

Department of Consumer Affairs

Position Duty Statement

HR-041 (new 09/19)

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Classification Title	Board/Bureau/Division
Air Quality Engineer I	Bureau of Automotive Repair (BAR)
Working Title	Office/Unit/Section/Geographic Location
Staff Engineer	Engineering & Research Branch/Program Evaluation and Referee Unit/Rancho Cordova
Position Number	Name and Effective Date
646-121-9941-006	

General Statement: Under the general supervision of the Senior Air Quality Engineer (Senior AQE) and project leadership of an Air Quality Engineer II (AQE II) where assigned, the Air Quality Engineer I (AQE I) performs staff level engineering work within the Program Evaluation and Referee Unit. Included among the AQE responsibilities are technical support for the Smog Check Program, evaluation and reporting of Smog Check Program effectiveness, support for BAR Enforcement-related activities, and support for the development and certification of new inspection equipment. Specific duties include, but are not limited to, the following:

A. **SPECIFIC ASSIGNMENTS** [Essential (E) / Marginal (M) Functions]

60% Data Analysis, Reporting, and Referee (E)

- Evaluate Smog Check program effectiveness and support of legislatively mandated reports (Environmental Protection Agency Report, Smog Check Performance Report, etc.). (10%)
- Provide Enforcement support through data analysis and the development of VID-based fraud detection tools. (10%)
- Develop and conduct maintenance of automated reporting. (10%)
- Provide roadside support for software, analytical tools, and site selection criteria. (10%)
- Conduct Ad hoc analysis using various database tools including Statistical Analysis System (SAS) and Structured Query Language (SQL) Developer. (10%)
- Conduct analysis and provide support for Enforcement, Consumer Assistance Program, Licensing through data analysis and by developing automated tools. (5%)
- Provide Smog Check Referee Support through activities such as data analysis and the resolution of issues escalated by Referee inspectors. (5%)

15% VID and VID-Based Inspection System Development and Support (E)

- Analyze new vehicle technologies in support of inspection equipment compatibility.
- Assist with Vehicle Inspection Database (VID) issue diagnosis, testing, change management request (CMR) drafts and tracking.
- Assist with software design, requirements, testing, changes, and the review of related documentation.
- Conduct new On-Board Diagnostic Inspection System and DAD research to support the program's development.
- Develop VID-based fraud countermeasures.
- Support the Inspection System development through activities such as establishing procedures and developing software specifications.
- Provide Smog Check Manual support by ensuring program changes are accurately reflected in the manual, writing and justifying regulatory changes in support of adoption of the new manual.
- Provide assistance with escalated help desk tickets.

15% Lab Testing, Certification, and Schools Support (E)

- BAR-97 certification, including but not limited to: bench, dynamometer, Low Pressure Fuel Evaporative Test, and software.
- Provide Certification support through activities such as, but not limited to, data analysis and the development of automated tools to assist with the process.
- Assist with equipment research and development, specifications, certification, in-use testing, issue tracking and support for equipment in the field.
- Provide Referee and Roadside support through activities such as developing hardware and software specifications and certification testing of Referee-specific systems.
- Conduct Data Acquisition Device (DAD) certification and annual recertification.
- Conduct remote On-Board Diagnostic testing and validation.
- Conduct gas blender testing, certification, audit procedures, and bottle analysis.
- Conduct schooling evaluation and certification, exam development support, instructor certification, educational advisory group support, and support for Automotive Resource Center.

10% Testimony, Presentations, Written Documentation, Regulations, Legislative Proposals (M)

- Assist with policy research and provide recommendations for any internal changes needed.
- Provide recommendations for and development of regulations, legislative proposals, and associated documentation.
- Develop regulations and other required documentation such as the Initial Statement of Reasons.
- Provide court witness testimony, expert testimony and write depositions.
- Write documentation, including reports, memos, specifications, procedures, etc.
- Present to management, other governing bodies (e.g. California Air Resources Board, US Environmental Protection Agency), peers, industry experts, and audiences in public forums.

B. Supervision Received

The incumbent works under the general supervision of the Senior AQE and under project leadership of various AQE II engineers, where assigned. Over time, the incumbent is expected progress to working under general direction.

C. Supervision Exercised

NONE

D. Administrative Responsibility

NONE

E. Personal Contacts

The incumbent has occasional contact with motorists regarding their vehicle's smog check test results, and with smog check station owners and technicians regarding their complaints against equipment manufacturers or to provide clarification on smog check test procedures or other inspection issues; frequent contact with equipment manufacturers and contractors regarding testing and certification/approval requirements; and regular contact with representatives from other agencies as well as other staff within BAR and the Department regarding programs.

F. Actions and Consequences

Failure to perform duties could result in reporting of inaccurate information, improper certification of inspection systems and gas blends, falsely failing inspected vehicles, and dissemination of inaccurate information to consumers and industry.

G. Functional Requirements

- 90% Office Work – The incumbent works in an office setting with artificial light and temperature control and uses a personal computer, laptop, copier, and other office equipment.
- 10% Laboratory and Field Work – The incumbent works in the Engineering laboratory under extreme temperatures (from 35 degrees to 100 degrees) or out in the field in varied weather conditions. Incumbent is required to wear safety equipment and apply safety procedures, stand for long periods of time, occasionally lift materials/equipment, not to exceed 50 pounds, set up and/or operate various machineries and equipment, drive a vehicle, and perform housekeeping in the laboratory. Oversee and aid in field studies as necessary.

H. Other Information

The incumbent must be able to: prepare project plans; design studies; develop techniques for handling and analyzing a large variety of detailed data; communicate the results and implications of studies to non-specialists; do unusual and difficult research and analytical work while applying sound engineering principles. In addition, the incumbent must possess knowledge of research techniques, including the planning of studies and investigations, determining of variables, and developing of reference materials; research reporting techniques; techniques and procedures for evaluating research results; mathematics, computer programming, and applications; Department of Consumer Affairs, California Air Resources Board, and Environmental Protection Agency policies and programs.

In all job functions, employees are responsible for creating an inclusive, safe, and secure work environment that values diverse cultures, perspectives, and experiences, and is free from discrimination. Employees are expected to provide all members of the public equitable services and treatment, collaborate with underserved communities and tribal governments, and work toward improving outcomes for all Californians.

I have read and understand the duties listed above and I can perform these duties with or without reasonable accommodation. (If you believe reasonable accommodation is necessary, discuss your concerns with the hiring supervisor. If unsure of a need for reasonable accommodation, inform the hiring supervisor, who will discuss your concerns with the Health & Safety analyst.)

Employee Signature

Date

Printed Name

I have discussed the duties of this position with and have provided a copy of this duty statement to the employee named above.

Supervisor Signature

Date

Printed Name

Revised: 07/2026