

**DUTY STATEMENT**

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Employee Name: Vacant	Current Date: 7/16/2024
Classification: Staff Air Pollution Specialist	Position #: 673-710-3875-022
Division/Office: Air Quality Planning and Science	CBID: R09
Section: Regional Air Quality Modeling Section	
Supervisor Name: Chenxia Cai	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 Regional Air Quality Modeling Section performs state-of-the-science meteorology and air-quality modeling required for control strategy evaluations, transport assessment, and State Implementation Plan updates for all criteria pollutants and regional haze; provides modeling support for all major field studies conducted in California; conducts technical reviews of modeling results produced by other agencies and consultants; provides technical consultations for other sections of California Air resources Board (CARB); and acts as CARB's technical liaison for regional and national air-quality management organizations.

**CONCEPT OF POSITION:** Under direction of an Air Resources Supervisor I, the Staff Air Pollution Specialist (SAPS) will lead the modeling efforts for the development of PM2.5 State Implementation Plans (SIP) to meet EPA's SIP requirements and due dates outlined in the Clean Air Act (CAA). The SAPS will be responsible for the coordination of SIP modeling related activities, including emission inventory development, meteorological and photochemical modeling. The SAPS will conduct highly technical modeling and data analysis for current and future air quality conditions and evaluate emission control strategies for various nonattainment areas across the state. The SAPS will present modeling results and attainment demonstration at meetings and workshops and prepare SIP modeling documents to be submitted to USEPA. The SAPS will establish and maintain cooperative working relationships with other sections in CARB, air districts and USEPA, and adhere to CARB policies and procedures. The SAPS will work as part of an essential team with a diverse skill set and will play a key role in SIP development efforts. Occasional travel may be required. Specific duties include:

<b><u>% OF TIME</u></b>	<b><u>RESPONSIBILITIES OF POSITION</u></b>
25%-E	Using scientific knowledge and principles, serve as the lead air quality modeler for all modeling duties related to State Implementation Plan development for the 24-hour and annual PM2.5 standards for various nonattainment areas in California. Understand the key sources and formation of PM2.5 for these nonattainment areas. Coordinate SIP modeling related activities, including emission inventory development, meteorological and photochemical modeling. Ensure modeling deadlines are met and that modeling results have been thoroughly QA'd and are scientifically robust.
25%-E	Conduct model evaluation to compare model output with data collected through the routine monitoring network, field studies and satellite data products. Improve model performance through new and innovative approaches. Develop methods for evaluating the ability of a photochemical model to simulate the observed change in pollutant concentration over time, including recommendations on how to update/improve the emissions inventory, chemical mechanism, and meteorology used in the simulations.

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20%-E	Investigate the key sources and formation of PM2.5 for nonattainment areas. Work with other ARB sections and local air districts to recommend the proper use of models for regulatory purposes and evaluate the effectiveness of various emission control measures and strategies.
15%-E	Prepare modeling protocols and attainment demonstration documents for SIPs. Present modeling results, corroborative analyses, and implications of control strategies at meetings and workshops. Prepare technical reports and peer-reviewed journal articles. Occasional travel may be required.
10%-E	Assist in the quality assurance of air quality data, preparation of gridded emissions inventories and other model inputs. Keep up to date on the latest developments in atmospheric chemistry and further develop atmospheric chemical mechanisms for gaseous, aerosol phase and toxic compounds. This includes participating in the design of research projects, providing comments on research reports, and managing research contracts.
5%-M	Perform other duties as may be required to meet the needs of the section. May perform other duties as assigned within the scope of the classification.