

**CALENDAR ITEM  
C68**

A	Statewide	08/15/14 C2013-054 A. Nafday D. Brown
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**CONSIDER RATIFYING THE ACTION OF THE EXECUTIVE OFFICER'S  
EXECUTION OF AN AGREEMENT WITH THE CALIFORNIA POLYTECHNIC STATE  
UNIVERSITY AFFILIATED CAL POLY CORPORATION, SAN LUIS OBISPO, FOR  
REVIEW AND REVISION OF SEISMIC DESIGN PROVISIONS IN MARINE OIL  
TERMINAL ENGINEERING AND MAINTENANCE STANDARDS**

**PARTY:**

California State Lands Commission  
100 Howe Avenue, Suite 100 South  
Sacramento, CA 95825-8202

**BACKGROUND:**

The Lempert-Keene-Seastrand Oil Spill Prevention and Response Act of 1990 (the Act) requires the State Lands Commission (SLC) to

*“...adopt rules, regulations, guidelines and commission leasing policies for reviewing the location, type, character, performance standards, size and operation of all existing and proposed marine terminals within the state... ”* (Public Resources Code (PRC) Section 8755 (a)) and to *“...periodically review and accordingly modify its rules, regulations, guidelines and commission leasing policies to ensure that all operators of marine terminals within the state and marine facilities under the commission’s jurisdiction always provide the best achievable protection of the public health and safety, and the environment...”* (PRC Section 8756).

To meet this mandate, the Commission determined that definitive engineering standards for marine oil terminals were necessary. Staff subsequently started the Marine Oil Terminal Engineering Regulations Project to develop these standards. The goal was to develop Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS) to mitigate the risk of damage and potential oil spills from hazards, such as earthquakes or mooring/berthing incidents.

The MOTEMS became enforceable as Chapter 31F of the California Building Code (CBC) in 2006 and has since been updated per CBC’s triennial code adoption cycle. These cyclical updates are critical since engineering codes and standards must evolve

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to remain current and relevant, to meet the challenges of technological advances, methodological developments and lessons learned during implementation. Tasked with adoption authority under California Code of Regulations, Title 24, section 1.14, the SLC's Marine Facilities Division (MFD) staff is currently working on the proposed MOTEMS revisions for the 2016 CBC (the next triennial cycle).

While MOTEMS has undergone significant changes since its inception, the seismic structural parts of this code have only undergone minor changes. MFD is now overhauling these seismic sections of MOTEMS to reflect the most current state-of-knowledge, improve organization, correct ambiguities and errors, and address difficulties encountered in implementation, based on input from the regulated community's engineering consultants' and MOTEMS enforcement staff's feedback and experiences of the past eight years. As this task requires thorough understanding of seismic analytical theory and extensive research background, MFD has elected to enlist the professional expertise from the California Polytechnic State University, San Luis Obispo through Cal Poly Corporation. After completion of this work and following peer and staff reviews, these results will be incorporated into the 2016 MOTEMS revisions.

A late request from the program staff and time limitations to encumber available funds from the 2013-14 fiscal year budget precluded this request from being considered prior to execution. Cal Poly Corporation is an auxiliary organization to the California State University System and as such is exempt from competitive bidding requirements.

**ACTIVITY:**

The work involves the reworking of code language to clearly delineate the requirements for seismic structural assessment, including addressing the following:

1. site-specific *Probabilistic Seismic Hazard Analysis* requirements,
2. procedures to compute spectral accelerations beyond conventional design probabilities (i.e., for probabilities other than 10 and 2 percent in 50 years),
3. updates to nonlinear static demand procedures,
4. replacement of the present refined analysis procedures with the latest peer-reviewed methods,
5. rules for proper combination of orthogonal effects,
6. modeling parameters for plastic hinge lengths,
7. seismic modeling improvements,
8. guidelines for using Fiber Reinforced Plastic wrapped piles,
9. revisions to seismic soil-structure interaction provisions,
10. improvements to p-y spring parameters (i.e., modeling soil-structure interaction),
11. development of above-ground and in-ground plastic hinge length equations for reinforced and pre-stressed concrete piles, and
12. review of the proposed seismic provisions for marine oil terminals transferring liquefied natural gas (LNG).

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A proposal titled "Review and Revision of Seismic Design Standards for Marine Oil and LNG Terminals", at a cost of \$80,871, is on file with the Commission and summarizes details regarding this work.

**OTHER PERTINENT INFORMATION:**

1. The agreement shall be consistent with State policies and procedures as specified in the State Administrative Manual and State Contract Manual.
2. The staff recommends that the Commission find that the subject execution of the Agreement with the Cal Poly Corporation does not have a potential for resulting in either a direct or a reasonably foreseeable indirect physical change in the environment, and is, therefore, not a project in accordance with the California Environmental Quality Act (CEQA).

Authority: Public Resources Code section 21065 and California Code of Regulations, Title 14, sections 15060, subdivision (c)(3), and 15378.

**STATUTORY AND OTHER REFERENCES:**

- A. Public Resources Code section 6106 (Delegation to execute written instruments)
- B. State Administrative Manual Section 1200
- C. State Contracting Manual (rev 1/2014) Section 3.306.A.4

**IT IS RECOMMENDED THAT THE COMMISSION:**

1. Find that the subject execution of the Agreement with the Cal Poly Corporation is not subject to the requirements of CEQA pursuant to California Code of Regulations, Title 14, section 15060, subdivision (c)(3), because the subject activity is not a project as defined by Public Resources Code section 21065 and California Code of Regulations, Title 14, section 15378.
2. Ratify actions of the Executive Officer or her Designee in entering into an Agreement with the Cal Poly Corporation to perform the work specified in the proposal titled "Review and Revision of Seismic Design Standards for Marine Oil and LNG Terminals" in accordance with current State policies and procedures.