

DUTY STATEMENT

Current Duty Statement

Employee Name:	Current Date:
Classification: Air Pollution Specialist	Position #: 673-710-3887-068
Division: Air Quality Planning and Science Division	Branch: Modeling and Meteorology Branch
Section: Regulatory and Risk Modeling	CBID: R09
Supervisor Name: Pingkuan Di	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:

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

For Leadpersons or Team Leaders Only

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

Mission of Section

The Regulatory and Risk Modeling Section is responsible for conducting the California Air Toxics Assessment (CATA) on a triennial basis, providing microscale to statewide air quality and toxics modeling support for the Board’s various regulatory programs and policies, including the community air protection program (AB617), airborne toxic control measures (ATCMs), state implementation plans for lead, NO2, and SO2, EJ, air toxics hot spots program, emergency responses, and many others. The Section also provides meteorological and air dispersion modeling technical support for special and sensitive projects having multiple stakeholders with varied interests. In addition, the Section develops, maintains and enhances a comprehensive, statewide meteorological database and a visualization mapping tool and data portal for CATA and provides technical support for other programs and other agencies.

Concept of Position

Under general supervision, this position, conducts the statewide triennial air quality and toxics modeling and performs associated health impact analyses; develops, maintains, and enhances the Visualization Mapping Tool and Data Portal for CATA. The position requires close interaction and teamwork with the Section and Branch staff. Occasional travel may be required. Specific duties include:

% of Time	Responsibilities of Position
35%-E	As a team member, work on the California Air Toxics Assessment (CATA) on a triennial basis: 1) prepare air quality modeling inputs and perform QA/QC for processed inputs, 2) conduct air quality modeling (including air dispersion modeling (AERMOD, CALPUFF), possible photochemical modeling (CMAQ, CAMx), receptor modeling (CMB, PMF) or inverse modeling; 3) post-process, summarize, plot, and tabulate modeling results; and 4) collect various observational data (air quality and meteorology observations and satellite data) to conduct modeling performance evaluations; 5) prepare technical reports and publications; and 6) participate in development and maintenance of the Visualization Mapping Tool and Data Portal for CATA.

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% of Time	Responsibilities of Position
25%-E	<p>Coordinate with other Branches and Divisions within CARB, local air districts, CAPCOA, USEPA, other state and federal agencies, and stakeholders on any issues related to air toxic and criteria pollutant modeling. Provide technical support for the Board's Air Toxics Control Measure (ATCM) programs (such as diesel PM; toxic VOCs, gasoline, vehicle exhaust; heavy metals from industrial processing, etc.), the Hotspots Analysis Reporting Program (HARP), the OEHHA's Air Toxic Hot Spots Modeling Guidance, EJ, and other regulatory development. Participate in dispersion modeling studies involving criteria pollutants for New Source Review (NSR) programs and State Implementation Plans (SIPs) for NO₂, SO₂, Lead, etc. Review and critique air quality and toxics modeling approaches and studies prepared outside of CARB, and summarize pros and cons for management. Interacts with U.S. EPA on air quality and dispersion modeling best practices, model performance assessment, and guidance related to the application of dispersion models for EJ and other regulatory applications.</p>
25%-E	<p>Collect and evaluate meteorological data (including surface and upper air) from CARB's meteorological database and other sources. Conduct QA/QC on the data by using established procedures and criterion. Identify and fill gaps in data coverage. Conduct meteorological modeling for air dispersion and photochemical models. Investigate the feasibility and reasonableness of using a prognostic meteorological model (such as WRF) to generate meteorological inputs for dispersion modeling in areas with limited or no meteorological observations and evaluate models' performance.</p>
5%-E	<p>Provide emergency response support as needed. Using engineering principles and modeling guidance, perform emergency response modeling analyses for accidental releases of emissions that pose public health risks. Participate in emergency response training as available.</p>
5%-M	<p>Prepare clear and concise technical reports and presentations that convey the results of toxics modeling to upper management, local air districts, communities, the general public and scientific experts. Coordinate and attend meetings with other ARB staff and outside agencies (such as local air districts and federal and state agencies).</p>
5%-M	<p>May perform other duties as required within the scope of the classification to meet the needs of the Regulatory and Risk Modeling Section.</p>