



State of California
 California Environmental Protection Agency
 Office of Environmental Health Hazard Assessment

DUTY STATEMENT

CURRENT

PROPOSED

RPA Number: CEERB-014 FY 23-24	Classification Title: Research Scientist III (Epidemiology/Biostatistics)	Position Number: 811-135-5594-012
Incumbent Name:	Working Title:	Effective Date:
Tenure: Permanent	Time Base: Full Time	Intermittent Hours Per Month:
Division/Office: Division of Scientific Programs/ Community and Environmental Epidemiology Research Branch	Section/Unit: Air and Climate Epidemiology Section	Reporting Location: Oakland or Sacramento
Supervisor's Name: Rupa Basu	Supervisor's Classification: Senior Toxicologist	CBID: R10
Confidential Designation: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Designated Position for Conflict of Interest: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Position Telework Eligible: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
Supervision Exercised: <input checked="" type="checkbox"/> None <input type="checkbox"/> Lead <input type="checkbox"/> Managerial <input type="checkbox"/> Supervisory		

Human Resources Use Only:

HR Analyst Approval:

Date:

General Statement

This position requires the incumbent to maintain consistent and regular attendance; communicate effectively (orally and in writing if both appropriate) in dealing with the public and/or other employees; develop and maintain knowledge and skill related to specific tasks, methodologies, materials, tools and equipment; complete assignments in a timely and efficient manner; and adhere to department policies and procedures regarding attendance, leave, and conduct.

Position Description

The Air and Climate Epidemiology Section (ACES) within the Community and Environmental Epidemiology Research Branch (CEERB) conducts epidemiological studies on the health effects of exposure to criteria air pollutants and climate change, such as ambient heat exposure, for the general



population and sensitive subgroups within California. Among other duties, ACES provides technical support for the analysis of benefits and impacts in communities from greenhouse gas limits adopted by the California Air Resources Board (CARB), analysis of health risks from oil and gas operations, and the identification of California communities burdened by multiple sources of pollution and population vulnerabilities. In addition, ACES provides technical assistance to other programs in the Office of Environmental Health Hazard Assessment (OEHHA), the California Environmental Protection Agency (CalEPA), the California Department of Public Health, and other California government entities.

Under general direction of the Senior Toxicologist, the Research Scientist III (Epidemiology/Biostatistics) conducts scientific investigations and research studies of highly developed scientific scope and complexity concerning the human health effects of air pollution and climate change and prepares guidance documents for publication in peer-reviewed journals or governmental reports. The Research Scientist III (Epidemiology/Biostatistics) will identify data for inclusion in ACES databases on air pollution and public health. The Research Scientist III (Epidemiology/Biostatistics) serves as a technical consultant to other technical staff, management, and other agencies relating to health impacts from criteria air pollutants and climate change. The Research Scientist III (Epidemiology/Biostatistics) performs the following duties and other related work:

Essential Functions (Including percentage of time):

- 35% **Plan and develop epidemiological studies on the health effects of pollutants and high temperatures.** Develop epidemiologic research studies of highly developed scientific scope and complexity on air pollution/heat/climate change and health impacts, including wildfire smoke exposure, infectious diseases, emergency room visits and hospitalizations from various causes, and adverse birth outcomes to identify vulnerable populations. Set all aspects of study design, including goals, methodologies, expected outputs, and criteria for evaluating success. Plan and implement new multidisciplinary studies to examine the health effects from outdoor exposures to higher ambient temperatures, ozone, particulate matter, nitrogen oxides, and other traffic-based pollutants such as ultrafine particles and sources and constituents of fine particulate matter. Use scientific expertise to identify and develop potential collaboration opportunities with outside organizations.
- 30% **Provide advanced analyses of human health, air pollution, and climate change data.** Conduct highly complex statistical analyses of environmental and health data using univariate, bivariate, and multivariate analyses to identify confounding variables, Cox proportional hazards modeling, Poisson regression, GIS analysis, and other established techniques to investigate associations between pollutants, high temperatures, and health outcomes. Incorporate methods and insights from various fields, including exposure assessment, biostatistics, computer programming, epidemiology, and toxicology, in cutting edge research, to understand and gather pertinent information and provide input on current research needs and policy implications. Develop new statistical and other methodologies to resolve unanticipated problems.
- 15% **Identify data for inclusion in databases on air pollution and public health.** Independently determine which air pollution and meteorological (temperature, relative humidity) data to include



in ACES databases designed to support research to identify vulnerable populations by criteria such as low socio-economic status, age, education, and/or race/ethnicity. Utilize publicly- or governmentally available sources on environmental exposures and health, such as cause-specific deaths and illnesses and adverse birth outcomes to obtain relevant data. Request data and work with governmental and non-governmental partners to obtain them. Provide a review of the current literature to identify existing scientific uncertainties and questions and assess methodological and analytic needs in order to guide data collection.

- 10% **Develop Scientific Publications and Presentations.** Independently prepare manuscripts on topics of highly specialized and developed scope for submission to peer-reviewed scientific journals and governmental reports as first author or contributing author. Make presentations on behalf of ACES and OEHHA to scientific or general audiences to relay complex scientific findings as they relate to public health. Collaborate with other senior scientific staff to make recommendations on ambient air quality standards to the CARB. Provide authoritative technical information regarding the health effects of heat and air pollution to other institutions and the general public.

Marginal Functions (Including percentage of time):

- 5% Conduct statistical data analyses, as needed by the supervisor or other senior staff, based on queries from the public, impacted stakeholders, other state agencies, and federal agencies. Prepare presentations for the Air Quality Advisory Committee related to OEHHA's recommendations for the ambient air quality standards, and for the Scientific Review Panel on Toxic Air Contaminants related to analyses of dose-response information on air toxics
- 5% Attend Racial Equity and Environmental Justice (REEJ)-related trainings and activities. Trainings include building skills to enhance OEHHA's outreach through improving science communication with both written material and oral presentations. Participate in workgroups to support REEJ practices. Work with REEJ manager to support the process of including REEJ in all OEHHA programs.

Typical Physical Conditions/Demands:

The job requires extensive use of a personal computer and the ability to sit/stand at desk, utilize a phone, and type on a keyboard for extended periods of time. Ability to lift 15 pounds, bend and reach above shoulders to retrieve files and/or documents.

Typical Working Conditions:



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OEHHA has a hybrid work environment that includes work in an office setting in a high-rise building and telework at home. OEHHA's office is located in a downtown high-rise office building. The air-conditioned accommodation consists of open areas furnished with cubicles, not all of which have direct natural illumination. Extended periods of reading and writing, and frequent use of computer workstations with statistical, bibliographic, communications or word processing software. Time critical assignments are part of the workload. Hours are worked on a flextime basis, subject to supervisor's approval, and may at times necessitate attendance at the State office or at off-site meetings outside standard office hours. Availability to occasionally travel statewide and out of State. May be required to travel to other OEHHA locations for business related needs as necessary.

Special Requirements of Position (Check all that apply):

- Duties performed may require pre-employment and/ or routine screenings (background/criminal/fingerprint clearance, drug testing, fingerprinting, physical, etc.).
- Duties require participation in the DMV Pull Notice Program.
- Performs other duties requiring high physical demand. (Explain below)
- Requires repetitive movement of heavy objects and/or operation of heavy machinery or motorized vehicles.
- Other (Explain below)

Explanation:



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Supervisor Statement

I certify this duty statement represents an accurate description of the essential functions of this position. I have discussed the duties of this position with the employee and provided the employee a copy of this duty statement.

Supervisor Name	Supervisor Signature	Date
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Employee Statement

I have discussed these duties with my supervisor and have been provided a copy of this duty statement. I certify I have read, understand, and can perform the duties of this position either with or without reasonable accommodation*.

**A Reasonable accommodation is any modification or adjustment made to a job, work environment, or employment practice or process that enables an individual with a disability or medical condition to perform the essential functions of his or her job or to enjoy an equal employment opportunity. (If you believe reasonable accommodation is necessary, check yes. If unsure of a need for reasonable accommodation, inform the hiring supervisor, who will discuss your concerns with the Reasonable Accommodation Coordinator.)*

Do you need a reasonable accommodation to perform the essential functions of this position?

YES NO

Employee Name	Employee Signature	Date
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