematics

Exhibit 2: Proposed Project Location

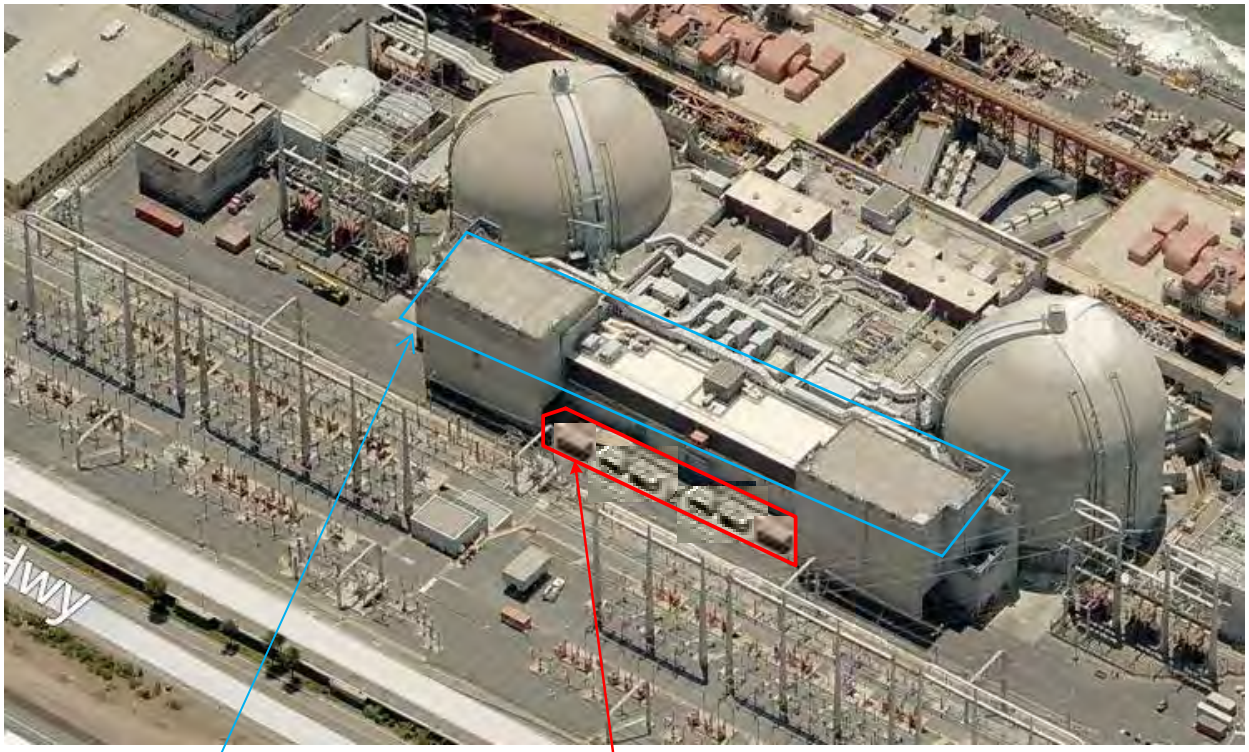


Exhibit 2
Application No. 9-15-0162-W
Southern California Edison
Location of Project on SONGS Site

CALIFORNIA COASTAL COMMISSION
ENERGY, OCEAN RESOURCES AND FEDERAL CONSISTENCY DIVISION
45 FREMONT STREET
SUITE 2000
PH (415) 904-5200 FAX (415) 904-5400
WWW.COASTAL.CA.GOV

May 4, 2015

Coastal Development Permit De Minimis Waiver
Coastal Act Section 30624.7

Based on the project plans and information provided in your permit application for the development described below, the Executive Director of the Coastal Commission hereby waives the requirement for a Coastal Development Permit pursuant to Section 13238.1, Title 14, California Code of Regulations. If, at a later date, this information is found to be incorrect or the plans revised, this decision will become invalid; and, any development occurring must cease until a coastal development permit is obtained or any discrepancy is resolved in writing.

Waiver: 9-15-0417-W

Applicant: Southern California Edison Company

Location: 5000 PACIFIC COAST HIGHWAY (SAN DIEGO COUNTY)

Proposed Development: Replace SONGS current salt water cooling pumps with smaller dilution pumps, install 2 chillers that are not dependent on ocean water cooling, and reroute an effluent discharge pipe.

Background: Southern California Edison Company (SCE) proposes to install new salt water intake pumps and reconfigure cooling systems serving several buildings and equipment at San Onofre Nuclear Generating Station (SONGS) Units 2 and 3, on Camp Pendleton, in San Diego County. While SONGS was operational, SCE operated twelve large seawater pumps at Units 2 and 3 in order to supply the plant with cooling water and circulating water, amounting to a daily intake of 2.5 billion gallons of ocean water. Since the permanent shutdown of electricity generation in 2013, SCE has continued to maintain and operate four salt water cooling pumps (each with 17,000 gallons per minute capacity) in order to provide (a) cooling for the spent nuclear fuel pools, (b) cooling and ventilation for various buildings, systems and equipment, and (c) a source of dilution water used to comply with pollutant discharge requirements. At present, the maximum daily intake of ocean water is approximately 98 million gallons, or 4% percent of the full operational flow. Implementation of SCE's planned Spent Fuel Pool Islanding (SFPI) project, which would eliminate the use of seawater in the spent nuclear fuel cooling system, would further reduce ocean water intake needs at SONGS Units 2 and 3.[1]

[1] The SFPI cooling system relies on air-cooled chillers rather than seawater once-through cooling. This project is being reviewed by the Coastal Commission under a separate CDP waiver (CDP #9-15-0162-W), and will be reported to the Commission at the May 2015 meeting.

Coastal Development Permit De Minimis Waiver

9-15-0417-W

Project Description: In response to the greatly reduced demand for seawater intake, SCE now proposes to replace the four existing salt water cooling pumps with four lower-capacity salt water pumps for the sole purpose of providing dilution water. In addition, SCE proposes to install a new underground discharge line for plant effluents and new air-cooled chillers to produce chilled water to support plant cooling and ventilation needs. The proposed system modifications would allow for further reductions in the volumes of ocean water intake and discharge (to 48 million gallons per day, or 2% of full operational flow), and reduce the operational footprint of the existing heating, ventilation and air conditioning (HVAC) system at SONGS Units 2 and 3.

Four salt water dilution pumps (7,350 gallons per minute capacity each) would be installed in place of the existing pumps (17,000 gpm each) in the Units 2 and 3 intake structures (two pumps per intake conduit) located inside the "tsunami gate" at the seaward edge of the SONGS site. The pump motors would be mounted on a platform within the tsunami gate, behind the SONGS seawall, and recessed approximately four feet below existing grade (+30 feet above mean low lower water). Pump intake piping would connect to and draw water from the existing Units 2 and 3 intake conduits. Each pump would draw water into a 16-inch stainless steel discharge pipe; the four discharge pipes would then combine into a single 20-inch pipe routed aboveground to connect to the Unit 2 offshore discharge conduit, where the seawater would serve to dilute the plant effluent stream. All four dilution pumps would discharge to the Unit 2 conduit.

A new 50-foot effluent discharge line is also proposed in order to connect existing sumps with the Unit 2 discharge structures. The underground installation of the discharge pipe would require approximately 500 cubic feet of excavation on previously-disturbed ground beneath the western plant perimeter road. Any excess excavated material would be reused on-site or disposed of in accordance with local regulations.

The two proposed air-cooled chillers (Carrier, model #30RAP045) would be installed on the rooftops of the Control and Unit 2 Fuel Handling Buildings. The first chiller would be used to provide air conditioning and ventilation for several buildings on-site, while the second chiller would be used to generate cold water needed to cool newly-installed electrical equipment in the Radwaste Building.

Waiver Rationale: For the following reasons, the proposed project will not have a significant adverse effect, either individually or cumulatively, on coastal resources, nor will it conflict with Chapter 3 policies of the Coastal Act:

- Marine Resources: Installation of the proposed saltwater dilution pumps would replace the existing set of larger-capacity pumps, while the new air-cooled chillers would provide cooling capacity currently provided by seawater intake. In combination with other projects, the proposed project is expected to reduce on-going adverse impacts to marine organisms by reducing the volumes of seawater intake and the discharge of used cooling water to the ocean.

Coastal Development Permit De Minimis Waiver
9-15-0417-W

• Water Quality: Discharge of pollutants and contaminants to the ocean from the SONGS is currently governed by site-specific Offsite Dose Calculation Manual (ODCM) and National Pollutant Discharge Elimination System (NPDES) requirements. The proposed project would not alter these requirements, nor result in an increase in pollutant discharges above currently-permitted levels.

  Construction and excavation activities would comply with site-specific best management practices and the SONGS Storm Water Management Plan in order to control dust and loose soil, prevent and contain spills, limit stormwater runoff, and prevent solid materials from entering the ocean.

• Sensitive Habitats and Species: The proposed project would occur entirely within developed areas of the SONGS site, distant from any sensitive habitats or species.

• Visual Resources: Visual modifications associated with the proposed project would be very minor and in keeping with the industrial character of the SONGS site. The project would not block views to or along the coast from any public vantage point.

• Public Access: The proposed project would be located within the SONGS perimeter. No loss of coastal access would occur, and no adverse impacts to traffic on coastal access roads would occur during project construction.

This waiver will not become effective until reported to the Commission at their meeting on May 14, 2015, in Santa Barbara, and the site of the proposed development has been appropriately noticed, pursuant to 13054(b) of the California Code of Regulations. The Notice of Pending Permit shall remain posted at the site until the waiver has been validated and no less than seven days prior to the Commission hearing. If four (4) Commissioners object to this waiver of permit requirements, a coastal development permit will be required.

Charles Lester,
Executive Director

Joseph Street
Environmental Scientist
Energy, Ocean Resources & Federal
Consistency Division

cc: File

CALIFORNIA COASTAL COMMISSION
HEADQUARTERS OFFICE
45 FREMONT STREET
SUITE 2000
PH (415) 904-5200 FAX (415) 904-5400
WWW.COASTAL.CA.GOV

April 23, 2015

Coastal Development Permit De Minimis Waiver
Coastal Act Section 30624.7

Based on the project plans and information provided in your permit application for the development described below, the Executive Director of the Coastal Commission hereby waives the requirement for a Coastal Development Permit pursuant to Section 13238.1, Title 14, California Code of Regulations. If, at a later date, this information is found to be incorrect or the plans revised, this decision will become invalid; and, any development occurring must cease until a coastal development permit is obtained or any discrepancy is resolved in writing.

Waiver: 9-15-0431-W

Applicant: Montecito Water District

Location: 901 CHANNEL DR, MONTECITO (SANTA BARBARA COUNTY)

Proposed Development: The proposed project involves the use of non-invasive geophysical survey techniques to map subsurface geologic features to depths of roughly 140 feet along the shoreline and nearshore waters within the southern portion of the unincorporated community of Montecito in Santa Barbara County. This work would assist the Montecito Water District (MWD) in its efforts to determine the feasibility of this site for a subsurface intake for seawater desalination. This feasibility study includes the need to determine the depth of sediment, depth to bedrock, location and presence of any large outcrops of rock beneath the surface, and presence or absence of cobble layers.

The work would include the temporary placement of two lines of narrow-gauge cable (one line of approximately 600 feet and one line of approximately 300 feet) onshore and one approximately 950 foot long line offshore. Interspersed at intervals of 6.5 feet along the onshore cables will be four square inch geophones attached to metal spikes that will be inserted several inches into the ground. The offshore cable will also include similar geophones but the spacing interval would be increased to 10 feet. The metal spikes on the geophones would help hold them and the cable in place and facilitate data transmission. In addition, the offshore cable (to be installed perpendicular to the shoreline) would also be maintained in place with five four square foot sandbags placed at intervals of approximately 50 feet. Onshore and offshore survey work would require approximately five days each to complete and each line would be fully removed at the end of each work day. Once the lines and geophones have been deployed, sound would be generated by striking four square foot metal plates temporarily placed on the shoreline and seafloor with sledgehammers or similar handheld metal tools. Onshore cable installation and survey work would be carried out by technicians on foot and offshore cable installation and survey work would be carried out by divers with support from a surface vessel.

Coastal Development Permit De Minimis Waiver
9-15-0431-W

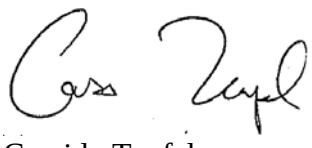
Rationale:

- The proposed offshore survey line would be located outside of all areas of hard substrate reef and submerged aquatic vegetation such as kelp, surfgrass, and eelgrass.
- All survey operations would be carried out during daylight hours,
- All materials would be recovered and removed from the project site at the conclusion of each work day. No materials, geophones, survey cables, strike plates, or tools would remain on site overnight.
- All offshore survey operations would be carried out in compliance with the Monetcito Coastal Geophysical Survey Project Marine Wildlife Contingency Plan including by maintaining a NOAA Fisheries-approved marine wildlife monitor onboard the diver support vessel throughout the survey period and transit to and from the project site.
- The marine wildlife monitor would ensure that: the survey vessel remains at least 330 feet from marine mammals and reptiles; does not cross directly in front of or across the path of marine mammals or reptiles; operates at a constant speed and remains slower than whales traveling in a parallel path; does not herd or drive whales; and does not separate female whales from calves.
- A fishing gear survey would be carried out at the project site prior to initiation of offshore survey line installation activities and survey activities would not occur within 100 feet of observed fishing gear.
- No mechanized equipment or vehicles would be used on the onshore shoreline and bluff survey areas.
- No vessel or equipment fueling or refueling would occur at the project site and all project work would be carried out consistent with the Monetcito Coastal Geophysical Survey Project Oil Spill Response Plan.

The proposed development will not adversely impact coastal resources, public access, or public recreation opportunities, and is consistent with past Commission actions in the area and Chapter Three policies of the Coastal Act.

This waiver will not become effective until reported to the Commission at their May 2015 meeting and the site of the proposed development has been appropriately noticed, pursuant to 13054(b) of the California Code of Regulations. The enclosed Notice Card shall remain posted at the site until the waiver has been validated and no less than seven days prior to the Commission hearing. If four (4) Commissioners object to this waiver of permit requirements, a coastal development permit will be required.

Charles Lester,
Executive Director



Cassidy Teufel
Senior Environmental Scientist

CALIFORNIA COASTAL COMMISSION
45 FREMONT, SUITE 2000
SAN FRANCISCO, CA 94105- 2219
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NOTICE OF COASTAL DEVELOPMENT PERMIT DE MINIMIS WAIVER

DATE: April 24, 2015 **PERMIT NO. 9-15-0436-W**

TO: Coastal Commissioners and Interested Parties

SUBJECT: Waiver of Coastal Development Permit Requirements

Based on the plans and information submitted by the applicant for the development described below, the Executive Director of the Coastal Commission hereby waives the requirements for a coastal development permit (CDP), pursuant to Section 30624.7 of the California Coastal Act.

Applicant: Southern California Edison Company
1218 South 5th Ave.
Monrovia, CA 91016

Project Description: Southern California Edison (SCE) proposes to extend the project life of two temporary seawater pumps installed on a boat ramp at the University of Southern California Wrigley Institute for Environmental Studies (Wrigley Institute), near Two Harbors, Santa Catalina Island, Los Angeles County. The pumps were originally installed in October of 2014 under Coastal Development Permit (CDP) waiver No. 9-14-1642-W, with a project life of six months. The purpose of the pumps is to provide temporary emergency fire suppression capabilities to the Wrigley Institute campus while SCE's existing fire suppression system is taken off-line for maintenance and repairs. The existing system depends on fresh water from SCE's "Million Gallon Tank" (MGT), located on a hillside above the campus. The tank is in need of repair, and must be drained before the work can begin. Under SCE's original proposal, repairs to the MGT were to have been completed in March, 2015, and the temporary seawater pumps were to have been removed by April 20, 2015. However, due to delays in acquiring permits from other local, state and federal agencies, the repairs have not yet been completed. SCE is now seeking authorization to retain the emergency pumps until the MGT is filled and operational.

Pursuant to the original CDP waiver, a portable saltwater pump (2,800 gallons per minute capacity) was placed at the top of the Wrigley Institute's existing concrete boat ramp. A second, auxiliary pump was placed nearby to provide back-up in the event of primary pump failure. The primary seawater pump is connected to a 12-inch diameter stainless steel intake

pipe extending approximately 175 feet down the boat ramp into Big Fisherman's Cove, the embayment adjacent to the campus, which is a part of the Blue Cavern State Marine Conservation Area (SMCA). The pipe is held in place by several concrete support blocks, and terminates with an intake strainer positioned approximately three feet below the mean low tide elevation. The entire structure is located on the concrete boat ramp and does not extend onto natural seafloor. An 8-inch diameter outlet pipe connects the saltwater pump to existing fire department connections serving the campus.

This temporary saltwater system is intended as a secondary back-up to be used in the event of a catastrophic fire at the campus. As an initial line of defense against a fire, SCE has its disposal approximately 100,000 gallons of fresh water, stored in multiple small temporary tanks connected to the existing water lines. If and when the 100,000 gallon fresh water supply is exhausted, the seawater pump would be used to continue to supply water for fire suppression. The pump would be used only for emergency fire suppression. The seawater pumps and all associated piping will be dismantled and removed once the MGT is back in service.

SCE proposes to keep the temporary fire suppression system (seawater pumps, intake pipes and outlet pipes) in place through the projected completion of the MGT project on October 9, 2015, and remove the system by October 13, 2015. If it becomes necessary to retain the system beyond December 31, 2015, SCE will seek new authorization from the Commission. SCE will notify Commission staff when the pumps have been removed.

Waiver Rationale: For the following reasons, the proposed project will not have a significant adverse effect, either individually or cumulatively, on coastal resources, nor will it conflict with Chapter 3 policies of the Coastal Act:

- Marine Resources: The seawater pumps, intake pipe, and concrete pipe supports are located on an existing concrete boat ramp and will not disturb benthic habitat or permanently fill coastal waters. The availability of an alternate water source (100,000 gallons in temporary tanks) reduces the chance that the seawater pumps would be put into service during a minor fire. Thus, if the pumps are used it would be under emergency conditions during a single major fire event.

- Water Quality: The pumps are situated in secondary containment basins with adequate capacity to ensure that leakage of fuel or lubricants oils from the pumps would not reach the ocean. The pumps will receive regular inspection and maintenance throughout their period of emplacement, including the manual removal of fouling organisms from the intake. Pump refueling occurs at least 200 feet away from the shoreline.

- Land Resources/Sensitive Habitat: The seawater pumps and intake pipe will be located entirely on the concrete boat ramp, and the outlet pipe will be placed on paved or previously disturbed ground, avoiding all environmentally sensitive habitat areas.

- Public Access & Views: The Wrigley Institute boat ramp is not open to the public, and the installation of the seawater pumps will not interfere with public access to the coast.

Likewise, the proposed seawater pumps will not have significant effects on views to or along the coast.

Important: This waiver is not effective unless the project site has been posted and until the waiver has been reported to the Coastal Commission. This waiver is proposed to be reported to the Commission at the meeting of May 13-15, 2015, in Santa Barbara. If four or more Commissioners object to this waiver, a coastal development permit will be required.

Sincerely,

CHARLES LESTER
Executive Director

By: 

JOSEPH STREET
Environmental Scientist
Energy, Ocean Resources & Federal Consistency Division

CALIFORNIA COASTAL COMMISSION
45 FREMONT STREET, SUITE 2000
SAN FRANCISCO, CA 94105-2219
VOICE AND TDD (415) 904-5200

Th8

DATE: May 11, 2015

TO: Coastal Commissioners and Interested Parties

FROM: Charles Lester, Executive Director
Alison Dettmer, Deputy Director
Mark Delaplaine, Manager, Energy, Ocean Resources and Federal Consistency Division

RE: Negative Determinations Issued by the Executive Director
[Executive Director decision letters are attached]

PROJECT #:	NE-0001-15
APPLICANT:	SANDAG
LOCATION:	East of La Jolla, San Diego
PROJECT:	Elvira to Morena Double-Track Project
ACTION:	No effects
ACTION DATE:	4/22/2015

PROJECT #:	NE-0002-15
APPLICANT:	San Diego Yacht Club
LOCATION:	LA-5 Offshore Disposal Site, Offshore San Diego
PROJECT:	Disposal of 10,690 cu. yds. of dredge material
ACTION:	No effects
ACTION DATE:	5/7/2015

PROJECT #:	ND-0005-15
APPLICANT:	U.S. Coast Guard
LOCATION:	Coast Guard Stations in Inverness (Point Reyes) and Bolinas, Marin Co.
PROJECT:	Install security fencing
ACTION:	Concur
ACTION DATE:	4/30/2015

PROJECT #:	ND-0007-15
APPLICANT:	National Park Service
LOCATION:	Tomales Bay, Pt. Reyes National Seashore, Marin Co.
PROJECT:	Sacramento Landing Pier Repair in Fuel Line Installation
ACTION:	Concur
ACTION DATE:	5/7/2015

PROJECT #:	ND-0008-15
APPLICANT:	U.S. Coast Guard
LOCATION:	Coast Guard Station Monterey
PROJECT:	Pier repairs
ACTION:	Concur
ACTION DATE:	5/8/2015
DATE:	4/30/2015

PROJECT #:	ND-0009-15
APPLICANT:	Department of the Navy
LOCATION:	Offshore Humboldt and Del Norte Counties, northern California
PROJECT:	Northwest Training and Testing (NWTT) Activities
ACTION:	Object
ACTION DATE:	4/28/2015

PROJECT #:	ND-0011-15
APPLICANT:	U.S. Fish and Wildlife Service
LOCATION:	Humboldt Bay National Wildlife Refuge, Humboldt Co.
PROJECT:	White Slough Tidal Restoration Project
ACTION:	Concur
ACTION DATE:	5/1/2015

PROJECT #:	ND-0012-15
APPLICANT:	U.S. Army Corps of Engineers
LOCATION:	Los Angeles-Long Beach Harbors
PROJECT:	Breakwater Repairs
ACTION:	Concur
ACTION DATE:	4/23/2015

PROJECT #:	ND-0014-15
APPLICANT:	Department of Veterans Affairs
LOCATION:	VA Medical Center, Long Beach, Los Angeles Co.
PROJECT:	Construction of Mental Health and Community Living Center facilities
ACTION:	Concur
ACTION DATE:	4/23/2015

CALIFORNIA COASTAL COMMISSION

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April 22, 2015

Rob Rundle
SANDAG
401 B St., Suite 800
San Diego CA 92101-4231

Re: **NE-0001-15** SANDAG, No Effects Determination, Elvira to Morena Double Track Project, San Diego

Dear Mr. Rundle:

SANDAG has submitted a "no effects" determination for the construction of the Elvira to Morena Double Track (EMDT) project located on a portion of the Los Angeles-San Diego-San Luis Obispo (LOSSAN) corridor in San Diego County, California. The project is located between Mile Post (MP) 254.4 and MP 260.7, in the City of San Diego, and is predominantly outside the coastal zone - only the southernmost portion, south of Balboa/Garnet Aves., is within the coastal zone. The coastal zone portion would include track improvements, replacement of Bridge 260.4, a signal house (including two small retaining walls), and communication antennae.

The new track will connect to existing double-tracked segments at each end, resulting in a 10.3-mile continuous double track segment between Control Point (CP) Tecolote and CP Cumbres. Upon completion, the project will alleviate schedule delays that occur near CP Elvira and CP Morena, which would consequently provide on-time performance benefits, increased train speeds, reductions in total trip time for passenger and freight service, reduced maintenance costs, and creation of additional operational flexibility along the corridor.

We agree with SANDAG that the project would not adversely affect public access, would improve public transit (thus benefitting public access and air quality) by reducing train delays, would not affect any coastal zone environmentally sensitive habitat areas, would not affect scenic public views, would include Best Management Practices that would minimize construction impacts to coastal water quality, and would avoid effects on archaeological resources.

In conclusion, we **agree** that the proposed project would not adversely affect coastal zone resources. We therefore **concur** with your "no effects" determination. Please contact Mark Delaplaine at (415) 904-5289 if you have any questions regarding this matter.

Sincerely,

(for) CHARLES LESTER
Executive Director

cc: San Diego District Office
Army Corps, Los Angeles District
Federal Railroad Administration
801 I Street, Suite 466
Sacramento, CA 95814

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May 7, 2015

Keith W. Merkel
Principal Consultant
Merkel & Associates, Inc.
5434 Ruffin Road
San Diego, CA 92123

Subject: No Effects Determination NE-0002-15 (Dredged material disposal at LA-5 Ocean Disposal Site, San Diego County)

Dear Mr. Merkel:

The Commission staff has reviewed the above-referenced "no effects" determination submitted by you on behalf of the San Diego Yacht Club ("Yacht Club"). The Yacht Club proposes to dispose at the LA-5 ocean disposal site sediments dredged from boat slips and navigation channels at the Yacht Club during fall 2015 maintenance dredging operations. (The Port of San Diego previously authorized the proposed maintenance dredging at the Yacht Club and the placement of sandy dredged materials in nearshore waters off Imperial Beach; these project elements are not a part of this submittal by the Yacht Club.) The proposed dredged materials were sampled for physical and chemical composition in order to identify potential disposal alternatives. The U.S. Army Corps of Engineers and U.S. Environmental Protection agency reviewed the sediment sampling results and determined that approximately 2,650 cubic yards (cu.yds.) of dredged sands are suitable for nearshore disposal and that up to 10,690 cu.yds. of fine-grained dredged materials are suitable for ocean disposal at LA-5.

The Commission staff agrees that the proposed disposal of the fine-grained sediments at LA-5 would not affect coastal zone resources. We therefore **concur** with your "no effects" determination. Please contact Larry Simon at (415) 904-5288 should you have any questions regarding this matter.

Sincerely,

(for) CHARLES LESTER
Executive Director

cc: CCC – San Diego Coast District
Terry Anglin, SDYC
Eileen Maher, Port of San Diego

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April 30, 2015

Dave Stalters, Chief
Environmental Management Branch
U.S. Coast Guard
Civil Engineering Unit Oakland
1301 Clay St., Suite 700N
Oakland, CA 94612-5203

Attn: William Robinson

RE: **ND-0005-15** Coast Guard Negative Determination, Security Fencing, CAMSPAC Transmitter and Receiver Sites, Bolinas and Inverness, Marin Co.

Dear Mr. Stalters:

The Coastal Commission staff has reviewed the above-referenced Coast Guard negative determination for Security Fencing at two U.S. Coast Guard Communications Area Master Station Pacific (CAMSPAC) sites in Marin County - a Transmitter Site in Bolinas and a Receiver Site in Inverness. The CAMSPAC sites provide communications to 358 Coast Guard Pacific Area units. The fences are needed to implement security upgrades, although the Coast Guard notes they would also benefit public safety be reducing the potential for electrocution from the existing towers. The security fences would be 7 ft. high chain link, topped by barbed wire (typical total height would be less than 8 ft. 2 in.). Existing fence sections no longer needed (and their foundations) would be removed.

The upgrades at the Bolinas site would involve 7,200 linear ft. of new chain-link security fencing and gates, a new entrance gate, asphalt pavement and curb, and a new security cage with gates. The Bolinas site currently is currently unfenced (although wood fences currently surround most or all of the 15 antennas on the site). The proposed fencing would be visible from Mesa Road, and the Coast Guard has located it as far as is feasible from the road (36 ft. from the edge of road paving). Further separation is infeasible, given the location of several antennas close to the road. Due to the tall existing antennas, and their location throughout the site, the visual effects of the fencing would be minimal (compared to the visual effects of the existing antennas).

The upgrades at the Inverness Site would be on Pt. Reyes National Seashore and would involve 3,100 linear ft. of new chain-link security fencing and gates around the perimeter of the site, another 1,000 linear ft. of new chain-link security fencing and gates around the perimeter of the Receiver Building, and replacement and maintenance of existing internal equipment in the

building. The Inverness Site currently is fenced with barbed wire fencing. The Coast Guard states that due to the existing topography, these fences would not be visible from the scenic drive along the principal road traversing the Seashore (Sir Francis Drake Blvd.).

Signs would be included to alert visitors to hazards and security. The project would include erosion controls, and revegetation of disturbed areas. The Coast Guard will provide archaeological monitoring and will consult with the State Historic Preservation Officer and potentially affected Indian Tribes (e.g., the Federated Indians of Graton Rancheria).

We **agree** with your conclusions that the proposed would not adversely affect coastal zone resources. We therefore **concur** with your negative determination made pursuant to 15 CFR Section 930.35 of the NOAA implementing regulations. Please contact Mark Delaplaine of the Commission staff at (415) 904-5289 if you have any questions regarding this matter.

Sincerely,

(for) CHARLES LESTER
Executive Director

cc: North Central District
Point Reyes National Seashore

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May 7, 2015

Cicely Muldoon
Superintendent
Point Reyes National Seashore
ATTN: David Demko
Point Reyes, CA 94956

Subject: Negative Determination ND-0007-15 (Sacramento Landing pier repair and fuel line installation, Marin Co.)

Dear Ms. Muldoon:

The Coastal Commission staff has reviewed the above-referenced project on the western shore of Tomales Bay in Point Reyes National Seashore. The National Park Service (NPS) proposes to repair the landward section of the pier at Sacramento Landing, install a vessel fueling system on the pier, and repair and relocate a floating dock to the end of the pier. The proposed project will complete the pier renovation that began in 2007 with the replacement of the severely deteriorated 180-foot-long outer section of the pier (concurred with by the Executive Director in ND-034-06), and will provide on-site boating fuel for NPS vessels to improve the efficiency and timeliness of law enforcement and emergency response activities on Tomales Bay.

The proposed project includes the following elements:

- Remove the remaining 76 feet of the original 8-foot-wide pier and 16 timber piles.
- Rebuild the 76-foot-long pier section using 12 plastic-wrapped, pressure-treated timber piles and pressure-treated lumber for the pier and railings.
- Repair, relocate, and attach an existing floating dock to the main berthing dock.
- Upgrade the existing electrical service to the pier.
- Install a double-walled precast concrete 500 or 1,000 gallon fuel tank on a cast-in-place concrete slab 75 feet inland from mean high water, at a site adjacent to an existing storage locker on disturbed upland covered with iceplant.
- Install a double-lined fuel line from the fuel tank to the pier (above ground), to the main floating dock (secured underneath the pier), and terminating at a locked fuel dispenser.

- Remove three concrete footings and a sunken boat at the beach adjacent to the pier.

The NPS states that the Sacramento Landing pier is the only pier within the National Seashore suitable for use for law enforcement and emergency response vessel operations:

> *Currently, there are no private fueling facilities in Tomales Bay. NPS personnel either pilot vessels to Bodega Bay for re-fueling or utilize hand-held fuel containers to re-fuel vessels. Many hours and gallons of fuel are wasted piloting vessels to Bodega Bay which is approximately 15 miles away. Piloting vessels from Tomales Bay to Bodega puts NPS employees at significant risk as the mouth of Tomales Bay is hazardous. The Bodega Bay refueling run requires one hour of travel time each way at approximately 30 gallons of fuel per hour and navigating across the mouth of Tomales Bay which is hazardous to cross due to weather, wave climate, and tidal conditions.*
>
> *This project will provide necessary storage of fuel for vessels which will allow them to be fueled on-site thereby saving significant time and fuel and reducing the park's overall carbon footprint. This will greatly increase the efficiency of law enforcement and emergency vessel response from Sacramento Landing for all of the agencies involved in Tomales Bay operations.*

Pier removal and construction work will occur during low tides and out of the water. Pilings will be extracted using a vibratory hammer or cut off a minimum of three feet below existing grade. Pilings for the new pier will be installed using land-based auger and will be embedded at least eight feet below grade. The new pier will then be constructed from the landside out to the connection with the 2007 pier. There is no eelgrass within or immediately adjacent to the pier replacement construction zone, and the project area is outside of designated critical habitat for the California red legged frog. There is no sensitive habitat in the upland area of the project. Construction will occur between July and September 2015, outside the in-migration, out-migration, and spawning seasons for salmonids in the Tomales Bay watershed.

The project includes impact avoidance and minimization measures to protect water quality and marine resources in Tomales Bay, including erosion and sediment control best management practices and spill prevention and response measures. In addition, the proposed vessel fuel system includes a double-walled fuel tank, primary and secondary containment elements, double-lined fuel line from the tank to a locked dispenser on the floating dock, leak and overfill detection and alarms, and vapor recovery and emergency shut-off elements.

To address the potential increase in marine debris due to possible weathering, breakdown, or detachment of plastic pile wrapping, the NPS will periodically inspect the plastic wrapping and provide inspection reports to the Commission staff:

> *National Park Service staff will conduct a facility inspection every 5 years for 15 years that includes the new plastic pile wrap at the Sacramento Landing pier. The above water sections of the plastic wrap will be inspected for cracks, deterioration, abrasions, and other conditions that may contribute plastic debris to the marine environment. The*

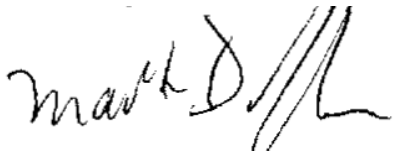
> *results of this inspection will be provided to the Executive Director of the Commission. The National Park Service acknowledges that if these inspections or other information relative to the performance of plastic piling wrapping in the marine environment indicate that plastic materials such as those used in the project adversely affect marine water quality, marine habitat, or other coastal uses or resources, the Commission has the authority pursuant to regulations implementing the Coastal Zone Management Act to reopen this negative determination (see 15 CFR § 930.45(b)).*

Similar language was an element of ND-034-06 and inspections by the NPS indicate no deterioration of the plastic-wrapped pilings supporting the outer section of the pier. With the commitment to continue the inspection program, the Commission staff concludes that the project incorporates measures to address potential coastal zone effects should the plastic pile wrapping deteriorate over time. Therefore, the Commission staff concludes that the proposed project will not affect water quality resources of the coastal zone.

The NPS reports that development immediately adjacent to the pier consists of an access driveway, paved parking, a storage locker, and a single-family home that is currently used to house biological researchers who work at the Sacramento Landing Marine Research Station. The Sacramento Landing pier is used for NPS law enforcement and emergency response operations and also by research personnel. While public access to the pier is currently prohibited by the NPS and there are no current plans to modify this restriction, kayak landings on and public recreational use of the adjacent beach will remain allowable uses along this reach of shoreline. As a result, the project will not result in any changes to public access and recreation at this location in the seashore.

In conclusion, the Commission staff **agrees** that the proposed Sacramento Landing pier project will not adversely affect coastal resources. We therefore **concur** with your negative determination made pursuant to 15 CFR 930.35 of the NOAA implementing regulations. Please contact Larry Simon at (415) 904-5288 should you have any questions regarding this matter.

Sincerely,



(for) CHARLES LESTER
Executive Director

cc: CCC – North Central Coast District

CALIFORNIA COASTAL COMMISSION
45 FREMONT, SUITE 2000
SAN FRANCISCO, CA 94105- 2219
VOICE (415) 904- 5200
FAX (415) 904- 5400
TDD (415) 597-5885

May 8, 2015

Dave Stalters
Chief, Environmental Management Branch
Civil Engineering Unit Oakland
ATTN: Amanda Velasquez
1301 Clay Street, Suite 700N
Oakland, CA 94612-5203

Subject: Negative Determination ND-0008-15 (Facilities repair and replacement at Coast Guard Station Monterey, Monterey County)

Dear Mr. Stalters:

The Coastal Commission staff has reviewed the above-referenced project. The Coast Guard proposes to repair and replace facilities at the Coast Guard Station Monterey pier that have deteriorated over time due to exposure to the marine environment and regular use. The Coast Guard pier was constructed in the early 1950s of timber and steel materials. In 1995 the Coast Guard replaced 26 severely damaged timber piles with steel piles and reinforced and plastic-wrapped the remaining timber piles to extend their service life (ND-034-95). The proposed project includes: (1) removing 17 timber piles with a vibratory extractor; (2) installing 17 steel pipe piles in the footprint of the extracted timber piles, using a vibratory hammer and impact pile driving over a ten-day period; (3) replacing 175 feet of 3-inch diameter galvanized potable waterline on the outboard side of the pier; and (4) repairing and replacing hardware and deck planks on the pier deck and floating docks. Construction would occur during daylight hours, Monday through Friday, over a 45 to 60 day period. While construction would commence during the 2015 in-water work window to protect listed species, the work may be implemented over several years depending on available funding and Coast Guard Station Monterey operational needs.

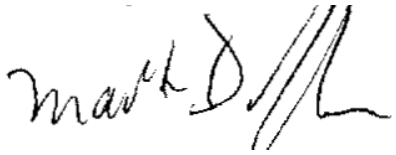
The Coast Guard prepared a *Final Environmental Assessment* (January 2014) to evaluate potential effects of project construction on listed and sensitive species and on designated and proposed critical habitat in the project area. The Coast Guard also consulted with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service and subsequently received from both agencies separate Incidental Harassment Authorization permits for the proposed project. These permits include conditions and measures to protect marine mammals from noise impacts during pile-driving (e.g., bubble curtains, time restrictions, establishment of Level B harassment zones of influence, soft starts for pile driving, shutdown measures, marine mammal monitoring protocols, and reporting requirements). The project also includes construction best management

practices, including erosion control, spill prevention, and debris containment measures to minimize water quality impacts during project construction.

The proposed project does not require any dredging to maintain adequate water depth for Coast Guard vessels that use the pier. In addition, because the new steel piles will be placed in the footprint of the extracted timber piles, there will be no loss of soft or hard bottom habitat at the project site. The Coast Guard states that nonmotorized and motorized boat access to areas immediately adjacent to the USCG pier would be temporarily restricted during construction but that the passage of watercraft between the pier and the public marina to the south would not be impeded. The nearby parking lot and boat launch ramp just to the east of the Coast Guard facilities would remain open to the public during construction.

In conclusion, the Commission staff **agrees** that the proposed pier facilities repair and replacement work at Coast Guard Station Monterey will not adversely affect coastal resources. The project is similar to other pier replacement projects previously reviewed by the Commission at this and other locations. We therefore **concur** with your negative determination made pursuant to 15 CFR 930.35 of the NOAA implementing regulations. Please contact Larry Simon at (415) 904-5288 should you have any questions regarding this matter.

Sincerely,



(for) CHARLES LESTER
Executive Director

cc: CCC – Central Coast District

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45 FREMONT, SUITE 2000
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April 28, 2015

L.M. Foster
Department of the Navy
Commander
United States Pacific Fleet
250 Makalapa Dr.
Pearl Harbor, HA 96860-3131

Attn: Anna Whalen, Gretchen Sosbee

Re: **ND-0009-15**, Navy, Negative Determination, Navy Training Activities, Northwest Training Range Complex (NWTRC), offshore of northern California

Dear L.M. Foster:

The Navy has submitted a negative determination for the California component of its Northwest Training and Testing Activities (NWTT). The NWTT area extends offshore the states of Washington, Oregon, and northern California (Humboldt and Del Norte Counties) (Attachment 1). Most of the training activities would occur offshore of the state of Washington, and the Navy has submitted a separate consistency determination to the state of Washington, as well as a Negative Determination to the State of Oregon. The activities off California counties would be at least 12 nautical miles (nmi) offshore, and the Navy indicates most would occur approximately 50 nmi offshore. Because the primary Navy assets supplying the training vessels are homeported in Washington, the Navy indicates the only time California offshore waters would constitute training/testing locations would be when vessels are in transit to and from bases and/or ports to the south.

The Navy's conclusion of no "reasonably foreseeable coastal effects" on California's coastal zone relies primarily on three factors: (1) the vast majority of the activities would occur very far (hundreds of miles) north of California; (2) the California activities would be outside the California coastal zone (at a minimum of 9 nmi outside state waters); and (3) the Navy implements mitigation protocols to monitor and reduce acoustic effects when marine mammals are observed within the specified distances of the active sonars or explosives used. For the reasons expressed below, we question the Navy's reliance on each of these factors to establish a showing of no "reasonably foreseeable effects" on California coastal zone resources.

Numbers of Animals Affected
The Navy's letters of request for Incidental Harassment Authorizations (IHAs) submitted to the National Marine Fisheries Service (NMFS) indicate very high levels of marine mammal disturbances throughout the project area (Attachment 2). Under such

circumstances, the Commission does not need precise estimates of "take" offshore of California under the Marine Mammal Protection Act (MMPA) to enable it to determine an activity's consistency to the maximum extent practicable with the enforceable policies of the California Coastal Management Program. The Commission generally considers very large "take" estimates to be strong evidence that an activity crosses the threshold level of "effects," when the affected animals in question are marine mammals (or sea turtles) that swim in and out of the California coastal zone (and thus spend portions of their life cycle within the coastal zone).

In its application to NMFS, the Navy requests permission for over 100,000 "Level B" harassments[1] (over 1/2 million animals over 5 years), most of which are characterized (under NMFS Stock Assessment Report Criteria) as "California, Oregon & Washington" stocks. Animals so listed may be present off any of the three states at any given time. Even accepting the Navy's estimate that the overall number of marine mammal harassments occurring in California offshore waters would be roughly only 1% of the three-state totals (and not considering harassments outside of California waters that may affect California coastal resources), this would still leave sufficiently large numbers of animals behaviorally affected off the coast of California to warrant the conclusion that the project would affect California coastal zone marine mammals. Even just 1% would mean over 1,000 animals would potentially harassed off California per year (and over 5,000 animals over 5 years). If these effects occurred during biologically significant behaviors (such as communication, breeding, or feeding), they could result in not just individual behavioral reactions, but population-level impacts as well.

On December 22, 2009, when the Commission staff concurred with the Navy's negative determination for the previous round of Northwest Training and Testing (ND-066-09), that concurrence was based on the Navy's representation that the California offshore activities would be very limited, as follows:

> *In summary, the California offshore activities of potential concern would consist of: (1) approximately 16 hours per year of airspace activities off California; (2) up to 1 hour of mid-frequency sonar use per year; (3) tracking by sonobuoys using active and passive sonar; (4), a small number of explosives munitions per year (up to four explosives, less than 1000 lb. each); and (5) surface firing of relatively small caliber munitions. Most of the activities would take place 50 nautical miles (nm) or more offshore, and all would be 12 nm or more offshore.*

However, in its current proposal the Navy has made it more difficult to determine effects, given that the language describing training locations is more open-ended. Accordingly,

---

[1] **Harassment:** Under the 1994 Amendments to the MMPA, "Level B" harassment is defined as: "… any act of pursuit, torment, or annoyance which … has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering but which does not have the potential to injure a marine mammal or marine mammal stock in the wild.

the Commission staff requested clarification from the Navy in an attempt to identify training levels off California. The Navy's responses acknowledge the difficulty in quantifying training levels off California and stress a need for operational flexibility. In its responses to the Commission staff's request for a defined upper limit off California for these activities, the Navy stated (email communications, 4/15/15, from John Mosher, Navy, to Mark Delaplaine, CCC):

> *Since this portion of the study area is very far from where Navy units are based in Washington State or in southern California, the activities conducted in this area have been those completed while vessels are in transit between the installations in Washington and southern California. Again, these are Navy activities that have occurred in the past and are proposed to continue into the foreseeable future and would only occur greater than 12 nm off the California Coast. The best estimates that were provided in the past for the NWTRC EIS are still accurate for the foreseeable future and for the NWTT EIS. No major variances are expected to these estimates, though it should be noted that some fluctuations in activities are possible. Training usage reports over the past 4 years have shown that some years will have no activities whatsoever off the northern California coast, while other years MAY have slight variations above what was estimated. I emphasize "MAY", as it is not always possible to fix a specific location to all activities, on which I will elaborate.*
>
> *As training and testing activities are being conducted, it is not practical in implementation to require a Navy vessel or aircraft to track its specific location when conducting certain activities relative to an imaginary line that separates Oregon waters from California waters, all while operating often 50 to 250 nm from the coast, at various speeds and over potentially lengthy durations. For these reasons establishing firm upper limits for activities off each specific state is not possible.*
>
> *While we cannot provide annual reports of specific activities that occur over 12 nm off the northern California coast, the Navy provides annual unclassified reports of certain permitted activities for its range areas (specifically active sonar and explosives use) to the NMFS; however, these reports only indicate if annual usage was within the permit allowances. Additionally, the Navy submits annual classified reports to NMFS, and though these reports indicate some specifics on usage locations, they do not specify quantities utilized relative to individual states, just usage within the range area as a whole (as noted many of these activities occur very far off the coast and well outside state waters).*
>
> *Regarding your final question about usage over the last 5 years, we have not completed the full 5 year cycle for NWTRC activities yet, but over the past 4 years and 5 months, we can generally state that the activities provided in our previous estimates to you were in keeping with those projections. Not all of these events can be tracked with precise locations; for example usage of shipboard sonar or*

> *deployment of sonobuoys from aircraft can be represented with a generalized location, but vessels and aircraft frequently move over extended distances and periods of time during some activities. Additionally, the Navy can state that no use of explosive ordnance occurred in the portion of the range area off the northern California coast over this 4 year, 5 month period, and it is expected that activities of this type would be a very rare occurrence in these waters in the foreseeable future. Furthermore, across the entire 3-state NWTRC area, all permitted activities were far below the 5 year authorizations and in most cases were far below the individual annual authorizations.*

Unfortunately, the open-ended nature of these responses make it extremely difficult to assess the potential impact or verify the levels of training activities off California, or to conclude they would not affect California coastal zone resources.

Distance Offshore

The Commission's April, 2013 findings in reviewing the most recent Navy SOCAL Testing and Training proposal (Consistency Determination CD-008-13) contained a three-page discussion of Commission and Navy positions concerning coastal zone effects from loud Navy mid-frequency active sonar and other acoustic activities in federal waters off Southern California (many of which were tens of miles offshore). We will not belabor the point here, but will reiterate the Commission's position that effects occurring 10s of miles offshore on species that swim into and out of the coastal zone constitute coastal zone resource effects. (For additional background, see pp. 19-22 of the document at this link: http://documents.coastal.ca.gov/reports/2013/4/W13a-4-2013.pdf.)

In its findings the Commission (among other assertions) cited a historic NOAA letter dated March 10, 1995, responding to the Commission's request from the Office of Coastal Resource Management (OCRM)[2] to review the effects of the "ATOC" [3] sound source, located 48 nmi offshore of San Mateo County. In that letter NOAA affirmed that "sounds emanating from the ATOC sound source can be reasonably expected to affect marine mammals that are resources of both the outer continental shelf ("OCS") and the coastal zone…" and "OCRM has determined that the marine animals at issue that ply the waters of the coastal zone and the OCS are coastal resources."

Mitigation Protocols

The Commission has historically found that Navy military training and testing mitigation protocols involving underwater active mid-frequency sonar are not adequate to protect marine mammals and sea turtles from the effects of mid-frequency sonar (as discussed in detail in the Commission's findings on Navy consistency determinations CD-086-06 (adopted in January, 2007), CD-049-08 (adopted in October, 2008), and, most recently, CD-008-13-SOCAL Testing and Training Exercises (adopted in April, 2013).

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[2] Now OCM – Office for Coastal Management.

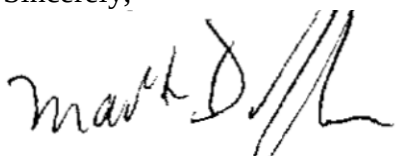
[3] ATOC is the acronym for Scripps Institution of Oceanography's Acoustic Thermometry of Ocean Climate, reviewed by the Commission as Consistency Certification CC-110-94.

(See, e.g., pp. 36-46 of the report at the same link as above.)

As mentioned above, we will not belabor this point either in this letter, which is focused on the threshold question of effects, rather than the proposal's consistency to the maximum extent practicable with the enforceable policies of the CCMP. The point we are making in this letter is simply that the existing protocols (which are similar to those implemented in SOCAL (See Attachment 5 for NWTT protocols) are insufficient to avoid generating "effects" on coastal zone marine resource species. Briefly, not all animals will be observed, and even with the protocols in place, the received sound levels for some species would be sufficiently loud to result in serious physiological damage, and for many species to cause aversive reactions potentially during important biological behaviors.

In conclusion, for the reasons discussed above, we disagree with the Navy's conclusion that the activities would not affect any resource of the California coastal zone, and we therefore request that the Navy submit a federal consistency determination to California for the California portion of the NWTT, including a complete analysis of the project's consistency with enforceable policies of the CCMP (i.e., the Chapter 3 policies of the Coastal Act). We are therefore notifying the Navy that the Commission staff **disagrees** that the proposed testing and training activities would not adversely affect California coastal zone resources. We therefore **object** to your negative determination made pursuant to 15 CFR Section 930.35 of the NOAA implementing regulations and request submittal of a consistency determination. Please contact Mark Delaplaine at (415) 904-5289 if you have any questions regarding this matter.

Sincerely,



(for) CHARLES LESTER
Executive Director

Attachments:

1. NWTT Area Maps
2. Navy IHA Request Table 5-2 - "Take" Estimates for Training
3. Navy IHA Request Table 1-8 – Annual Hours of Sonar Used During Training
4. Navy IHA Request Table 1-3 – Categories of Active Acoustic Sources
5. Navy Mitigation Protocols

cc: Arcata District Office
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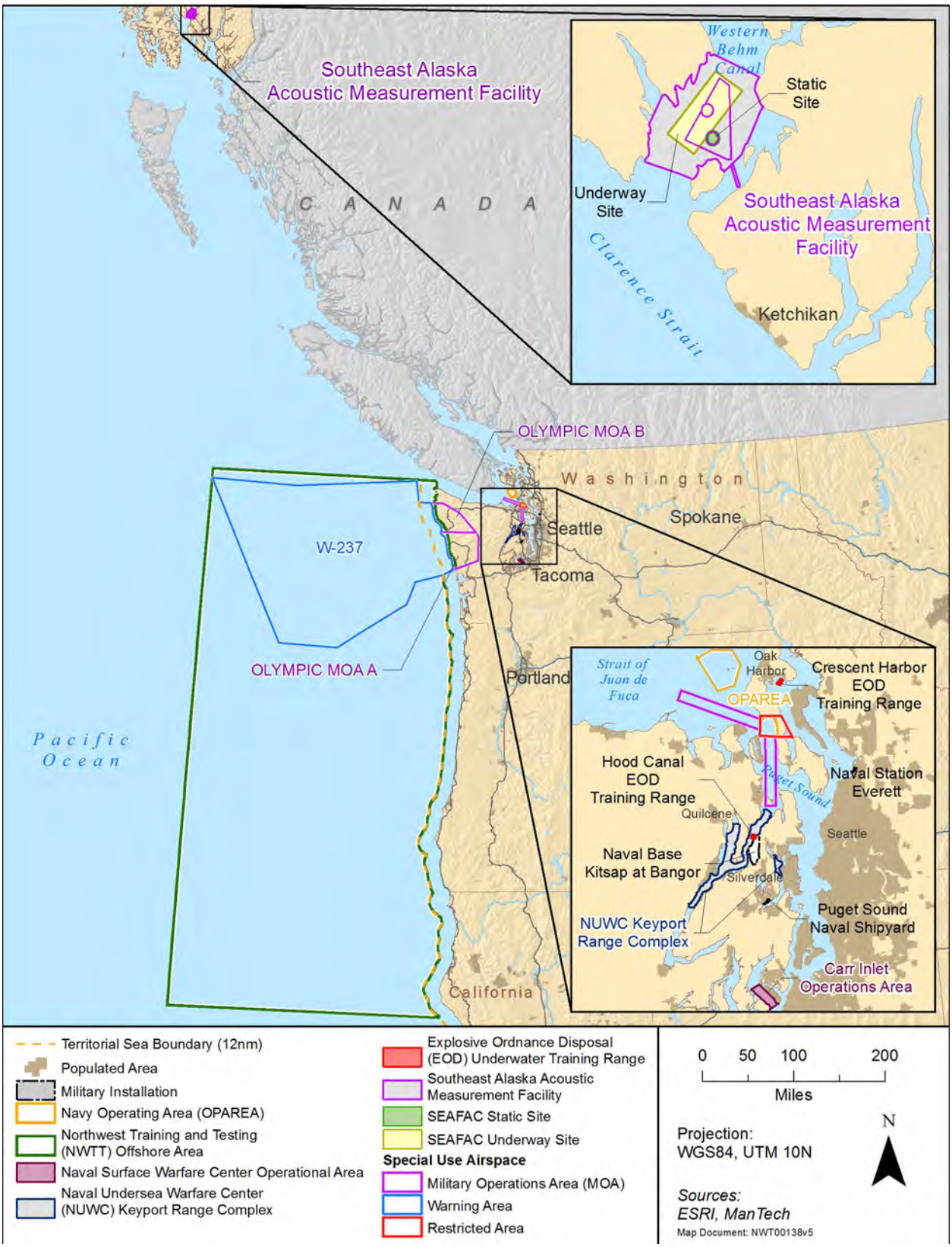

Figure 1: Northwest Training and Testing Study Area

Figure 2: Portion of the Offshore Area of the Northwest Training and Testing Study Area Adjacent to California

Attachment 2

Table 5-2: Species Specific Take Requests from Modeling Estimates of Impulsive and Non-Impulsive Source Effects for All Training Activities

Species	Stock	Max. Annual		5-Year	
		Level B	Level A	Level B	Level A
North Pacific right whale	Eastern North Pacific	0	0	0	0
Humpback whale	Central North Pacific	0	0	0	0
	California, Oregon, & Washington	12	0	60	0
Blue whale	Eastern North Pacific	5	0	25	0
Fin whale	Northeast Pacific	0	0	0	0
	California, Oregon, & Washington	25	0	125	0
Sei whale	Eastern North Pacific	0	0	0	0
Minke whale	Alaska	0	0	0	0
	California, Oregon, & Washington	18	0	90	0
Gray whale	Eastern North Pacific	6	0	30	0
	Western North Pacific	0	0	0	0
Sperm whale	North Pacific	0	0	0	0
	California, Oregon, & Washington	81	0	405	0
Kogia (spp.)	California, Oregon, & Washington	73	0	365	0
Killer whale	Alaska Resident	0	0	0	0
	Northern Resident	0	0	0	0
	West Coast Transient	9	0	39	0
	East North Pacific Offshore	13	0	65	0
	East N. Pacific Southern Resident	2	0	6	0
Short-finned pilot whale	California, Oregon, & Washington	0	0	0	0
Short-beaked common dolphin	California, Oregon, & Washington	734	0	3,670	0
Bottlenose dolphin	California, Oregon, & Washington	0	0	0	0
Striped dolphin	California, Oregon, & Washington	22	0	110	0
Pacific white-sided dolphin	North Pacific	0	0	0	0
	California, Oregon, & Washington	3,482	0	17,408	0
Northern right whale dolphin	California, Oregon, & Washington	1,332	0	6,660	0
Risso's dolphin	California, Oregon, & Washington	657	0	3,285	0
Harbor porpoise	Southeast Alaska	0	0	0	0
	Northern Oregon/Washington Coast	35,006	0	175,030	0
	Northern California/Southern Oregon	52,509	0	262,545	0
	Washington Inland Waters	1,417	1	4,409	5
Dall's porpoise	Alaska	0	0	0	0
	California, Oregon, & Washington	3,732	4	18,188	20
Cuvier's beaked whale	Alaska	0	0	0	0
	California, Oregon, & Washington	353	0	1,765	0
Baird's beaked whale	Alaska	0	0	0	0
	California, Oregon, & Washington	591	0	2,955	0
Mesoplodon beaked whales	California, Oregon, & Washington	1,417	0	7,085	0
Steller sea lion	Eastern U.S.	404	0	1,986	0
Guadalupe fur seal	Guadalupe Island	7	0	35	0
California sea lion	U.S. Stock	814	0	4,038	0
Northern fur seal	Eastern Pacific	2,495	0	12,475	0
	California	37	0	185	0
Northern elephant seal	California Breeding	1,271	0	6,353	0
Harbor seal	Clarence Strait	0	0	0	0
	OR/WA Coastal	0	0	0	0
	Washington Inland Waters	548	4	2,390	20
Northern sea otter	Southeast Alaska	0	0	0	0
	Washington	0	0	0	0
	TOTALS	**107,072**	**9**	**531,782**	**45**

1.6.3 SUMMARY OF IMPULSIVE AND NON-IMPULSIVE SOURCES

The Navy is requesting the level of take discussed in Chapter 5 based on the annual sonar and other active acoustic and explosive bin use listed in the following sections.

1.6.3.1 Training Sonar and Other Active Acoustic Source Classes

Table 1-8 provides a quantitative annual summary of training activities by sonar and other active acoustic source class analyzed in this LOA request.

Table 1-8: Annual Hours of Sonar and Other Active Acoustic Sources Used during Training within the Study Area

Source Class Category	Source Class	Units	Annual Use
Mid-Frequency (MF) Active sources from 1 to 10 kHz	**MF1**	Hours	166
	MF3	Hours	70
	MF4	Hours	4
	MF5	Items	896
	MF11	Hours	16
High-Frequency (HF): Tactical and non-tactical sources that produce signals greater than 10 kHz but less than 100 kHz	**HF1**	Hours	48
	HF4	Hours	384
	HF6	Hours	192
Anti-Submarine Warfare (ASW) Active ASW sources	**ASW2**	Items	720
	ASW3	Hours	78

1.5.6 SOURCE CLASSES ANALYZED FOR TRAINING AND TESTING

For this LOA request, Table 1-1 shows the impulsive sources (e.g., underwater explosives) associated with Navy training and testing activities analyzed in the Study Area.

Table 1-2 shows non-impulsive sources (e.g., sonar) associated with Navy training activities analyzed in this application.

Table 1-3 shows the non-impulsive sources associated with Navy testing.

Table 1-1: Training and Testing Impulsive (Explosives) Source Classes Analyzed

Source Class	Representative Munitions	Net Explosive Weight (pounds [lb.])
E1	Medium-caliber projectiles	0.1–0.25
E3	Large-caliber projectiles	> 0.5–2.5
E4	Improved Extended Echo Ranging Sonobuoy	> 2.5–5.0
E5	5-inch projectiles	> 5–10
E8	MK-46 torpedo	> 60–100
E10	Air-to-surface missile	> 250–500
E11	MK-48 torpedo	> 500–650
E12	2,000 lb. bomb	> 650–1,000

Table 1-2: Non-Impulsive Training Source Classes Quantitatively Analyzed

Source Class Category	Source Class	Description
Mid-Frequency (MF): Tactical and non-tactical sources that produce mid-frequency (1–10 kHz) signals	MF1	Hull-mounted surface ship sonar (e.g., AN/SQS-53C and AN/SQS-60)
	MF3	Hull-mounted submarine sonar (e.g., AN/BQQ-10)
	MF4	Helicopter-deployed dipping sonar (e.g., AN/AQS-22 and AN/AQS-13)
	MF5	Active acoustic sonobuoys (e.g., DICASS)
	MF11	Hull-mounted surface ship sonar with an active duty cycle greater than 80%
High-Frequency (HF): Tactical and non-tactical sources that produce high-frequency (greater than 10 kHz but less than 100 kHz) signals	HF1	Hull-mounted submarine sonar (e.g., AN/BQQ-10)
	HF4	Mine detection, classification, and neutralization sonar (e.g., AN/SQS-20)
	HF6	Active sources (equal to 180 dB and up to 200 dB)
Anti-Submarine Warfare (ASW): Tactical sources such as active sonobuoys and acoustic countermeasures systems used during the conduct of ASW training activities	ASW2	Mid-frequency Multistatic Active Coherent sonobuoy (e.g., AN/SSQ-125)
	ASW3	Mid-frequency towed active acoustic countermeasure systems (e.g., AN/SLQ-25)

Table 1-3: Non-Impulsive Testing Source Classes Quantitatively Analyzed

Source Class Category	Source Class	Description
Low-Frequency (LF): Sources that produce low-frequency (less than 1 kHz) signals	LF4	Low-frequency sources equal to 180 dB and up to 200 dB
	LF5	Low-frequency sources less than 180 dB
Mid-Frequency (MF): Tactical and non-tactical sources that produce mid-frequency (1–10 kHz) signals	MF3	Hull-mounted submarine sonar (e.g., AN/BQQ-10)
	MF4	Helicopter-deployed dipping sonar (e.g., AN/AQS-22 and AN/AQS-13)
	MF5	Active acoustic sonobuoys (e.g., DICASS)
	MF6	Active underwater sound signal devices (e.g., MK-84)
	MF8	Active sources (greater than 200 dB)
	MF9	Active sources (equal to 180 dB and up to 200 dB)
	MF10	Active sources (greater than 160 dB, but less than 180 dB) not otherwise binned
	MF11	Hull-mounted surface ship sonar with an active duty cycle greater than 80%
	MF12	High duty cycle – variable depth sonar
High-Frequency (HF): Tactical and non-tactical sources that produce high-frequency (greater than 10 kHz but less than 100 kHz) signals	HF1	Hull-mounted submarine sonar (e.g., AN/BQQ-10)
	HF3	Hull-mounted submarine sonar (classified)
	HF5[1]	Active sources (greater than 200 dB)
	HF6	Active sources (equal to 180 dB and up to 200 dB)
Very High-Frequency (VHF): Tactical and non-tactical sources that produce signals greater than 100 kHz but less than 200 kHz	VHF2	Active sources with a frequency greater than 100 kHz, up to 200 kHz with a source level less than 200 dB
Anti-Submarine Warfare (ASW): Tactical sources such as active sonobuoys and acoustic countermeasures systems used during the conduct of ASW testing activities	ASW1	Mid-frequency Deep Water Active Distributed System (DWADS)
	ASW2	Mid-frequency Multistatic Active Coherent sonobuoy (e.g., AN/SSQ-125) – sources analyzed by number of items (sonobuoys)
	ASW2	Mid-frequency Multistatic Active Coherent sonobuoy (e.g., High Duty Cycle) – Sources that are analyzed by hours
	ASW3	Mid-frequency towed active acoustic countermeasure systems (e.g., AN/SLQ-25)
	ASW4	Mid-frequency expendable active acoustic device countermeasures (e.g., MK-3)
Torpedoes (TORP): Source classes associated with the active acoustic signals produced by torpedoes	TORP1	Lightweight torpedo (e.g., MK-46, MK-54)
	TORP2	Heavyweight torpedo (e.g., MK-48, electric vehicles)
Acoustic Modems (M): Systems used to transmit data acoustically through water	M3	Mid-frequency acoustic modems (greater than 190 dB) (e.g., Underwater Emergency Warning System, Aid to Navigation)
Swimmer Detection Sonar (SD): Systems used to detect divers and submerged swimmers	SD1	High-frequency sources with short pulse lengths, used for the detection of swimmers and other objects for the purpose of port security
Synthetic Aperture Sonar (SAS): Sonar in which active acoustic signals are post-processed to form high-resolution images of the seafloor	SAS2	High frequency unmanned underwater vehicle (UUV) (e.g., UUV payloads)

1 Notes: (1) For this analysis, HF5 consists of only one source; the modeling was conducted specifically for that source. (2) DICASS = Directional Command Activated Sonobuoy System

Table 5-2: Summary of Recommended Mitigation Measures; Extracted from Table 5.4-1 in the Draft EIS/OEIS and Updated to Reflect Changes in Mitigation Measures

Activity Category or Mitigation Area	Recommended Lookout Procedural Measure	Recommended Mitigation Zone and Protection Focus	Current Measure and Protection Focus
Acoustic Stressors – Sonar and Other Active Acoustic Sources			
Low-Frequency and Hull-Mounted Mid-Frequency Active Sonar during Anti-Submarine Warfare and Mine Warfare	Training: 2 Lookouts (general), 1 Lookout (minimally manned, moored, or anchored) Testing: 2 Lookouts (general), 1 Lookout (small boats, minimally manned, moored, anchored, pierside, or shore-based)	Training: 1,000 yd. (920 m) and 500 yd. (460 m) power downs and 200 yd. (180 m) shutdown for cetaceans and sea turtles (excludes bow-riding dolphins), 100 yd. (90 m) mitigation zone for pinnipeds (excludes haulouts). Testing: ~~Cetacean mitigation zone 1,000 yd. (920 m), 100 yd. (90 m) for pinnipeds (excludes haulouts), from intended track of the test unit.~~ **1,000 yd. (920 m) and 500 yd. (460 m) power downs for sources that can be powered down and 200 yd. (180 m) shutdown for cetaceans, 100 yd. (90 m) for pinnipeds**	Training: 1,000 yd. (920 m) and 500 yd. (460 m) power downs and 200 yd. (180 m) shutdown for marine mammals and sea turtles. Testing: Observation conducted from all participating surface craft and, where available, adjacent shore sites, with a cetacean mitigation zone 1,000 yd. (920 m), 100 yd. (90 m) for pinnipeds from intended track of the test unit.
Explosive and Impulse Sound			
Improved Extended Echo Ranging Sonobuoys	Training: 1 Lookout Testing: 1 Lookout	Training: ~~600 yd. (550 m) for marine mammals, sea turtles, and concentrations of floating vegetation.~~ **n/a** Testing: ~~Same as Training~~ **600 yd. (550 m) for marine mammals, sea turtles, and concentrations of floating vegetation.**	Training: 1,000 yd. (920 m) for marine mammals and sea turtles. Testing: Same as Training
Explosive Signal Underwater Sound buoys using ~~0.6~~ **>0.5**–2.5 lb. NEW	Training: 1 Lookout Testing: 1 Lookout	Training: 350 yd. (320 m) for marine mammals, sea turtles, and concentrations of floating vegetation. Testing: Same as Training	None

Table 5-2: Summary of Recommended Mitigation Measures; Extracted from Table 5.4-1 in the Draft EIS/OEIS and Updated to Reflect Changes in Mitigation Measures (continued)

Activity Category or Mitigation Area	Recommended Lookout Procedural Measure	Recommended Mitigation Zone and Protection Focus	Current Measure and Protection Focus
Explosive and Impulse Sound (continued)			
Mine Countermeasures and Mine Neutralization using Positive Control Firing Devices	Training: 2 Lookouts (1 each on 2 survey boats) Testing: n/a	Training: ~~700 yd. (640 m)~~ **400 yd. (366 m)** for **>0.5-**2.5 lb. charge for marine mammals, turtles, and marbled murrelet. ~~330 yd. (300 m) for up to 1.5 lb. charge for marbled murrelet.~~ ~~110 yd. (100 m) for 1 ounce charge marbled murrelet.~~ Testing: n/a	Training: 700 yd. (640 m) for up to 2.5 lb. charge for marine mammals, turtles, and marbled murrelet. 330 yd. (300 m) for up to 1.5 lb. charge for marbled murrelet. 110 yd. (100 m) for 1 ounce charge marbled murrelet. Testing: n/a
~~Mine Neutralization Activities Using Diver-Placed Time-Delay Firing Devices~~	~~Training: 4 Lookouts (2 each on 2 survey boats)~~ ~~Testing: n/a~~	~~Training: 700 yd. (640 m) for up to 2.5 lb. charge for marine mammals, turtles, and marbled murrelet.~~ ~~330 yd. (300 m) for up to 1.5 lb. charge for marbled murrelet.~~ ~~110 yd. (100 m) for 1 ounce charge marbled murrelet.~~ ~~Testing: n/a~~	~~Training: 700 yd. (640 m) for up to 2.5 lb. charge for marine mammals, turtles, and marbled murrelet.~~ ~~330 yd. (300 m) for up to 1.5 lb. charge for marbled murrelet.~~ ~~110 yd. (100 m) for 1-ounce charge marbled murrelet.~~ ~~Testing: n/a~~

CALIFORNIA COASTAL COMMISSION
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May 1, 2015

Eric Nelson, Refuge Manager
Humboldt Bay National Wildlife Refuge
1020 Ranch Rd.
Loleta, CA 95521

Re: **ND-0011-15** U.S. Fish and Wildlife Service, White Slough Tidal Restoration Project, Humboldt Bay National Wildlife Refuge, Humboldt Co.

Dear Mr. Nelson:

The U.S. Fish and Wildlife Service (Service) has submitted the above-referenced negative determination for the White Slough Tidal Restoration Project at the Humboldt Bay National Wildlife Refuge (Refuge) in Humboldt Bay. The primary purpose of the project is to restore and enhance salt marsh habitat on diked former tidelands, and to enhance existing degraded brackish and freshwater wetlands to create additional native wildlife habitat. Additional public benefits accruing from the project include protecting existing transportation infrastructure, beneficial reuse of sediment, and possible sequestration of greenhouse gases.

The project is among the components contemplated under the Service's Comprehensive Conservation Plan (CCP) for the Refuge. Among the objectives and strategies articulated in the CCP were:

> ***Objective***:
> *If feasible, restore 235 acres (90 acres at the Hookton Slough Unit, 45 acres on White Slough Unit, and 100 acres on Table Bluff Unit) to native salt marsh habitat.*
>
> ***Strategies***:
> *1.2.11. If feasible, use the dike material and additional appropriate fill from local sources on the White Slough Unit to raise the marsh elevation.*
>
> *1.2.4. Repair and modify the White Slough tidegate to improve estuarine and brackish marsh conditions on the inside of Salmon Creek dikes.*
>
> *1.2.5. Collect data needed to model sea level rise for HBNWR using SLAMM (Sea Level Affecting Marsh Management), including sedimentation rates. Update National Wetland Inventory (NWI) maps for HBNWR to be used as basis for SLAMM models. Continue to keep informed of the latest research on sea level rise and other salt marsh restorations, especially in Humboldt Bay, SF Bay, and in the Pacific Northwest, and factor information into restoration plans.*

1.2.6. Assess possibilities of using clean dredge spoil or excavated materials to increase tidal elevation prior to restoration (HBHRCD, Caltrans, etc.).

1.3.16. On the White Slough Unit, work with Caltrans to dechannelize Chism Creek so that it enters the west White Slough Unit area to maximize freshwater/salt marsh continuum.

In considering these objectives and strategies, the Service noted in the CCP:

The Hookton Slough and White Slough units contain diked former salt marsh that is now subsided freshwater or brackish marsh. On these sites there is the possibility of managing for muted tidal exchange in order to avoid the necessity of elevation increases. Alternatively, if appropriate material was available, these sites could also be raised in elevation and subject to full tidal exchange. Potential methods to bring substrate up to the appropriate level include use of excavated or dredged materials, both of which have been used in San Francisco Bay and other coastal locations. Other factors to be considered during restoration planning include: impacts on threatened, endangered, and other species, values and uniqueness of existing habitat types, feasibility, and cost. While each coastal location presents a unique set of challenges, refuge managers can learn from other sites and projects, employ an adaptive approach, and restore estuarine habitats on the refuge to the extent practicable.

Over the past 32 years the Commission and its staff have reviewed a number of past consistency and negative determinations submitted by the Service for the above-referenced CCP, as well as a number of other habitat restoration, levee maintenance, hydrological modification, and land acquisition activities on the Refuge. These reviews include:

1. CD-001-82 – Levee dike riprap maintenance, Hookton Slough
2. CD-027-83 – Dike extension/flapgate/piping to facilitate water level manipulation, Hookton Slough
3. CD-045-84 – Emergency dike repair to abate public nuisance (i.e. mosquito abatement, Wiggins Tract)
4. CD-041-87 – Five Wetland Enhancement Projects
5. CD-007-88 - McBride Ranch Acquisition
6. CD-040-91 – Refuge Management Plan
7. CD-033-92 - Refuge Management Plan, Salmon Creek, Hookton Slough, White Slough
8. ND-111-05 - Salmon Creek restoration – tidegate removal, channel maintenance/habitat enhancement
9. ND-049-06 – Non-mechanized removal of invasive plants from salt marshes
10. ND-051-07 – Hookton Slough dike repair and riprap placement
11. ND-031-09 - Comprehensive Conservation Plan (CCP) for the Refuge
12. ND-017-10 - Salmon Creek restoration
13. ND-025-10 – Salt marsh invasives removal, predominantly non-mechanized, but with experimental mechanical removal

14. ND-041-10 – Sediment sampling for presence of invasives seedbanks in Refuge
15. ND-028-12 - Salmon Creek restoration

During the first few of these reviews (in the 1980s through the early 1990s), the Commission urged the Service to complement its piecemeal (at that time) submittals with comprehensive refuge-wide management plans (with comprehensive monitoring). The Commission also at that time settled the question of the fundamental consistency with the Coastal Act (using the conflict resolution mechanism in Section 30007.5) of returning former diked agricultural lands on the Refuge to their original (i.e., pre-modern agriculture) intertidal wetland conditions. The Service agreed to prepare and submit comprehensive management plans for the Refuge to the Commission for its review, submitting initial management plans in 1991-1992 (CD-041-91 and CD-033-92). These plans described Refuge-wide goals, hydrological modifications, and monitoring provisions, and the Commission concurred with the Service's consistency determinations for these management plans, finding them consistent with the Coastal Act.

Seventeen years later, and after extensive public involvement and inter-agency coordination in its development, the Service submitted the above-referenced Comprehensive Conservation Plan (CCP) to the Commission in the form of a negative determination (ND-031-09). This CCP established the current-day goals, objectives, and management measures for the Refuge. On July 20, 2009, the Commission staff concurred with this negative determination.

The Commission staff has also concurred with a number of additional Service negative determinations for specific for restoration projects called out under the CCP (including one concurrence in 2005 listed above submitted prior to CCP preparation). These determinations were for Salmon Creek Restoration and removals of invasive salt marsh species, as follows: Salmon Creek restoration, Phases I, II and III (ND-111-05, ND-017-10, and ND-028-12, respectively), and salt marsh invasives removal (predominantly relying on non-mechanized equipment, but with experimental mechanical removal) (ND-025-10 and ND-041-10).

The subject negative determination is for restoration activities in the White Slough Unit of the Refuge (see Attachment 1), a 61-acre Unit containing diked wetlands, consisting primarily of brackish marshes well as small areas of agricultural wetlands, freshwater marsh, and riparian habitat. The White Slough Unit is divided into 3 subunits (Attachment 2): North Unit (16 acres), West Unit (40 acres), and East Unit (4 acres). The north and west units consist primarily of diked brackish marsh, while the east unit consists of brackish marsh and freshwater wetlands located east of Highway 101.

Overall, the Service proposes to restore 28.1 acres of brackish marsh by creating more desirable salt marsh as well as additional preferred habitat types, including new salt marsh (25.1 acres), tidal channels (2.2 acres), roosting islands (2.1 acres), depressional wetlands and ponds (2.3 acres), and other habitat types. Restoration would occur by raising brackish marsh elevations to a level preferred by salt marsh vegetation by importing fill over multiple construction seasons. The Service also proposes to remove 2.6 acres of upland dikes. In addition to converting wetland types to increase wetland function, the project will result in the creation of 1.0 new acre of wetlands overall. The total project area is 40.1 acres.

The specific proposed actions are described in Attachment 3. Most of the work would be in the West Unit. In the North Unit, which is currently near sea level (i.e., where significant subsidence has not occurred), existing tidegates would be modified to establish a muted tide cycle, and historic channels would be cleared of obstructions and sediment to improve drainage, support tidal and brackish water wetlands, and avoid mosquito production. In the West Unit, where dikes have been damaged and significant subsidence has occurred (to an elevation approximately three feet lower than that of the salt marsh on the Bay side of the dikes), and where Chism Creek, which drains into this unit, is currently channelized, the Service proposes to raise wetland elevations, using up to 240,000 cubic yards of clean silt-sand-clay soil. The Service has identified several potential sources of fill material. The Service's initial phase would involve placement of fill to construct a tidal ridge to divide the project area into three drainage cells (as well as an additional cell on Caltrans right-of-way, which would largely remain at existing elevations). The tidal ridge would be at an elevation of approximately +9.0 ft. (NAVD88) and would support brackish marsh vegetation.

Additional fill material would be placed and graded to create a complex mosaic of tidal marsh, with salinities ranging from salt to fresh. The tidal marsh would include a network of tidal channels and two depressional wetlands/ponds. After all the fill is placed, portions of the levee would be lowered to suitable tidal marsh elevations. (Material excavated from breach locations would be used for internal fill.) Also, some portions of the levee would be left in place to create roosting areas and high-tide refugia for birds. Sufficient levee breaching would occur to fully restore tidal inundation in each basin.

The Caltrans basin would remain as a muted marsh, and a culvert with a fish-friendly flap gate would be installed to provide drainage into the South Basin. Fill would be placed in the northern portion of the Caltrans basin to extend the brackish marsh on the tidal ridge to meet the slope of the Highway 101 embankment. Chism Creek would be rerouted south into the marsh through a constructed channel. This would create a larger mosaic of freshwater, brackish, and salt marsh habitats. As noted above, a secondary (but nevertheless important) purpose of the project is to create a "living shoreline" to protect the Highway 101 road prism from erosion by wave fetch and sea level rise.

The project includes a number of monitoring, avoidance, minimization, best management practices, and mitigation measures (listed in Attachments 4 (Mitigation) and 5 (Monitoring)). Construction activities would be scheduled between July 1st and October 31st to avoid periods of greatest precipitation, and potential amphibian and bird breeding. Placement and grading of fill would be staggered over four to five construction seasons (April-October), due to the large amount of imported fill required for the project. The construction area would be stabilized over the intervening winter using best management practices.

The Service intends the proposed elevations to enable salt marsh to persist with approximately two or more feet of sea level rise (at a projected rate of 6mm/yr). The project would initially restore salt marsh habitat on a gradient that would culminate in upland-Riparian

habitat. By 2050, with projected relative Sea Level Rise rates, the area would transition to a mix of mud flats, tidal marsh, and upland-Riparian. By 2080, the area would likely support a mixture of mud flats and tidal marsh.

Monitoring measures (Attachment 5) would include biological monitoring reporting for fish capture and relocation, effects on red-legged frogs and/or northwestern pond turtles, sensitive bird breeding, sensitive plant species (including eelgrass). Success criteria for sensitive plant species would include the following statement: "Successful mitigation will be determined if plant species of concern are in a density and total area consistent with pre-impact conditions in 5 years."

At the Commission staff's request, the Service has also agreed that all monitoring plans, success criteria, final project plans with elevations and channel cross sections, and sediment quantity and quality reports will be coordinated with the Commission staff as they are developed. Future post-construction monitoring reports will also be submitted to the Commission staff.

The project would result in temporary habitat disturbances during construction, and modifications reducing brackish habitat and increasing salt marsh habitat in the long term. Overall wetland acreage would increase by one acre (primarily due to dike removal). The Habitat acreage modifications are shown in Attachment 5. The Service states:

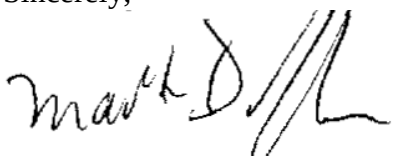
> *As a result of project activities, the acreage of brackish marsh will substantially decrease, balanced by an increase in salt marsh habitat. Additional new habitats created or enhanced by the project include mud flat, stream channel, tidal pool and brackish pond habitats (Table 2* [Attachment 5]*). As a benefit of the project's activities, 1.0 acre of salt marsh will be gained by removing dikes.*

The Service has also submitted, at the Commission staff's request, its traffic management control plan. This plan addresses, among other things, minimizing truck traffic impacts (and associated noise levels) during sediment relocation. The Service also notes that notes the activity (1) has been determined consistent with the California Environmental Quality Act (CEQA), via a State Coastal Conservancy's Draft Mitigated Negative Declaration (SCH# 2015-022040); (2) will be subject to: (a) permit reviews by the U.S. Army Corps of Engineers and the Humboldt Bay Harbor, Recreation and Conservation District (HRCD); (b) a streambed alteration agreement with the California Department of Fish and Wildlife (CDFW); (c) an encroachment permit from Caltrans (for ingress/egress from Highway 101); and (3) will involve consultation with the National Marine Fisheries Service, the Regional Water Quality Control Board, the Service itself (regarding federally listed species), and State and Tribal Historic Preservation Officers.

Under the federal consistency regulations (Section 930.35), a negative determination can be submitted for an activity "which is the same as or similar to activities for which consistency determinations have been prepared in the past." The Commission and staff have concurred with the 15 consistency and negative determinations submitted by the Service listed on pages 2-3 above, which were intended to improve wetland and environmentally sensitive habitat on the Refuge and which specifically contemplated the proposed restoration and marsh elevation

concept spelled out in the CCP (ND-031-09). With the additional commitments described above agreed to by the Service, we agree that the restoration project would be "the same as or similar to" the previously-concurred with restoration projects and management plans, and would provide overall benefits for (and would not adversely affect) coastal zone resources. We therefore **concur** with your negative determination made pursuant to 15 CFR 930.35 of the NOAA implementing regulations. Please contact Mark Delaplaine at (415) 904-5289 if you have any questions regarding this matter.

Sincerely,



(for) CHARLES LESTER
Executive Director

Attachments

1) Refuge Units
2) Refuge Subunits
3) Proposed Actions
4) Mitigation measures Listed in CEQA document
5) Monitoring measures Listed in CEQA document

cc: North Coast District
Aldaron Laird
Corps of Engineers, San Francisco District
Corps of Engineers, Eureka Field Office
Joel Gerwein, Coastal Conservancy
Humboldt Bay HRCD
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Caltrans (District 1)
National Marine Fisheries Service
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State Historic Preservation Officer
Dept. of Parks and Recreation
1416 Ninth St.
Sacramento, CA 95814

Attachment 1

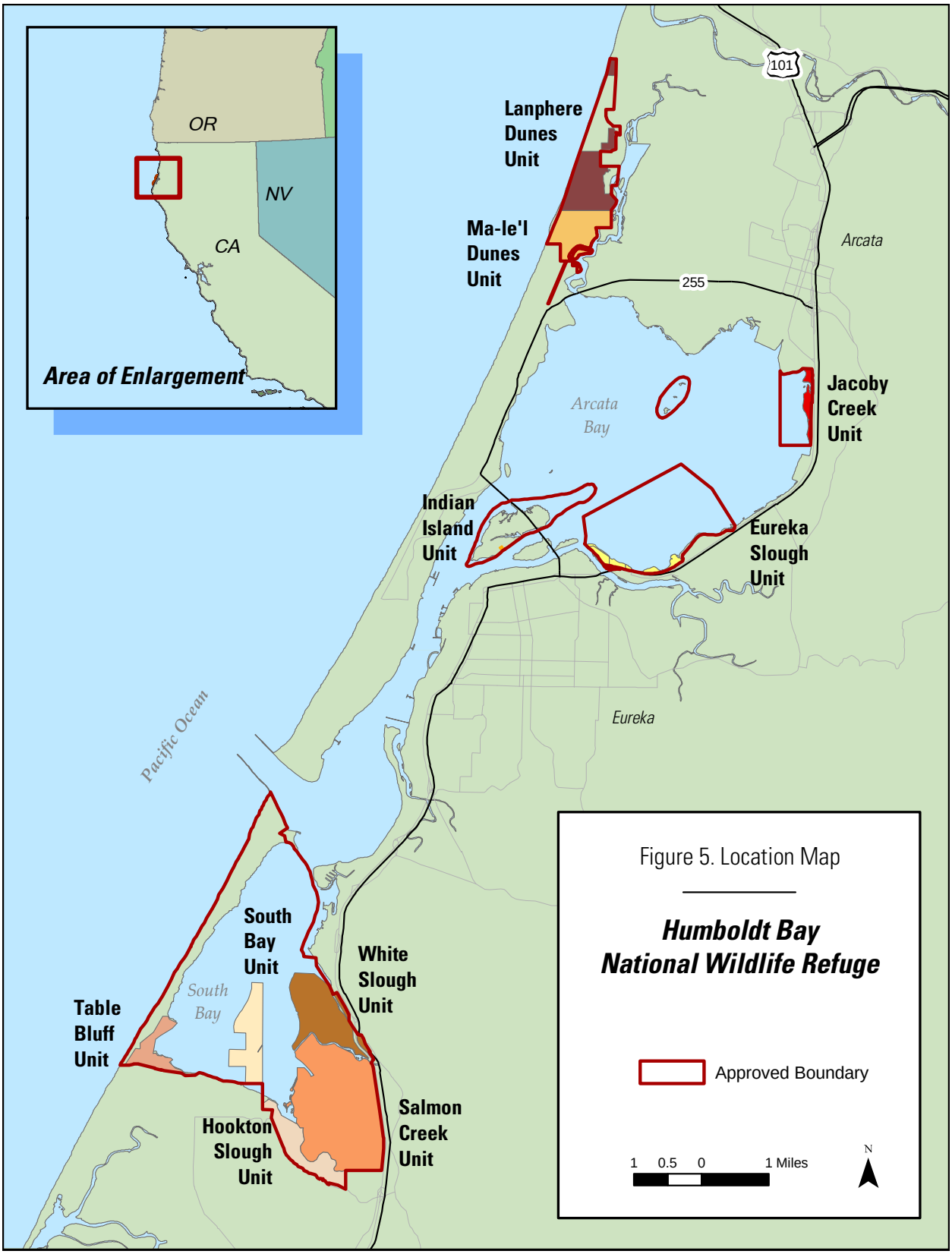

Figure 5. Refuge boundary and management units for Humboldt Bay NWR.

Figure 1. Map of project location, including assessor parcel numbers (Humboldt County GIS, 2012 aerial photography).

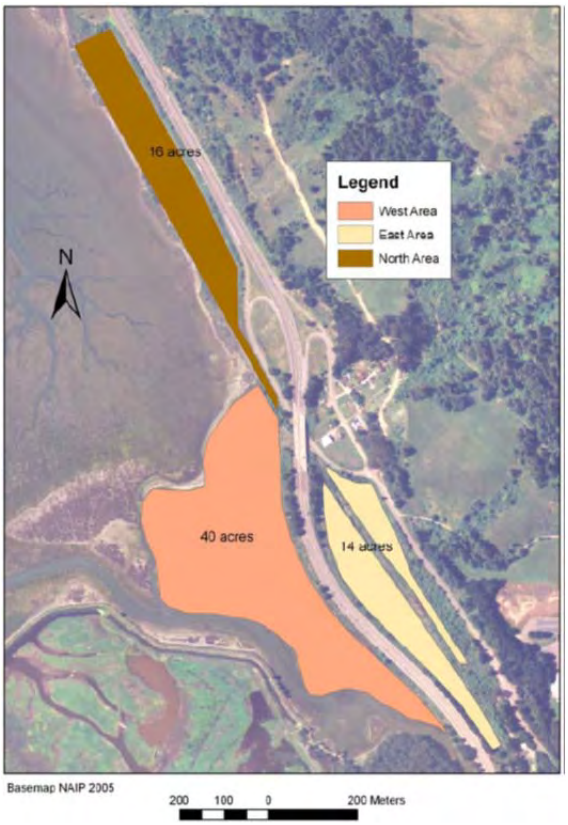

Figure 2. West Unit, North Unit, and East Unit project sub-areas (2005 aerial photography).

Construction activities will be scheduled between July 1st and October 31st to avoid periods of precipitation, amphibian breeding, and bird breeding. Placement and grading of fill is anticipated to occur over two or three construction seasons due to the large amount of imported fill required for the project. The construction area will be stabilized over the intervening winter.

The proposed project takes into consideration impacts of relative sea level rise (SLR) (6mm/yr) on intertidal wetlands by providing surface elevations that will enable salt marsh to persist with approximately two or more feet of sea level rise (Sheet 5, Shea 2015). The proposed project will initially restore salt marsh habitat on a gradient that would culminate in upland-Riparian habitat. By 2050, with projected relative SLR rates, the area would transition to a mix of mud flats, tidal marsh, and upland-Riparian. By 2080, the area would likely support a mixture of mud flats and tidal marsh.

6 PROPOSED ACTIONS

Proposed actions are summarized below and detailed in the attached 50% Concept Plans for the White Slough Wetland Enhancement Project.

6.1 West Unit:

1. Develop construction site access via an undeveloped driveway from a County Road/U.S. 101 south bound on/off-ramp beneath Highway 101 overpass. Install temporary traffic advisory signage on the U.S. 101 off ramps. Build a stabilized construction entrance/exit pad (0.1 acres) and a stockpile area (0.8 acres). Two temporary crossings of remnant tidal slough channels will be constructed.

2. Construct three earthen tidal ridges to divide the project area into four basins. Tidal Ridge 1 (2.8 acres and 2,550 ft max. length 16,500 CY) will run along the eastern boundary of West WSU, Tidal Ridge 2 (0.8 acres and 700 ft max. length, 4,300 CY) will extend from Tidal Ridge 1 to the west to separate the Middle and South Basins, and Tidal Ridge 3 (2.6 acres and 2,300 ft max. length, 15,100 CY) will separate the North and Middle Basins (Appendix 3). The tidal ridges will have a top width of 20-feet and range in elevation between 8.5 feet and 9.0 feet NAVD 1988. The tidal ridges will be used as construction access roads. Tidal ridges will be graded and stabilized as needed to maintain equipment access during construction. A culvert with a fish-friendly flap gate will be installed to provide drainage from the Caltrans Basin into the South Basin (80 ft by 3 ft). Approximately 1,200 ft on the northern end of Tidal Ridge 1 will be extended to the east to meet the 9’ contour on the Highway 101 embankment.

3. A 20-foot setback gradient will be established around the perimeter of all existing open water channels and around proposed brackish water submergent and emergent wetlands areas. Several sections of old farm ditches that are currently wet will be filled. These ditches are remnant features that were excavated to provide drainage when the project area was in agricultural use.

4. The North, Middle, South, and CalTrans Basins will be further subdivided temporarily into areas of approximately 20,000 square feet (~0.5 acre) or less. Fill areas will be scraped if necessary to remove heavy vegetation, filled and graded in sequence, as described below (150,000 CY total). Up to 40 acres of brackish marsh and seasonal freshwater wetlands will receive fill to restore tidal wetland elevations.

    A. The remaining fill placement will be limited to a single basin at a time. If the marsh plain is flooded due to dike leakage, the basin under construction will be isolated from the adjacent drainage cells and dewatering will occur to remove water from the marsh plain surface during construction. Dewatering will require

placement of seine nets to block fish and placement of a pump intake line into wetted channels. Water will be discharged onto land into an adjacent (inactive) drainage cell.

B. Fill will be off-loaded, placed and graded to design elevations in each fill area.

C. Steps 6 and 7 will be repeated until all fill areas are complete. Access roads will be removed as work is completed. Removal consists of discing road surfaces and loosening the top six inches of soil. Reserved top soil and vegetation will be spread.

5. Excavate three breaches in the perimeter dike. There will be one dike breach in each of the North, Middle, and South Basins (93, 340, and 93 CY each respectively, 45, 85, 40 ft max. length each respectively). The breaches will be excavated to MLLW and have a bottom width of 10-15 feet, with 2:1 side slopes. Breaches may adjust over time through tidal action. Spread excavated material within fill areas.
6. Remove temporary cofferdam and existing tide gate (0 CY). Spread excavated material within fill areas.
7. Reroute discharge from Chism Creek from inboard ditch into newly constructed creek channel flowing through tidal wetlands complex to Humboldt Bay (0.2 acres, 820 ft max. length, 820 CY).
8. Lower the dike surrounding the WSU unit in three locations (0.5 acres, 1,110 ft max. length, 840 CY).
9. Demobilize equipment and remove all construction materials from site. Restore construction pad (0.1 acres) and stockpile area (0.8 acres).

6.2 North Unit:

1. Remove top-hinged 40 in. tide gate (0 CY).
2. Remove top-hinged 20 in. tide gate (0 CY).
3. Remove debris that has accumulated and buried a 36 in. box culvert to restore tidal inundation.

7 CONSTRUCTION DEWATERING AND STREAM DIVERSION SEQUENCING

Chism Creek has already been diverted to the north as a maintenance action through a temporary culvert to an existing in-board ditch channel along the south side of the railroad grade that drains to Humboldt Bay.

Installation of temporary block nets or fish screens in the tidal channels and Chism Creek will occur prior to all diversions or dewatering of any wetted channels, where work is to occur, to isolate and facilitate relocating any fish or amphibians. Relocation of fish and amphibians using electrofishing, seines, and dipnets will be coordinated with Department of Fish and Wildlife (DFW), Refuge, National Marine Fisheries Service (NMFS), and USFWS staff as appropriate. During, and immediately after de-watering an authorized fish biologist will conduct a survey of the areas being de-watered for stranded fish or amphibians. Any stranded fish or amphibians shall be collected, recorded, and relocated to adjacent waters with appropriate habitat conditions.

Aquatic habitat will be de-watered for the shortest time necessary to complete construction or excavation. Pumps used to de-water work areas will utilize a fish screen on the inlet of sufficiently sized mesh to prevent entrainment of Tide Water Goby.

Mitigation Measures

Biological Resources: 4 (a-c):

1. Construction will only occur between July 1st and October 31st when freshwater discharge from Chisum Creek is at its lowest and when the ground surface is dry and to reduce the chance of stormwater runoff occurring during construction.

2. Installation of temporary block nets or fish screens in the tidal channels and Chisum Creek will occur prior to all diversions or dewatering of any wetted channels, where work is to occur, to isolate and facilitate relocating any fish or amphibians. Relocation of fish and amphibians using electrofishing, seines, and dipnets will be coordinated with DFW, Refuge, NMFS, and USFWS staff as appropriate. During, and immediately after de-watering an authorized fish biologist will conduct a survey of the areas being de-watered for stranded fish or amphibians. Any stranded fish or amphibians shall be collected, recorded, and relocated to adjacent waters with appropriate habitat conditions.

3. Aquatic habitat will be de-watered for the shortest time necessary to complete construction or excavation. Pumps used to de-water work areas will utilize a fish screen on the inlet of sufficiently sized mesh to prevent entrainment of TWG or salmonids.

4. Construction activities in the seasonal wetlands in the West Unit Area will occur only when the area is dry and when adult red-legged frogs are not expected to be present.

5. Northwestern pond turtle surveys will be carried out by a qualified biologist along stream or pond margins two weeks prior to commencement of ground disturbing activities. Surveys will be utilized to locate and flag northwestern pond turtle nests with eggs, or to remove hatchlings and adults that may be present in the stream reach above the existing tidal zone. Any active nests located will left undisturbed until hatchlings have emerged or have been relocated to suitable areas outside of the area of disturbance, similarly relocation of any adults found will occur.

6. Surveys by a qualified biologist for nesting birds in riparian areas and 1,000 feet beyond the limits of disturbance, will occur two weeks prior to commencement of ground- disturbing activities. If breeding is confirmed of any birds of special status, construction activities that would degrade or remove breeding habitat will not occur in the immediate vicinity until the end of the breeding period for that species or until the breeding effort has either been determined to have failed or the young have been determined to have fledged.

7. A qualified botanist will survey for the 13 plant species of concern in the Project Area. If such plants are found, populations will be mapped and flagged, and avoided if possible. If populations of these plants cannot be avoided during excavation or grading they will be removed as “wafers” (top 12 inches of vegetation/topsoil) and

either transplanted immediately or stored separately on pond liners. These soils will be kept moist until they are re-placed at the appropriate finished grade and in the same orientation, or transplanted to another area of suitable habitat on the Refuge.

8. Disturbance of perennial wetlands, riparian vegetation, and open water habitats shall not exceed the minimum necessary to complete construction activities.

9. Vegetative disturbance will be contained within the limits of grading and kept to a minimum area.

10. To minimize disturbances to the existing marsh, work will be phased as described in the Project Description. In each phase, work shall be conducted in off-channel conditions by maintaining an earthen berm of native material between newly graded areas and the existing marsh. Turbidity curtains (filter fabric fences) will be installed downstream of each grading area prior to it being connected to the channel network to trap suspended sediment that might leave the construction site if stormwater runoff were to occur.

11. The Project will restore up to 26 acres of salt marsh habitat in the West Unit Area.

12. The Project will improve aquatic and bird habitat by creating depressional wetlands/ponds, increasing channel complexity and reducing stranding potential by increasing floodplain connectivity.

13. The Project will improve tidewater goby habitat by increasing the long term persistence of fresh and salt water mixing in the tidal marsh complex in the Project Area.

14. Construction will only occur between July 1st and October 31st when the ground surface is dry and to reduce the chance of stormwater runoff occurring during construction.

Hazards and Hazardous Materials 7 (a & h):

1. Heavy equipment that will be used in the Project will be in good condition and will be inspected for leakage of coolant and petroleum products and repaired, if necessary, before work is started.

2. Equipment operators will be trained in the procedures to be taken should an accident occur.

3. Prior to the onset of work the contractor will prepare a plan for the prompt and effective response to any accidental spills.

4. Absorbent materials designed for spill containment and cleanup will be kept at that Project site for use in case of an accidental spill.

5. Refueling of equipment will occur off-site.

6. If equipment must be washed, washing will occur off-site.

7. Stationary equipment will be positioned over drip pans.

8. All internal combustion engines shall be fitted with spark arrestors.

9. The contractor shall have an appropriate fire extinguishers and fire fighting tools present at all times when there is a risk of fire.

10. Vehicles shall not be parked in tall grass or any other location where heat from the exhaust system could ignite a fire.

Hydrology and Water Quality 8 (a):

1. Construction will only occur between July 1st and October 31st when the ground surface is dry and to reduce the chance of stormwater runoff occurring during construction and when there is very little freshwater flowing in Chisum Creek. Excavated materials shall not be stockpiled overwinter. Sediment control measures shall be in place while materials are being stockpiled to minimize sediment and pollutant transport from the Project site.

2. Placement of fill in the Project Area will occur when the area is not inundated by tide water.

3. Excavation shall include handling of saturated soils. Saturated soils shall be dewatered and/or transported saturated in a manner that prevents excess discharge or spillage of soils or water within the construction access areas. A silt fence will be installed around the perimeter of temporary stockpiles of saturated soils to prevent runoff from leaving the site.

4. During construction a silt fence will be deployed to isolate work areas from existing channels, and to trap suspended sediment that might leave the construction site if stormwater runoff were to occur. If the silt fence is not adequately containing sediment, the construction activity shall cease until remedial measures are implemented that prevent sediment from entering the waters below.

5. No construction materials, debris, or waste, shall be placed or stored where it may be allowed to enter into or be placed where it may be washed by rainfall into waters of the U.S./State.

6. Following completion of excavation, placement of fill, and grading all ground to the limits of disturbance (except newly constructed streambeds, pond beds, and tidally inundated areas) shall be treated for erosion prior to the onset of precipitation capable of generating run-off or the end of the yearly work period, whichever comes first. Treated areas not exposed to tidal influence will be mulched with at least 2 to 4 inches of certified weed-free straw mulch with wheat or other straw for riparian and wetland areas and rice straw for uplands and use of a seed mix with coverage equivalent to 100 lbs/acre of barley seed and appropriate riparian vegetation for

immediate erosion control. No annual (Italian) ryegrass (*Lolium multiflorum*) shall be used. In places such as stream banks, rush mattresses will be installed for immediate erosion control.

7. All temporary fill, synthetic mats and silt fences will be removed from wetlands and waters of the U.S./State immediately on cessation of construction. Biodegradable geotextile fabrics will be used, where possible.

8. Soil and material stockpiles shall be properly protected to minimize sediment and pollutant transport from the construction site.

9. The following BMPs shall be implemented to prevent entry of storm water runoff into the excavation site, the entrainment of excavated contaminated materials leaving the site, and to prevent the entry of polluted storm water runoff into coastal waters during the transportation and storage of excavated contaminated materials:
   EC-2 Preservation of Existing Vegetation
   EC-6 Straw Mulch
   EC-7 Geotextile and Mats
   EC-9 Earth Dikes and Drainage Swales
   EC-10 Velocity Dissipation Devices
   SE-1 Silt Fence
   NS-2 Dewatering Operations
   NS-4 Temporary Stream Crossing
   NS-5 Clear Water Diversion
   WM-9 Sanitary/Septic Waste Management

10. Stream diversion and dewatering shall conform to the following BMP
    NS-2 Dewatering Operations
    NS-5 Clear Water Diversion
    EC-9 Earth Dikes and Drainage Swales
    EC-10 Velocity Dissipation Devices

Noise 11 (a):

1. Workers will be required to wear hearing protection when in the vicinity of or while operating equipment producing noise levels equal to or greater than 85 db.

2. Restrict noise from earthmoving and hauling of soils

Hours of construction for outdoor activities exceeding 50 dBA shall be limited to Monday through Friday 7:00 a.m. to 7:00 p.m. and weekends and holidays from 9:00 a.m. to 6:00 p.m. Movement and hauling of material, and associated activities such as re-fueling or maintenance, shall be limited to normal working hours for the area, as specified above. More restrictive operation hours may be specified in the construction documents and may be property-specific.

All equipment shall operate with factory-equipped mufflers, and staging areas shall be located as far from residential uses as is practical. These conditions shall be incorporated into project contract specifications.

A haul-truck route plan shall be developed. Hauling shall minimize passing any substantial collection of noise-sensitive land uses (i.e. occupied houses, schools, hospitals).

Larger capacity belly and end-dump trucks as well as double-trailers shall be used whenever feasible to minimize the number of truck trips necessary.

Construction personnel shall conduct all work activities in a manner that minimizes noise generation. A variety of contractor actions are available that will reduce construction noise, including: i) turning off engines on all construction equipment not in active use, ii) shielding noisy equipment with less noisy equipment, and iii) avoiding high RPM engine operation whenever possible.

3. Notify neighbors: When activity involving heavy construction equipment is scheduled to occur within 250 ft of occupied structures, construction personnel shall provide written notification to the residents in the potentially affected properties prior to using the heavy construction equipment. The written notification shall be provided to each potentially affected property at least 72 hours prior to the start of the activity, and shall indicate the approximate duration of time (dates and hours) during which the noise-generating activity is expected to occur.

Mandatory Findings of Significance XVII (a & c):

- Section IV (a) state and federal protected species, (b) riparian or sensitive natural community, (c) state or federally protected waters and wetlands, ; Section VIII (a) water quality; and XI (a) noise levels.
- Sections VIII (a) water quality and XI (a) noise levels.

10. To minimize disturbances to the existing marsh, work will be phased as described in the Project Description. Impacts will be minimized by not placing fill in open waters, with the exception of several reaches of agricultural drainage ditches, and by maintaining a 20-foot buffer between open water and fill areas.

11. The Project will restore up to 26 acres of salt marsh habitat in the West Unit Area.

12. The Project will improve aquatic and bird habitat by creating depressional wetlands/ponds, increasing channel complexity and reducing stranding potential by increasing floodplain connectivity. Reconnecting this habitat to the estuary directly allows the whole suite of estuarine function to return to what is currently a degraded former salt marsh.

13. The Project will improve tidewater goby habitat by increasing the long term persistence of fresh and salt water mixing in the tidal marsh complex in the Project Area.

14. Construction will only occur between July 1st and October 31st when the ground surface is dry and to reduce the chance of stormwater runoff occurring during construction.

Monitoring Method:

- A qualified biologist will identify, record, and report to DFW, Refuge, USFWS, and NMFS as appropriate fish captured and relocated, or the occurrence of any mortality.

- A qualified biologist will identify, record, and report to DFW and Refuge as appropriate red-legged frogs or northwestern pond turtles captured and relocated, or the occurrence of any mortality.

- A qualified biologist will identify, record, and report to DFW, Refuge, and USFWS as appropriate any bird SSC that are actively breeding in or near the area of disturbance.

- A qualified botanist will conduct a floristic survey of the construction area prior to the area being disturbed, during the appropriate flowering periods for the 9 plant species of concern to document and report their occurrence and location to DFW and the Refuge.

- A qualified botanist will monitor any plant species of concern throughout the construction season to ensure they are not being disturbed, including eelgrass populations in and adjacent to White Slough. Successful mitigation will be determined if plant species of concern are in a density and total area consistent with pre-impact conditions in 5 years.

- Several photographic points will be established to document all work performed. Photographs will be recorded in sufficient frequency to document each stage of work.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?

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April 23, 2015

Josephine R. Axt, Ph.D.
Chief, Planning Division
U.S. Army Corps of Engineers
Los Angeles District
ATTN: Larry Smith (CESPL-PD-RQ)
915 Wilshire Blvd., Suite 930
Los Angeles, CA 90017-3401

Subject: Negative Determination ND-0012-15 (Los Angeles-Long Beach Breakwater Repair Project, Los Angeles County)

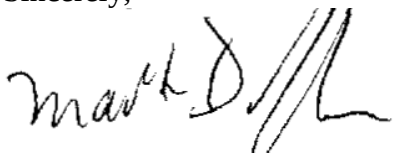
Dear Dr. Axt:

The Coastal Commission staff has reviewed the above-referenced project. The Ports of Los Angeles and Long Beach are protected by three offshore breakwaters: San Pedro Breakwater (9,200 feet-long), Middle Breakwater (18,500 feet-long), and Long Beach Breakwater (13,351 feet-long). The breakwaters were damaged by four days of 10- to 15-foot waves generated by Hurricane Marie in late August 2014. These storm waves exceeded the maximum design wave height for the breakwaters and resulted in numerous breaches, near-breaches, and other damage to these structures. As a result, the Corps proposed emergency repairs to the most severely damaged sections of the breakwaters to prevent adverse impacts to facilities and operations in the Ports of Los Angeles and Long Beach and to prevent additional failure of damaged sections of the breakwaters. On September 22, 2014, the Executive Director concurred with ND-0039-14 for emergency repairs to the breakwaters and the work was completed in December 2014.

The Corps now proposes to repair sections of the breakwaters that received minor storm damage and to complete the repair work that began in late 2014. Approximately 2,375 feet of the San Pedro, Middle, and Long Beach breakwaters will be repaired by installing new 12-ton armor stone and resetting existing rocks that shifted from wave attack, thereby returning the breakwaters to their authorized design elevation of +14 feet mean lower low water. Repairs will use a crane barge, rock barge, and tug and crew boats. The project is expected to require approximately 45,000 tons of new quarry stone meeting Corps specifications for size, type, and quality. Stone would likely come from the Pebbly Beach Quarry on Santa Catalina Island, although the quarry selection will be made by the project contractor. Repair work will start in August 2015 and is expected to take approximately 12 months to complete.

In conclusion, the proposed project constitutes repair-in-kind to existing Corps of Engineers breakwaters in San Pedro Bay. The Commission staff **agrees** that completion of repairs to the Los Angeles – Long Beach breakwaters will not adversely affect coastal zone resources and will improve navigation safety and port operations by maintaining the structural integrity of the breakwaters. We therefore **concur** with your negative determination made pursuant to 15 CFR 930.35 of the NOAA implementing regulations. Please contact Larry Simon at (415) 904-5288 should you have any questions regarding this matter.

Sincerely,



(for) CHARLES LESTER
Executive Director

cc: CCC – South Coast District

CALIFORNIA COASTAL COMMISSION
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April 23, 2015

Larry Villaluna
Project Manager
Office of Construction and Facilities Management
Department of Veterans Affairs
1175 Nimitz Avenue
Vallejo, CA 94592

Subject: Negative Determination ND-0014-15 (Construction of new facilities at the VA Medical Center Long Beach, Los Angeles County)

Dear Mr. Villaluna:

The Coastal Commission staff has reviewed the above-referenced project. The Department of Veterans Affairs (VA) Medical Center Long Beach is located on a 100-acre parcel inland of the coastal zone. The VA proposes to construct new Mental Health and Community Living Center facilities, a new parking structure, and a new co-generation plant, and to demolish certain existing buildings to make way for the new facilities at the Medical Center. The VA prepared an Environmental Assessment (EA) in order to analyze potential impacts from the proposed project. The EA concluded that the proposed project would not create significant adverse impacts to coastal zone resources, in particular water quality, during construction or operation of the proposed facilities.

The Commission staff **agrees** that the proposed project at the VA Medical Center Long Beach will not adversely affect coastal zone resources. We therefore **concur** with your negative determination made pursuant to 15 CFR 930.35 of the NOAA implementing regulations. Please contact Larry Simon at (415) 904-5288 should you have any questions regarding this matter.

Sincerely,

(for) CHARLES LESTER
Executive Director

cc: CCC – South Coast District