Proposed
Department of Health Care Access and Information
Duty Statement

Employee Name Vacant	**Organization** Office of Statewide Hospital Planning and Development Structural Services Section
Position Number 441-420-3749-XXX	**Telework Option** Hybrid
Classification Senior Seismologist	**Working Title** Senior Seismologist
Supervision Exercised N/A	**Location** Sacramento
Conflict of Interest: Yes ☐ No ☒	**Fingerprint/Live Scan:** Yes ☐ No ☒
Revision Date November 2026	**Effective Date**

Mission and Vision

HCAI is a leader in collecting data and disseminating information about California's healthcare landscape, promoting an equitably distributed health workforce, and publishing valuable information. The Department does this through five program areas - Affordability, Workforce, Data, Facilities, Financing.

HCAI's mission is to expand access to quality, equitable, affordable health care for all Californians by supporting high value delivery systems, resilient health facilities and workforces, and actionable health information and strategies.

HCAI's vision is a healthier California where all receive equitable, affordable, and quality health care.

General Description

Under general direction of the Principal Structural Engineer, the Senior Seismologist plans, organizes, and directs major seismological studies and investigations in connection with earthquake engineering activities; designs and develops computer programs for seismic analyses and reports. The Senior Seismologist serves as a lead on instrumentation for hospital construction projects for the Department of Health Care Access and Information (HCAI) and coordinate instrument proposals with the California Geologic Survey and it's California Strong Motion Instrumentation Program (CSMIP). Reviews engineering geologic, geotechnical and supplemental ground response reports for possible potential geologic and seismic hazards and the mitigation of those hazards for health care facilities. The incumbent develops data mining algorithms and statistical models used to develop and recommend changes to seismic provisions of building codes, for possible potential geologic and seismic hazards, the mitigation of those hazards for health care facilities, and to aid emergency response personnel in the event of a disaster.

Essential Job Functions

55% Serve as a lead on instrumentation for hospital construction projects for HCAI and coordinate instrument proposals with the California Geologic Survey and its CSMIP. Locate and define performance standards of all seismic instruments deployed in hospital and skilled nursing buildings.

Review engineering geologic, geotechnical and supplemental ground response reports for possible potential geologic and seismic hazards as required by the California Building Code and California Code of Regulations Title 24. Review construction drawings and specifications for code compliance and seismic safety. Review and approve on-site construction required for mitigation of earthquake damage to facilities. Review reports for appropriate types of deep foundation systems and soil-pile interaction based upon non-linear soil properties. Review methods used to determine soil stiffnesses and soil springs used in building structural analysis.

Evaluate engineering geologic and geotechnical reports using liquefaction, slope stability and settlement spreadsheets or other analytical software, statewide probabilistic ground motion models, geotechnical and material test results, and borehole evaluations; using knowledge of engineering geology, field exploration techniques and laboratory evaluations, determine if the investigations adequately document the site conditions, describe the geologic hazards and evaluate foundation constraints for project related engineered structures; applies professional judgment regarding significance of site conditions; determine if the methods used to mitigate potential liquefiable soils are appropriate; evaluate recommendations for earth retaining structures including soil gravity and increment of seismic earth pressure; set standards for screening incoming reports to determine which should receive priority and additional geologic review; keep abreast of current issues related to building and grading code developments, engineering geology, geotechnical foundation exploration; participate in assessing the extent of damage to health facilities in affected communities in the aftermath of an earthquake, the results of which may be used to route patients to safe facilities.

Oversee the preparation of highly specialized review comments on reports prepared for critical facilities including skilled nursing facilities and hospitals throughout California for potential geologic and seismic hazards. Track and manage numerous reviews simultaneously, maintain consistent quality control and make decisions on the relative hazard levels and risks associated with projects based upon minimal data and input from staff. Develop and implement efficient project plans to accomplish the goals and objectives of the program, Coordinate activities to ensure that report reviews consistently meet the requirements of California Code of Regulations, Title 24, and California Building Code. Evaluate the review material for completeness and determine the applicability of recommended mitigation techniques to the site conditions.

Represent the Department and Office in contact with other agencies and work cooperatively with other government specialists and private consultants. Maintain information contained in Project eServices Portal database of geologic information and past facility reviews to

ensure efficient processing of subsequent projects proposed in the same vicinity. Track the review, response and revision material with fluctuating workload. Develop and maintain other tracking databases as appropriate. Prepare administrative reports (i.e., monthly, quarterly, and annual status reports).

10% Review construction drawings and specifications for code compliance and seismic safety. Revise Probabilistic Seismic Hazard Analysis (PSHA) methods, making and testing mathematical fault models for use in PSHA. Revise computer programs or methodology used in hospital seismic retrofit construction. Coordinate activities to ensure that report reviews consistently meet the requirements of California Code of Regulations, Title 24, and California Building Code. Develop and recommend changes to seismic provisions of building codes. Evaluate the review material for completeness and determine the applicability of recommended mitigation techniques to the site conditions.

10% Assist the HCAI Emergency Operation Center with reviewing and directing resources to worst hit areas after an earthquake. Participate in assessing the extent of damage to health facilities in affected communities in the aftermath of an earthquake, the results of which may be used to route patients to safe facilities. Participate as the seismologist member on post-earthquake inspection teams to evaluate the effects of earthquakes on other engineering structures.

10% Plan and develop new data mining algorithms, conduct seismological studies, and statistical models to compile information and reports about past earthquakes, the potential for earthquakes on major faults, and rates of deformation across California to estimate the potential for future earthquakes and produce earthquake shaking maps that are used in development of building codes and in earthquake damage and loss estimates. Consult with structural engineers, engineering geologists, hospital representatives and statistical consultants on the development and modification of methodology to evaluate the quality of administrative data collected by CSMIP.

10% Performs field reviews of the construction of health care facilities. Checks for compliance of construction with statutes and regulations. Performs inspections to detect geologic and foundation deficiencies. Consults with and advises architects, engineers, contractors, inspectors, public officials, enforcement officers, and others with reference to seismic, geologic and foundation engineering requirements and problems. Conduct seismic hazard investigations and hold conferences on enforcement problems and resolve differences or carries through the necessary enforcement measures for seismic instrumentation requirements or geologic improvements for seismic hazard reduction. Coordinate with the Office's Regional Managers to ensure that triggered seismic instrumentation and geologic evaluations are effective, timely and concurrent with the Office's plan review process.

Marginal Job Functions

5% Attend meetings; respond to phone inquiries from hospital industry or interested individuals. Research and analyze existing legislation, statute, code, policy and procedures in relation to proposed code language. Attend and participate in all meetings and training scheduled

by supervisor. Other related duties as assigned to accomplish OSHPD's Vision, Mission, and Goals.

Physical Demands
Must possess and maintain sufficient strength, agility, endurance, and sensory ability to perform the duties contained in this duty statement with or without reasonable accommodation.

Working Conditions
Requires use of computing devices and phones, frequent face-to-face contact with management, staff, consultants and the public, verbal, written and digital (e-mail) communication, extensive review, analysis and preparation of electronic and written documents, assessment of practical demonstrations, mobility to various areas of the Department, occasional travel and overnight stays to training/conferences or the Los Angeles field office may also be required, and work hours may deviate from core business hours based on the service requirements of the Department.

Employee Statement

I have reviewed and discussed the duties and responsibilities of this position with my supervisor and have received a copy of this duty statement.

Employee Name	Employee Signature	Date Signed

Supervisor Statement

I have discussed the duties of this position with and have provided a copy of this duty statement to the employee named above.

Supervisor Name	Supervisor Signature	Date Signed