

RIVERSIDE: AUDIT & ADVISORY SERVICES

March 14, 2012

To: Russell Vernon, Director
Environmental Health & Safety (EH&S)

Subject: EH&S Safety and Industrial Hygiene Program

Ref: R2012-01

We have completed our audit of the EH&S Safety and Industrial Hygiene Program in accordance with the UC Riverside Audit Plan. Our report is attached for your review. We will perform audit follow-up procedures in the future to review the status of management action. This follow-up may take the form of a discussion or perhaps a limited review. Audit R2012-01 will remain open until we have evaluated the actions taken.

We appreciate the cooperation and assistance provided by your staff. Should you have any questions concerning the report, please do not hesitate to contact me.

Michael R. Jenson
Director

Attachment

Xc: Audit Committee Members
Associate Vice Chancellor Miller

UNIVERSITY OF CALIFORNIA AT RIVERSIDE
AUDIT & ADVISORY SERVICES
MEMBER OF ASSOCIATION OF COLLEGE & UNIVERSITY AUDITORS

INTERNAL AUDIT REPORT R2012-01
ENVIRONMENTAL HEALTH & SAFETY –
SAFETY AND INDUSTRIAL HYGIENE PROGRAM
MARCH 2012

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UC RIVERSIDE
ENVIRONMENTAL HEALTH & SAFETY –
SAFETY AND INDUSTRIAL HYGIENE PROGRAM
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I. MANAGEMENT SUMMARY

Based upon the results of work performed within the scope of the limited review, it is our opinion that the Environmental Health & Safety (EH&S) Safety & Industrial Hygiene (SIH) Program's system of internal controls over the processes to manage the various SIH programs is operating satisfactorily except for the areas that need enhancements as noted below, and generally in compliance with regulatory requirements and University policies and procedures.

Positive observations include:

- The EH&S website provides comprehensive information and guidance to campus departments regarding safety policies and procedures, including inspection checklists and incident reporting.
- The Campus Safety Committee with 47 members meets monthly to discuss campus safety issues with the primary goal of creating and maintaining a high level of interest and awareness in safety and to help provide a safe and healthy environment for all UCR faculty, staff, students, and visitors.
- Online safety training presentations are available in the EH&S website and are accessible to employees with a UCR NetID. Completed training is automatically recorded in the Learning Management System (LMS).
- Incidents of injuries and illnesses classified as recordable and reported to the Occupational Safety and Health Administration (OSHA) had declined during the last four calendar years by an average of 11%, from 128 in calendar year 2008 to 90 in calendar year 2011.
- The Housing, Dining, and Residential Services' (HDRS) Safety Program objective is to achieve a zero rate of injury and illness. Towards this end, the HDRS Safety Committee develops annual safety training and education plans, monitors incidents of injuries/illnesses, and recommends corrective actions to prevent occurrence of incidents. Safety practices and processes implemented by the HDRS Safety Program appear to be effective based on the decrease in the number of reported OSHA-recordable incidents of injuries and illnesses, particularly at Dining Services. In calendar 2011, Dining Services reported a total of 19 OSHA-recordable incidents, a reduction of 18 (49%) against the 37

reported in calendar year 2010. For Housing, 10 OSHA-recordable incidents were reported in calendar year 2011 against the 6 reported in 2010. Overall, 2011 recordable incidents of 29 was 14 (33%) lower than the 43 reported in 2010.

- Both HDRS and Physical Plant have adopted Employee Wellness Programs aimed at improving the employees' physical well-being with the objective of having healthy employees that are more alert, thus alleviating the occurrence of incidents of injury.

We observed some areas that need enhancement to strengthen internal controls and/or effect compliance with University policy:

- The accountability and responsibility for a major component of the EH&S Safety and Industrial Hygiene, the Injury and Illness Prevention Program, appear to have not been clearly communicated to and appreciated by the campus community, as a whole. (Observation III.A)
- While a Program Action Plan is developed by SIH, there is no Report that summarizes the activities completed by the program. (Observation III.B.2)
- Follow up procedures on the implementation of the recommended preventive action plan in the employee injury reports including the date the action was implemented were not documented. (Observation III.D.2)

This is explained in greater detail in Section III of this report.

II. INTRODUCTION

A. PURPOSE

UC Riverside Audit & Advisory Services, as part of its Audit Plan, performed a limited review of the EH&S Safety & Industrial Hygiene Program to evaluate compliance with regulatory requirements and certain University policies and procedures, efficiency and effectiveness of selected operations and adequacy of certain internal controls.

B. BACKGROUND

The mission of the EH&S Safety & Industrial Hygiene Program is to ensure the general health and safety of the campus by supplying information, services, and equipment to help identify, evaluate, and control potentially harmful activities in the work and learning environment. The SIH Program has two full-time staff, a Manager and an

EH&S Specialist I, which together oversees the overall SIH Program consisting of 22 program areas:

1. Compressed Gas Program
2. Confined Space
3. Chemical Fume Hoods
4. Electrical Safety
5. Fall Control
6. Flammable and Combustible Liquids / Flammable Gases
7. Hand Tools
8. Hazard Communication
9. Hearing Conservation
10. Heat Stress Prevention
11. Indoor Air Quality
12. Injury and Illness Prevention Plan (IIPP)
13. Integrated Safety and Environmental Management (ISEM)
14. Lockout / Blockout
15. Machine Guarding
16. Mobile Equipment
17. Mold Remediation Procedures
18. Personal Protective Equipment
19. Respiratory Protection
20. Water Damage Procedures
21. Welding, Cutting and Burning
22. Workplace Exposure Assessment

Assisting the EH&S SIH Program is the Campus Safety Committee (CSC) consisting of 47 representatives from 24 control units and campus departments that meets monthly to discuss campus safety issues. The primary goal of the CSC is to create and maintain a high level of interest and awareness in safety among all employees and to help provide a safe and healthy environment for faculty, staff, students, and visitors.

Among the responsibilities of the SIH Program are to:

- Investigate indoor air quality issues and complaints
- Test/certify campus fume hoods
- Manage a network of Department Safety Coordinators (DSC)
- Protect worker health and safety through implementation of the IIPP and ISEM Programs
- Provide oversight of ergonomics, fall control, hearing conservation, heat stress prevention, mold remediation, personal protective equipment (i.e., respirators), and safety engineering.

C. SCOPE

Audit procedures were performed to evaluate whether the required functions and activities of the SIH program are adequately completed to provide reasonable assurance that the campus is a safe and healthy environment for faculty, staff, students, and visitors. The scope of the audit was limited to activities during the period July 1, 2010 to June 30, 2011 and focused on the following areas:

- Regulations and UC/UCR Policies
- Training and Education
- Incident Reporting and Follow up

The audit was limited to the following procedures:

1. Reviewed applicable University policy and procedures and Title 8 of the California Code of Regulations (CCR) which are the California OSHA regulations.
2. Obtained the SIH Action Plan and reviewed any reports on the accomplishment of the Program Action Plan.
3. Selected the three departments with the highest number of reported incidents of injuries and illnesses and another three departments randomly for review. Interviewed their respective Department Safety Coordinators and reviewed their respective safety programs, including training and incident reporting.
4. Reviewed the EH&S Training and Education Program for FY 2010-2011.
5. Obtained from Human Resources Workers' Compensation the calendar years 2008, 2009, and 2010 reports to OSHA on Summary of Work-Related Injuries and Illnesses (Form 300A). Determined the departments where injuries or illnesses occurred the most (high-risk).
6. Obtained the Incident Investigation Process procedures. Obtained a sample of three incident reports and reviewed for compliance and completeness of information provided. Determined if any follow up procedures were conducted to verify implementation of the preventive action plan.
7. Determined if the IIPP reports were updated annually by the selected departments.

8. Interviewed the SIH Manager and the EH&S Training and Communications Manager.

D. INTERNAL CONTROLS AND COMPLIANCE

As part of the review, internal controls were examined within the scope of the audit.

Internal control is a process designed to provide reasonable, but not absolute, assurance regarding the achievement of objectives in the following categories:

- effectiveness and efficiency of operations
- reliability of financial reporting
- compliance with applicable laws and regulations

Our substantive audit procedures were performed in November to December 2011 (not inclusive). Accordingly, this evaluation of internal controls is based on our knowledge as of that time and should be read with that understanding.

III. OBSERVATIONS, COMMENTS, AND RECOMMENDATIONS

A. Accountability and Responsibility

The accountability and responsibility for a major component of the EH&S Safety and Industrial Hygiene, the Injury and Illness Prevention Program, appear to have not been clearly communicated to and appreciated by the campus community, as a whole.

COMMENTS

Under CCR Title 8, Section 3203, it is the employer's responsibility to "establish, implement, and maintain an effective Injury and Illness Prevention Program (IIPP)." CCR Title 8 further requires the IIPP to include, among other things, the person or persons with authority and responsibility for implementing the IIPP, and the procedures for identifying and evaluating work place hazards including scheduled periodic inspections to identify unsafe conditions and work practices.

Under Campus Policy Number (CPN) 425-58, the University is committed to maintaining a safe environment for the entire campus community, visitors, and the general public. CPN 425-58 identifies executive management (Vice Chancellors, Deans, and Executive Officers) as responsible and accountable for ensuring their respective units' compliance with CCR Title 8. On the department level, Department Chairs/Heads, Directors, and Managers are accountable, and the

Department Safety Coordinators responsible for the development, implementation, coordination, and maintenance of the IIPP.

The role of EH&S is to provide technical assistance and oversight to ensure campus compliance with regulatory requirements. In the SIH Program Action Plan, the planned activities included assisting departments in conducting IIPP self-assessments and job hazard analyses, conducting quarterly training sessions for DSCs, and providing support for DSCs on IIPP implementation. Each campus department is required to have its own IIPP.

The EH&S website contains a list of the designated and, if any, alternate DSCs from 100 control units and campus departments. The list of departments did not appear to be complete, indicating that some departments had not appointed a DSC or did not inform EH&S of the employee appointed as their DSC. According to the SIH Manager, meetings with DSCs had not been conducted on a regular basis because conducting meetings with more than 100 DSCs would be unmanageable. Likewise, campus departments were requested to submit their IIPPs to EH&S but few departments provided EH&S with a copy of their IIPPs. It appears that departmental responsibility for IIPP development and implementation is not given the serious priority it deserves. The EH&S Director is considering recommending to senior management the creation of Safety Committees in each control unit that will be accountable and responsible for the development and maintenance of the IIPPs of departments under their control unit.

Although a Campus Safety Committee is in existence, it was not clear whether the issues discussed in its regular meetings are shared with executive management and control units/departments.

RECOMMENDATIONS

Executive management should hold senior management at control units accountable for compliance with regulations and the University's commitment to maintaining a safe environment. The accountability and responsibilities of management and staff for safety, as well as the reporting structure for accountability, should be clearly defined and communicated to all concerned. Towards this end, to effectively manage departmental safety, including the development and maintenance of the departmental IIPP, we support the EH&S proposed action to create Safety Committees at the control unit level.

MANAGEMENT RESPONSE

We are encouraged and Audit & Advisory Services agrees that College and Organization Control level safety committees would be much better suited to assigning department level safety coordinators and providing a forum for identification and discussion of safety related topics. One of the initiatives that the now deceased Risk Manager Steve Lashier put forth was to have these Org Level Safety Committees report to the Campus Safety Committee which would then report to the Enterprise Risk Working Group which reports to the Ethics and Compliance Risk & Audit and Controls Committee. This or any scheme where the management of safety follows the reporting and campus accountability structure and EH&S personnel provide support and guidance is highly desired. We will submit a proposal to the campus management for their consideration before the end of this fiscal year.

B. Safety & Industrial Hygiene Program Action Plan

1. Summary

Annually, the SIH Manager develops an SIH Program Action Plan (Plan) that contains the activities/actions proposed to be carried out during the fiscal year, including the assigned priority rating (A, B, or C with those rated A having the highest priority), the due dates, and the EH&S employees assigned to those activities. In developing the Plan, the SIH Manager identifies the proposed activities based on risk factors such as frequency and severity of risks that were given corresponding ratings of low (1), medium (2), and high (3).

Our observations are discussed below.

2. Annual Report on Activities Completed

While a Program Action Plan on proposed activities exists, there is no Annual Report that summarizes the activities completed by the program.

COMMENTS

The FY 2011 Program Action Plan contained 38 activities; the FY 2012 Program Action Plan, 43 activities. Most of the activities are mandated by regulations and University policy. Two employees (SIH Manager and EH&S Specialist I) dedicated to the SIH Program and other EH&S staff are assigned to work on the activities. The activities completed each week are monitored by the SIH Manager.

An overall fiscal year-end report on program activities completed is not prepared. A summary report should allow EH&S management to readily see the activities completed and not completed, the corresponding risks associated with non-completion, particularly those mandated by regulations, and the subsequent planned management action.

RECOMMENDATIONS

Management should consider developing an Annual Report on activities completed based on its Annual Plan.

MANAGEMENT RESPONSE

The "Action Plan" developed for each EH&S program is a document we use to help stay on-track doing the core work the campus needs. Given the current resource allocation climate, one would not expect all the activities identified as potentially being assigned to this program to have staff assigned. We use this document as a tool to prioritize the workload through risk ranking. Any program status reports would be more useful when based on Regulation and Policy, not our internal program action planning document.

We will develop and distribute to campus management reports on the status of this program goals and accomplishments. We expect to start with the metrics we currently track and expand it as relevant. Rather than an annual report, we expect to report on annual goals on a quarterly basis. The first report will cover the first quarter of FY 2012-2013 and expected to be completed by the first week of October 2012.

C. Training and Education

Safety training and education is provided by EH&S either online through its website or in a class setting. The majority of the safety training courses have been loaded in the Learning Management System (LMS) managed by Human Resources. Employees with a UCR NetID can enroll online via the UC Learning Center. Courses completed are automatically posted in the employee's LMS training record. It is expected that by the end of this year, all EH&S courses will be available in LMS. Some training courses are provided by outside vendors. Bilingual training courses are also available.

DSCs from the two highest risk departments, Dining and Housing Services, identify their employees' training needs, develop their annual training plans, and monitor training attendance. Injury Incident Reports

(IIR) are closely monitored so that training and safety meetings can accordingly include the training addressing the reported injuries. The three other departments we selected and reviewed identify their training needs and when applicable, utilize EH&S training resources. In some instances, employees attend outside training for specialized courses.

D. Incident Reporting

1. Summary

Incidents of work-related injuries and illnesses are required to be reported using the Incident and Investigation Report (IIR) form. The Incident Reporting Guidelines and the IIR form are available in the EH&S and Human Resources (HR) websites. Generally, incident investigations are handled by the departments, the more complex investigations are handled by EH&S. Copies of completed IIRs are forwarded to HR Workers' Compensation and EH&S SIH.

The effectiveness of EH&S and departmental efforts on safety, including training and education, can partially be evaluated based on the number of IIRs and the severity of injuries/illnesses. Based on the criteria from OSHA, depending on the injury/illness, an incident may either be non-recordable, recordable, or reportable. Generally, non-recordable injuries require first-aid treatment, no further treatment, and do not result in any claims. Recordable injuries/illnesses require treatment beyond first aid while reportable injuries/illnesses are those that result in hospitalization, other than for observation, for 24 hours or more, or the injury results in loss of limb or loss of life.

Recordable incidents reported in OSHA Form 300A, Summary of Work-Related Injuries and Illnesses, for the past four calendar years were as follows:

Department	2011	2010	2009	2008
Dining Services	19	37	27	39
Housing Services	10	6	15	13
Physical Plant	11	15	13	26
Other Departments (approximately 35)	50	42	53	50
Total Recordable IIRs	90	100	108	128

Overall, the number of recordable IIRs has been decreasing since 2008; by 20 or 16% from 2008 to 2009, by 8 or 7% from 2009 to 2010, and by 10 or 10% from 2010 to 2011. The nature of the employees' work at Dining Services makes it the department with the

highest risk of injuries and illnesses; accounting for 29% of the total recordable incidents during the four-year period.

Our observations are discussed below.

2. Follow Up on Implementation of Preventive Action

Follow up procedures on the implementation of the recommended preventive action plan in incident reports including the date the action was implemented were not documented.

COMMENTS

The IIR includes a description of the incident, the parties involved, the root cause, and recommended preventive action. However, there was no documentation of any follow-up on the implementation of the preventive action.

RECOMMENDATIONS

The IIR should be revised to include a section for follow-up on the implementation of the recommended preventive action. The responsibility for the follow-up should be clearly defined and communicated to the campus control units/departments.

MANAGEMENT RESPONSE

The Incident and Investigation Report form is currently a MS Word document that was recently developed jointly by HR and EH&S based upon the Worker's Compensation requirements, incident investigation best practices, and the desire to keep the format short and simple. (<http://hr.ucr.edu/supervisor/reportincident.html>). As such it doesn't lend itself to the kind of automatic integration and follow-up reminders that we have become used to in the internet connected world.

We have been told that Risk Services at UCOP is developing an electronic reporting tool for injury reports which is planned to be delivered later this year. We will work to develop or obtain a system to assist departments and supervisors in accident investigation and identification of causes to prevent recurrence of injuries. Whether a UC wide or campus level only system, we will report on the feasibility, cost, and development timeline to campus management by Fall Quarter 2012.