DUTY STATEMENT

Employee Name: Vacant	Current Date: 03/21/2024
Classification: Air Resources Engineer	Position #: 673-310-3735-006
Division/Office: Research	CBID: R09
Section: Atmospheric Processes Research Section	
Supervisor Name: Toshihiro Kuwayama	Supervisor Classification: Air Resources Supervisor I

I certify that this duty statement represents an accurate description of the essential functions of this position.	
Supervisor:	Date:

I have read this duty statement and agree that it represents the duties I am assigned.	
Employee:	Date:

SPECIAL REQUIREMENTS OF POSITION (IF ANY):

☐ Designated under Conflict of Interest Code.
☐ Duties performed may require pre-employment physical.
☐ Duties performed may require drug testing.
☐ Duties require participation in the DMV Pull Notice Program.
☐ Requires the utilization of a 32-pound self-contained breathing apparatus.
☐ Operates heavy motorized vehicles.
☐ Requires repetitive movement of heavy objects.
☒ Works at elevated heights or near fast moving machinery or traffic.
☒ Performs other duties requiring high physical demand. (Explain below): Driving long distances using a state fleet equipped with various air monitoring equipment. Physically lifting and moving air monitoring equipment.
☐ Duties require use of hearing protection and annual hearing examinations.

SUPERVISION EXERCISED

☒ None	☐ Lead Person
☐ Supervisor	☐ Team Leader

FOR SUPERVISORY POSITIONS ONLY: Indicate the number of positions by classification that this position DIRECTLY supervises: N/A

Total number of positions in Section/Branch/Office for which this position is responsible: N/A

FOR LEAD PERSONS OR TEAM LEADERS ONLY:

Indicate the number of positions by classification that this position LEADS: N/A

MISSION OF SECTION: The Atmospheric Processes Research Section (APRS) of the Research Division (RD) conducts research needed to efficiently achieve the National Ambient Air Quality Standards (NAAQS) and California's climate change mitigation goals. Research conducted under APRS supports the development of the State Implementation Plans (SIPs), evaluates the short-lived climate pollutant (SLCP) emission reduction strategies, improves the characterization of various air pollutant emission sources, and takes preemptive steps to study the effects of climate change on California's air quality. APRS leverages scientific knowledge, internal air monitoring and analysis capabilities, contracts, and partnerships with various stakeholders to improve the robustness of CARB's policy and regulatory decisions.

CONCEPT OF POSITION: Under direction of APRS Air Resources Supervisor I, the Air Resources Engineer will work with various stakeholders to design, manage, and lead research projects to improve our understanding of the atmospheric processes and sources of air pollution that drive regional air quality in the San Joaquin Valley and the South Coast, among other parts of the state. The ARE will also use CARB's mobile platforms, air analyzers (e.g., PTR-MS, ACSM, CRDS), and source apportionment models (e.g., CMB, PMF) to collect and analyze data to evaluate air quality disparities between various regions and communities across the state. The topic of research will evolve based on the agency's needs. Additional duties include stakeholder engagement, development of guidance documents for future research projects, writing operating procedures, presentations to technical and non-technical stakeholders, and leading and assisting field campaigns.

% OF TIME	RESPONSIBILITIES OF POSITION
25%-E	Lead ambient air quality research projects (e.g., in-house, partnerships, collaborations) to inform California's emerging air quality and climate change mitigation objectives, particularly related to the State Implementation Plans (SIPs) and Assembly Bill (AB) 617. Work with program-level staff and external stakeholders to improve the impact and robustness of the research outcomes.
20%-E	Use and develop sophisticated analysis techniques (e.g., source apportionment models, Python codes), in-house measurement tools (e.g., mobile platforms, PTR-MS, ACSM, CRDS), and various databases (e.g., emission inventory) to study air pollutant sources at or near population centers. Analyze scientific data. Evaluate local and regional air quality disparities between various areas across the state. Conduct and support

	field campaigns to collect necessary data. Traveling and overnight stays are required based on field campaign needs.
20%-E	Lead CARB's research and service contracts. Develop external research concepts; provide technical review of proposals and reports for the management and the Research Screening Committee; work with the administrative staff to initiate research proposals; and review, evaluate, and recommend actions based on intermediate and final reports.
15%-E	Develop presentations and reports summarizing technical research findings. Effectively communicate the research objectives, methods, and findings to technical and non-technical audiences. Prepare reports and manuscripts for peer-reviewed publications, CARB's regulatory activities, and the general public.
10%-E	Inform CARB staff and management team on appropriate technical and policy responses to emerging areas of air pollution research by keeping current with scientific literature and Federal, State, and local regulations related to air quality, climate, and sectoral emissions.
10%-M	Provide support to staff. Troubleshoot errors and issues related to CARB's air monitoring assets. Analyze and collect data. Maintain air monitors and other equipment as needed. May perform other duties as assigned within the scope of the classification.