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November 4, 2019

Dr. Joseph I. Castro, President
California State University, Fresno
5241 N. Maple Avenue
Fresno, CA 93740

Dear Dr. Castro:

Subject: Audit Report 19-21, Health and Safety, California State University, Fresno

We have completed an audit of *Health and Safety* as part of our 2019 Audit Plan, and the final report is attached for your reference. The audit was conducted in accordance with the Institute of Internal Auditors' *International Standards for the Professional Practice of Internal Auditing*.

I have reviewed the management response and have concluded that it appropriately addresses our recommendations. The management response has been incorporated into the final audit report, which has been posted to Audit and Advisory Services' website. We will follow-up on the implementation of corrective actions outlined in the response and determine whether additional action is required.

Any observations not included in this report were discussed with your staff at the informal exit conference and may be subject to follow-up.

I wish to express my appreciation for the cooperation extended by the campus personnel over the course of this review.

Sincerely,



Larry Mandel
Vice Chancellor and Chief Audit Officer

c: Timothy P. White, Chancellor

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The California State University

Audit and Advisory Services

HEALTH AND SAFETY

California State University, Fresno

Audit Report 19-21
September 11, 2019

EXECUTIVE SUMMARY

OBJECTIVE

The objectives of the audit were to ascertain the effectiveness of operational and administrative controls related to health and safety (HS) and to ensure compliance with relevant federal and state regulations; Trustee policy; Office of the Chancellor (CO) directives; and campus procedures.

CONCLUSION

Based upon the results of the work performed within the scope of the audit, except for the weaknesses described below, the operational and administrative controls for HS as of August 9, 2019, taken as a whole, provided reasonable assurance that risks were being managed and objectives were met.

We noted that the campus had an appropriate framework for HS, with guidance primarily provided by the Office of Environmental Health and Safety and Risk Management (EHSRM). However, we found that some campus departments did not have a documented student HS training program, and student training records were not always obtained or kept on file. In addition, the campus had not implemented a process to identify all employees who required HS training or to ensure that required training was assigned or provided and completed, and did not have a process to ensure that all training records were maintained. Further, required HS inspections were not always conducted, and the campus had not performed written hazard assessments for all campus workplaces that necessitated the use of personal protective equipment (PPE). Additionally, safety data sheets (SDS) were not always readily accessible, and campus departments did not always properly label and store hazardous materials (HAZMAT) or properly label, store, and timely dispose of hazardous waste (HAZWASTE). We also found that chemical hygiene measures required improvement and safety equipment was not always inspected or available. Also, some campus HS plans and programs did not include all required elements or were not always reviewed annually. Further, the campus did not consistently maintain chemical inventories or properly notify employees about locations that contained asbestos and needed to formalize its medical monitoring program and establish a Unit 6 safety committee.

Specific observations, recommendations, and management responses are detailed in the remainder of this report.

OBSERVATIONS, RECOMMENDATIONS, AND RESPONSES

1. STUDENT HEALTH AND SAFETY TRAINING

OBSERVATION

Some campus departments did not have a fully documented student HS training program, and training records were not always obtained or kept on file.

We reviewed records from 22 academic laboratory classes in four colleges that required the use of PPE because of the potential for exposure to biological, chemical, and/or physical hazards. We verified whether an HS training program existed and whether students received training as required by Executive Order (EO) 1039, *California State University – Occupational Health & Safety Policy*.

We found that:

- All six engineering laboratory classes in the Lyles College of Engineering had an established student HS training program. However, for four classes, the college did not maintain records in which students acknowledged receiving HS training, and for the other two classes, only partial records were maintained.
- For two animal sciences and agricultural education laboratory classes in the Jordan College of Agricultural Sciences and Technology (JCAST), the department had established some elements of a HS training program, but either did not document the HS training or documentation was incomplete, and did not maintain student HS training records.
- For one plant science laboratory class in JCAST, the department did not fully document the HS training program and did not maintain student HS training records.
- For one ceramics class and one sculpture (foundry) class in the College of Arts and Humanities, the department had a documented HS training program but did not maintain student HS training records. Additionally, for one printmaking class, student HS training records were missing for two of 14 students.
- For one biology science laboratory class within the College of Science and Mathematics, the department had established a HS training program; however, the program was not fully documented and the department did not maintain records in which students acknowledged having received HS training.

A defined and documented student HS training program helps to ensure that students are informed of potential hazards and that necessary safety practices and procedures will be used to reduce potential injuries, accidents, and liabilities to the campus.

RECOMMENDATION

We recommend that the campus:

- a. Define, document, and communicate to appropriate administrators, faculty, and staff the responsibility for providing student HS training, including the development and implementation of a student HS training program for all educational activities where there is potential for exposure to biological, chemical, and/or physical hazards and for all those that require the use of PPE.
- b. Document all student HS training programs and maintain all student HS training records.

MANAGEMENT RESPONSE

We concur. The campus will define, document, and communicate to appropriate administrators, faculty, and staff the responsibility for providing, and maintaining documentation of, student HS training, including the development and implementation of a student HS training program for all educational activities where there is potential for exposure to biological, chemical, and/or physical hazards and for all those that require the use of PPE.

This will be completed by February 1, 2020.

2. EMPLOYEE HEALTH AND SAFETY TRAINING

OBSERVATION

The campus did not implement a consistent process to identify employees who required regulatory HS training or to ensure that required training was assigned and completed and that necessary training records were maintained.

We found that:

- Although the campus provided employees with initial general laboratory safety training, it did not implement a process to ensure that employees were provided with required training prior to new exposure situations. These include identifying employees exposed to certain hazards that have specific initial and recurring training requirements, such as state-regulated carcinogens, and assigning these employees the appropriate training.
- Not all employees required by the campus *Bloodborne Pathogens Exposure Control Plan* (BBP/ECP) to complete BBP/ECP training were assigned online training or provided with instructor-led training (ILT). Job classifications that were excluded were police officers and investigators; professors, instructors, and instructional support technicians working in nursing, physical therapy, kinesiology, biology, and chemistry department locations; athletic coaches and athletic equipment technicians; and student assistants working in the Student Health Center and Counseling Center (SHCC).

Effective administration of HS training helps to ensure compliance with program provisions, increases safety awareness, and reduces potential injuries, accidents, and liabilities to the campus.

RECOMMENDATION

We recommend that the campus:

- a. Develop and implement an appropriate process that establishes the responsibilities for identifying and providing HS training to all employees who require it, including the courses noted above; monitoring compliance to ensure that all required training is completed; and maintaining records for all completed employee HS training, including online training and ILT.
- b. Communicate the process to appropriate campus administrators, faculty, and staff.

MANAGEMENT RESPONSE

We concur. The campus will develop and implement an appropriate process that establishes the responsibilities for identifying and providing HS training to all employees who require it; monitoring compliance to ensure that all required training is completed; and maintaining records for all completed employee HS training, including online training and ILT. The campus will communicate the process to appropriate campus administrators, faculty, and staff.

This will be completed by February 1, 2020.

3. HAZARD ASSESSMENTS**OBSERVATION**

The campus had not performed a written hazard assessment for all campus workplaces that necessitated the use of PPE, as required by California Code of Regulations (CCR) Title 8, §3380, *Personal Protective Devices*.

We found that:

- The campus had conducted and documented hazard assessments for only some laboratory and non-laboratory areas that necessitated the use of PPE. Specifically, EHSRM primarily conducts hazard assessments on a consultative basis or as requested and generally focused on areas with high and or specialized risks. For instance, EHSRM performed, among others, chemical exposure assessments for some labs and other non-laboratory locations, including the JCAST farm, and performed assessments for slips, trips and falls, hearing conservation, and fall protection for various campus locations.
- EHSRM had also developed and communicated a detailed job hazard assessment (JHA) tool that was tailored for use in campus shop settings but had not documented the required JHAs.

We noted that the campus was in the process of implementing the assessment module within Risk and Safety Solutions (RSS) to systematically conduct and document hazard assessments for all campus laboratory areas and identify and communicate PPE requirements specific to

laboratory areas. However, RSS was not fully implemented and was not intended to support hazard assessments for non-laboratory workplaces.

Performing hazard assessments to identify hazards in workplaces that necessitate the use of PPE helps to reduce potential injuries, accidents, and liabilities to the campus.

RECOMMENDATION

We recommend that the campus:

- a. Implement the necessary processes to ensure that hazard assessments are performed and documented for all campus workplaces, including laboratory and non-laboratory areas that necessitate the use of PPE.
- b. Communicate and distribute information on the selected PPE required for each affected employee based on the hazard assessments.

MANAGEMENT RESPONSE

We concur. The campus will implement the necessary processes to ensure that hazard assessments are performed and documented for all campus workplaces, including laboratory and non-laboratory areas that necessitate the use of PPE. The campus will communicate and distribute information on the selected PPE required for each affected employee based on the hazard assessments.

This will be completed by February 1, 2020.

4. HEALTH AND SAFETY INSPECTIONS

OBSERVATION

HS inspections were not always conducted in accordance with campus and regulatory requirements.

Under the campus *Injury and Illness Prevention Plan (IIPP)*, academic departments are required to perform workplace self-inspections at least annually, and campus laboratories are required to be inspected semi-annually (once per semester) for HAZWASTE, HAZMAT, and other applicable hazards. Additionally, the IIPP states that inspection documentation must be made available to EHSRM upon request, and EHSRM at its discretion will conduct periodic unscheduled inspections of workplaces to help ensure the maintenance of a safe and healthful workplace.

We reviewed HS inspection records for laboratory locations for 2018 and found that a significant number were not inspected, and departments did not always inspect laboratories on a semi-annual basis.

Additionally, we reviewed HS inspection records for non-laboratory locations and found that inspections were not consistently conducted and documented. Specifically, we reviewed 20

non-laboratory workplaces and found that none completed or documented HS inspections during 2017 and 2018.

Proper administration of HS inspections helps to reduce unsafe conditions and the potential for injuries, accidents, litigation, and regulatory sanctions.

RECOMMENDATION

We recommend that the campus:

- a. Implement an appropriate process to monitor and improve department compliance with performance of required HS inspections, including more frequent unscheduled EHSRM inspections for all campus workplaces as necessary.
- b. Remind all appropriate college administrators, staff, and faculty of the importance of performing and documenting HS inspections as required by the campus IIPP.

MANAGEMENT RESPONSE

We concur. The campus will implement an appropriate process to monitor and improve department compliance with performance of required HS inspections, including more frequent unscheduled EHSRM inspections for all campus workplaces as necessary. The campus will remind all appropriate college administrators, staff, and faculty of the importance of performing and documenting HS inspections as required by the campus IIPP.

This will be completed by November 1, 2019.

5. HAZARD COMMUNICATION

OBSERVATION

Campus departments did not always properly label or store HAZMAT, and SDS were not always readily accessible in accordance with campus and regulatory requirements.

We reviewed 27 locations with HAZMAT, and we found that:

- At 14 locations, secondary containers containing HAZMAT were either not labeled or not properly labeled.
- At three locations, compressed gas cylinders were either not secured or not properly secured.
- At 13 locations, SDS binders were not always complete or readily accessible, and notices were not posted to explain how SDS for chemicals could be found using the campus online SDS database subscription.

This observation is a repeat finding from the 2017 Hazardous Materials Management audit.

Proper labeling and storage of HAZMAT and accessible chemical SDS reduces the risk of accidents, injuries, and potential liability to the campus.

RECOMMENDATION

We recommend that the campus:

- a. Label and store all HAZMAT in accordance with campus and regulatory requirements and provide refresher training regarding proper HAZMAT labeling and storage to appropriate campus administrators, faculty, and staff involved in handling HAZMAT.
- b. Make SDS printouts readily accessible and/or post a notice explaining how an SDS for chemicals can be found using the campus online SDS database subscription.

MANAGEMENT RESPONSE

We concur. The campus will remind the campus community of the established campus and regulatory requirements associated with the labeling and storage of HAZMAT and will provide related refresher training to appropriate campus administrators, faculty, and staff involved in handling HAZMAT. Additionally, the campus will ensure that notices are posted explaining how an SDS for chemicals can be found using the campus online SDS database subscription in all areas where HAZMAT is stored or used.

This will be completed by January 1, 2020.

6. LABORATORY SAFETY AND EQUIPMENT INSPECTIONS

OBSERVATION

Chemical hygiene measures needed improvement, laboratory equipment was not always labeled, and safety equipment was not regularly inspected or was not always available.

We reviewed 27 locations with HAZMAT and/or HAZWASTE, and we found that:

- At four locations, food and drink for human consumption were regularly stored and prepared in refrigerators, microwaves, and coffee machines and consumed in laboratory and shop areas where HAZMAT and HAZWASTE were stored and handled. We found that employees primarily consumed their meals in three of the four locations.
- At eight locations, refrigerators and microwaves used to store and handle chemicals for lab purposes did not have proper labels to communicate their purpose, such as “Danger: No Flammable Materials Storage, No Food, Beverage, or Ice,” or “Not for Human Consumption.”
- At one location, although a plumbed safety shower station was present, there was no plumbed emergency eyewash. We noted that the nearest working emergency eyewash and safety shower station was more than 10 seconds away. 8 CCR 5162, *Emergency*

Eyewash and Shower Equipment, requires that eyewash and safety shower locations be no more than 10 seconds away for the injured person to reach.

- At five locations, a spill kit or other appropriate materials were not available on site.
- At three locations, monthly visual inspections of fire extinguishers were not performed or not documented for the period from February 2019 to April 2019. Additionally, at one of these locations, the annual maintenance inspection for a fire extinguisher was last performed in February 2018.

Proper chemical hygiene practices and labeling of laboratory equipment reduces the risk of employee exposure to HAZMAT. Regular inspection of safety equipment helps to ensure that the equipment is available and in good working condition and helps to ensure a healthy and safe environment for employees and students.

RECOMMENDATION

We recommend that the campus:

- a. Prohibit the inappropriate hygiene practices noted above and properly label laboratory equipment to communicate its purpose.
- b. Remind appropriate college administrators, staff, and faculty of the regulatory and campus requirements to address the issues noted above, including proper chemical hygiene practices, equipment labeling, accessibility, and inspections, and provide training as needed.
- c. Evaluate and revise as necessary the current process for regular inspections of safety equipment to ensure that all safety equipment is available and subject to applicable routine inspections and maintenance, as required by campus and regulatory requirements.
- d. Install appropriate plumbed emergency eyewash/shower equipment at the location noted above, or move covered activities to a space with adequate access to the equipment.

MANAGEMENT RESPONSE

We concur. The campus will:

- a. Prohibit the inappropriate hygiene practices noted in the audit report, and properly label laboratory equipment to communicate its purpose.
- b. Remind appropriate college administrators, staff, and faculty of the regulatory and campus requirements to address the issues noted in the audit report, including proper chemical hygiene practices, equipment labeling, accessibility, and inspections, and provide training as needed.
- c. Evaluate and revise as necessary the current process for regular inspections of safety equipment to ensure that all safety equipment is available and subject to applicable

routine inspections and maintenance, as required by campus and regulatory requirements.

- d. Evaluate the inspected location (Conley Art 134) to confirm the need for emergency eyewash/shower equipment given instructional activity. If it is determined that an eyewash/shower station is required given the instructional activity, the campus will ensure that it has the appropriate plumbing and drainage. If this is not feasible, the instructional activity will be moved to an alternative location that has access to an eyewash/shower station.

This will be completed by February 1, 2020.

7. HAZARDOUS WASTE

OBSERVATION

Campus departments did not always properly label, store, or timely dispose of HAZWASTE in accordance with campus and regulatory requirements.

We reviewed 27 locations with HAZWASTE, and we found that:

- At five locations, HAZWASTE containers were not always properly labeled with the required HAZWASTE constituents and accumulation start date, or were not always closed while storing HAZWASTE.
- At four locations, HAZWASTE had been accumulated beyond the regulatory maximum allowed period. We found HAZWASTE containers with recorded accumulation start dates ranging from July 2016 to May 2018 that should have been disposed of.

This observation is a repeat finding from the 2017 Hazardous Materials Management audit.

Proper labeling, storage, and disposal of HAZWASTE reduces the risk of accidents, injuries, and potential liability to the campus.

RECOMMENDATION

We recommend that the campus:

- a. Label, store, and timely dispose of all HAZWASTE in accordance with campus and regulatory requirements.
- b. Remind appropriate campus administrators, faculty, and staff involved in handling HAZWASTE of the importance of proper labeling, storage, and timely disposal, and provide refresher training as needed.

MANAGEMENT RESPONSE

We concur. The campus will endeavor to identify and implement methods designed to improve compliance with the labeling, storage, and timely disposal of all HAZWASTE in accordance with campus and regulatory requirements. The campus will remind appropriate campus administrators, faculty, and staff involved in handling HAZWASTE of the importance of proper labeling, storage, and timely disposal, and provide refresher training as needed.

This will be completed by December 1, 2019.

8. HEALTH AND SAFETY PLAN ADMINISTRATION**OBSERVATION**

Some campus HS plans and programs did not always include all required elements or were not always reviewed annually for effectiveness as required by applicable regulations.

We reviewed the campus HS plans and found that:

- The campus had not designated a chemical hygiene officer at all departments that required one. Additionally, the campus Chemical Hygiene Plan (CHP) did not include a clear designation of the campus chemical hygiene officer(s), and was not routinely evaluated annually for effectiveness and updated as needed, as required by 8 CCR §5191, *Occupational Exposure to Hazardous Chemicals in Laboratories*.
- The campus BBP/ECP did not include all required elements and was not reviewed annually for effectiveness and updated as necessary, as required by 8 CCR §5193, *Bloodborne Pathogens*. Specifically, we noted that the BBP/ECP did not document tasks and procedures in which occupational exposures to bloodborne pathogens occur and did not include procedures for gathering information required by the sharps injury log. Additionally, the campus did not establish and maintain a separate sharps injury log for incidents occurring outside of the SHCC.
- The campus Respiratory Protection Program (RPP) did not clearly include all elements required by 8 CCR §5144, *Respiratory Protection*. Specifically, the RPP did not address whether the use of a voluntary respirator was permissible and the applicable regulatory requirements that would apply when such use is allowed. For example, an individual must be medically able to use a respirator, and the respirator must be cleaned, stored, and maintained so that its use does not present a health hazard to the user.
- The campus Radiation Safety Manual (RSM) was not reviewed annually and updated as necessary as required by Code of Federal Regulations (CFR) Title 10, Part 20, *Standards for Protection Against Radiation*. Additionally, the RSM stated that the plan would be periodically reviewed instead of annually, as required by the CFR.

Current and complete HS plans and programs improve compliance with regulatory requirements and promote a healthy and safe environment for employees and students.

RECOMMENDATION

We recommend that the campus:

- a. Formally designate campus chemical hygiene officer(s) as deemed necessary, and review and update the campus HS plans to ensure compliance with federal and state regulations with regard to the observations noted above.
- b. Establish and maintain a sharps injury log for incidents occurring outside the SHCC.
- c. Communicate and distribute the updated HS plans to appropriate staff as applicable.
- d. Establish a process to ensure that all HS plans include required elements and are reviewed and updated as required by applicable regulations.

MANAGEMENT RESPONSE

We concur. The campus will:

- a. Formally designate campus chemical hygiene officer(s) as deemed necessary, and review and update the campus HS plans to ensure compliance with federal and state regulations with regard to the observations noted in the audit report.
- b. Establish and maintain a sharps injury log for incidents occurring outside the SHCC.
- c. Communicate and distribute updated HS plans to appropriate staff as applicable.
- d. Establish a process to ensure that all HS plans include required elements and are reviewed and updated as required by applicable regulations.

This will be completed by February 1, 2020.

9. MEDICAL MONITORING PROGRAM

OBSERVATION

The campus did not have a formalized medical monitoring program in accordance with EO 1039, *CSU – Occupational Health & Safety Policy*.

We noted that various campus HS plans and programs contained elements of medical monitoring and instances when medical monitoring of employees may be required. However, these plans and programs did not consistently address all of the aspects of a medical monitoring program as specified in EO 1039, including:

- Determining and establishing responsibilities for campus units that have a role in medical monitoring.
- Methods for notifying affected employees and supervisors.

- Documentation and maintenance of medical monitoring activities.

A comprehensive medical monitoring program helps to ensure regulatory compliance and promotes a healthy and safe environment for employees.

RECOMMENDATION

We recommend that the campus develop and implement a centralized and comprehensive medical monitoring program that includes the elements noted above and communicate the program and its requirements to appropriate staff.

MANAGEMENT RESPONSE

We concur. The campus will develop and implement a centralized and comprehensive medical monitoring program that includes the elements noted above and communicate the program and its requirements to appropriate staff.

This will be completed by January 1, 2020.

10. ASBESTOS NOTIFICATION

OBSERVATION

The campus did not properly notify employees about locations that contained asbestos.

We found that the campus did not provide a written annual asbestos notification to each employee, as required by the California *Health and Safety Code* (HSC) 25915.2 (a), and instead, posted the notification on the EHSRM website.

Additionally, we reviewed ten mechanical rooms where possible asbestos-containing materials (ACM) were located and found that five did not have proper signage providing notification to personnel of the potential presence of ACM.

Proper notification regarding asbestos decreases the risk that employees will be exposed to asbestos and decreases the risk of potential injuries, accidents, and liabilities to the campus.

RECOMMENDATION

We recommend that the campus provide employees with an annual written asbestos notification and implement a documented process to ensure that the appropriate asbestos signage is posted in all required locations on campus.

MANAGEMENT RESPONSE

We concur. The campus will provide employees with an annual written asbestos notification and implement a documented process to ensure that the appropriate asbestos signage is posted in all required locations on campus.

| This will be completed by November 1, 2019.

11. CHEMICAL INVENTORY

OBSERVATION

Campus department chemical inventories were not always complete and up to date as required by campus policy.

The campus Hazard Communication Program (HCP) and CHP require campus departments and laboratories to establish and maintain up-to-date chemical inventories of all stored chemicals. We noted that the campus had implemented the California State University (CSU) Chemical System within RSS, which provides users with a more streamlined means to keep accurate inventories. Additionally, EHSRM has historically required campus departments to submit updated chemical inventories at least once per year.

However, we reviewed campus chemical inventory records and found that they were not maintained for any of the departments within one college. Specifically, the college and its departments had yet to implement the CSU Chemical System, and existing chemical inventory records were substantially outdated.

Maintaining current chemical inventories helps improve campus oversight and monitoring of HAZMAT activities.

RECOMMENDATION

We recommend that the campus:

- a. Establish a monitoring process to ensure that all departments maintain up-to-date chemical inventories and provide their completed chemical inventories at least annually to EHSRM in accordance with campus requirements.
- b. Remind appropriate campus personnel involved in managing chemical inventories of their responsibility for establishing and maintaining up-to-date chemical inventories, and provide training and guidance as needed.

MANAGEMENT RESPONSE

We concur. The campus will:

- a. Establish a monitoring process to ensure that all departments maintain up-to-date chemical inventories and provide their completed chemical inventories at least annually to EHSRM in accordance with campus requirements.
- b. Remind appropriate campus personnel involved in managing chemical inventories of their responsibility for establishing and maintaining up-to-date chemical inventories, and provide training and guidance as needed.

This will be completed by February 1, 2020.

12. SAFETY COMMITTEES

OBSERVATION

The campus did not have a Unit 6 Joint Safety Committee as required by the Unit 6 Collective Bargaining Agreement, Article 28.10.

We found that the Unit 6 Joint Safety Committee (JSC) was discontinued in 2017. In addition, although the campus Occupational Health, Safety and Wellness Committee (OHSWC) included membership from Unit 6, the OHSWC did not include the level of Unit 6 representatives required by Article 28.10.

Safety committees help to facilitate communication of HS issues and requirements across campus units and recommend safety regulations, guidelines, training programs, and necessary corrective actions related to maintaining safe working conditions.

RECOMMENDATION

We recommend that the campus meet with Unit 6 representatives to review the collective bargaining agreement and obtain appropriate approval to formally use the campus OHSWC committee in its place.

MANAGEMENT RESPONSE

We concur. The campus will meet with Unit 6 representatives to review the collective bargaining agreement and obtain appropriate approval to formally use the campus OHSWC committee in its place.

This will be completed by November 1, 2019.

GENERAL INFORMATION

BACKGROUND

California state regulations require all employers, including the CSU, to provide a safe and healthy work environment. Each campus has a designated environmental health and safety program administrator that is responsible for developing and maintaining a campus HS program.

All CSU campuses purchase HAZMAT for both instructional and research purposes, most prominently in colleges that focus on the sciences, fine arts, and liberal arts. In addition, campus maintenance departments such as custodial services, facilities, and auto shops may use materials that are known to have properties that are harmful to humans and the environment. Nearly all of the areas that use HAZMAT generate HAZWASTE that is subject to strict regulations for safe and proper storage, transport, and disposal.

California regulations relating to HS are primarily codified in the California HSC and in Titles 8 and 22 of the CCR. California's Division of Occupational Safety and Health (Cal/OSHA) is primarily responsible for the enforcement of the state's occupational HS laws and regulations. Title 8 of the CCR addresses HAZMAT safety, including, but not limited to, training, communication, storage, and safety. Specific to laboratory environments, the *Occupational Exposure to Hazardous Chemicals in Laboratories* standard (8 CCR §5191) requires that the employer designate a chemical hygiene officer and have a written CHP that includes, among other things, provisions for worker training, criteria for the use of PPE and engineering controls, and standard operating procedures for handling HAZMAT. Title 22 of the CCR addresses HAZMAT waste management.

The primary CSU HS policy is EO 1039, *Occupational Health and Safety*. This policy requires campuses to develop, implement, and maintain a HS program and also addresses student HS training. EO 1069, *Risk Management and Public Safety*, delegates systemwide administration oversight and programmatic responsibility for environmental HS to Systemwide Risk Management.

At California State University, Fresno (Fresno State) EHSRM is dedicated to the prevention of injuries and illnesses to all members of the campus community, including students, faculty, staff, and visitors. Among other services, EHSRM implements safety programs, provides guidance on industrial hygiene and laboratory safety, manages HAZWASTE disposal and air and water quality, and provides safety training. The director of EHSRM reports directly to the vice president and chief financial officer for the administration division.

In 2017, due to HS concerns at two CSU campuses, the Joint Legislative Audit Committee directed the California State Auditor (CSA) to review HS compliance at four campuses (Channel Islands, Sacramento, San Diego, and Sonoma), as well as oversight by the CO. The review noted several issues, including observations relating to the annual evaluation of chemical plans; monitoring and documenting of student and employee HS training; and consistent and timely inspections of safety equipment. Based on the nature and trends of the observations noted in the CSA review, Audit and Advisory Services informed the Board of Trustees that it would perform reviews at all CSU campuses in 2019.

SCOPE

We visited the Fresno State campus from June 17, 2019, through August 9, 2019. Our audit and evaluation included the audit tests we considered necessary in determining whether operational and administrative controls are in place and operative. The audit focused on procedures in effect from June 17, 2019, to August 9, 2019.

Specifically, we reviewed and tested:

- Oversight and administration of the campus HS program, including clearly defined roles and responsibilities; appropriate safety and chemical committees; departmental self-audits and monitoring practices; and current policies and procedures.
- The adequacy and availability of safety equipment, including evaluation of the chemical hygiene plan; provision of personal protective equipment; and regular inspections and monitoring of key safeguards and engineering controls.
- Proper storage and safety of HAZMAT, including procurement; maintenance of accurate inventories; appropriate labeling and storage practices; and access controls.
- Communications and training processes, including evaluation of the hazard communication plan; availability of material safety data sheets; asbestos notifications and signage; and documentation and monitoring of student and employee training.
- Whether appropriate safety programs were in place, when applicable, for radiation sources; laser safety; bloodborne pathogens; respiratory protection; and spill containment.
- Appropriate identification, storage, and monitoring of accumulated HAZWASTE.

As a result of changing conditions and the degree of compliance with procedures, the effectiveness of controls changes over time. Specific limitations that may hinder the effectiveness of an otherwise adequate system of controls include, but are not limited to, resource constraints, faulty judgments, unintentional errors, circumvention by collusion, and management overrides. Establishing controls that would prevent all these limitations would not be cost-effective; moreover, an audit may not always detect these limitations.

Our testing and methodology, which was designed to provide a review of key operational and administrative controls, included interviews, walkthroughs, and detailed testing on certain aspects of the HS program. The review was limited to gaining reasonable assurance that essential elements of the HS program were in place and did not examine all aspects of the program. We did not re-perform any testwork completed in our 2017 Hazardous Materials Management (HMM) audit at Fresno State. Instead, for those areas tested in the HMM audit that are also included in the current audit scope, we reviewed the implementation of campus corrective actions for any noted issues.

CRITERIA

Our audit was based upon standards as set forth in federal and state regulations and guidance; Trustee policy; Office of the Chancellor directives; and campus procedures; as well as sound administrative practices and consideration of the potential impact of significant risks. This audit was conducted in conformance with the Institute of Internal Auditors' *International Standards for the Professional Practice of Internal Auditing*.

This review emphasized, but was not limited to, compliance with:

- 10 Code of Federal Regulations (CFR) Part 20, *Standards for Protection Against Radiation*
- 29 CFR Part 1910, *Occupational Safety and Health Standards*
- California HSC Division 20, *Miscellaneous Health and Safety Provisions*
- CCR Title 8, *Industrial Relations*
- CCR Title 17, *Public Health*
- CCR Title 19, *Public Safety*
- CCR Title 22, Division 4.5, *Environmental Health Standards for the Management of Hazardous Waste*
- EO 1031, *Systemwide Records/Information Retention and Disposition Schedules Implementation*
- EO 1039, *California State University - Occupational Health & Safety Policy*
- EO 1069, *Risk Management and Public Safety*
- Collective Bargaining Agreement, Unit 6, Article 28, *Health and Safety*
- Fresno State *Bloodborne Pathogens Exposure Control Plan*
- Fresno State *Chemical Hygiene Plan*
- Fresno State *Hazard Communication Program*
- Fresno State *Hazardous Waste Program Policy Manual*
- Fresno State *Injury and Illness Prevention Plan*
- Fresno State *Guidelines for Laboratory Hazardous Waste Accumulation*
- Fresno State *Radiation Safety Manual*
- Fresno State *Respiratory Protection Program*

AUDIT TEAM

Audit Manager: Joanna McDonald
Senior Auditor: Marcos Chagollan