## DUTY STATEMENT

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|---|---|
| Employee Name: TBD | Current Date: March 2024 |
| Classification: Air Resources Engineer | Position #: 673-930-3735-047 |
| Division/Office: MSLD/Riverside | CBID: R09 |
| Section: Measurement and Technology Assessment Section | |
| Supervisor Name: TBD | Supervisor Classification: Air Resources Supervisor I |

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| I certify that this duty statement represents an accurate description of the essential functions of this position. | |
| Supervisor: | Date: 03/06/2024 |

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| 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

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| ☒ None | ☐ Lead Person |
| ☐ Supervisor | ☐ Team Leader |

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: 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 Measurement and Technology Assessment (MTA) Section within the Freight Emissions Testing and Research Branch with in the Mobile Source Laboratory Division (MSLD) is primarily responsible for the operation of the California Air Resources Board's (CARB) heavy-duty (HD) chassis dynamometer test cells at the Riverside headquarters, which consist of two full vehicle chassis dynamometers, full flow sampling system, advanced analytical instrumentation, and exhaust particulate material characterization equipment, as well as one chassis dynamometer test cell for the evaluation of advanced technology vehicles such as the electrified powertrain and HD On-Board Diagnostic (OBD) Systems. The MTA conducts emissions testing and research programs to inform CARB on technical matters related to air pollution control programs and strategies involving HD freight transportation. Test projects range from emission control technology evaluations, specialized sampling for toxicity profiles, collection of empirical emissions data for emissions inventory models, and measurement of vehicle/engine exhaust criteria pollutants and development of measurement methods. In addition, the section provides testing support for HD OBD systems evaluations, HD in-use compliance programs, HD emissions inventory, CARB's regulatory efforts, electrified and hybridized vehicle testing, greenhouse gas emissions estimation, etc. The MTA section serves a wide range of testing clients within CARB as well as partnering with universities and other state and local agencies to promote wider application of available technologies to CARB's air quality goals. The emissions testing and related data provided by MTA are critical to the successful implementation of the various CARB HD vehicle/engine programs.

CONCEPT OF POSITION:

Under the general supervision of an Air Resources Supervisor I (ARS I), the Air Resources Engineer (ARE) in this position will be responsible for duties related to conducting technically complex emissions testing and research programs.

The duties involve conceptualizing emissions research topics, developing test plans, conducting emissions testing in compliance with the Code of Federal Regulations (CFR) and approved test plans, procuring resources, managing test projects, preparing reports, and sharing the findings with CARB and the public through presentations and peer-reviewed technical paper publications. In addition, the incumbent will work on test programs for laboratory clients within CARB and other local and state agencies, develop and conduct testing of in-house test programs, etc. Close cooperation with the U.S. Environmental Protection Agency (EPA), local air pollution control districts, research organizations, fleet owners, original equipment manufacturer stakeholders, and universities are required in designing and conducting emissions research programs. The incumbent is expected to acquire thorough knowledge of CARB's programs and policies, new HD vehicle technology implementations, low-level emissions sampling and measurement issues, and an in-depth understanding of the CFR requirements related to HD vehicle testing including the greenhouse gas

emissions regulations. Knowledge of advanced vehicle technologies such as electrified and hybrid powertrains, connected vehicles, on-board vehicle communication, and telematics is a plus. Laboratory operation is a team effort; therefore, incumbent is expected to strictly adhere to the attendance schedule and complete assignments in a timely manner.

A California Driver's License is required.

The work setting is a combination of an office and a vehicle shop environment. Work tasks may include working in non-temperature controlled areas, around large noisy machinery, or in the field during vehicle operations.

| % OF TIME | RESPONSIBILITIES OF POSITION |
|---|---|
| 30%-E | Conceptualize and prepare test plans for emissions research programs. Assist in the development of emissions compliance test plans. Perform data analysis, interpret data, and derive conclusions on laboratory-generated or literature-searched data. Prepare reports, present data in public forums, and publish technical papers in peer reviewed journals. |
| 30% - E | Perform literature search and identify needs for possible research work at chassis dynamometer testing facility. Prepare test vehicles/engines for testing. Conduct vehicle testing as described in the test plan. |
| 15%-E | Perform routine maintenance of laboratory systems. Assist with quality control and calibration activities. Prepare sampling media and assist in the set up and operation of standalone instruments. |
| 15%-E | Interact with test program collaborators within the agency as well as outside stakeholders. Attend and participate in meetings and technical discussions related to emissions testing. |
| 10%-M | Research products and prepare paperwork for their purchase. May perform other related duties that fall under the scope of the classification. |