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May 21, 2018

Dr. Eduardo M. Ochoa, President
California State University, Monterey Bay
100 Campus Center, Administration Building
Seaside, CA 93955

Dear Dr. Ochoa:

**Subject: Audit Report 18-31, Hazardous Materials Management,
California State University, Monterey Bay**

We have completed an audit of *Hazardous Materials Management* as part of our 2018 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

HAZARDOUS MATERIALS MANAGEMENT

**California State University,
Monterey Bay**

Audit Report 18-31
April 26, 2018

EXECUTIVE SUMMARY

OBJECTIVE

The objectives of the audit were to ascertain the effectiveness of operational and administrative controls related to hazardous materials management (HMM) and to ensure compliance with relevant governmental regulations, Trustee policy, Office of the Chancellor directives, and campus procedures.

CONCLUSION

We found the control environment for some of the areas reviewed to be in need of improvement.

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 HMM as of March 16, 2018, 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 HMM, with guidance primarily provided by the emergency management and health and safety (EMHS) division. However, we found that the campus did not always identify employees and students who handled hazardous materials (HAZMAT) and/or hazardous waste (HAZWASTE) for the provision of safety training and did not always ensure that required training was assigned and completed. Additionally, the campus departments did not always properly label and store HAZMAT and HAZWASTE or properly and timely inspect safety equipment. We also found that the campus receiving and procurement controls and the administration of the campus annual Health and Safety Program report and Hazardous Materials Business Plan (HMBP) needed improvement. Further, the campus did not always execute written contracts with HAZWASTE transporters in accordance with California State University (CSU) insurance requirements. In addition, the campus did not always follow certain requirements in the campus hazard communication (HAZCOMM) program, and the campus injury and illness prevention program (IIPP) did not reflect current practices related to annual safety inspections.

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

OBSERVATIONS, RECOMMENDATIONS, AND RESPONSES

1. TRAINING

OBSERVATION

The campus did not always identify employees, including faculty and staff, and students who handled HAZMAT and/or HAZWASTE for the provision of safety training and did not always ensure that required training was assigned and completed.

We found that:

- The campus had not consistently identified all employees requiring initial safety training. The campus had a checklist to identify and document employees requiring specific safety training, but it was not consistently completed.
- New employees who were assigned initial safety courses in SkillPort did not always complete the training, and there was no process in place to monitor compliance or follow-up with the employee. Specifically, for employees hired in 2017, SkillPort reports showed a completion rate of 45 percent for HAZCOMM training and 61 percent for IIPP training.
- The campus did not have a process to ensure that employees with overdue or incomplete refresher safety training were notified.
- The campus did not have a process to identify safety training requirements for students when they were given new job assignments for which they had not previously received training.

Effective administration of safety training helps to ensure compliance with required program provisions; increases awareness of HAZMAT, HAZWASTE, and injuries and accidents; and reduces the potential of risk and liability to the campus.

RECOMMENDATION

We recommend that the campus establish and implement processes to:

- a. Identify all employees who work with HAZMAT and/or HAZWASTE requiring safety training.
- b. Monitor and track compliance with required initial and refresher safety training for employees.
- c. Identify students who are given new job assignments requiring safety training, and provide the appropriate training.

MANAGEMENT RESPONSE

We concur. The campus will identify all HAZMAT and/or HAZWASTE employees who require safety training, monitor and track compliance with safety training completion, and identify students who are given new job assignments that require safety training and provide the appropriate training by October 31, 2018.

2. HAZWASTE

OBSERVATION

Campus departments did not always properly label and store HAZWASTE in accordance with campus and regulatory requirements.

We inspected nine locations, including five locations at the school of natural sciences (SNS), two locations at the department of facilities services and operations (FSO), and two locations at the department of visual and public art (VPA).

We found that:

- At one VPA location and one SNS location, HAZWASTE containers did not have labels indicating the type of waste in the container and the date that waste accumulation began. As such, we were unable to determine what type of HAZWASTE was being stored and how long it had been there.
- At one SNS location, a HAZWASTE container was labeled, but the label did not indicate the accumulation start date. As such, we were unable to determine how long waste had been accumulating.
- At one SNS location, HAZWASTE was improperly stored in a glass container without a lid.
- At one SNS location, HAZWASTE was not timely transferred to the accumulation site, and some HAZWASTE had been accumulating for more than a year.
- At one VPA location, a weekly inspection of HAZWASTE was not being conducted.
- At one FSO location, a weekly inspection of HAZWASTE was not being documented.
- Three universal waste containers were either not labeled or not properly labeled with the type of waste and date that accumulation began. As such, we were unable to verify how long the waste had been accumulating. Specifically, at one FSO location, used batteries were not labeled, and at one SNS location, a water-sampling device containing a battery was placed in a HAZWASTE bin without a label. Further, at another SNS location, a container of used batteries was labeled but did not indicate the accumulation start date.

Proper labeling, storage, inspection, and timely disposal of HAZWASTE reduces the likelihood of accidents and injuries, as well as potential risk and liability to the campus.

RECOMMENDATION

We recommend that the campus reiterate documented procedures and provide training to personnel involved in handling HAZWASTE on proper labeling, storage, inspection, and timely disposal of HAZWASTE.

MANAGEMENT RESPONSE

We concur. The campus will reiterate documented procedures and provide training to personnel involved in handling HAZWASTE on the following: proper labeling, storage, inspection, and timely disposal of HAZWASTE, by October 31, 2018.

3. HAZMAT

OBSERVATION

Campus departments did not always properly label and store HAZMAT in accordance with campus and regulatory requirements.

We inspected five SNS locations, two FSO locations, and one VPA location to evaluate whether HAZMAT was properly labeled and stored.

We found that:

- At five SNS locations, one VPA location, and one FSO location, HAZMAT stored in a secondary container was not properly labeled.
- At one SNS location, a HAZMAT label was not legible because it was corroded by the acid in the container.

Proper labeling and storage of HAZMAT communicates potential danger and helps to ensure the safety of employees and students who come in contact with HAZMAT.

RECOMMENDATION

We recommend that the campus reiterate documented procedures and provide training to personnel involved in handling HAZMAT on proper labeling and storage of HAZMAT.

MANAGEMENT RESPONSE

We concur. The campus will reiterate documented procedures and provide training to personnel involved in handling HAZMAT on proper labeling and storage of HAZMAT by October 31, 2018.

4. SAFETY EQUIPMENT INSPECTIONS

OBSERVATION

Campus departments did not always properly and timely inspect safety equipment.

We inspected seven SNS locations, four FSO locations, and two VPA locations to evaluate whether required safety equipment inspections were performed.

We found that:

- At six SNS locations, four FSO locations, and one VPA location, fire extinguishers were not inspected monthly.
- At one FSO location, five SNS locations, and one VPA location, eyewash stations were not inspected monthly.
- At one SNS location and one VPA location, eyewash stations were not available.
- At one FSO location, an eyewash station was not readily available. Instead, a portable eyewash station was stored away.
- At one FSO location and one VPA location, spill kits were not readily available.

Proper and timely inspection of safety equipment helps to ensure that safety equipment is in good working condition and reduces the potential risk due to accidents and injuries.

RECOMMENDATION

We recommend that the campus:

- a. Reiterate documented procedures and provide training to personnel involved with safety equipment inspections on proper and timely inspection of safety equipment.
- b. Evaluate the need for eyewash stations and spill kits at the locations noted above, and provide them if determined necessary.

MANAGEMENT RESPONSE

We concur. The campus will reiterate documented procedures and provide training to personnel involved with safety equipment inspections on proper and timely inspection of safety equipment and evaluate the need for eyewash stations and spill kits at the locations noted within the audit report, and provide them if determined necessary, by August 31, 2018.

5. HAZWASTE TRANSPORTER CONTRACT

OBSERVATION

The campus did not always execute written contracts with HAZWASTE transporters in accordance with CSU requirements.

We reviewed two third-party agreements with contractors that transported HAZWASTE and found that one agreement did not include the minimum insurance requirements, as outlined in Technical Letter Risk Management (RM) 2012-01, *CSU Insurance Requirements*.

Agreements that include insurance requirements reduce risk and liability exposure.

RECOMMENDATION

We recommend that the campus include the minimum insurance requirements when renewing the written contract noted above.

MANAGEMENT RESPONSE

We concur. The campus will include the minimum insurance requirements when renewing or replacing the contract by July 31, 2018.

6. HAZMAT RECEIVING CONTROLS

OBSERVATION

Campus HAZMAT receiving controls needed improvement.

We found that the campus did not have documented policies and procedures related to receipt of HAZMAT.

Additionally, the campus was unclear on where HAZMAT was being received on campus. The campus indicated that HAZMAT was received at departments, specifically at the SNS and the VPA. However, we found that campus shipping and receiving was receiving HAZMAT for the SNS and the VPA, and it was unaware that it was receiving HAZMAT.

Clear identification of HAZMAT receiving locations and written policies and procedures help to ensure that HAZMAT is received in a controlled environment, increases awareness, and reduces the risk of liability to the campus.

RECOMMENDATION

We recommend that the campus:

- a. Develop policies and procedures to help ensure that proper HAZMAT receiving controls are in place.

- b. Identify the departments responsible and ensure that receiving controls are in place.

MANAGEMENT RESPONSE

We concur. The campus will develop policies and procedures to help ensure that proper HAZMAT receiving controls are in place and will identify the departments responsible and ensure that receiving controls are in place by July 31, 2018.

7. HAZCOMM PROGRAM

OBSERVATION

The campus did not always follow certain requirements in the campus HAZCOMM program.

We reviewed the campus HAZCOMM program, and we found that:

- Departments did not have HAZCOMM programs specific to their departments.
- The procurement office did not forward copies of all HAZMAT purchase requisitions to the EMHS division, and the EMHS division did not review and approve all HAZMAT purchase requisitions.

Compliance with the HAZCOMM program increases awareness and reduces the potential risk and liability to the campus.

RECOMMENDATION

We recommend that the campus:

- a. Create HAZCOMM programs specific to each departments or update the campus HAZCOMM program to include department-specific programs.
- b. Require the procurement office to forward copies of all HAZMAT purchase requisitions to the EMHS division or determine alternative ways to identify HAZMAT purchases and obtain appropriate review and approval.

MANAGEMENT RESPONSE

We concur. The campus will create HAZCOMM programs specific to each departments or update the campus HAZCOMM program to include department-specific programs and will require the procurement office to forward copies of all HAZMAT purchase requisitions to the EMHS division or determine alternative ways to identify HAZMAT purchases and obtain appropriate review and approval by October 31, 2018.

8. IIPP

OBSERVATION

The campus IIPP did not reflect current campus practices related to annual safety inspections.

According to the campus IIPP, annual safety inspections to identify and evaluate workplace hazards should be performed in all occupied campus buildings by the building's designated building emergency coordinator. Additionally, a building safety inspection checklist, a record to document compliance with annual safety inspections, should be forwarded to the campus emergency manager within 14 days of completion.

However, we found that the building emergency coordinators were not conducting these periodic workplace inspections or completing building safety inspection checklists. Instead, the health and safety specialist was conducting annual inspections.

A current IIPP program helps to ensure performance of duties and functions, improves compliance with CSU requirements, increases awareness, and reduces the potential of risk and liability to the campus.

RECOMMENDATION

We recommend that the campus:

- a. Review and update the campus IIPP to reflect the current campus practices related to annual safety inspections.
- b. Communicate and distribute the updated IIPP to the appropriate college administrators, staff, and faculty.

MANAGEMENT RESPONSE

We concur. The campus will review and update the campus IIPP to reflect the current campus practices related to annual safety inspections and communicate and distribute the updated IIPP to the appropriate college administrators, staff, and faculty by August 31, 2018.

9. HAZMAT PROCUREMENT

OBSERVATION

Campus policies and procedures related to procurement of HAZMAT needed improvement.

We found that:

- The campus *Procurement Card Program Handbook* did not include HAZMAT as a prohibited purchase.

- The campus did not have written policies and procedures for the purchase of precursor chemicals.

Comprehensive and established policies and procedures help to ensure consistent practice over HMM, including the purchase of HAZMAT.

RECOMMENDATION

We recommend that the campus:

- a. Update the campus *Procurement Card Program Handbook* to include HAZMAT as a prohibited purchase.
- b. Develop written policies and procedures for the purchase of precursor chemicals.
- c. Communicate and distribute the updated handbook and new policies and procedures to appropriate college administrators, staff, and employees.

MANAGEMENT RESPONSE

We concur. The campus will update the campus *Procurement Card Program Handbook* to include HAZMAT as a prohibited purchase, develop written policies and procedures for the purchase of precursor chemicals, and communicate and distribute the updated handbook and new policies and procedures to appropriate college administrators, staff, and employees by October 31, 2018.

10. REPORTING

OBSERVATION

Administration of the campus annual health and safety program report and HMBP needed improvement.

We found that:

- The campus did not prepare and submit the required annual health and safety program reports to the campus president and systemwide Office of Risk Management for fiscal years 2014/15 and 2015/16, as required by Executive Order (EO) 1039, *California State University – Occupational Health & Safety Policy*.
- The campus did not always generate reports to identify whether extremely hazardous substances were above the reportable quantity threshold. Substances over the threshold should be included in the HMBP that is submitted to the local certified unified program agency.

Timely and accurate submission of required reports helps to ensure compliance with systemwide and regulatory provisions and reduces the likelihood of fines, citations, and additional regulatory oversight.

RECOMMENDATION

We recommend that the campus:

- a. Prepare and submit the annual health and safety program report to the campus president and the systemwide Office of Risk Management.
- b. Regularly generate reports to identify substances over the reportable quantity threshold and include them in the HMBP.

MANAGEMENT RESPONSE

We concur. The campus will prepare and submit the annual health and safety program report to the campus president and the systemwide Office of Risk Management and regularly generate reports to identify substances over the reportable quantity threshold and include them in the HMBP by October 31, 2018.

GENERAL INFORMATION

BACKGROUND

The Environmental Protection Agency (EPA) works with the state of California to enforce the Resource Conservation and Recovery Act (RCRA), which was enacted in 1976 to address growing public concern regarding health risks, waste generation, and waste disposal surrounding HAZMAT. According to the RCRA, the federal government can authorize states to develop, implement, and enforce their own HAZMAT and waste management regulations so long as the regulations are as stringent or broader in scope than federal regulations. In 1992, the EPA granted California the authority to develop its own regulations, most of which are codified in the California *Health and Safety Code* and in Titles 8 and 22 of the (CCR). Title 8 of the CCR addresses HAZMAT safety, including, but not limited to, labeling, safety data sheets and training, and the requirement to establish a written *Hazard Communication Program* and an *Injury and Illness Prevention Program*. Title 22 of the CCR addresses HAZWASTE management with regard to accumulation, on-site storage limits, transport and disposal.

Two CSU EOs provide additional guidance regarding campus HMM. EO 1039, *Occupational Health and Safety*, requires campuses to develop, implement, and maintain a health and safety program to address identified hazards; and EO 1069, *Risk Management and Public Safety*, states that the systemwide risk management is delegated systemwide administration oversight and programmatic responsibility for environmental health and safety.

California State University, Monterey Bay (CSUMB) purchases HAZMAT for both instructional and research purposes, most prominently in colleges that focus on science, agriculture, and engineering. In addition, campus maintenance departments such as facilities services and operations and auto shops use materials that are known to have properties that are harmful to humans and the environment and must be monitored to ensure proper and safe utilization. Nearly all of the areas that use HAZMAT generate HAZWASTE that is subject to strict regulation for safe and proper storage, transport, and disposal.

The responsibility for establishing and maintaining effective policies regarding environmental health and safety issues at CSUMB rests with the campus president. The EMHS under the university police department oversees HMM, including HAZWASTE on campus; serves as the liaison with campus and regulatory agencies for issues related to environmental compliance and occupational safety; and provides assistance to faculty, staff, students, and visitors in protecting their health and safety.

SCOPE

We visited the CSUMB campus from January 29, 2018, through March 9, 2018. 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 July 1, 2016, through March 9, 2018.

Specifically, we reviewed and tested:

- The general control environment over campus HAZMAT, including clear lines of organizational authority and responsibility, HAZMAT risk assessment, and current written policies and procedures.
- HMM, including systems and procedures for controlling the purchase, generation, storage, use, and disposal of HAZMAT; compliance with labeling of HAZMAT and HAZWASTE to communicate contents and hazards; and regulatory registration and permits.
- HAZWASTE activities related to proper identification, storage, and monitoring to ensure that accumulated HAZWASTE does not remain on campus longer than allowable; and evaluation of contract services for the transport and disposal of HAZWASTE.
- Compliance with federal and state regulations, including the HAZCOMM Program and the IIPP, along with processes for scheduled safety inspections and corrective action; and an effective emergency and contingency plan in place for HAZMAT and/or HAZWASTE spills and exposures.
- Required training for employees, including staff and faculty, and students who handle or may encounter HAZMAT and/or HAZWASTE. These trainings include initial and refresher HAZCOM and HAZWASTE and CSU IIPP.

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 campus HMM program. Our review was limited to gaining reasonable assurance that essential elements of campus HMM 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; CSU Board of Trustee policies; Office of the Chancellor policies, letters, and directives; campus procedures; and other sound administrative practices. 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:

- United States EPA *Resource Conservation and Recovery Act*
- Code of Federal Regulations Title 40, *Protection of Environment*
- California Health and Safety Code (HSC) Division 10, *Uniform Controlled Substances Act*
- California HSC Division 20, *Miscellaneous Health and Safety Provisions*
- CCR Title 8, *Industrial Relations*

- CCR Title 19, *Public Safety*
- CCR Title 22, Division 4.5, *Environmental Health Standards for the Management of Hazardous Waste*
- EO 1039, *California State University - Occupational Health & Safety Policy*
- EO 1069, *Risk Management and Public Safety*
- Technical Letter RM 2011-05, *California State University Campus Risk Management Policy*
- Technical Letter RM 2012-01, *CSU Insurance Requirements*
- Integrated California State University Administrative Manual (ICSUAM) §5303.00, *Commodities with Special Purchasing Requirements*
- ICSUAM §5412.00, *Special Processing Requirements for Contracts*
- CSUMB *Chemical Hygiene Program*
- CSUMB *Hazard Communication Program*
- CSUMB *Hazardous Waste Management Program*
- CSUMB *Injury and Illness Prevention Program*
- CSUMB *Procurement Card Program Handbook*

AUDIT TEAM

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