

## DOCKETED

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<b>Project Title:</b>	Huntington Beach Energy Project - Compliance
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<b>Document Title:</b>	Declaration of Thomas Lae in Support of Project Owner's Opening Testimony
<b>Description:</b>	Declaration of Thomas Lae in Support of Project Owner's Opening Testimony (Geology)
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**DECLARATION OF  
Thomas A. Lae**

I, **Thomas A. Lae**, declare as follows:

1. I am presently employed by **CH2M** as **Geologist/Project Manager**.
2. A copy of my professional qualifications and experience are attached hereto and incorporated herein by reference.
3. The testimony on **Geologic Hazards and Resources** for the Alamos Energy Center project (13-AFC-01) was prepared either by me or under my supervision, and is based on my independent analysis, data from reliable sources, and my professional experience and knowledge.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue(s) addressed herein.
5. I am personally familiar with the facts and conclusions presented in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct to the best of my knowledge and belief.

Dated: 10/11/16

Signed: 





# Thomas A. Lae, P.G.

Geologist

## Education

B.S., Geology. California State University, Fullerton

## Professional Registrations and Certifications

State of California Professional Geologist, License No. 7099

## Relevant Experience

Mr. Lae has more than 24 years of experience in environmental geology that includes 14 years of project management and is a California Professional Geologist. Mr. Lae serves as a project or task manager on numerous projects for private, federal, and municipal clients. He has an extensive background in environmental field investigations. He has been a Section preparer for over 25 power plant licensing projects; provided Superfund site investigation oversight; conducted remedial investigations/feasibility studies and underground storage tank/oil water separator closures; monitored landfill groundwater; and conducted Phase II environmental assessments.

## Representative Project Experience

**Geology Lead; Application for Certification; Huntington Beach Energy Project; AES Southland Development LLC; Huntington Beach, CA.** Managed the preparation of the Geological Hazards and Resources section of an AFC for a 1,185-MW combined cycle repower of the existing Huntington Beach Generating Station located in Huntington Beach, CA. The project required careful analysis and consideration given the seismically active setting of southern California.

**Geology Lead; Application for Certification; Alamitos Energy Center; AES Southland Development LLC; Long Beach, CA.** Managed the preparation of the Geological Hazards and Resources section of an AFC for a 1,950-MW combined cycle repower of the existing Alamitos Beach Generating Station located in Long Beach, CA. The project required careful analysis and consideration given the seismically active setting of southern California.

**Geology Lead; Application for Certification; Redondo Beach Energy Project; AES Southland Development LLC; Redondo Beach, CA.** Managed the preparation of the Geological Hazards and Resources section of an AFC for a 546-MW combined cycle repower of the existing Redondo Beach Generating Station located in Redondo Beach, CA. The project required careful analysis and consideration given the seismically active setting of southern California.

**On-call Professional Geologist; California Energy Commission Hazardous Waste Remediation Oversight; CA.** A part of construction of the PG&E's Gateway Generating Station (Antioch, CA), Colusa Generation Station (Colusa, CA), Lodi Energy Center (Lodi, CA), and Mariposa Energy Center, Mariposa, CA), Mr. Lae served as these projects' on-call professional geologist. His duties included the coordination of sampling, characterization, and remediation of hazardous waste materials (including asbestos, PCBs, and TPH) encountered during plant excavation activities. Mr. Lae provided a summary report upon completion of remedial activities for submittal to the CEC.

**Preparer; Geologic Hazards and Resources Sections; Electrical Power Plant Application for Certification, CA.** Mr. Lae has prepared the geologic hazards and resources sections for a large number of AFCs. These include the Mariposa Energy Project (Mariposa Energy, LLC), Almond 2 Power Plant (Turlock Irrigation District), East Altamont Energy Center (Calpine), Central Valley Energy Center (Calpine), Los Esteros Energy Center (Calpine), Cosumnes Power Plant (SMUD), Woodland II (Modesto Irrigation District), Modesto Electric Generation Station (Modesto Irrigation District), Walnut Energy Center (Turlock Irrigation District), San Francisco Electrical Reliability Project (San Francisco Public Utilities Commission), Highgrove (AES Pacific),

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Walnut Creek Energy Project (Edison Mission Energy), Sun Valley Energy Project (Edison Mission Energy), Eastshore Energy Project (Tierra), South Bay Energy Facility (Duke), Chevron Richmond Power Plant Replacement Project SPPE, Ivanpah Solar Electric Generating System (Bright Source Energy), Carlsbad Energy Center Project (NRG), Tracy Power Plant (GWF), Vacaville Energy Center (Competitive Power Ventures), Fontana Energy Center (Calpine) Lodi Energy Center (NCPA), Oakley Generating Station (Radback) and Hidden Hills Solar Energy Generating Station (Bright Source Energy). Mr. Lae is well versed in the assessment of geologic resources and hazards relating to CEQA and NEPA requirements.

**Preparer; Geologic Hazards and Resources Sections; Licensing Documents; Wind Power Projects, Southern CA.** Mr. Lae has prepared Geologic Hazards and Resources sections for eight wind power projects in the greater southern California area. Mr. Lae is well versed in the assessment of geologic resources and hazards relating to CEQA and NEPA requirements for wind farm siting and licensing.

**Task Order Manager; Superfund Site Investigation and Oversight; U.S. Environmental Protection Agency (EPA); CA.** CH2M HILL provides support to the EPA for a number of task orders, with Mr. Lae currently serving as project manager. Active task orders include a former gold mine site in Nevada County, CA, impacted by past mining operations where Mr. Lae managed or manages three task orders including the O&M of a remedial action, mine water pilot treatment plant testing, and a feasibility study. At a rocket engine manufacturing and test facility impacted by solvent, fuel, propellant, and metals contamination, Mr. Lae manages an oversight task order that involves the review and comment of reports, white papers, technical memoranda, and studies that are submitted for EPA regulatory review. Mr. Lae served as a project (site) manager for the Cooper Drum superfund site, located in Southgate, CA. This project involved the evaluation and remedial investigation of soil and groundwater contamination from past releases at a drum recycling center.

**Project Manager; Remedial Investigation; Beale AFB, Various Sites; AFCEE.** Mr. Lae served as the project manager or supported remedial investigations and reporting for several sites at Beale AFB. This AFB has been impacted by past release of a variety of industrial contaminants from past Air Force operations.

**Groundwater Monitoring; City of Roseville, CA.** Mr. Lae served as the project manager and the supervising geologist for the annual and semi-annual groundwater monitoring reports for the former sanitary landfill. Duties included planning sampling events, evaluation of laboratory data, preparation of graphics and tabular data, and report writing. Mr. Lae also supported landfill gas studies also at the site.

**Project Manager; Groundwater and Soil Investigations; Union Pacific Railroad.** Mr. Lae served as the project manager for several UPRR projects that included: a groundwater and soil TPH investigation at a former UST site (Donner Summit UST); an arsenic in soil assessment at a Right of Way (Clyde, CA), a TPH in soil site at Right of Way (Chico, CA), and nitrogen contamination in onsite soils (Willows, CA). Mr. Lae successfully received regulatory closure at all of these project sites.

**Project Manager; Oil /Water Separator Closure Investigation; Beale Air Force Base; AFCEEE.** Mr. Lae served as the project manager for two projects at Beale AFB in the evaluation for regulatory closure of 25 former oil/water separators across the base. The project includes the assessment of environmental impacts to underlying soil and groundwater from past releases and preparing closure documentation. Mr. Lae successfully received closure of 18 OWSs.

**Project Manager; Underground Storage Tank (UST) and Oil Water Separator Investigation; U.S. Navy; Rough and Ready Island; Stockton, CA.** Mr. Lae served as the project manager for three U.S. Navy project sites at Rough and Ready Island, Stockton, CA. These projects involved the evaluation of soil and groundwater contamination at sites with underground storage tanks or oil water separators. Soil and groundwater samples were collected and analyzed to determine the presence or absence of contamination. Each of the three sites were successfully evaluated and a determination of "No Further Assessment" was received by the RWQCB.