HAZARDOUS MATERIALS MANAGEMENT

CALIFORNIA STATE UNIVERSITY,
BAKERSFIELD

Audit Report 13-49
October 4, 2013

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ABBREVIATIONS

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<td>AVP</td>
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<td>Federal Resource Conservation and Recovery Act</td>
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EXECUTIVE SUMMARY

As a result of a systemwide risk assessment conducted by the Office of the University Auditor (OUA) during the last quarter of 2012, the Board of Trustees, at its January 2013 meeting, directed that Hazardous Materials Management (HMM) be reviewed. The OUA had previously reviewed HMM in 2000, and Occupational Health and Safety in 2007.

We visited the California State University, Bakersfield campus from July 15, 2013, through August 15, 2013, and audited the procedures in effect at that time.

In our opinion, except for the effect of the weaknesses described below, the fiscal, operational, and administrative controls for HMM as of August 15, 2013, taken as a whole, were sufficient to meet the objectives stated in the “Purpose” section of this report. Areas of concern include: general environment, laboratory standard, and training.

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.

The following summary provides management with an overview of conditions requiring attention. Areas of review not mentioned in this section were found to be satisfactory. Numbers in brackets [ ] refer to page numbers in the report.

GENERAL ENVIRONMENT [7]

Hazard communication program provisions were not always being followed. For example, refrigerators in two biology laboratories were not properly labeled, and material safety data sheets were not maintained in chemistry and biology laboratories. Additionally, HMM inspections were not always performed in a timely manner, and documentation of the inspections was not always maintained.

HAZARDOUS MATERIALS ADMINISTRATION [10]

The campus’s contract with its primary hazardous waste transporter was established via purchase order rather than the California State University (CSU) model agreement for hazardous waste transporters and did not incorporate the contract terms and conditions specified by CSU policy.

LABORATORY STANDARD [11]

The campus chemical hygiene plan had not been updated since October 2000 and included outdated and inaccurate information. Also, the campus did not always maintain evidence that students had completed required laboratory safety training.
EXECUTIVE SUMMARY

HAZARDOUS WASTE [13]

Hazardous waste was not always properly labeled and stored.

TRAINING [14]

The campus did not consistently provide and document initial and refresher training for employees who worked with hazardous materials and hazardous waste.
INTRODUCTION

BACKGROUND

Regulation over hazardous waste has its roots in the 1976 Federal Resource Conservation and Recovery Act (RCRA), which was enacted to address growing public concern regarding health risks, waste generation, and waste disposal surrounding hazardous materials (HAZMAT). RCRA initiated the “cradle to grave” tracking and management of hazardous waste, and its regulations addressed, but were not limited to, generation of hazardous waste; hazardous waste treatment, transportation, storage, and disposal; federal and state reporting; federal, state, and local permits and registration; and waste minimization.

RCRA states that the federal government can authorize states to develop, implement, and enforce their own HAZMAT and waste management regulations, with the stipulation that the state programs must be as stringent or broader in scope than the federal regulations. In 1992, the Environmental Protection Agency granted California authority to develop its own regulations, most of which are now codified in the Health and Safety Code and in Titles 8 and 22 of the California Code of Regulations (CCR). The California Department of Toxic Substances Control is responsible for enforcing these codes and administrative laws.

All California State University (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 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 utilize HAZMAT generate hazardous waste that is subject to strict regulation for safe and proper storage, transport, and disposal.

Sections of Title 8 of the CCR address hazardous materials management (HMM) in several areas, including training, communication, storage, and safety. However, in response to a number of serious accidents in university laboratories in recent years, there has been an increased diligence from the California Occupational Safety and Health Administration (CalOSHA) and other regulatory agencies in enforcing regulations and standards related to laboratory safety. The Occupational Exposure to Hazardous Chemicals in Laboratories standard (8 CCR 5191), commonly referred to as the Laboratory Standard, was created specifically for non-production laboratories and outlines specific requirements for employers to ensure the safety of employees in these labs. The standard requires that the employer designate a chemical hygiene officer and have a written chemical hygiene plan (CHP), which must be routinely verified for effectiveness. The CHP must include provisions for worker training, chemical exposure monitoring where appropriate, medical consultation when exposure occurs, criteria for the use of personal protective equipment and engineering controls, and special precautions for particularly hazardous substances. The CHP must be tailored to reflect the specific chemical hazards present in the laboratory where it is to be used.

Executive Order (EO) 1039, California State University – Occupational Health and Safety Policy, dated January 1, 2009, recognizes that occupational health and safety or environmental health and safety departments are an integral to the CSU system and that injuries and/or illnesses may arise from work-related activities that include exposure to potentially harmful substances. It outlines the responsibilities of the various parties, including the systemwide Office of Risk Management, campus presidents, campus
environmental health and safety departments, and campus departments. It requires campuses to develop, implement, and maintain a campus health and safety program to address all identified campus hazards, including hazardous materials.

EO 1069, *Risk Management and Public Safety*, dated March 1, 2012, delegates authority and responsibility for systemwide administrative oversight and programmatic responsibility for risk management, environmental health and safety, emergency preparedness, business continuity, and public safety to the assistant vice chancellor for risk management and public safety. This includes responsibility for policies and programs, resource documents, training programs, and production of guidance on the application of risk management techniques and systemwide policies and procedures.

In 2000, the Office of the University Auditor conducted an audit of HMM at nine campuses and issued a systemwide report. The report noted issues related to contractual arrangements and insurance coverage for waste transporters, material safety data sheets (MSDS), and staff HAZMAT orientation and refresher training. Previous to the 2000 review, OUA audited HMM in 1992, with a follow-up review in 1996. The OUA also audited Occupational Health and Safety in 2007 and reviewed activities that also involved HMM.
PURPOSE

Our overall audit objective was to ascertain the effectiveness of existing policies and procedures related to HMM activities and to determine the adequacy of controls that ensure compliance with relevant governmental regulations, Trustee policy, Office of the Chancellor directives, and campus procedures.

Within the audit objective, specific goals included determining whether:

- Administration of HMM is well-defined and includes clear lines of organizational authority and responsibility.
- Risks related to HMM have been identified and assessed, and the results are applied to appropriate plans and processes.
- Policies and procedures pursuant to HMM are current and comprehensive, and distribution procedures are effective.
- Appropriate due diligence and oversight controls are in place to ensure that contractors conducting HMM services meet both regulatory and CSU contractual obligations.
- The campus has established the required HAZMAT communication documents.
- The campus has obtained the required registrations and permits and complies with key regulatory reporting requirements.
- Hazardous materials inventories are maintained, and purchasing and receipt processing is conducted in a controlled environment.
- HAZMAT in containers are properly labeled to communicate contents and hazards to users.
- The campus has established effective emergency and contingency plans for HAZMAT spills and exposures.
- Campus laboratories are operating and lab activities are conducted in accordance with 8 CCR 5191, The Occupational Exposure to Hazardous Chemicals in Laboratories standard, commonly referred to as the Laboratory Standard.
- Adequate procedures exist to identify hazardous waste.
- Hazardous waste, including biomedical and universal waste, is properly stored and labeled and does not accumulate on-site for longer than the allowable time.
- Hazardous waste transportation and disposal processes are in compliance with regulations.
- Employees and students who handle HAZMAT and/or generate hazardous waste have been adequately trained.
SCOPE AND METHODOLOGY

The proposed scope of the audit as presented in Attachment A, Audit Agenda Item 2 of the January 22 and 23, 2013, meeting of the Committee on Audit stated that Hazardous Materials Management would include, but was not limited to, a review of the systems and procedures for controlling the purchase, generation, storage, use, and disposal of HAZMAT and wastes; employee training; emergency response plans; reporting requirements; and compliance with federal and state regulations.

Our study and evaluation were conducted in accordance with the International Standards for the Professional Practice of Internal Auditing, issued by the Institute of Internal Auditors, and included the audit tests we considered necessary in determining that accounting and administrative controls are in place and operative. This review emphasized, but was not limited to, compliance with state and federal laws, Board of Trustee policies, and Office of the Chancellor policies, letters, and directives. The audit focused on procedures in effect from July 1, 2011, through August 15, 2013.

We focused primarily upon the internal administrative, compliance, and operational controls over HMM activities. Specifically, we reviewed and tested:

- Campus administration of HMM, including clear reporting lines and defined responsibilities and current policies and procedures for HAZMAT handling and waste disposal.
- Compliance with permit and registration requirements, as well as with required regulatory and CSU reporting requirements.
- Contents of HAZMAT safety plans, such as the CHP and Hazard Communication plan, as required by the CCR and CalOSHA.
- Hazard communication practices, including the accessibility of MSDS, appropriate hazard signage, and proper labeling of containers stored on site.
- Hazardous waste determination, storage, transportation, and disposal practices.
- Training for employees and students on HAZMAT handling and hazardous waste disposal.
OBSERVATIONS, RECOMMENDATIONS, AND CAMPUS RESPONSES

GENERAL ENVIRONMENT

HAZARD COMMUNICATION PROGRAM

Hazard communication program (HAZCOMM) provisions were not always being followed.

We reviewed nine chemistry and biology areas and five facilities management work areas containing hazardous materials, and we found that:

- Refrigerators in two biology laboratories were not labeled with signage identifying their use as “chemical storage only – no food allowed.”

- Material safety data sheets (MSDS) were not readily accessible to all chemistry and biology laboratories. Instead, MSDS were maintained in one central location downstairs from the laboratories, and therefore could be inaccessible in an emergency.

California Code of Regulations (CCR) Title 8 §5194(f)(4) states that the employer shall ensure that each container of hazardous substances in the workplace is labeled, tagged, or marked with the identity of the hazardous substance, and appropriate hazard warnings.

CCR Title 8 §5194(g)(2)(8) requires employers to maintain copies of MSDS for each hazardous substance in the workplace and ensure that they are readily accessible during each work shift to employees when they are in their work areas.

CCR Title 8 §5194(g)(2)(9) states that where employees must travel between workplaces during a workshift, (i.e., their work is carried out at more than one geographical location), the MSDS may be kept at a central location at the primary workplace facility. In this situation, the employer shall ensure that employees can immediately obtain the required information in an emergency.

California State University, Bakersfield (CSUB) HAZCOMM, dated February 2011, states that all employees must have access to MSDS in their work area or in a central location. It further states that each department shall ensure that all containers of hazardous substances in the workplace are labeled, tagged or marked with the identity of the hazardous substance and appropriate hazard warnings.

The associate vice president (AVP) of human resources (HR) and administrative services/interim director of safety and risk management (SRM) stated that although SRM performed safety inspections annually and checked for proper labeling, changing conditions throughout the year in the departments sometimes resulted in inadequate labeling due to human error. She further stated that a decision had been made in consultation with the science safety committee to store MSDS at the science stockroom based on its central location and ease of access, and to better ensure that MSDS were current and complete.

Noncompliance with HAZCOMM provisions undermines the safety of employees and students in contact with hazardous materials and increases the risk of litigation and regulatory sanctions.
Recommendation 1

We recommend that the campus follow all HAZCOM provisions.

Campus Response

The campus concurs with the recommendation regarding the proper labeling of storage areas. Refrigerators in all laboratories for the School of Natural Sciences, Mathematics, and Engineering (NSME) are now labeled with signage identifying their usage as “chemical storage only – no food allowed.”

The campus will accept the risk inherent in not maintaining MSDS in the immediate area because the campus believes having MSDS located by the science stockroom provides the necessary access 24 hours a day, 7 days a week.

INSPECTIONS

Hazardous materials management (HMM) inspections were not always performed in a timely manner, and documentation of the inspections was not always maintained.

Specifically, we found that:

- Safety equipment was not always inspected in accordance with regulatory and campus requirements. For example:
  - There was no record of monthly inspections of emergency eyewash and shower equipment near the shipping and receiving dock and the facilities yard.
  - The emergency eyewash in Science I chemistry laboratory room 284 was last inspected in August 2002.
  - Fume hoods in Science I chemistry laboratory rooms 265 and 261 had not undergone annual inspections since August 2011.

- Injury and illness prevention program (IIPP) safety inspections were not always conducted in accordance with campus and regulatory requirements. For example:
  - Inspections were not performed in several areas of the campus during the 2012/13 school year, including physical education facilities, student recreation and dining facilities, and the Antelope Valley Regional Center.
  - Inspection records from the 2011/12 and 2012/13 school years for the Science I and Science II buildings did not include evidence that all required corrective action had been completed.

CCR Title 8 §5162(e) requires plumbed eyewash and shower equipment to be activated at least monthly to flush the line and to verify proper operation.
CCR Title 8 §5143(a)(5) states that the ventilation rate of every mechanical ventilation system used to prevent harmful exposure shall be tested after initial installation, alterations, or maintenance, and at least annually, by means of a pitot traverse of the exhaust duct or equivalent measurements. It further states that records of these tests shall be retained for at least five years.

CCR Title 8 §5191(e)(3)(c) states that all protective equipment shall function properly and that specific measures shall be taken to ensure proper and adequate performance of such equipment.

CSUB Chemical Hygiene Plan (CHP), dated October 2000, states that the safety and risk manager will coordinate testing of laboratory fume hoods.

CCR Title 8 §3203(a) states that every employer shall establish, implement and maintain an effective IIPP, which shall provide procedures for identifying and evaluating workplace hazards, including scheduled periodic inspections to identify unsafe conditions and work practices. It further states that the IIPP will include records of scheduled and periodic inspections to identify unsafe conditions and work practices, including persons conducting the inspection, the unsafe conditions and work practices that have been identified, and action taken to correct the conditions.

Executive Order (EO) 1039, California State University Occupational Health & Safety (OHS) Policy, dated January 1, 2009, states that campuses shall develop procedures for identifying and evaluating workplace hazards, including scheduled and unscheduled inspections. It further states that the inspections will be documented and should include suggested methods and/or procedures for correcting the hazard and evidence that the hazard has been corrected.

CSUB IIPP, dated March 22, 2013, states that SRM will conduct annual fire and safety inspections for all areas of the campus. It further states that deficiencies identified should be corrected within 30-45 days.

The AVP of HR and administrative services/interim director of SRM stated her belief that inspections of emergency eyewash and shower equipment in the facilities yard had occurred, but the people performing the inspections had not been required to maintain documentation. She also stated that fume hoods had not been inspected recently because responsibility for performing the inspections had been reassigned, and there was no oversight procedure to ensure the inspections were conducted. In addition, she further stated that some IIPP inspections had not occurred during the 2012/13 school year due to recent staff turnover in SRM; however, this was limited to lower-risk areas. Finally, she stated her belief that corrective action for higher-risk issues in the science buildings had occurred, but follow-up on the documentation did not occur due to recent staff turnover in SRM.

Inadequate administration of inspections increases the risk that unsafe conditions will not be identified and increases the potential for accidents and injuries, litigation, and regulatory sanctions.

**Recommendation 2**

We recommend that the campus:

a. Inspect safety-related equipment in accordance with campus and regulatory requirements.
b. Conduct IIPP safety inspections related to hazardous materials management in accordance with campus and regulatory requirements.

**Campus Response**

The campus concurs with this recommendation. Eyewash and shower equipment will be inspected monthly, and fume hoods will be inspected annually, effective January 1, 2014. The NSME Safety Committee has already assigned the eyewash and shower inspection task to departmental instructional support technicians, and the safety and risk manager will coordinate testing of the laboratory fume hoods for areas within NSME. Inspection records will be made available near the eyewash or fume hood, or will be kept in the science stockroom, or applicable department.

The campus will ensure annual inspections are completed and maintain documentation of any corrective action taken. A tracking form will be provided by February 28, 2014.

**HAZARDOUS MATERIALS ADMINISTRATION**

The campus’s contract with its primary hazardous waste transporter was established via purchase order rather than the California State University (CSU) model agreement for hazardous waste transporters and did not incorporate the contract terms and conditions specified by CSU policy.

Integrated California State University Administrative Manual (ICSUAM) §5412.7, *Hazardous Materials Removal Services Contracts*, dated April 28, 2008, states that contracts involving the handling, removal, or disposal of hazardous materials shall be developed in accordance with the CSU model agreement for hazardous material removal and comply with all state and federal requirements. It further states that changes to the hazardous materials model contract may be made with the concurrence of campus risk management and environmental health and safety (EHS).

ICSUAM §5240.1, *Standard Terms and Conditions*, dated April 28, 2008, states that it is the campus’s responsibility to include, in each contract, terms and conditions necessary to protect the interests of the CSU, comply with applicable laws, reasonably mitigate risks and provide best value to the CSU.

The director of procurement and contract services stated that a purchase order was used due to the low dollar value of the services provided and the prior positive history with the vendor. He further stated that proof of vendor insurance adequate to cover the amount of waste transported was always obtained.

Agreements that do not include CSU-required risk management and contractual provisions increase CSU insurance risk and liability exposure.

**Recommendation 3**

We recommend that the campus use the CSU model agreement to execute written contracts with hazardous waste transporters.
Campus Response

The campus concurs with this recommendation. The campus will develop an appropriate agreement that meets the recommendation of the auditor, in compliance with ICSUAM. The campus will implement this agreement by March 15, 2014.

LABORATORY STANDARD

CHEMICAL HYGIENE PLAN

The campus CHP had not been updated since October 2000 and included outdated and inaccurate information.

CCR Title 8 §5191(e)(4) states that the employer shall review and evaluate the effectiveness of the CHP at least annually and update it as necessary.

CSUB CHP, dated October 2000, states that the CHP will be evaluated yearly and revised only if amendment is necessary to maintain compliance with regulatory codes or nationally recognized safety standards or to correct operational problems identified through the implementation process.

CSUB IIPP, dated March 22, 2013, states that the science safety committee is responsible for development and periodic revisions to the CHP.

The chair of the chemistry department stated that other pressing needs took priority over updating the CHP because lab safety issues were regularly discussed during department, staff, and safety committee meetings.

An outdated and inaccurate CHP undermines the safety of employees and students in contact with hazardous substances and increases the risk of litigation and regulatory sanctions.

Recommendation 4

We recommend that the campus review and update its CHP.

Campus Response

The campus concurs with this recommendation. The campus’ CHP update has been assigned to the NSME Safety Committee and CSUB’s director of safety and risk management for review and updating. The timeline for finalizing this task is March 31, 2014.

STUDENT SAFETY TRAINING

The campus did not always maintain evidence that students had completed required laboratory safety training.
We reviewed training records for two chemistry course sections and two biology course sections, and we found that documentation of training did not exist for:

- Three of 33 enrolled students in a winter 2013 Chemistry 150 course.
- Thirteen of 21 enrolled students in a winter 2013 Chemistry 440 course.
- Two of 42 enrolled students in a spring 2012 Biology 316 course.
- One of 48 enrolled students in a spring 2013 Biology 414 course.

EO 1039, *OHS Policy*, dated January 1, 2009, states that for educational activities where there is a potential for exposure to biological, chemical, and/or physical hazards and where student training is determined to be necessary, the campus should consider: developing and implementing student training programs that inform of the potential hazards and the safe educational practices/procedures that must be utilized to avoid injury or illness. It further states that student training should be documented and kept on file.

CSUB CHP, dated October 2000, states that laboratory instructors are responsible for providing students with training regarding safe work practices, use of personal protective equipment and accident response.

CSU Records Retention Schedule, dated October 10, 2010, states that student training records should be maintained under “CSU Best Practices” for three years.

The AVP of HR and administrative services/interim director of SRM stated that laboratory instructors were responsible for ensuring all students completed laboratory safety training, and either the records had been misplaced, or the students in question had dropped the course prior to the first lab session.

Inadequate administration of required student safety training increases the risk of accidents, injuries, and lawsuits.

**Recommendation 5**

We recommend that the campus maintain evidence that students have completed required laboratory safety training.

**Campus Response**

The campus concurs with this recommendation. Concerning evidence of student completion of laboratory safety training, the following policy will be instituted in NSME, effective winter quarter 2014: Instructors are responsible for assuring that each student has completed laboratory safety training, and signed the ensuing contract. Contracts are forwarded by the instructor to instructional support technicians for filing. Instructional support technicians double-check that the number of contracts received match the class roster, and alert the instructor in case of discrepancies. Student training records will be retained for three years.
HAZARDOUS WASTE

Hazardous waste was not always properly labeled and stored.

We inspected 15 locations in which hazardous waste was stored (nine in chemistry and biology, one in EHS, and five in facilities management), and we found that:

- One hazardous waste container in the science stockroom was not labeled with all required information. In addition, used batteries and used light bulbs in the stockroom were not properly stored or labeled and did not state an accumulation start date.

- Several waste containers and bins at the EHS accumulation site containing used light bulbs and tubes were not labeled and did not state an accumulation start date.

- A waste container in one chemistry laboratory was not labeled with the accumulation start date.

- A coffee can containing sharps waste in one biology laboratory was not labeled with the accumulation start date.

- A plastic jug containing used batteries in the custodial services room was not labeled and did not state an accumulation start date.

- Electronic waste stored inside and outside the shipping and receiving warehouse was not labeled and did not state an accumulation start date.

CCR Title 22 §66262.34 states that a generator may accumulate hazardous waste if the initial date of waste accumulation is clearly marked and visible for inspection on each container used for accumulation of hazardous waste.

CCR Title 22 §66273.34 states that a universal waste handler shall label or mark universal waste to identify the type of universal waste as specified in subsections (a) through (f) of this section. CCR Title 22 §66273.35(a) and (b) state that a universal waste handler shall accumulate universal waste for no longer than one year from the date the universal waste was generated, or was received from another universal waste handler, and shall be able to demonstrate the length of time that the universal waste has been accumulated from the date it became a waste or was received.

CSUB CHP, dated October 2000, states that hazardous waste containers must be used, must be clean and compatible with the waste stream, and must be labeled with a CSUB waste label.

The AVP of HR and administrative services/interim director of SRM stated that although SRM performed safety inspections annually to ensure proper labeling, changing conditions in the departments and storage areas sometimes resulted in inadequate labeling due to human error.

Improper labeling of hazardous substances could result in accidents and job-related injuries, regulatory noncompliance, and potential university liability for the improper management of hazardous waste.
Recommendation 6

We recommend that the campus properly label and store all hazardous waste.

Campus Response

The campus concurs with this recommendation. The campus will ensure that hazardous waste is appropriately labeled and stored. This will be done by the responsible areas with the oversight by the director of safety and risk management. This will be completed by March 30, 2014.

TRAINING

The campus did not consistently provide and document initial and refresher training for employees who worked with hazardous materials and hazardous waste.

Specifically:

- We reviewed records of initial training for eight faculty members and two employees in the NSME and five facilities management employees, and we found that:
  - None of the eight NSME faculty members received training on the IIPP, HAZCOMM requirements, laboratory standard, or hazardous waste.
  - Neither of the two NSME employees had received IIPP training. In addition, required HAZCOMM, laboratory standard, and hazardous waste training was not provided in a timely manner.
  - Training and training records for facilities management employees were inconsistent. Two of five employees did not receive IIPP training, and two others did not receive the training in a timely manner. Also, four of five employees did not receive HAZCOMM and hazardous waste training in a timely manner.

- We also reviewed records of hazardous waste refresher training for ten faculty members in NSME and five employees in facilities management, and we found that:
  - None of the faculty members had received hazardous waste refresher training in 2012.
  - Four of five facilities management employees had not received hazardous waste refresher training in 2012.

CCR Title 8 §3203(a)(7) states that the IIPP will provide for training and instruction to all new employees and to all employees given new job assignments for which training has not previously been received. It further states in §3203(b)(2) that documentation of training shall include the employee name, training dates, type(s) of training, and training providers, and that these records will be maintained for at least one year.
CCR Title 8 §5194(h) states that employers shall provide employees with effective information and training on hazardous substances in their work area at the time of their initial assignment and whenever a new hazard is introduced into their work area. It further states that the training shall include information on the applicable regulations; the operations in the employee’s work area where hazardous substances are present; the location and availability of the hazard communication program, including the list of substances and the MSDS; methods and observations used to detect the presence or release of hazardous substances in the work area; the health hazards of the substances in the work area and measures they can take to protect themselves from the hazards; and an explanation of the labeling system and the MSDS and how employees can use this information.

CCR Title 8 §5191(e)(3) states that lab employees shall be trained on the hazards of chemicals present in their work areas at the time of the initial assignment to the work area and prior to assignments involving new exposure situations. It further states that the training should include methods and observations used to detect the presence or release of a hazardous chemical, the physical and health hazards of chemicals in the work area, and the measures employees can take to protect themselves from these hazards, such as appropriate work practices, emergency procedures, and personal protective equipment usage.

CCR Title 22 §66264.16 states that new employees shall receive introductory training in hazardous waste management procedures relevant to the positions in which they are employed, and that it should occur before they are left unsupervised and annually thereafter. It further states that the facility will maintain records of every employee involved in hazardous waste management, a description of the training provided to these individuals, and records that the training occurred.

EO 1039, CSU OHS Policy, dated January 1, 2009, states that campuses shall develop, implement, and maintain a health and safety program that includes a training program that ensures employees receive adequate safety training for the tasks they are performing and/or that are included in the job description or scope of work.

CSUB IIPP, dated March 22, 2013, states that SRM provides training as required by regulation on an ongoing basis. It further states that all employees are required to take the IIPP online training within 60 days of employment. For the purposes of the IIPP, an employee is any person who works for the CSU in return for financial or other compensation. It also states that supervisors will ensure that employees receive general and specific training prior to assignment to a new job, whenever new substances, processes, procedures, or equipment are introduced that present a new hazard, or whenever the supervisor receives notification of a new or previously unrecognized hazard. It further states that all training will be documented in writing and kept on file within each department and a copy will be provided to SRM.

CSUB CHP, dated October 2000, states that all laboratory workers must be informed of the content, location, and availability of the CHP, the contents and requirements of the laboratory standard, the location of MSDS and other reference materials, methods to detect the presence of hazardous chemicals, hazards associated with the chemicals used in the laboratories, and specific measures workers can use to protect themselves.
The AVP of HR and administrative services/interim director of SRM stated that although SRM provides the required training, it is the responsibility of the deans to ensure that faculty members take the training. She further stated that missing or untimely training for staff was generally due to inadequate follow-up or insufficient recordkeeping.

Inadequate administration of required employee safety training related to hazardous materials and hazardous waste increases the risk of accidents, injuries, and lawsuits.

**Recommendation 7**

We recommend that the campus provide and document initial and refresher training for employees who work with hazardous materials and hazardous waste.

**Campus Response**

The campus concurs with this recommendation. The Office of Safety and Risk Management will oversee the initial and refresher training for employees who work with hazardous materials and hazardous waste, and ensure training is documented. This will commence by February 28, 2014.
# APPENDIX A: PERSONNEL CONTACTED

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horace Mitchell</td>
<td>President</td>
</tr>
<tr>
<td>Sheila Barela</td>
<td>Environmental Health and Safety Specialist</td>
</tr>
<tr>
<td>Laura Ann Bishop</td>
<td>Administrative Analyst/Specialist, Office of the Dean,</td>
</tr>
<tr>
<td></td>
<td>School of Natural Sciences, Mathematics, and Engineering (NSME)</td>
</tr>
<tr>
<td>Michael Chavez</td>
<td>Director of Procurement and Contract Services</td>
</tr>
<tr>
<td>Kellie Garcia</td>
<td>Associate Vice President, Human Resources and Administrative</td>
</tr>
<tr>
<td></td>
<td>Services/Interim Director, Safety and Risk Management</td>
</tr>
<tr>
<td>Andreas Gebauer</td>
<td>Chair, Chemistry Department</td>
</tr>
<tr>
<td>Summer Gibbons</td>
<td>Instructional Support Technician</td>
</tr>
<tr>
<td>Katherine Grube</td>
<td>Instructional Support Technician</td>
</tr>
<tr>
<td>Kamel Haddad</td>
<td>Associate Dean, NSME/Professor of Mathematics</td>
</tr>
<tr>
<td>Wilfredo Hernandez</td>
<td>Custodial Supervisor</td>
</tr>
<tr>
<td>Anne Houtman</td>
<td>Dean, NSME</td>
</tr>
<tr>
<td>Michael Neal</td>
<td>Vice President, Business and Administrative Services</td>
</tr>
<tr>
<td>Elizabeth Powers</td>
<td>Instructional Support Technician</td>
</tr>
<tr>
<td>Jerry Pulkinghorne</td>
<td>Supervisor, Facilities Management</td>
</tr>
<tr>
<td>Marcos Rodriguez</td>
<td>Roads and Grounds Supervisor</td>
</tr>
<tr>
<td>Christopher Vanni</td>
<td>Instructional Support Technician III</td>
</tr>
<tr>
<td>Tom Velasquez</td>
<td>Manager, Facilities Operations</td>
</tr>
<tr>
<td>Kathy Villa</td>
<td>Contracts Specialist, Procurement and Contract Services</td>
</tr>
<tr>
<td>Douglas Wade</td>
<td>Assistant Vice President, Fiscal Services</td>
</tr>
</tbody>
</table>
Mr. Larry Mandel  
University Auditor  
California State University  
401 Golden Shore  
Long Beach, California 90802

Re: University Response to Recommendations Contained in Audit Report  
Number 13-49, Hazardous Materials Management - CSU Bakersfield

Dear Larry,

Please find enclosed CSU Bakersfield’s response to the above report. The campus is committed to addressing and resolving the issues identified in the audit report.

Please let me know if we can provide you with any additional information.

Sincerely,

Horace Mitchell, Ph.D.  
President

Enclosure

c:  Michael A. Neal, Vice President for Business & Administrative Services  
    Kellie Garcia, Associate Vice President, Human Resources & Administrative Services  
    Dr. Anne Houtman, Dean, School of Natural Sciences, Mathematics, and Engineering
HAZARDOUS MATERIALS MANAGEMENT
CALIFORNIA STATE UNIVERSITY, BAKERSFIELD
Audit Report 13-49

GENERAL ENVIRONMENT

HAZARD COMMUNICATION PROGRAM

Recommendation 1

We recommend that the campus follow all HAZCOMM provisions.

Campus Response

The campus concurs with the recommendation regarding the proper labeling of storage areas. Refrigerators in all laboratories for the School of Natural Sciences, Mathematics, and Engineering (NSME) are now labeled with signage identifying their usage as “chemical storage only – no food allowed.”

The campus will accept the risk inherent in not maintaining MSDS in the immediate area because the campus believes having MSDS located by the science stockroom provides the necessary access 24 hours a day, 7 days a week.

INSPECTIONS

Recommendation 2

We recommend that the campus:

a. Inspect safety-related equipment in accordance with campus and regulatory requirements.

b. Conduct IIPP safety inspections related to hazardous materials management in accordance with campus and regulatory requirements.

Campus Response

The campus concurs with this recommendation. Eyewash and shower equipment will be inspected monthly, and fume hoods will be inspected annually, effective January 1, 2014. The NSME Safety Committee has already assigned the eyewash and shower inspection task to departmental instructional support technicians, and the safety and risk manager will coordinate testing of the laboratory fume hoods for areas within NSME. Inspection records will be made available near the eyewash or fume hood, or will be kept in the science stockroom, or applicable department.

The campus will ensure annual inspections are completed and maintain documentation of any corrective action taken. A tracking form will be provided by February 28, 2014.
HAZARDOUS MATERIALS ADMINISTRATION

Recommendation 3

We recommend that the campus use the CSU model agreement to execute written contracts with hazardous waste transporters.

Campus Response

The campus concurs with this recommendation. The campus will develop an appropriate agreement that meets the recommendation of the auditor in compliance with ICSUAM. The campus will implement this agreement by March 15, 2014.

LABORATORY STANDARD

CHEMICAL HYGIENE PLAN

Recommendation 4

We recommend that the campus review and update its CHP.

Campus Response

The campus concurs with this recommendation. The campus’ CHP update has been assigned to the NSME Safety Committee and CSUB’s director of safety and risk management for review and updating. The timeline for finalizing this task is March 31, 2014.

STUDENT SAFETY TRAINING

Recommendation 5

We recommend that the campus maintain evidence that students have completed required laboratory safety training.

Campus Response

The campus concurs with this recommendation. Concerning evidence of student completion of laboratory safety training, the following policy will be instituted in NSME, effective winter quarter 2014: Instructors are responsible for assuring that each student has completed laboratory safety training, and signed the ensuing contract. Contracts are forwarded by the instructor to instructional support technicians for filing. Instructional support technicians double-check that the number of contracts received match the class roster, and alert the instructor in case of discrepancies. Student training records will be retained for three years.
HAZARDOUS WASTE

Recommendation 6

We recommend that the campus properly label and store all hazardous waste.

Campus Response

The campus concurs with this recommendation. The campus will ensure that hazardous waste is appropriately labeled and stored. This will be done by the responsible areas with the oversight by the director of safety and risk management. This will be completed by March 30, 2014.

TRAINING

Recommendation 7

We recommend that the campus provide and document initial and refresher training for employees who work with hazardous materials and hazardous waste.

Campus Response

The campus concurs with this recommendation. The Office of Safety and Risk Management will oversee the initial and refresher training for employees who work with hazardous materials and hazardous waste, and ensure training is documented. This will commence by February 28, 2014.
MEMORANDUM

TO: Mr. Larry Mandel
   University Auditor

FROM: Timothy P. White
   Chancellor

SUBJECT: Draft Final Report 13-49 on Hazardous Materials Management, California State University, Bakersfield

December 19, 2013

In response to your memorandum of December 19, 2013, I accept the response as submitted with the draft final report on Hazardous Materials Management, California State University, Bakersfield.

TPW/amd