

DUTY STATEMENT

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Employee Name: Vacant Vacant	Current Date: June, 2024
Classification: Air Resources Engineer	Position #: 673-710-3735-044
Division/Office: Air Quality Planning and Science Division	CBID: R09
Section: Air Quality Data Section	
Supervisor Name: Craig Anderson	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):
- Duties require use of hearing protection and annual hearing examinations.

SUPERVISION EXERCISED

<input checked="" type="checkbox"/> None	<input type="checkbox"/> Lead Person
<input type="checkbox"/> Supervisor	<input type="checkbox"/> Team Leader

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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 LEADPERSONS OR TEAM LEADERS ONLY:

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

MISSION OF SECTION: The Air Quality Data Section provides support for many specialized areas including collection and archiving of aerometric data, statistical computations and analyses, State Implementation Plans, and the evaluation and presentation of air quality data. Projects include: maintaining and archiving preliminary and official aerometric data in the Aerometric Data Analysis and Management (ADAM) system and Air Quality and Meteorological Information System (AQMIS) databases; developing data accessibility tools, such as the ADAM and AQMIS websites; providing statistical guidance to multiple divisions within CARB, other agencies at CalEPA, and many external clients; developing, managing, providing technical support for State Implementation Plans; analyzing and explaining air quality trends; evaluating the relationships between emissions, meteorology, and air quality; evaluating effects of regulations on air quality; explaining and presenting air quality data to the public in an easily understood, user-friendly format; presenting the results of sophisticated and complex air quality analyses to upper management and the Board; and publishing data for client use. Clients include CARB staff and management, local air pollution control and management districts, CalEPA, U.S. EPA, industry, academics, consultants, researchers, media, and the public.

CONCEPT OF POSITION: Under general direction of the supervisor, this position serves as a resource for conducting, evaluating, analyzing, and presenting the results from air quality data analyses to others within CARB and to external clients, and develops and conducts projects and tasks such as those listed in current responsibilities below. Occasional travel may be required.

<u>% OF TIME</u>	<u>RESPONSIBILITIES OF POSITION</u>
30%-E	Design and implement enhancements to the ADAM systems using state-of-the-science engineering technologies and modern statistical tools in conjunction with object-oriented programming (e.g., C++, python) and relational database technologies. Understand the Federal Regulations for ozone and fine particulate matter and provide the associated logic for calculating various air quality statistics. Follow technical specifications to produce statistical summaries for ozone, PM2.5, PM10, nitrogen dioxide, lead, sulfur dioxide, carbon monoxide, and other criteria pollutants for comparison to national and state ambient air quality standards, in addition to developing summaries for toxics and greenhouse gases. Become an

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	expert on all air quality statistics and apply this knowledge to develop statistical summaries and outputs for regulatory purposes.
25%-E	Develop ADAM's next generation ambient air quality data processing system (an input scheme) to import the U.S. EPA's Air Quality System data and information into ADAM. Provide seamless data access to ADAM and AQMIS databases for AQ-VIEW, CARB's community air quality database. Ensure that all modifications and enhancements are consistent with work to support AB 617. Adhere to CARB Office of Information Services (OIS) software development compliance practices that includes planning and project approval steps for all proposed systems. On regular intervals and at significant development milestones, submit programming code and associated documentation to OIS for review by assigned security and development staff.
15%-E	Perform programming and database design work to integrate particulate matter, greenhouse gas and toxics databases into the next generation ADAM system. Provide graphical and programming support to facilitate the display and analysis of air quality and meteorological data on the ADAM and AQMIS websites.
10%-E	Provide analyses and recommendations using engineering judgment of air quality and meteorological data with supporting documentation for study areas. Perform complex air pollution work on various air quality assignments. Provide high profile monitoring site insights and analyses. Provide presentations to staff, management, and air districts as appropriate. Provide accurate and final products to team members, CARB staff and management, and external parties.
10%-E	Investigate and analyze aerometric data based on knowledge of diurnal patterns; hourly variability; relationships to historical data and statistics (including design values); consistency with nearby stations; data completeness, data interpretation, data validity, and data reliability. Investigate anomalies in the data and determine the most likely reasons. Document corrections to database. Work with data providers (e.g., U.S. EPA, MLD, air districts, and contractors) on the ingestion of air quality and meteorological data into ADAM and AQMIS databases. Design and develop enhanced forms of data distribution and access.
10%-M	Respond to air quality and meteorological data inquiries as they are received from internal and external clients, and as directed by management. Prepare, publish, and distribute data periodically to provide requested air quality information to clients. Perform other duties as may be necessary to meet the requirements of the section. Occasional travel may be required.