

DEPARTMENT OF INDUSTRIAL RELATIONS
COMMISSION ON HEALTH AND SAFETY AND
WORKERS' COMPENSATION

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DATE: August 6, 2025

TO: CHSWC Commissioners
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FROM:  Melissa Flores, Executive Officer, CHSWC

SUBJECT: CHSWC Study Identifying, Characterizing and Mitigating Cancer and other Occupational Health Risks Among Mechanics and Cleaners of Firefighting Vehicles

The purpose of this memo is to obtain your input on the scope of work and the next steps to complete this study.

Background

[Assembly Bill 1400](#) (2019), sponsored by former California Assembly Member Sydney Kamlager-Dove, required the Commission on Health and Safety and Workers' Compensation, in partnership with other organizations to submit a study to the Legislature, the Occupational Safety and Health Standards Board, and the Los Angeles County Board of Supervisors on the risk of exposure to carcinogenic materials and the incidence of occupational cancer among mechanics who repair and clean the firefighting vehicles on or before January 1, 2021. In May 2020 CHSWC contracted with ToxStrategies, a multidisciplinary scientific consulting firm, to conduct this study. However, the study was not accepted by CHSWC. A new Request for Proposal (RFP) was issued on September 12, 2024, to solicit competitive proposals from experienced

and qualified contractors to conduct a study, titled: *Identifying, Characterizing, and Mitigating Cancer and other Occupational Health Risks Among Mechanics and Cleaners of Firefighting Vehicles*; this RFP was withdrawn because of several flaws.

CHSWC staff are redrafting the scope of work for the new study in coordination with expertise from DIR's Division of Occupational Safety and Health, and is in discussion with University of California, Los Angeles - Labor Occupational Safety and Health (UCLA-LOSH) to understand whether they will be able to conduct and finalize this study by March 2027.

Since the work completion due dates have sunset as established in the statute, Labor Code Section 1, Section 77.7 was repealed and is no longer a requirement under the law.

Staff requests the Commission's input, particularly on the direction to proceed and the scope of work. Here are two options for your consideration:

Option 1: A Refreshed Approach

Conduct a new study with a revised scope of work. The new Draft Scope of Work will fulfill the intent of the original legislation providing valuable information while reducing costs and time.

Option 2: Original Approach

Conduct a new study incorporating all of the components as originally described in the repealed Labor Code Section 1, Section 77.7.

Enclosures:

Attachment A – Scope of Work - draft
Attachment B – Legislation & Regulation

Scope of Work [DRAFT]

Study for Identifying, Characterizing and Mitigating Cancer and other Occupational Health Risks Among Mechanics of Firefighting Vehicles

The Contractor shall conduct a study to make qualitative observations and analyses, and quantitative measurements, of the current uses of, and levels of exposure to carcinogenic and toxic material used by mechanics who repair and clean firefighting vehicles (“mechanics”). The contractor will develop: (1) an occupational chemical risk profile and prioritization framework for substances based on chemical hazard potency and exposure potential (Task 1), and a set of recommendations to reduce exposure to the highest priority toxic substances using an alternatives analysis framework (Task 2). The Contractor will also develop an initial characterization of the incidence and prevalence of cancer among this population (Task 3). The Contractor will provide monthly reports, along with oral reports (Task 4); and will develop a draft and final reports of findings and recommendations (Task 5).

Task 1. Occupational Chemical Risk Profile and Prioritization Framework

The Contractor will visit a representative sample of workplaces throughout the State of California including facilities in Southern and Northern California to conduct interviews and surveys with current and former mechanics, regarding the frequency of exposure to potential carcinogens and toxic materials, availability of engineering controls, use and availability of personal protective safety equipment, and experience or knowledge of cancer incidents among current or former mechanics. A detailed questionnaire administered in person and remotely to current and former mechanics combined with industrial hygiene survey should be employed as part of the study to determine the types of chemical products used by mechanics, along with the frequency and conditions of use of these products. The survey should include questions regarding mechanics who previously or currently have had a diagnosis of cancer, irrespective of attribution to occupational exposures.

Interviews may be both in-person and remote. The survey should be suitable for use on phones as well as computers and should be provided for current and former mechanics. The survey should be appropriate to the workforce and to the hazards and exposures to mechanics in the State of California. Prior to administering the survey, the Contractor must submit a final draft requesting feedback from Cal/OSHA Research and Standards and to the American Federation of State, County and Municipal Employees (AFSCME) bargaining unit representing the mechanics. The Contractor shall ensure that the survey is acceptable to CHSWC prior to administering it. The Contractor shall work with AFSCME and union leadership in attempting to achieve a 70% response rate, including among individuals who might not have online access.

The Contractor will obtain safety data sheets (SDSs) for all chemical products identified in the interviews and surveys and will evaluate the toxicity and exposure potential for these products: (1) used in, but not limited to, each of the five job categories (Equipment Maintenance Workers, Fire Equipment Mechanic, Helicopter Mechanic, Helicopter Maintenance Inspector, and Field Mechanic) (2) by comparing the products and SDS information to the candidate chemicals lists of the California Department of Toxic Substances Control (DTSC),¹ along with other resources as needed, and (3) by ranking them for exposure potential based on the interviews and surveys. The Contractor will use this information to develop an occupational chemical risk profile and prioritization framework.

Task 2. Alternatives Analysis for High-Risk Chemical Products

The Contractor will identify the highest priority toxic substances from the risk profile and prioritization framework and will provide recommendations to reduce exposures to these substances using elimination, substitution, and engineering controls. The contractor will recommend use of personal protective equipment (PPE) where higher-order interventions are not feasible. The Contractor will apply an alternatives analysis framework to identify safer alternative chemicals or practices for the highest

¹ DTSC Candidate Chemicals <https://dtsc.ca.gov/scp/candidate-chemicals-list/>.

priority toxic substances. These recommendations should inform practical, feasible actions that will eliminate or reduce the frequency and exposure to carcinogens and other toxic substances among mechanics and improve their safety and health.

Task 3. Cancer Incidence and Prevalence

Using available data, interviews and survey responses, the Contractor will determine the incidence and prevalence of cancer among mechanics. The Contractor will perform an analysis of the most prevalent cancer types, comparing the expected versus actual rates. The objective of this analysis is to understand the extent to which mechanics are affected by cancer compared to the general population, which the Contractor will use to develop recommendations to improve the safety and health of these workers.

Task 4: Technical Assistance

In addition to Tasks 1, 2 and 3, above, the Contractor shall respond to DIR Contract Manager requests for technical assistance on legislative and/or regulatory issues related to occupational cancer and other health risks among mechanics. Technical assistance could include but not be limited to attending virtual or in-person CHSWC/DIR public meetings, analyzing and answering public comments, explaining the rationale for specific policy recommendations, and disseminating study findings to the Governor's Office, the Legislature, the Occupational Safety and Health Standards Board, Cal/OSHA Research and Standards, the Los Angeles County Board of Supervisors and similar elected bodies in Northern California, depending on the location of sites, and stakeholders in the workers' compensation system.

To assist in meeting the objectives of the above tasks, the Contractor will assemble a technical advisory group (TAG), which shall include representatives from labor, employers, CHSWC/DIR and other representatives and technical experts in the topics covered under these tasks. The Contractor should convene at least three TAG meetings for the study. The Contractor will confer with CHSWC to assemble the list of possible TAG members. The TAG's role will include but not be limited to providing input on the study and reviewing findings and recommendations. TAG meetings should be convened as follows:

- 1st meeting takes place in month 3 or 4.
- 2nd meeting takes place between months 7 and 9.
- 3rd meeting takes place approximately 8 weeks prior to the presentation of the draft report to CHSWC for the purpose of obtaining TAG's input on the draft report.

Task 5: Progress Reports

The Contractor shall provide brief, monthly written progress reports to the DIR Contract Manager or their designee(s) commencing one month after project kick-off and until the project is completed. The progress reports should address the progress made during the prior month, key findings to date, problems encountered by the Contractor, and a comparison of estimated versus actual project costs to date for each task. The progress reports are intended to provide a formal vehicle for communication from the Contractor to the DIR Contract Manager prior to issuance of the final report. The progress reports may be physically mailed or sent via email to the DIR Contract Manager.

In addition to written progress reports, the Contractor will be required to provide an oral briefing to CHSWC every three months, commencing at the end of the first three months of the project kick-off, and more frequently if needed. Oral briefings may be waived if they are found to be unnecessary by the DIR Contract Manager.

The findings in progress reports and oral briefings will be superseded in their entirety by the final report.

Task 6: Draft and Final Report

The Contractor shall provide a draft report of the study to CHSWC, on or before the CHSWC public meeting in **January 2027** with the final report due to the CHSWC on or before the CHSWC public meeting in **March 2027**.

The Contractor will provide the DIR Contract Manager with electronic copies of draft and final reports as well as all graphics and tables, preferably in Excel and Word formats, and in compliance with federal and State of California web accessibility standards.

Fifteen (15) hard copies of the draft and final reports should be provided to:

- Melissa Flores, Executive Officer of the Commission on Health and Safety and Workers' Compensation Department of Industrial Relations.

After the preparation of each of the draft and final reports, the Contractor should allow time to present the report's findings and recommendations to CHSWC/DIR, the Occupational Safety and Health Standards Board, the Los Angeles County Board of Supervisors, and to the Legislature, as requested, not to exceed 6 presentations.

Miscellaneous Task: Literature Review

The Contractor shall conduct a thorough literature review of exposures to carcinogens and other toxic materials among mechanics, and identify, characterize and report those chemical hazards.

Legislation & Regulations

Title 8, California Code of Regulations

Under existing law, occupational safety and health regulations protect employees from harmful exposures to dusts, fumes, mists, vapors, and gasses (Title 8, California Code of Regulations (CCR) §5139, et seq.), including internal combustion engine exhaust (Title 8, CCR §5146). The regulations cover the handling of hazardous substances (Title 8, CCR §5160, et seq.), and they set exposure limits for specified airborne contaminants (Title 8, CCR §5155) and certain carcinogens (Title 8, CCR §5200, et seq.)

Assembly Bill (AB) 1400 – Chapter 717, Statutes of 2019 Section 77.7 of the Labor Code

Assembly Bill No. 1400 CHAPTER 717

An act to add and repeal Section 77.7 of the Labor Code, relating to employee safety.

[Approved by Governor October 10, 2019. Filed with Secretary of State October 10, 2019.]

LEGISLATIVE COUNSEL'S DIGEST

AB 1400, Kamlager-Dove. Employment safety: firefighting equipment: mechanics. Existing law establishes a workers' compensation system, administered by the Administrative Director of the Division of Workers' Compensation, to compensate an employee for injuries sustained in the course of employment. Existing law requires the Commission on Health and Safety and Workers' Compensation to conduct a continuing examination of the workers' compensation system and of the state's activities to prevent industrial injuries and occupational diseases.

This bill would require the commission, in partnership with the County of Los Angeles and relevant labor organizations, on or before January 1, 2021, to submit a study to the Legislature, the Occupational Safety and Health Standards Board, and the Los Angeles County Board of Supervisors on the risk of exposure to carcinogenic materials and incidence of occupational cancer in mechanics who repair and clean firefighting vehicles.

THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

SECTION 1.

Section 77.7 is added to the Labor Code, to read:

(a) On or before January 1, 2021, the commission shall, in partnership with the County of Los Angeles and relevant labor organizations, submit a study to the Legislature, the Occupational Safety and Health Standards Board, and the Los Angeles County Board of Supervisors on the risk of exposure to carcinogenic materials and incidence of occupational cancer in mechanics who repair and clean firefighting vehicles. At a minimum, the study shall include all of the following:

(1) Site visits at a representative sample of facilities, including, but not limited to, facilities in the County of Los Angeles, where firefighting equipment is cleaned and repaired.

(2) Interviews and surveys with current and former mechanics of firefighting equipment in a sample of facilities regarding the frequency of exposure to potential carcinogens, use and availability of safety equipment, and experience or knowledge of cancer incidence among current or former mechanics who cleaned or repaired firefighting equipment.

(3) A measurement of the current levels of carcinogenic material exposure to mechanics who repair and clean firefighting vehicles in the County of Los Angeles and other facilities included in the study, in order to develop a baseline of carcinogenic material exposure.

(b) (1) A report to be submitted pursuant to subdivision (a) shall be submitted in compliance with Section 9795 of the Government Code. (2) Pursuant to Section 10231.5 of the Government Code, this section is repealed on January 1, 2024.