

Duty Statement – Workforce

Duty Statement

<input type="checkbox"/> Current <input checked="" type="checkbox"/> Proposed		
RPA Number:	Classification Title: Staff Air Pollution Specialist	Position Number: 673-310-3875-XXX
Incumbent Name:	Working Title:	Effective Date: Click or tap to enter a date.
Tenure: Permanent	Time Base: Full-Time	Intermittent Hours Per Month:
Division/Office: Research Division	Section/Unit: Climate Change Mitigation and Emissions Research	Reporting Location: Sacramento or Riverside
Supervisor's Name: Seungju Yoon	Supervisor's Classification: Air Resources Supervisor I	CBID: R09
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		

General Statement

The Climate Change Mitigation and Emissions Research Section (Section) in the Research Division develops and conducts policy-relevant in-house and extramural research to advance science and support CARB mobile source emissions and greenhouse gas (GHG) reduction programs and policies. Section's research focuses on: 1) characterizing real-world emissions and activity patterns for on-road and off-road mobile sources along with regulatory and policy options to achieve regional and community air quality improvement and greenhouse gas reduction goals using laboratory, portable emissions measurement system, remote-sensing, and engine and activity data-logging technologies, 2) evaluating driving patterns, energy use, and technology advancement of electric vehicles to characterize their benefits of reducing emissions and GHG reductions and inform to the clean transportation and GHG reduction programs and policies, and 3) characterizing non-exhaust emissions such as brake-wear/tire-wear/microplastic emissions from vehicles and brake-/wheel-wear emissions from locomotives to understand their impacts on air quality and public health and to inform relevant emissions and GHG reduction programs and policies. The Section is also responsible for programs aimed at reducing emissions of high global warming potential greenhouse gases from motor vehicle air conditioners (MVACs). The Section conducts large dataset- and database-driven technical analyses, provides expert opinions to decision-makers, networks with internal, national, and international stakeholders, and publishes research findings.

Competencies

All employees are responsible for understanding and demonstrating the core competencies of collaboration, communication, customer engagement, digital fluency, diversity and inclusion, innovative mindset, interpersonal skills, and resilience.

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Position Description

The incumbent is required to carry out research programs with extreme sensitivity and complexity, typically dealing with emerging or undefined issues, as well as concerns from the public, local, State, and Federal governments regarding mobile source emissions and GHG programs and policies. The incumbent must have expertise significantly greater than that of standard full journey-level engineers in analytical, collaborative, and coordination assignments with broad internal and external stakeholders. The incumbent is required to have extensive knowledge of scientific and engineering principles and methods to ensure the integrity, quality and validity of bid transportation data and to have problem-solving techniques to facilitate the identification and resolution of issues related to the completion of work assignments, scientific and technical disciplines to understand, evaluate, promote, and build air quality and climate change related research programs.

Working independently and under the general supervision of the Section manager, the incumbent is responsible for leading big data-driven emissions and GHG research programs, initiating innovative research solutions for implementable and cost-effective emissions and GHG regulatory and policy options, and producing clear and concise research summaries and technical papers (e.g., memos, letters, white papers, research ideas, data analysis plans, journal articles, conference and meeting presentations, and others) in order to timely, effectively inform emissions and GHG research internally and externally. The incumbent is expected to make significant contributions to the Section's scientific and technical foundation and to the division's management.

% of Time	Essential Functions
35	Initiate and conduct mobile source research to provide answers beneficial to air quality and GHG programs and policies holistically: <ul style="list-style-type: none"> - Explore the potential implications for air quality and climate change of emission and GHG reduction strategies using big datasets, databases, and available metadata, - Review the advancements in vehicle technologies such as sensors, automated control, telecommunication, energy-efficient components, and vehicle-to-infrastructure connected technologies, - Integrate the advanced technology development with the big datasets from existing technology vehicles and forecast the impact of the advanced technologies on emission and GHG reductions, - Collect vehicle emissions, energy use, and activity data at laboratory and real-world conditions with chassis-dynamometer, portable emissions measurement system (PEMS), Portable Emissions Acquisition System (PEAQS), remote-sensing, and mobile laboratories, - Analyze the data and interpret the findings compared with literature and mobile source policies, and identify key issues, draw conclusions, and make recommendations, - Identify and reconcile discrepancies in data and information to ensure valid conclusions and implications of the data analysis, and - Prepare review-ready documents in proper content, format, grammar, punctuation, and sentence structure to ensure accurate and effective communications internally and externally.

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30	<p>Design and manage extramural research projects related to mobile source emissions and energy consumption:</p> <ul style="list-style-type: none">- Identify research needs for mobile source programs and policies and propose research ideas,- Develop research concepts and design research projects to interpret vehicle emissions, energy use, activity characteristics, and driving behaviors, along with the integration of large databases internally and externally available, including DOORS, DMV, TRUCRS, Clean Truck Check, national transportation databases, labor statistics, and others,- Manage research projects by strictly following the research contract management guide by holding project update meetings with internal and external stakeholders, reviewing interim progress, and guiding the research team to achieve the project objectives in a timely and effective manner, and- Prepare summaries of interim and final research findings to update internal and external stakeholders and to disseminate mobile source program and policy-relevant information to the public.
15	<p>Investigate innovative methods of manipulating and interpreting the datasets and provide information and services to mobile source program and regulatory development efforts:</p> <ul style="list-style-type: none">- Gather mobile source emissions and energy use data broadly from internal and external research, state government, federal government, and private stakeholder groups, and construct and manage a comprehensive database integrating emissions, energy use, and activity, such as Integrated Vehicular Emissions Activity (IDEA) database,- Look for new ways to mine the data that span the interest of multiple divisions and programs and develop tools that simplify data manipulation, expedite data analysis, and aid data-driven decision making,- Analyze and interpret the data to extract or identify key issues, draw conclusions, and make recommendations to the mobile source programs and policies, and- Prepare review-ready documents in proper content, format, grammar, punctuation, and sentence structure to ensure accurate and effective communications internally and externally.
10	<ul style="list-style-type: none">- Participate in research planning and workgroup meetings, coordinate with internal/external stakeholders to identify research needs related to mobile sources and initiate mobile source research projects that support mobile source programs.- Build and manage public-facing mobile source research synopses and SharePoint sites for internal collaboration on emissions research.- Interact and communicate with internal and external stakeholders to effectively translate scientific and research findings into recommendations for air quality and climate change programs.

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% of Time	Marginal Functions
10	As a CARB liaison, participate in workgroups and committees of state/national/international governmental organizations and professional organizations such as Coordinating Research Council (CRC), Engine Manufacturers Association (EMA), Transportation Research Board (TRB), Society of Automotive Engineers (SAE), Health Effects Institute (HEI) and Manufacturers of Emission Controls Association (MECA) to convey Board's perspectives on mobile source emissions and greenhouse gases, fuel research, test method development, and industry-standard development, and coordinate with professional organizations to develop research projects that are relevant to CARB programs and policies and maintain positive and productive relationships.

Typical Physical Conditions/Demands

This position requires frequent sitting, standing, walking, bending, and reaching. It also requires frequent use of hands, wrists, and fingers for keyboarding and document manipulation. Lifting and carrying objects weighing up to 25 pounds may be necessary. Occasionally, you may be exposed to outdoor weather, dust, or noise.

Typical Working Conditions

The incumbent works in a smoke-free environment on the 5th floor of a high-rise office building in downtown Sacramento in an enclosed, non-windowed office cubicle. The work schedule is Monday through Friday. Mandatory overtime, including evening and weekend work, may be necessary during the year-end closing process or when the department is mission tasked. Travel may be required locally and within the state.

Special Requirements of Position (Check all that apply):

<input type="checkbox"/> Duties may require pre-employment and routine screenings (background/criminal/fingerprint clearance, drug testing, fingerprinting, physical, etc.). <input type="checkbox"/> Duties require participation in the DMV Pull Notice Program. <input type="checkbox"/> Performs other duties requiring high physical demand. (Explain below) <input type="checkbox"/> Requires repetitive movement of heavy objects and/or operation of heavy machinery or motorized vehicles. <input type="checkbox"/> Travel up to _____ percentage <input type="checkbox"/> Bilingual Fluency needed in _____(language) <input type="checkbox"/> Other-

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Supervisor Statement

I certify that this duty statement accurately describes the essential functions of this position. I have discussed the duties of this position with the employee and provided the employee with a copy of this duty statement.

Supervisor Name:	Supervisor Signature:	Date: 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 that I have read, understand, and can perform the duties of this position either with or without reasonable accommodation*.

** 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 reasonable accommodation to perform the essential functions of this position? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Employee Name:	Employee Signature:	Date: Date

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Definitions/Instructions

RPA Number – RPA number as provided by Position Control

Classification Title – Official classification title as per CalHR

Position Number – Full position number (agency-unit-class-serial, e.g., 673-810-5142-###)

Incumbent Name – Current employee

Working Title – This may differ from the classification title.

Effective Date – Day incumbent signed new or revised duty statement.

Tenure – Select from Permanent, Limited-Term, Retired Annuitant, etc.

Time Base – Select from Full-Time, Part-Time, Intermittent, etc.

Intermittent Hours per Month – intermittent hours worked.

Division/Office – Name of division or office name of the position

Section/Unit – Name of section or unit of the position

Reporting Location – where the position reports

Supervisor's Name – Current supervisor

Supervisor's Classification – Current supervisor's classification

CBID – Bargaining Unit of the position. Bargaining Unit numbers can be found here using the [CalHR Bargaining Unit Search](#) page.

Confidential Designation – Confidential Designation is for employees with a CBID of E48

Designated Position for Conflict of Interest – Refer to [CARB's Conflict of Interest Code](#) or [CalEPA's Conflict of Interest Code](#) for designated positions

Position Telework Eligible – Will vary as per the CARB's telework policy.

Supervision Exercised – Contingent upon job needs and duty requirement. For allocation reach out to HR for assistance.

General Statement – Provide a summary of the main purpose and functions of the position as it relates to the Agency, 3-5 sentences.

Example: To provide human resources guidance to the programs of the California Air Resources Board (CARB) and the California Environmental Protection Agency (CalEPA) through providing timely, accurate, and customer service-oriented human resources support.

Competencies – Review [definitions of competencies](#) below.

Position Description – Provide a brief overview of the position and its main functions related to the Division.

Example: Under the general direction of the Administrative Services Division (ASD) Chief (CEA Level B), the Human Resources Branch Chief ensures the Department's personnel programs follow laws, regulations, policies, and best practices. Provides direction, guidance, and consultation to the CARB and CalEPA management and executive teams. Performs as subject matter expert to managers and

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supervisors on personnel-related matters. Serves as the Department's technical expert for personnel matters and handles the most critical and sensitive human resources matters.

Essential Functions – The fundamental job duties of the position. Essential Functions are recommended to be no higher than 40% nor lower than 10%. Essential Functions are the duties the position exists solely to perform. There are a limited number of employees available to perform these functions and they're typically highly specialized.

Marginal Functions – Other job duties related to the position that are not primary functions (i.e., may be completed/assigned to another employee). Marginal Functions are recommended to be no higher than 10%. **Percentages of Essential and Marginal Functions shall add up to 100%.**

Typical Physical Conditions/Demands – The level and duration of physical exertion generally required to perform the tasks required for the position.

Example: This position requires frequent sitting, standing, walking, bending, and reaching. It also requires frequent use of hands, wrists, and fingers for keyboarding and document manipulation. Moving objects weighing up to 25 pounds may be necessary. Occasionally, you may be exposed to outdoor weather, dust, or noise.

Typical Working Conditions – Refers to the working environment and work schedule. Details about any travel requirements may also be listed here.

Example: The incumbent works in a smoke-free environment on the 19th floor of a high-rise office building in downtown Sacramento in an enclosed, non-windowed office cubicle. The work schedule is Monday through Friday. Mandatory overtime, including evening and weekend work, may be necessary during the year-end closing process or when the department is mission tasked. Travel may be required locally and within the state.

Special Requirements of Position – Check all that apply

Supervisor Statement – Refer to job duties

Employee Statement – Refer to job duties

Supervisors forward the signed copy of the duty statement to their [Division HR Liaison](#) to be placed in the employee's Official Personnel File.

Definitions of Competencies

Effective development of the identified Core Competencies fosters the advancement of the following: Collaboration, Communication, Customer Engagement, Digital Fluency, Diversity and Inclusion; Innovative Mindset, Interpersonal Skills, and Resilience.

- **Collaboration** – Develops, maintains, and strengthens relationships while working together to achieve results.
- **Communication** – Listens, writes, and presents ideas, opinions, and information virtually and in person with diverse audiences.
- **Customer Engagement** – Creates a connection with internal and external customers through passive experiences and exceptional service in response to current and future needs.
- **Digital Fluency** – Use technology effectively in the performance of one's job, including integrating and accepting new technology when appropriate.

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- **Diversity and Inclusion** – Works effectively in an inclusive workplace where individual differences and perspectives are respected and leveraged to achieve organizational goals.
- **Innovative Mindset** – Demonstrates curiosity, develops new insights, considers creative approaches, and applies novel solutions.
- **Interpersonal Skills** – Interacts positively with courtesy, sensitivity, and respect with various individuals and makes every effort to understand and relate to others; includes managing feelings effectively, expressing oneself appropriately and working with others towards a common goal.
- **Resilience** – Overcomes challenges, performs well, and remains optimistic and committed under pressure and adversity.