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June 28, 2019

Dr. Tomás D. Morales, President  
California State University, San Bernardino  
5500 University Parkway  
San Bernardino, CA 92407

Dear Dr. Morales:

**Subject: Audit Report 19-46, Health and Safety, California State University, San Bernardino**

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,  
San Bernardino**

Audit Report 19-46  
May 13, 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, the operational and administrative controls for HS as of March 8, 2019, were unlikely to provide reasonable assurance that risks were being managed and objectives were met.

Overall, the campus did not have an effective HS program. We found that roles and responsibilities for the HS program had not been clearly defined, documented, and communicated. Specifically, some employees were unaware of their duties surrounding the maintenance of a healthy and safe environment and for performing self-inspections, hazard assessments, and chemical spill clean-ups. As a result, we found that these important responsibilities, such as laboratory and safety equipment inspections and hazard assessments to determine the necessary personal protective equipment (PPE), were not always performed or monitored. We also found that the campus did not effectively administer various safety committees or implement an effective HS training program to ensure that all employees who handled hazardous materials (HAZMAT) and hazardous waste (HAZWASTE) completed required training and a documented lab safety training program for students.

In addition, the campus Chemical Hygiene Plan (CHP), Hazard Communication Program (HCP), and Exposure Control Plan (ECP) did not include all required elements, and certain elements of the CHP and HCP had not been implemented. Also, there was no central inventory database or consistent documentation to show that departments performed periodic inventories of current HAZMAT, and the campus did not formally document or implement campus-specific policies and procedures for purchasing and receiving HAZMAT. Further, spill kits were not always readily available or easily accessible to employees, the campus did not properly notify employees about locations that contained asbestos and lasers, and the policies and procedures related to the radiation and laser safety programs needed to be updated or developed.

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

## **OBSERVATIONS, RECOMMENDATIONS, AND RESPONSES**

### **1. ROLES AND RESPONSIBILITIES**

#### **OBSERVATION**

The campus did not clearly define and document roles and responsibilities for the HS program.

We found that the campus Injury and Illness Prevention Program (IIPP) did not clearly define roles and responsibilities because it stated that all managers and supervisors were responsible for implementing and maintaining the IIPP in their workplace. As a result, some campus employees were unaware of the IIPP and their responsibilities pertaining to HS.

Additionally, we found that the campus did not define and document roles and responsibilities regarding periodic self-inspections to identify unsafe conditions and work practices, hazard assessments to determine the personal protective equipment necessary for safe working conditions, and individuals in charge of chemical spill clean-ups.

Also, roles and responsibilities were not communicated to the administrator of the radioactive program.

Clearly defined, documented, and communicated roles and responsibilities help to ensure that duties are performed to maintain a healthy and safe environment for employees and students and improves compliance with regulatory requirements.

#### **RECOMMENDATION**

We recommend that the campus:

- a. Clearly define and document roles and responsibilities for the HS program in the campus IIPP.
- b. Clearly define and document roles and responsibilities regarding periodic self-inspections, hazard assessments, and individuals in charge of chemical spill clean-ups.
- c. Communicate these roles and responsibilities, including the administration of the radioactive program, to the appropriate individuals.

#### **MANAGEMENT RESPONSE**

We concur. Management's action plan is to:

- a. Clearly define and document roles and responsibilities for the HS program in the campus IIPP.
- b. Clearly define and document roles and responsibilities regarding periodic self-inspections, hazard assessments, and individuals in charge of chemical spill clean-ups.

- c. Communicate these roles and responsibilities, including the administration of the radioactive program, to the appropriate individuals.

The anticipated implementation date for these objectives is November 30, 2019.

## 2. SAFETY COMMITTEES

### OBSERVATION

The campus safety committees did not always have a designated chairperson, adequate membership, or a defined charter and did not always meet as required.

We found that:

- The Science Safety Committee (SSC) did not have a designated chairperson or adequate representation from affected departments, and it did not meet quarterly, as required by the Chemical Hygiene Plan (CHP). The SSC is the campus chemical hygiene committee.
- The Unit 6 safety committee informally agreed to a quarterly meeting schedule between management and employee representatives and met only three of the four scheduled times in both 2017 and 2018.
- The Art Safety Committee (ASC) did not meet quarterly, as required by the campus Art Safety Plan (ASP).
- The Palm Desert Campus (PDC) Safety Committee did not have a written charter or similar document to define committee responsibilities and membership.

Additionally, we found that there was no process for remediation of recurring issues discussed at safety committee meetings.

Safety committees help to recommend safety regulations, guidelines, training programs, and necessary corrective actions related to maintaining safe working conditions associated with the work environment to campus officials, including those in the campus EHS office. Additionally, safety committees facilitate communication on HS issues and provide greater assurance that campus practices will be in compliance with HS requirements.

### RECOMMENDATION

We recommend that:

- a. The SSC designate a chairperson, include adequate representation from affected departments, and meet quarterly, as required by the CHP.
- b. The Unit 6 safety committee meet quarterly, as required by mutual agreement between management and employee representatives.
- c. The ASC meet quarterly, as required by the ASP.

- d. The PDC Safety Committee develop a written charter or similar document to define committee responsibilities and membership.
- e. The campus develop and implement a written procedure to address and resolve recurring issues discussed at safety committee meetings.

**MANAGEMENT RESPONSE**

We concur. Management’s action plan is to ensure that:

- a. The SSC designates a chairperson, includes adequate representation from affected departments, and meets quarterly, as required by the CHP. The anticipated implementation date for this objective is November 30, 2019.
- b. The Unit 6 safety committee meets quarterly, as required by mutual agreement between management and employee representatives. This objective has been implemented.
- c. The ASC meets quarterly, as required by the ASP. The anticipated implementation date for this objective is November 30, 2019.
- d. The PDC Safety Committee develops a written charter or similar document to define committee responsibilities and membership. The anticipated implementation date for this objective is November 30, 2019.
- e. The campus develops and implements a written procedure to address and resolve recurring issues discussed at safety committee meetings. The anticipated implementation date for this objective is October 31, 2019.

**3. EMPLOYEE HEALTH AND SAFETY TRAINING**

**OBSERVATION**

The campus did not have an effective HS training program to ensure that all employees who handled HAZMAT and HAZWASTE completed HS training.

We noted that the campus *Safety Training Program* gave significant responsibility for key components of the HS training program to the campus colleges and departments. However, we found that the colleges and campus departments did not always:

- Develop and implement a training program designed to instruct employees about HS.
- Identify all employees who were required to take initial and refresher safety training, including specialized training.
- Track and notify employees who did not complete the training.
- Document and maintain training records.

An effective employee HS training program increases awareness of HAZMAT and HAZWASTE and reduces potential injuries, accidents, and liabilities to the campus.

**RECOMMENDATION**

We recommend that the campus:

- a. Develop and implement an effective training program that instructs employees about HS; identifies all employees who are required to take initial and refresh HS training, including specialized training; tracks and notifies employees with overdue or incomplete training; and documents and maintains training records.
- b. Review and evaluate the need for the campus *Safety Training Program* as a separate policy and, if necessary, integrate the program to the campus IIPP.

**MANAGEMENT RESPONSE**

We concur. Management’s action plan is to ensure that the campus:

- a. Develops and implements an effective training program that instructs employees about HS; identifies all employees who are required to take initial and refresher HS training, including specialized training; tracks and notifies employees with overdue or incomplete training; and documents and maintains training records.
- b. Review and evaluate the need for the campus *Safety Training Program* as a separate policy and, if necessary, integrate the program to the campus IIPP.

The anticipated implementation date for these objectives is November 30, 2019.

**4. STUDENT LAB TRAINING**

**OBSERVATION**

The campus did not have a documented lab safety training program for students.

We found that the campus did not have a documented lab safety training program in place to identify training requirements and provide and document training for students in academic or research areas where hazards are present. Responsibilities for determining the necessary student lab safety training was placed on the departments or the professors or lecturers overseeing the courses or labs.

We reviewed the lab safety training provided to students for six courses where students were required to use protective equipment, and we found that:

- For two courses, documentation of student safety training was limited to a *Statement of Understanding and Agreement for Science Laboratories* forms signed by the students and no training was provided.

- For two courses, documentation of student safety training was limited to safety quizzes and *Commitment to Safety in the Laboratory* or *Statement of Understanding and Agreement for Science Laboratories* forms that were signed by the students. However, the safety quizzes and the forms were not retained.
- For one course, documentation of lab safety training was not available.

An effective student HS training program increases awareness of hazards and reduces potential injuries, accidents, and liabilities to the campus.

#### **RECOMMENDATION**

We recommend that the campus establish a documented training program for students that identifies training requirements and documents and maintains training records.

#### **MANAGEMENT RESPONSE**

We concur. Management's action plan is to ensure that the campus establishes a documented training program for students that identifies training requirements and documents and maintains training records.

The anticipated implementation date for this objective is November 30, 2019.

## **5. INSPECTIONS**

#### **OBSERVATION**

The campus did not consistently perform and monitor inspections.

We performed walkthroughs at 11 locations where HAZMAT was located, and we found that inspections were not performed at least quarterly, as required by the CHP, or annually, as required by the IIPP. Also, these inspections were not monitored.

Additionally, we determined that the lack of inspections resulted in noncompliance with several campus and regulatory requirements. Specifically, we reviewed 16 locations with HAZMAT, HAZWASTE, and universal waste, and we found that:

- At four locations, several HAZMAT container labels did not include the name of the chemical.
- At three locations, several HAZMAT container labels did not include a written or graphic hazard warning.
- At two locations, HAZMAT containers were not always stored in a sensible manner or securely closed.
- At two locations, food and drink for human consumption were stored near HAZMAT.



- At ten locations, HAZWASTE containers were not always properly labeled with identifiable contents such as the generator name, address, and hazard properties.
- At seven locations, HAZWASTE containers were not always properly labeled with an accumulation start date. As such, we were unable to determine how long the waste had been in the location.
- At five locations, HAZWASTE containers were not always stored in an appropriate manner to prevent spills or leakage.
- At four locations, HAZWASTE had been accumulating past the appropriate time period.
- At one location, HAZWASTE was not always inspected on a weekly basis.
- At five locations, universal waste containers were not always properly labeled with an accumulation start date. As such, we were unable to determine how long the universal waste had been in the location.
- At one location, universal waste had been accumulating for more than a year.
- At one location, universal waste was not properly stored in a closed container.
- At one location, universal waste containers were not always properly labeled with the type of waste.

Performing regular and systematic inspections helps to ensure compliance with the campus IIPP and CHP; increases the likelihood of identifying unsafe conditions; and reduces potential accidents, injuries, and liabilities to the campus. Proper labeling and storage of HAZMAT communicates potential dangers and helps to ensure the safety of employees and students who come in contact with HAZMAT. Proper labeling, storage, and timely disposal of HAZWASTE and universal waste reduces the risk of accidents and injuries from mismanagement and reduces potential liability to the campus.

#### **RECOMMENDATION**

We recommend that the campus:

- a. Develop and implement a written procedure to ensure that inspections are performed and monitored in accordance with the CHP and IIPP.
- b. Provide training to the appropriate campus employees on proper labeling, storage, and disposal of HAZMAT, HAZWASTE, and universal waste in accordance with regulatory and campus requirements.

#### **MANAGEMENT RESPONSE**

We concur. Management's action plan is to ensure that the campus:

- a. Develops and implements a written procedure to ensure that inspections are performed and monitored in accordance with the CHP and IIPP.
- b. Provides training to the appropriate campus employees on proper labeling, storage, and disposal of HAZMAT, HAZWASTE, and universal waste in accordance with regulatory and campus requirements.

The anticipated implementation date for these objectives is November 30, 2019.

## 6. HAZARD ASSESSMENTS

### OBSERVATION

The campus did not consistently perform written hazard assessments to determine the PPE necessary for employees, as required by the California Code Regulations (CCR) Title 8, §3380, *Personal Protective Devices*.

We performed walkthroughs at 13 locations, and we found that written hazard assessments to determine the necessary PPE were not conducted in any of the locations.

Written hazard assessments of campus workplaces help to ensure that hazards and corresponding PPE are identified and communicated to faculty and staff.

### RECOMMENDATION

We recommend that the campus:

- a. Perform and record hazard assessments to determine the PPE required for each location.
- b. Communicate and distribute information on the selected PPE required for each affected employee based on the hazard assessments.

### MANAGEMENT RESPONSE

We concur. Management's action plan is to ensure that the campus:

- a. Perform and record hazard assessments to determine the PPE required for each location based on activities and job classifications.
- b. Communicate and distribute information on the selected PPE required for each affected employee based on the hazard assessments.

The anticipated implementation date for these objectives is October 31, 2019.

## 7. CHEMICAL HYGIENE PLAN

### OBSERVATION

Administration of the campus CHP needed improvement.

We found that the campus CHP did not include the following elements required by CCR Title 8, §5191, *Occupational Exposures to Hazardous Chemicals in Laboratories*:

- Standard operating procedures for working with hazardous chemicals.
- Requirements for fume hoods and procedures to determine the proper functioning and performance of equipment.
- Clear designation of the chemical hygiene officer (CHO).

We also found that the CHP was not evaluated annually for effectiveness and updated as needed, nor was it readily available to employees. Additionally, the following elements included in the CHP were not implemented:

- Designated safety coordinators were not always appointed by department chairs to act as a liaison between the college departments and EHS to assist in establishing and monitoring elements of HS programs within the departments.
- Health hazard control measures were not always continuously reviewed and updated as necessary by the college departments.

A complete and annually evaluated CHP improves compliance with regulatory requirements and helps to protect employees and students working in laboratories from the health hazards of certain chemicals.

### RECOMMENDATION

We recommend that the campus:

- a. Review and update the CHP to ensure compliance with federal and state regulations with regard to the observations noted above, and implement the revised CHP.
- b. Develop and implement a written procedure to annually evaluate, update, and communicate the CHP.

### MANAGEMENT RESPONSE

We concur. Management's action plan is to ensure that the campus:

- a. Review and update the CHP to include only processes that are required and necessary to ensure compliance with federal and state regulations with regard to the observations noted above, and implement the revised CHP.

- b. Develop and implement a written procedure to annually evaluate, update, and communicate the CHP.

The anticipated implementation date for these objectives is November 30, 2019.

## 8. HAZARD COMMUNICATION PROGRAM

### OBSERVATION

Administration of the campus HCP needed improvement.

HCPs describe standards for labeling, SDS, and employee information and training. We found that the campus HCP was not readily available to employees, contained references to appendices that were not included in the program, and did not include the following elements, as required by 8 CCR §5194, *Hazard Communication*:

- A listing of hazardous chemicals known to be present or a reference to the chemical inventory system.
- Guidance for labeling of HAZMAT.
- Methods the campus uses to inform employees of the hazards of non-routine tasks.

Additionally, we found that the following elements of the HCP were not always implemented:

- Colleges and other departments did not always provide the EHS department with a copy of the SDS attached to a completed training form.
- Colleges and other departments did not always maintain a SDS for each substance used in the department or perform an annual audit of their SDS files.
- EHS did not maintain a master file of hazardous substance inventory and SDS on campus.

Complete and readily available HCP and maintenance of a master file of hazardous substance inventory and current SDS improve compliance with regulatory requirements and promotes a healthy and safe environment for employees and students.

### RECOMMENDATION

We recommend that the campus:

- a. Review and update the HCP to include applicable appendices and the elements noted above.
- b. Communicate and distribute the updated HCP to the appropriate campus administrators, staff, and faculty.

- c. Implement an effective method to manage safety data sheets and other identified elements of the HCP to ensure compliance with federal and state regulations.

**MANAGEMENT RESPONSE**

We concur. Management’s action plan is to ensure that the campus:

- a. Reviews and updates the HCP to include applicable appendices and the elements noted above.
- b. Communicates and distributes the updated HCP to the appropriate campus employees.
- c. Implements an effective method to manage safety data sheets and other identified elements of the HCP to ensure compliance with federal and state regulations.

The anticipated implementation date for these objectives is September 30, 2019.

**9. INVENTORY**

**OBSERVATION**

Campuswide HAZMAT inventory processes needed improvement.

We found that there was no central inventory database or consistent documentation to show that departments performed periodic inventories of current HAZMAT. Specifically, we reviewed 11 locations and found that:

- Six locations did not maintain a HAZMAT inventory.
- There was no process to verify that the inventories submitted by departments to EHS were complete and/or accurate.

An adequate inventory of HAZMAT supports campus plans to ensure safety in the handling of the materials, as well as the ability of emergency responders to identify and remediate specific hazards when responding to emergency situations.

**RECOMMENDATION**

We recommend that the campus:

- a. Develop a central HAZMAT inventory database.
- b. Develop and implement a written procedure for performing and monitoring periodic HAZMAT inventories, and communicate the procedure to key personnel.

**MANAGEMENT RESPONSE**

We concur. Management’s action plan is to ensure that the campus:

- a. Develops a central HAZMAT inventory database.
- b. Develops and implements a written procedure for performing and monitoring periodic HAZMAT inventories, and communicates the procedure to key personnel.

The anticipated implementation date for these objectives is November 30, 2019.

## 10. EXPOSURE CONTROL PLAN

### OBSERVATION

The campus did not include all required elements in the campus ECP, and the ECP was not reviewed annually for effectiveness, updated as needed, and communicated to appropriate campus personnel.

Specifically, we found that the campus ECP did not include the following elements required by 8 CCR §5193, *Bloodborne Pathogens*:

- Communication of hazards.
- Procedures for gathering the information required for the sharps injury log.
- Accessibility of the ECP to employees.

A complete, updated, and communicated ECP improves compliance with regulatory requirements and promotes a healthy and safe environment for employees and students.

### RECOMMENDATION

We recommend that the campus:

- a. Update the ECP to include the elements noted above.
- b. Review the ECP annually for effectiveness and update it as needed.
- c. Communicate the updated ECP to the appropriate campus administrators, staff, and employees.

### MANAGEMENT RESPONSE

We concur. Management's action plan is to ensure that the campus:

- a. Updates the ECP to include the elements noted above.
- b. Reviews the ECP annually for effectiveness and updates it as needed.
- c. Communicates the updated ECP to the appropriate campus employees.

The anticipated implementation date for these objectives is October 31, 2019.

## 11. SAFETY EQUIPMENT MAINTENANCE AND INSPECTIONS

### OBSERVATION

The facilities department did not always conduct regular maintenance and inspections of the working condition of safety equipment.

We reviewed 13 locations to verify that safety equipment was accessible and inspections were completed monthly. We found that:

- At nine locations, eyewash and shower stations were not always inspected and tested monthly.
- At three locations, eyewash and shower stations were obstructed.
- At two locations, eyewash and shower stations were not readily available within ten seconds.
- At one location, there was no documented record of monthly inspections of the eyewash and shower station.
- At three locations, fire extinguishers were not readily accessible.
- At two locations, fire extinguishers were obstructed.
- At one location, one fire extinguisher was not always visually inspected monthly and another fire extinguisher had a tag showing pre-dated visual inspections.
- At one location, the fire extinguisher was not always visually inspected monthly.

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. Develop and implement a written process for conducting and documenting regular maintenance and inspections of safety equipment, retrain facilities planning and management personnel on the requirements and importance of monthly inspections and accurate documentation, and document the training provided.
- b. Install eyewash and shower stations in areas where they are required and move obstructed safety equipment to a space with adequate access to the equipment.

### MANAGEMENT RESPONSE

We concur. Management's action plan is to ensure that the campus:

- a. Develops and implements a written process for conducting and documenting regular maintenance and inspections of safety equipment, re-trains facilities planning and management personnel on the requirements and importance of monthly inspections and accurate documentation, and documents the training provided. This objective has been implemented.
- b. Install eyewash and shower stations in areas where they are required and move obstructed safety equipment to a space with adequate access to the equipment. The anticipated implementation date for these objectives is July 31, 2019.

## 12. HAZARDOUS MATERIALS PROCUREMENT AND RECEIVING

### OBSERVATION

The campus had not formally documented or implemented campus-specific policies and procedures for purchasing and receiving HAZMAT.

We also found that EHS was not always being notified of HAZMAT, including equipment purchases, as required by the CHP. Specifically:

- The ordering departments did not always send copies of the SDS to EHS for central filing.
- The receiving departments did not always send a copy of the purchase order to EHS.

Additionally, in discussions with the EHS director, several laboratory principal investigators, and some facilities team members, we found that campus staff and faculty were able to purchase HAZMAT using P-cards, which was prohibited by the campus *Procurement Card Program Handbook*, unless the purchase was pre-approved by the procurement director. We reviewed 10 P-card purchases of HAZMAT and noted that none had been approved in advance.

Campus-specific procurement and receiving policies and procedures help to ensure consistent practices for the purchasing and receiving of HAZMAT and reduces the potential liability to the campus.

### RECOMMENDATION

We recommend that the campus:

- a. Document and implement campus-specific policies and procedures for purchasing and receiving HAZMAT, including storage and distribution processes.
- b. Provide P-card training to current transaction approvers and reiterate to all P-card users that the purchase of HAZMAT by P-card must be approved in advance.
- c. Communicate and distribute the new policies and procedures to appropriate campus employees.



**MANAGEMENT RESPONSE**

We concur. Management’s action plan is to ensure that the campus:

- a. Documents and implements campus-specific policies and procedures for purchasing and receiving HAZMAT, including storage and distribution processes. The anticipated implementation date for this objective is July 31, 2019.
- b. Provides P-card training to current transaction approvers and reiterates to all P-card users that the purchase of HAZMAT by P-card must be approved in advance. The anticipated implementation date for this objective is August 30, 2019.
- c. Communicates and distributes the new policies and procedures to appropriate campus employees. The anticipated implementation date for this objective is August 30, 2019.

**13. SPILL CONTROL**

**OBSERVATION**

Spill kits were not always readily available or easily accessible.

We reviewed 13 locations, and we found that:

- Three locations did not have a spill kit readily available.
- One location had a spill kit stored on the top shelf where an employee would likely need to use a step-stool or climb on a desk to retrieve it.

Readily available and easily accessible spill kits help to maintain a healthy and safe environment for employees and students.

**RECOMMENDATION**

We recommend that the campus provide spill kits in locations where they are required and move the spill kit noted above to a location where it is easily accessible.

**MANAGEMENT RESPONSE**

We concur. Management’s action plan is to ensure that the campus provides spill kits in locations where they are required and moves the spill kit noted above to a location where it is easily accessible.

The anticipated implementation date for this objective is July 31, 2019.

## 14. ASBESTOS NOTIFICATIONS

### OBSERVATION

The campus did not properly notify employees about locations that contained asbestos. We reviewed five mechanical rooms where possible asbestos-containing materials (ACM) were located and found that two 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 establish and implement a written procedure to ensure that appropriate asbestos signage is posted in all of the required locations on campus.

### MANAGEMENT RESPONSE

We concur. Management's action plan is to ensure that the campus establishes and implements a written procedure to ensure that appropriate asbestos signage is posted in all of the required locations on campus.

The anticipated implementation date for this objective is July 31, 2019.

## 15. LASER SAFETY PROGRAM

### OBSERVATION

The campus did not have a written and comprehensive laser safety program, and proper laser warning signs were not always posted.

We found that:

- The campus did not have a written laser safety program or other policies and procedures to provide guidance for laser safety.
- One location that used lasers did not have proper laser warning signs posted in accordance with the American National Standards Institute (ANSI).

A written and comprehensive laser safety program reduces the risk of injuries associated with the use of lasers.

### RECOMMENDATION

We recommend that the campus:

- a. Develop and implement a written laser safety program or other policies and procedures to provide guidance for laser safety, and communicate the program to employees.
- b. Establish and implement a written procedure to ensure that proper laser warning signs are posted in all required locations on campus.

**MANAGEMENT RESPONSE**

We concur. Management’s action plan is to ensure that the campus:

- a. Develops and implements a written laser safety program or other policies and procedures to provide guidance for laser safety, and communicates the program to employees.
- b. Establishes and implements a written procedure to ensure that proper laser warning signs are posted in all required locations on campus.

The anticipated implementation date for these objectives is October 31, 2019.

**16. RADIATION SAFETY PROGRAM**

**OBSERVATION**

The campus *Radiation Safety Manual* did not address guidance for safe use of X-ray machines, including procedures for monitoring radiation levels of exposure from X-ray machines.

A complete radiation safety manual provides information regarding procedures and engineering controls that are based upon sound principles related to radiation protection and ensures that occupational doses and doses to members of the public are as low as is reasonably achievable.

**RECOMMENDATION**

We recommend that the campus update the campus *Radiation Safety Manual* to address the areas above, and communicate the updated program to employees.

**MANAGEMENT RESPONSE**

We concur. Management’s action plan is to ensure that the campus updates the campus *Radiation Safety Manual* to address the areas noted above and communicates the updated program to employees.

The anticipated implementation date for this objective is October 31, 2019.

## 17. ANNUAL REPORTING

### **OBSERVATION**

The campus did not provide an annual HS program report to the CO.

We found that the campus did not prepare and submit the required annual HS program reports to the CO Systemwide Office of Risk Management for fiscal years 2016/17 and 2017/18, as required by Executive Order (EO) 1039, *California State University – Occupational Health & Safety Policy*.

Annual HS program reports provide necessary information to the CO to provide systemwide oversight to campuses.

### **RECOMMENDATION**

We recommend that the campus annually prepare and submit an HS program report to the CO.

### **MANAGEMENT RESPONSE**

We concur. Management's action plan is to ensure that the campus annually prepares and submits an HS program report to the CO.

The anticipated implementation date for this objective is October 31, 2019.

## GENERAL INFORMATION

### BACKGROUND

California state regulations require all employers, including the California State University (CSU), to provide a safe and healthy work environment. Each campus has a designated EHS 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 *Health and Safety Code* (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 CHO and have a written CHP that includes, among other things, provisions for worker training, criteria for the use of personal protective equipment 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 CSU San Bernardino (CSUSB), the responsibility for establishing and maintaining effective policies regarding EHS resides with the campus president. Oversight and responsibility for the EHS office are delegated to the EHS director, who reports directly to the vice president of administration and finance and chief financial officer, due to the vacancy in the executive director of risk management position. The EHS office oversees the HS program at the campus and at the CSUSB PDC; works to promote environmental stewardship; protects the HS of CSUSB faculty, staff, and students; and provides technical expertise and support through the development of EHS programs, training, and consultation.

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 CSUSB campus from January 22, 2019, through March 8, 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 January 1, 2016, through December 31, 2018.

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 CHP; 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 HCP; availability of SDS; 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.

## CRITERIA

Our audit was based upon standards as set forth in federal and state regulations and guidance; Trustee policy; CO 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:

- ANSI Z136.1, *Safe Use Of Lasers*
- ANSI Z358.1-1981, *Emergency Eyewash and Shower Equipment*
- Code of Federal Regulations (CFR), Title 10, Part 20, *Standards for Protection Against Radiation*
- 29 CFR §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*
- CSUSB Art Safety Plan
- CSUSB Biohazard Management Plan
- CSUSB Chemical Hygiene Plan
- CSUSB Hazard Communication Program
- CSUSB Hearing Conservation Program
- CSUSB Injury and Illness Prevention Program
- CSUSB Procurement Card Program Handbook
- CSUSB Radiation Safety Manual
- CSUSB Respiratory Protection Program
- CSUSB Safety Training Program
- CSUSB Student Health Center *Infection Prevention Manual*

## AUDIT TEAM

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