

October 10, 2014

COMSECY-14-0033

MEMORANDUM TO: Chairman Macfarlane
Commissioner Svinicki
Commissioner Ostendorff

FROM: Mark A. Satorius */RA/*
Executive Director for Operations

SUBJECT: PUBLIC RELEASE OF REPORT, "A PRELIMINARY NUMERICAL
STUDY OF THE HAZARD FROM LOCAL LANDSLIDE TSUNAMI
SCENARIOS AT THE DIABLO CANYON SITE IN CENTRAL
CALIFORNIA"

This memorandum requests that the Commission approve the Staff's proposal to publicly release the following report in response to Freedom of Information Act (FOIA) request 2014-0467:

- "A Preliminary Numerical Study of the Hazard from Local Landslide Tsunami Scenarios at the Diablo Canyon Site in Central California," dated November 22, 2003 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML050400398).

Dr. Robert Sewell, a consultant for the Center for Nuclear Waste Regulatory Analysis (CNWRA), prepared the draft report during the technical review of the Diablo Canyon Independent Spent Fuel Storage Installation (ISFSI). CNWRA provided the draft report to the Nuclear Regulatory Commission (NRC) staff with an accompanying explanation that CNWRA did not formally review or accept the conclusions of the draft report. The NRC staff assessed the concerns identified in the draft report and concluded that the preliminary nature of the study precluded its use as a basis for any regulatory decisions. The NRC did not release the draft Diablo Canyon tsunami report at the time of its initial review for two reasons. First, although the staff considered the draft report during the licensing of the Diablo Canyon ISFSI, the draft report did not contribute to the NRC's decision making on that proceeding. Second, the NRC staff considered the report preliminary because its conclusions were based on limited data and methods.

As documented in a memorandum dated February 27, 2006, from Michael Mayfield, Director, Division of Engineering in NRC's Office of Nuclear Reactor Regulation to E. William Brach, Director, Spent Fuel Project Office, Office of Nuclear Materials Safety and Safeguards, "Disposition of Draft Report Entitled, 'A Preliminary Numerical Study of the Hazard from Local Landslide Tsunami Scenarios at the Diablo Canyon Site in Central California'" (ADAMS

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Accession No. ML060460441), the staff received direction from the Commission that the report was not to be released, absent a thorough review by the staff and resolution of the staff comments. However, based on the limitations associated with the draft report, the NRC's Seismic Issues Technical Advisory Group assessment of the draft report, and the ongoing technically robust and broad review of tsunamis by the Office of Science and Technology Policy, the NRC staff made a decision to terminate any further consideration, or review, of the draft report.

Issues related to seismic faults near Diablo Canyon led to recent FOIA requests for the draft Diablo Canyon tsunami report. In response to previous FOIA requests, the agency has withheld the draft report under FOIA exemption 5 on the basis that it contains pre-decisional, deliberative information as discussed above. The staff has reassessed its previous basis for withholding the information and now proposes to make the report accessible to the public in response to the subject FOIA request. In particular, although the report could be withheld under exemption 5 as pre-decisional, deliberative process material, the staff is proposing to release the document because the passage of time and subsequent NRC staff actions have made it unlikely that release of this report will result in any foreseeable harm. Specifically, the staff has completed several efforts to update tsunami hazard guidance. The following table shows the NRC staff's tsunami hazard guidance documents and activities for the last several years.

Update	Guidance Document	Reason for Update
March 2007	NUREG-0800, "Standard Review Plan," (SRP) Section 2.4.6, "Probable Maximum Tsunami Hazards," Revision 3 (ADAMS Accession No. ML070160659)	To address the needs identified in NUREG-0800, "Standard Review Plan" the agency formed a tsunami research program.
August 22, 2008	U.S. Geological Survey (USGS) updated report to the NRC, "Evaluation of Tsunami Sources with the Potential to Impact the U.S. Atlantic and Gulf Coasts"	The NRC tasked USGS to prepare an evaluation of tsunami sources and their probability to impact U.S. coasts along the Atlantic and Gulf of Mexico.
March 2009	NUREG/CR-6966, "Tsunami Hazard Assessment at Nuclear Power Plant Sites in the United States of America - Final Report" (ADAMS Accession No. ML091590193)	Describes tsunami phenomena with the focus on its relevance for hazard assessment at nuclear power plant sites.
2009 to 2011	<p>The following publications were issued and workshops were held:</p> <ul style="list-style-type: none"> • 2009 - Publication of special edition of <i>Journal of Marine Geology</i> (Vol. 264, Issues 1-2) dedicated to NRC-funded USGS research on landslide-based hazards including probabilistic tsunami hazard analysis (PTHA) • 2011 - MIT/Woods Hole NRC/USGS PTHA Workshop Report, "Landslide Tsunami Probability," (ADAMS Accession No. ML12272A130) • 2011 - USGS Open Report 2010-1239, "Identification of Tsunami Deposits in the Geologic Record: Developing Criteria Using Recent Tsunami Deposits" • 2011 - USGS Open Report 2010-1172, "Database of Recent Tsunami Deposits" • 2011 - NRC participates in the International Atomic Energy Agency 	

Update	Guidance Document	Reason for Update
	<p>Extrabudgetary Programme of the International Seismic Safety Centre (ISSC EBP). This is a series of technical study projects supported by Member State institutions that collaboratively contribute to enhance seismic safety and safety against external hazards at nuclear installations. The NRC co-chairs two working groups in the tsunami safety area:</p> <ul style="list-style-type: none"> - WG5-1 Tsunami Hazard - WG5-2 Tsunami Design and PSA 	
January 4, 2013	JLD-ISG-2012-06, "Guidance for Performing a Tsunami, Surge, or Seiche Hazard Assessment" (ADAMS Accession No. ML12314A412)	This interim staff guidance (ISG) was issued to describe to stakeholders methods acceptable to the NRC staff for performing a tsunami, surge, or seiche hazard assessment for external flooding as described in the NRC's March 12, 2012, request for information that was sent pursuant to Title 10 of the Code of Federal Regulations (10 CFR), Section 50.54(f) (ADAMS Accession No. ML12053A340).

To place the draft Diablo Canyon tsunami report in the appropriate context, if the Commission approves release of the draft report, then the NRC staff plans to release these two related documents:

- A memorandum dated March 17, 2004, from CNWRA, "Tsunami Hazard Study for the Diablo Canyon Site in Central California" (ADAMS Accession No. ML050450106). This memorandum forwards the report to the NRC and states that CNWRA has not formally reviewed the report nor does the CNWRA accept the report. The memorandum states in part that "the methodology is beyond state of the art, the uncertainties too large, and the results too speculative to be considered in current licensing decisions."
- A memorandum dated November 17, 2005, from Andrew Murphy, Chairman Seismic Issues Technical Advisory Group in NRC's Office of Nuclear Regulatory Research, to Michele Evans, Branch Chief, Engineering Research Applications Branch in NRC's Office of Nuclear Regulatory Research and Eugene Imbro, Deputy Director, Division of Engineering, Office of Nuclear Reactor Regulation, "Transmittal of Seismic Issues Technical Advisory Group Evaluation of Tsunami Hazard Report and Tsunami Hazard Research Plan" (ADAMS Package Accession No. ML053210413). This memorandum provided the results of the Seismic Issues Technical Advisory Group (SITAG) review of the draft tsunami hazards report and provides its recommendation on the appropriate disposition of the draft report in a regulatory context.

Recently, in response to FOIA request 2014-0222 (ADAMS Package Accession No. ML14170A719), the staff publicly released several documents associated with this draft Diablo Canyon tsunami report including: (1) a memorandum dated January 17, 2006, from Andrew Murphy, Chairman, Seismic Issues Technical Advisory Group, Office of Nuclear Regulatory Research, to Michele Evans, Branch Chief, Engineering Research Applications

Branch, Office of Nuclear Regulatory Research, and Eugene Imbro, Deputy Director, Division of Engineering in NRC's Office of Nuclear Reactor Regulation, "Transmittal of Seismic Issues Technical Advisory Group Updated Evaluation of Tsunami Hazard Report" (ADAMS Package Accession No. ML060170138) – this memorandum provided an update to the SITAG's previous evaluation discussed above based on additional internal NRC interactions but with no resultant change in their recommendation; and (2) the memorandum dated February 27, 2006, from Michael Mayfield, Director, Division of Engineering, Office of Nuclear Reactor Regulation, to E. William Brach, Director, Spent Fuel Project Office, Office of Nuclear Material Safety and Safeguards, discussed above. If the Commission approves the requested release, all four of these documents will be grouped in an ADAMS package with the draft Diablo Canyon tsunami report.

The staff notes that the draft Diablo Canyon tsunami report has been withheld previously from public disclosure and is referenced as being withheld in the following documents:

- In response to FOIA/PA-2011-0118, FOIA/PA-2011-0119, and FOIA/PA-2011-0120 (ADAMS Accession No. ML13183A466)
- In an e-mail response dated June 12, 2014, to Mr. David Weisman of the Alliance for Nuclear Responsibility (ADAMS Accession No. ML14191A100)
- In an August 8, 2014, letter to Senator Boxer from Eugene Dacus, Acting Director, NRC Office of Congressional Affairs, dated August 8, 2014 (ADAMS Package Accession No. ML14232A137)

As stated above, the staff has reassessed the reasons for withholding the draft Diablo Canyon tsunami report and has determined that the information in the report no longer warrants being withheld. The NRC staff, therefore, proposes that the draft report be released. If this proposal is approved, the staff will make its best efforts to inform previous requesters that this report is now publicly available.

The Office of the General Counsel has reviewed this memorandum and has no legal objection.

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