Services Overview

Environmental, Health and Safety, Risk and Emergency Services

Environmental, Health and Safety, Risk and Emergency Services is committed to promoting a safe and healthful environment for students, researchers, faculty, staff and the campus community. Through education, auditing and monitoring, technical consultation, and the provision of direct services, staff assists the campus in reducing organizational risks and meeting its obligations for compliance with University of California, local, state and federal health, safety and environmental requirements.

September 2016

University of California Santa Barbara
Services Overview

MISSION

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VISION

Driving world class environmental, health and safety, risk and emergency management solutions to support a safe, learning, research and working environment.

STRATEGIC OBJECTIVES

1. Environmental, Health and Safety, Risk and Emergency Services Leadership
   a. Become recognized as a leader by faculty, staff, students and other stakeholders in establishing institutional best practices and standards of care for workplace safety and environmental protection.
   b. Develop flexible solutions relevant to all locations, acknowledging a “one size fits all” approach is not always practical to implement across the entire campus.

2. Accountability and Metrics
   a. Develop, provide and promote actionable Environmental, Health and Safety, Risk and Emergency Services management programs based upon national and/or internationally recognized risk, safety and environmental management standards and regulations.
   b. Ensure that the campus is recognized as having an effective safety culture, which holds individuals at all levels accountable for environmental, health and safety performance.
   c. Develop and track operation-specific key performance metrics to enable data-driven decision making.

3. Injury Prevention
   a. Ensure that Environmental, Health and Safety, Risk and Emergency Services is appropriately incorporated into individual performance management.
   b. Simplify, reaffirm, communicate and lead the implementation of the campus’ commitment to Environmental, Health and Safety, Risk and Emergency Services activities.
   c. Sustain focus on safety culture transformation by enhancing partnerships with the academic, facilities and administrative communities.
   d. Drive down the frequency and severity of injuries using metrics to prioritize intervention efforts.

4. Environmental Stewardship
   a. Develop system-wide strategies and programs to address our environmental risks.
   b. Establish a system to track environmental metrics.

5. Retention and Development
   a. Provide opportunities for professional development and continuing education for UCSB Environmental, Health and Safety, Risk and Emergency Services professionals.
EXECUTIVE SUMMARY

Working with campus leadership, staff provides support related to overall coordination of campus Environmental, Health, Safety, Risk Management and Emergency Services activities, these activities consist of a wide range of programs including new construction design reviews (Title 24), Fire/Life Safety Inspections (Title 19), emergency management/response, workplace injury reduction, training for safe work practices, laboratory safety inspections, hazardous and radiological waste pick-up, research safety, diving and boat safety, industrial safety, industrial hygiene, environmental health, defensive driving, environmental compliance, construction/contractor safety, oversight of campus insurance programs, and coordination of the liability and workers’ compensation programs. In order to support the achievement of organizational objectives, staff coordinates a variety of program coordination functions, which include:

- **Coordination of EH&S related committees**: Staff coordinates and/or supports multiple campus committees regarding health, safety, risk and emergency management (i.e. Laboratory Safety, Bio Safety, Emergency Management and Radiation committees, etc.).

- **Development and Coordination of EH&S Communication Program**: Staff develops and implements campus and community based EH&S, Risk and Emergency Services communication programs, to include management of the department intranet site, development of fact sheets and generation of periodic performance reports.

- **Development and Coordination of Training Programs**: Staff develops, conducts and maintains training programs to ensure regulatory compliance and assure that students, faculty and staff understand risks and perform work tasks in a safe and environmentally responsible manner.

- **Development, Distribution and Analysis of Performance Measurement Data**: Staff develops and releases performance management reports and conducts analysis of loss and performance data and utilizes information gathered to formulate organizational strategy and priorities.

- **Development, Implementation and Management of Information Systems**: Working with UCOP Risk Solutions and ARIT staff, determine campus EH&S, Risk and Emergency Services information technology needs and develops, implements and maintains software applications to support organizational activities.

- **Development of Policy and Procedures**: Staff works with campus leadership, UCOP staff and specific departments to support the development and maintenance of campus-wide EH&S, Risk and Emergency Services policies, programs and procedures.

- **Management of Regulatory Citations**: Staff manages regulatory site inspections (i.e. California Occupational Safety and Health Administration (CalOSHA), Santa Barbara County Health Department, Air Pollution Control District, etc.), coordination of citation/hazard abatement with Researchers, Facilities, Housing Services and other members of the campus community, including coordination of appeals, legal hearings, and reimbursement of monies paid as a result of citations. Staff serves as campus liaison with regulatory agencies and UCOP Risk Services staff.
Staff consist of:

- 44 full-time equivalent employees
- 4 part-time equivalent employees
- 12 student workers
SERVICES PROVIDED

EH&S supports students, faculty, staff and the community with a multidisciplinary approach focusing on:

Administrative Services:
The Administrative Services Unit is responsible for ensuring that the department’s financial resources are managed in a compliant, efficient and cost-effective manner. Under direction of the Business and Financial Services department, this unit processes business and finance related requests.

- **Budget Management:** Staff manages various budgets that consist of state, non-state, general, recharged, and other funds.

- **Management of Information Systems:** Staff works with University of California Office of the President (UCOP) Risk Services, Administrative & Residential Information Technology (ARIT) and campus staff to develop, implement, maintain and manage organization specific information systems.

- **Purchasing:** Staff purchases goods and services that are unique to the department’s needs. Unique programs include hazardous waste management, dive safety, environmental compliance, and research safety. Purchases are projected to be approximately $880,000 for fiscal year (FY) 2016-17.

- **Recruitment of Staff:** Working with Human Resources personnel, staff manages processes to ensure the appropriate recruitment of departmental personnel. Staff works with human resources staff to coordinate the development of job descriptions, participates in compensation activities and ensures department compliance with existing human resources procedures and policies.

FY 2015-16 department budget
Services Overview

Biological Safety Services

Staff develops, implements, and manages a comprehensive biological safety program with the primary goal of facilitating campus research initiatives while protecting people and the environment from the adverse effects of research materials. Staff engages in analysis and risk assessment of potential biological safety hazards in the campus community, and orchestrates broad-based consultation with key academic and research constituents in the development of procedures designed to minimize potential risks. Staff is responsible for administrative, managerial, and operational (scientific & technical) functions, including identifying needs, goals, and priorities for the following program elements:

- **Regulatory Compliance and Technical Support:** Staff supports University compliance with regulatory standards including requirements from the Centers for Disease Control and the National Institutes of Health (NIH). Staff reviews research grant proposal abstracts and/or scope of work for NIH compliance purposes. Staff advises the research community and Student Health staff regarding medical waste management and pertinent regulations. Staff liaises with regulatory personnel in matters pertaining to biological safety. Staff inspects campus locations with respect to biological safety and regulatory mandates. In addition, Staff implements the requirements of the “NIH Guidelines” as they pertain to University operations.

- **Biological Safety Awareness and Training:** Staff provides quarterly presentations on the containment practices for research with infectious and potentially infectious biological materials. Staff provides training materials to the research community on the subjects of bloodborne pathogens, autoclave safety, medical waste management, and aerosol transmissible diseases. Staff has also developed training programs and guidance documents for other campus clientele including Student Health, Facilities Maintenance, and the Police Department.

- **Coordination of the Institutional Biosafety Committee (IBC):** Staff plans, organizes, schedules and records the minutes of the IBC meetings. Staff assists faculty in shaping safety aspects of protocols and then forwards the applications to the IBC for final conditions and approval. Staff ensures consistency with UC system-wide biosafety trends and maintains knowledge of current research techniques and biosafety approaches necessary to advise the IBC and provide for effective risk minimization.

- **Support operation of the Institutional Animal Care and Use Committee:** Staff support responsibilities include monthly, in-depth protocol reviews of animal use and care protocols, reviews and revisions of “Animal Facility Hygiene Plans” for biological materials, and biannual inspections of a subset of animal resource center facilities.

- **Laboratory Safety Audit and Assistance Program:** Staff serves as the primary research safety contact for Molecular, Cellular & Developmental Biology and the Neuroscience Research Institute. Staff audits and consults with research groups on Chemical Hygiene Plans, training needs assessments, and personal protective equipment assessments.
Services Overview

- **Management of Equipment and Materials**: Staff advises on biological safety equipment and reviews and approves purchase requisitions. Staff also offers campus-wide perspective on autoclave manufacturers and models, and reviews and approves purchase requisitions for those units. In addition, staff functions as an administrative control and reviews and approves purchases of certain classes of biological materials, including infectious agents, human and primate tissues and cell lines, and toxins.

- **Consultative Support**: Staff responds to inquiries regarding biological safety issues that are beyond the purview of the IBC. Staff provides guidance on infectious substances shipment and maintains shipping resources. Staff facilitates post exposure response and treatment related to incidents involving biological materials. Staff reviews design, construction and/or modification of laboratory facilities.

**Dive and Boat Safety Services**:

The Dive and Boat Safety Services Unit is responsible for providing oversight, technical support and consultation of UCSB's recreational, scientific and commercial SCUBA programs and research projects requiring the use of boats. This program enables university staff to meet the scientific diving standards of the CalOSHA and the American Academy of Underwater Sciences (AAUS) by providing the training, dive planning and logistical support required for this type of underwater work. In addition, staff coordinates and supports the activities of the campus Diving Safety Committee.

- **Consultation and Technical Support**: Staff provides a wide variety of technical and consultative support services including evaluating diver’s medical reports, collecting dive logs, selecting equipment and emergency planning/support.

- **Development of Dive Safety Plans**: Staff reviews and approves all scientific and commercial dive plans to ensure that all divers are approved for the proposed dive operations and that the project meets regulatory and the UCSB’s Dive Safety Manual requirements.

- **Management of Boat Safety Program**: Staff chairs the UCSB Small Boating Committee and reviews and approves the boating operations of UCSB’s researchers.

- **Operation of Dive Safety/Repair Shop**: Staff provides inspection, service and support for SCUBA related equipment including regulators, cylinders, valves, SCUBA hoses, buoyancy compensators, wetsuits, dry suits, compressors, gauges, dive computers and various sampling equipment.

- **Purchasing of Dive Safety Related Equipment**: Staff reviews and approves boating and SCUBA equipment related purchases.
Services Overview

- **Training of Research Divers:** Staff provides the UCSB’s 100-hour Dive Safety Course required for a diver to be authorized to work as a scientific diver. Staff provides additional training required for the divers’ emergency training, depth authorization and other specialty diving requirements. This includes nitrox, ice, dry suit, full face mask, decompression, contaminated diving, and oil platform operations.

Environmental Compliance Services

The Environmental Compliance unit is responsible for providing support related to federal, state, and local environmental rules and regulations. This support includes new construction environmental reviews, development/review of campus environmental design standards, stormwater compliance, air emission compliance, environmental site assessment support, environmental auditing and program compliance, facility inspections, permitting, coordination between environmental regulatory agencies, providing environmental training, and the development, implementation and support of campus-wide environmental compliance and sustainability programs.

- **Consultation and Regulatory Support:** Staff reviews regulatory requirements and develops programs to ensure compliance with applicable environmental standards and site permit requirements. Consultation services are provided to advise the campus community of regulatory obligations, answer questions and collaboratively develop effective compliance plans. In addition, staff serves as main point of contact and liaison to federal, state, and local regulatory agencies.

- **Development of Environmental Management Plans:** Staff develops, updates, and maintains environmental management plans required by regulatory oversight agencies. Examples of environmental management plans include UCSB Stormwater Management Program Guidance Document; Stormwater Program Effectiveness Assessment and Improvement Plan, Sewer System Management Plan; and Spill Prevention, Control and Countermeasure Plan.

- **Regulatory Reporting:** Staff is responsible for conducting required reporting to regulatory agencies. Examples of routinely submitted compliance reports include Title V Air Emissions Semi-Annual Compliance Verification Reporting, Greenhouse Gas Annual Reporting, Sulfur Hexafluoride Annual Reporting, MS4 Stormwater Annual Summary Report, and Off-Road Diesel Annual Reporting.

- **Education, Outreach, and Training:** Staff develops and conducts required environmental training programs for targeted staff audiences. In addition, staff provides stormwater pollution prevention education and outreach materials to the general campus community.

- **Compliance Inspections and Audits:** Staff conducts periodic environmental audits of applicable campus operations and facilities, including, but not limited to; stationary emission sources, hazardous materials storage, fleet maintenance yards, petroleum storage locations, sanitary sewer facilities, storm drain system, and construction sites. Staff coordinates regulatory agency inspections and audits, prepares responses to Notices of Violations, and works with regulatory agency to develop required corrective actions.
Services Overview

- **Recordkeeping Database Management:** Staff advises about minimum recordkeeping requirements and maintains electronic databases to store records in the event of a regulatory agency audit. Staff also assists the campus community with recordkeeping requirements by providing applicable tools and recordkeeping forms.

**Environmental Health Services**

The Environmental Health Services Unit provides oversight and support for areas of public health significance on campus properties including food facilities, pools, drinking water lines, integrated pest management, playground safety, septic system design, housing sanitation, camps, and temporary food events.

- **Compliance Inspections:** Staff conducts routine inspections of applicable campus facilities, including, but not limited to, food facilities, swimming pools and spas, temporary food events, camps, and playgrounds. These comprehensive inspections evaluate the extent to which facility conditions and operating practices are in compliance with regulatory standards. Staff works with facility managers on corrective actions to assure regulatory compliance. Staff routinely inspects campus facilities and approves construction plans for compliance with University of California (UC), campus and regulatory requirement (specifically California Health and Safety code requirements).

- **Drinking Water:** Staff develops, enforces, and reviews methods for disinfecting new and existing drinking water lines to ensure campus compliance with the CA Safe Drinking Water Act. Staff coordinates with Physical Facilities, Design & Construction Services, Goleta Water District, and Santa Barbara County Public Health Department when repairs to existing water lines are made, new lines are installed, and/or complaints of water quality are made to ensure that they are disinfected properly and are sufficiently clear of harmful bacteria and other contaminants.

- **General Sanitation:** Staff acts as a technical resource for campus regarding general sanitation issues. These issues can include; review and approval of septic systems on campus affiliated Natural Reserves, vector control problems, and housing sanitation. Staff routinely coordinates with various campus departments to ensure campus compliance with State Regulations and requirements.

- **Illness Investigations:** Staff responds to complaints of suspected foodborne and waterborne illnesses from campus facilities. Staff investigates facilities, reviews illness timelines with facility and department managers, and reviews any documentation the facility might have to help determine if facility was capable of causing suspected illness. Staff coordinates with Student Health Services and Santa Barbara County Public Health on major outbreaks.
• **Regulatory Compliance and Technical Consultation:** Staff acts as the Local Health Department for all campus owned facilities. This role involves review of construction plans, routine inspections, approval of new facilities, policy development, and complaint response to ensure campus compliance with statutes and regulations set forth by the State of California. Staff also provides technical support for various campus departments to ensure the safety of faculty, staff, students, and visitors in regards to public health issues.

• **Temporary Food Events:** Staff provides direction and support for campus events where food is provided to ensure that food prepared and served at temporary events is done so following applicable food safety principals.

**Emergency Services:**

Emergency Services: Staff manages UCSB’s Emergency Operations Plan (EOP) and the Campus Emergency Operations Center (EOC), provides emergency response/preparedness training to the campus and surrounding community, prepares campus to respond and recover from catastrophic emergencies, liaises with local, State, and Federal emergency management agencies, communicates with Campus executive management during large-scale emergencies, and conducts post event analyses of campus response activities. Staff evaluates campus communication needs and develops required training including primary and alternate communication systems.

• **Development of Department specific Emergency Operations Plans:** Staff works with over 250 campus Department Safety Representatives (DSR’s) to coordinate the development of department-specific emergency operations plans.

• ** Maintain Compliance with Emergency Management Requirements:** Staff works with Administrative Services, University Police, the Office of the President, and other campus partners to ensure required campus emergency management processes are in place and functional.

• **Management of the EOC:** Staff implements and coordinates the readiness of the Emergency Operations Center and provides liaison support with City, County, State, Federal agencies and UCOP. Key campus emergency personnel and senior management are trained in Incident Command and their roles and responsibilities. The campus EOC is responsible for the strategic overview and coordination of the disaster.
Services Overview

- **Mission Continuity Plan**: Staff ensures continuity or uninterrupted provision of critical operations and campus services plans are in place. Staff manages the development campus-wide and department specific Continuity of Operations Plans (COOP), training of staff regarding business continuity and assessment of campus and department specific business continuity processes to ensure compliance with applicable UC and regulatory requirements.

- **Response to EH&S and Risk Management Related Emergencies**: Staff responds to campus emergency response situations (e.g. hazardous materials, fires, chemical spills, sewer overflows, vandalism, etc.). Staff maintains response equipment, contractors, and campus resources for events that have a potentially adverse environmental or safety impact to campus sites and/or surrounding communities. In addition, EH&S provides 24/7 response to sites for incidents, events, complaints, and regulatory compliance concerns.

**Fire Prevention Services:**

The Fire Prevention Services Unit is responsible for ensuring campus compliance with federal, state and local fire and life safety codes and regulations.

- **Event Management and Support**: Staff provides direction, support and coordination of campus events to ensure that a comprehensive plan addressing fire and life safety regarding event management are developed and maintained. Staff coordinates activity with event sponsors and venue managers and other campus service providers to support safe and successful large and small assembly events.

- **Incident Response, Reporting and Fire Investigation**: Staff participates in active investigation of all fires on campus property and follows up with appropriate campus groups to determine origin and cause of fire alarms responses by Santa Barbara County Fire Department. Serves as member of Santa Barbara County District Attorney Arson Task Force.

- **Management of Campus Fire Marshal Program**: Under a Memorandum of Understanding with the Office of the State Fire Marshal’s Office, the Campus Fire Marshal represents the campus for oversight responsibility for plan review, inspection and acceptance of all campus construction, maintenance of campus fire protection systems, analysis of fire and life safety programs, assistance in the development of emergency plans that comply with applicable regulations, existing building inspections and required and general fire and life safety training.

- **Support of Campus Construction Activity (Title 24)**: Staff acts as the Authority Having Jurisdiction (AHJ) and develops, implements and manages the campus Fire and Life Safety Plan Review and Inspection Program. Staff reviews complex and technical construction plans and design standards. Staff conducts construction inspections to ensure compliance with applicable laws, codes, regulations, standards, contract documents and criteria established through the Designated Campus Fire Marshal (DCFM) Program.
Services Overview

- **Support for Existing Structure Inspection Program (Title 19):** Staff provides fire code enforcement through inspections and active dialogue with campus personnel, local and state fire agencies. Staff develops and implements a comprehensive fire hazard abatement program to prevent fires and unsafe conditions campus-wide and for all UCSB properties. Staff ensures existing fire protection systems (alarm systems, sprinkler and hydrant systems, emergency lighting, emergency shower/eyewashes, toxic gas monitoring/alarm systems, etc.) are operated within UC, campus and regulatory requirements.

- **Training:** Staff develops and conducts training for required fire prevention programs. In addition, staff provides training materials to campus groups for life safety, building egress, fire extinguisher usage, etc.

### Hazardous Waste Services

The Hazardous Waste Services Unit is responsible for providing cost-effective hazardous waste management in compliance with federal, state and local regulations for both the campus and community programs. Customer service is provided for chemical pick-ups, emergency spill response, and assistance with shipping hazardous materials. The program is also responsible for pollution prevention, regulatory reporting, and maintaining campus emergency response capabilities. The program also manages the Community Hazardous Collection Center for the County of Santa Barbara.

- **Regulatory Compliance:** Staff reviews regulatory requirements and develops programs to ensure compliance with the requirements of the Resource Conservation & Recovery Act (RCRA) and the California Hazardous Waste Control Laws. Guidance is provided to the campus community on proper waste disposal practices and procedures. In addition, staff serves as a main point of contact and liaison to federal, state, and local regulatory agencies.

- **Hazardous Waste Services:** Staff provides daily hazardous waste pick up services to the campus hazardous waste generators (teaching laboratories, research units and facilities). Materials picked up from the campus is transported to EH&S Hazardous Waste Facility for additional processing prior to shipment off-site for disposal purposes. In general, the campus has only ninety (90 days) to ship materials off-site. The staff also assists with chemical spill clean-up procedures with all campus units.

- **Regulatory Reporting:** Staff is responsible for conducting required reporting to regulatory agencies. Regulatory reports are provided to the Environmental Protection Agency (EPA), the California Department of Toxic Substances Control (DTSC), State Board of Equalization (SBO) and the Santa Barbara County Environmental Health Services.
• **Education, Outreach, and Training:** Staff develops and conducts required/mandated hazardous waste and hazardous materials shipping training programs for targeted staff audiences. In addition, staff provides pollution prevention education and outreach materials to the general campus community. Sustainable practices include: the UCSB waste minimization plan, surplus chemical program, green chemistry and the mercury thermometer exchange program.

• **Community Hazardous Waste Program:** For more than twenty years, in partnership with the County of Santa Barbara, staff has managed the Community Hazardous Waste Program. This program is provided to the county households and to small businesses that are categorized as Conditionally Exempt Small Quantity Generators (CESQG).

• **Hazardous Materials Shipping:** The program assures compliance with the Department of Transportation (DOT), International Air Transportation Association (IATA) and commercial carriers (FedEx & UPS) laws, regulations and requirements. Staff advises and assists the campus community, specifically researches, on proper hazardous materials (chemicals) packaging, labeling and documentation for shipping and transportation.

**Industrial Hygiene Services:**

The Industrial Hygiene Services Unit plans, develops, implements and manages a variety of Industrial Hygiene (IH) and safety programs to ensure compliance with UC, campus and regulatory requirements. Staff also provides support related to industrial safety, loss control, accident management, chemical product assessment, evaluation and recommendation of exposure controls, personal protective equipment (PPE) selection, and regulatory agency support and citation management.

• **Hazard Assessments and Exposure Monitoring:** Staff designs and conducts comprehensive IH exposure assessments (chemical, biological and physical) to determine the type and degree of risks. Staff evaluates and recommends engineering and administrative controls, proper work practices, and PPE to eliminate or mitigate present or potential health hazards or safety issues. Staff is responsible for the selection, operation and maintenance of complex IH equipment used in exposure assessments and hazardous materials response efforts.

• **Indoor Air Quality & Mold Assessments:** Staff evaluates heating, ventilation and air-conditioning systems and local exhaust systems and responds to indoor air quality complaints (IAQ), conducts in depth and complex IAQ assessments and recommends corrective measures.
• **Management of Regulatory Required Safety Programs:** Staff designs, develops and provides oversight of numerous mandatory IH related programs, to include:

  a. **Injury and Illness Prevention Program (IIPP):** Staff manages the campus-wide IIPP Program, including coordination of the development of department specific IIPP’s *(Campus Health and Safety Binder)* development of training programs, inspection and hazard assessment tools.

  b. **Confined Space Program:** Staff develops and maintains the UCSB Confined Space Program Manual and other written materials; provides training, oversight and technical assistance during confined space entries, and assists departments in space identification/categorization, recordkeeping, and the development of entry procedures.

  c. **Hazard Communication Program:** Staff develops and maintains the UCSB Hazard Communication Program Manual, which includes specific requirements related to chemical management, specific/general training, chemical inventories of all hazardous substances, and readily accessible safety data sheets (SDS’s).

  d. **Hearing Conservation Program:** Staff develops and maintains the UCSB Hearing Conservation Program Manual and other written materials, responds to noise-related complaints, performs noise surveys, provides hearing conservation training, generates reports, and recommends exposure controls measures. In addition, program elements include written procedures, training, exposure assessments, hearing protection equipment selection, audiometric testing and the reduction of noise exposure through the implementation of engineering and administrative controls.

  e. **Heat Illness Prevention Program:** Staff develops and maintains the UCSB Heat Illness Program Manual and other written materials, develops and provides training, and follows up on heat illness cases and recommends corrective measures. Program elements include written procedures for preventing heat illness, recordkeeping and training for supervisors and employees.

  f. **Respiratory Protection Program:** Staff develops and maintains the UCSB Respiratory Protection Program Manual. Program elements include written procedures, training, recordkeeping, exposure assessments, medical evaluations, and respirator selection and fit testing.

• **Regulatory Compliance, Consultation and Technical Support:** In addition to the programs outlined above, IH staff also provides consultation, technical support, training and regulatory compliance review for a variety of other IH related topics; including industrial ventilation, capital project design and building material review.
Industrial (Non-Research) Safety Services:

The industrial safety services unit coordinates and assists campus staff in complying with UC, campus and regulatory health and safety requirements. Staff assists in the reduction of injury frequency and severity by developing safe working practices and conducting hazard identification, training, risk assessment and direct safety related services.

- **Accident Management** (faculty, students, staff and visitors): Staff manages the campus’ accident management program, including the development of accident investigation tools (online forms, investigation procedures, etc.), training of staff, completion of CalOSHA logs, dissemination of accident-related data, development of specific programs to reduce the frequency and severity of injuries (i.e. identification of locations with high incident rates) and site specific consultation activity. Staff conducts accident investigations for serious injuries and audits investigations conducted by members of the campus community.

- **Consultation and Technical Support**: Staff provides a wide variety of technical and consultative support, including construction safety support, consultation at construction job start meetings, equipment reviews, fire and life safety surveys, lease facility reviews, review/analysis of activity on campus property (e.g. sports camps, carnivals, etc.) and support for corrective action notices for liability issues or other hazards that may be present at campus sites. Staff also offers expertise and a full range of services to student organizations.

- **Loss Control**: Staff develops programs, procedures, and specific technical loss prevention solutions for sites. In the event of a complaint, regulatory citation, injury, lawsuit, or property loss, Staff provides technical and consultative support to sites to abate and/or mitigate recognized hazards.

- **Management of Campus DSR Program**: Staff coordinates and manages the campus DSR program, including development of DSR procedures, training of DSR staff and troubleshooting DSR issues that arise on campus. Staff also works with 250 campus DSR’s to coordinate the development of department specific emergency operations plans.

- **Management of CPR/First-Aid and AED Programs**: Staff develops and conducts CPR, first-aid and AED courses for campus staff. Staff performs tri-annual inspections of the 50+ campus AED units and provides management oversight of the campus Heart Saver AED program.

- **Management of Defensive Driver Training Program**: Staff manages the UCSB’s “Road Ready” Defensive Driver Training Program to assist campus drivers to safely operate assigned vehicles. Staff coordinates training, manages training records and purchases training material for affected student and staff drivers.
• **Management of Fall Protection Safety Program**: Staff develops and manages the campus Fall Protection Safety Program to ensure the safe selection, procurement and use of fall protection equipment. In addition, staff coordinates the development of safe work practices and manages the inspection program for all fall protection equipment (FPE). Staff provides training and FPE selection consultation services to campus departments. In addition, staff manages the campus Ladder Safety Program, which ensures the safe selection, procurement, inspection, inventory tracking and recordkeeping of all university-owned ladders.

• **Management of Shop Safety Program**: Staff provides consultation for shop staff in the development of shop safety procedures, machine and process hazard evaluations and implementation of UC and/or campus required safety programs. Staff conducts biannual shop inspections and ensures corrective actions are taken to abate identified regulatory or safety issues.

• **Management of Theater Safety Program**: Staff assists in the development and implementation of the campus theater safety programs and conducts safety training, safety inspections, task/hazard evaluations, and incident investigations related to theatrical productions. Additionally, staff recommends and approves theater safety equipment and monitors compliance with UC, campus and regulatory standards.

• **Other Inspections and Audits**: In addition to periodic safety inspections, staff conducts inspections, as a result of complaints, incidents (emergency response), construction activity, accidents and injuries, as well as citations and inquiries by regulatory agencies, local fire authority and the Santa Barbara County Public Health Department.

• **Regulatory Compliance**: Staff reviews existing, new and proposed regulatory requirements and works with faculty and staff to develop programs to ensure compliance with applicable standards (e.g. Hazard Communication, Injury and Illness Prevention, Forklift Safety, Crane/Hoisting, Machine Guarding, etc.). In addition, staff provides assistance to campus faculty and staff in the implementation of these programs. EH&S estimates over 30 significant CalOSHA required programs that apply to campus operations.

• **Training**: Staff develops and conducts training for regulatory mandated programs and other safety-related topics. When requested, staff conducts a comprehensive learning needs assessment and develops and/or provides training materials to campus faculty, students and staff. Training conducted by staff includes group, individual and online (UC Learning management system has over 50 EH&S training courses).

• **Safety Inspections**: Staff conducts periodic safety inspections at selected campus operations (i.e. maintenance shops, fleet garage, etc.). This comprehensive inspection evaluates the extent to which conditions and operating practices are in compliance with regulatory standards and UCSB policies. Staff issues a corrective action notice to each site indicating actions necessary to achieve compliance. Site management is also given a Health and Safety Compliance Scorecard/report, which provides specific details related to the findings of the inspection.

• **Specialized Equipment Operator Training Program**: Staff develops and conducts operator training and equipment inspection programs for aerial lifts, cranes, hoists, forklifts, and skid steer tractors.
Radiation Safety Services:

The radiation safety services unit coordinates and assists researchers and other campus personnel in complying with UC, campus and regulatory health and safety requirements regarding the use of radiation, lasers and controlled substances. Staff ensures that program activities are conducted in a safe manner and according to site State licensing requirements and accepted industry best practices.

- **Inspection and Auditing**: Staff conducts routine radioactive material laboratory inspections and auditing/surveying of X-ray producing machines and lasers. Staff also reviews laboratory design and setup for new users of radioactive material and performs a close-out radiation survey for researchers discontinuing the use of radioactive material.

- **Laser Safety Management**: Staff inspects laser installations and provides training and consultation for users of laser systems.

- **Management of Controlled Substances Program**: Staff administers and oversees the controlled substance program in accordance with UC BUS-50 policy and best practices. The controlled substance program applies only to controlled substances used in research, it does not include controlled substances used in clinical activities.

- **Radioactive Waste Management**: Staff collects, samples and processes radioactive waste for disposal, as well as management of a radioactive decay-in-storage program.

- **Regulatory Compliance**: Staff reviews regulatory requirements and develops programs to ensure campus compliance with state and federal regulations and UC policy. In addition, staff accompanies state and federal regulators during campus inspections of program activities.

- **Training**: Staff develops training for the campus, as mandated by policy and/or regulation, including use of radioactive material, X-ray producing machines, laser safety and controlled substances.
Services Overview

Research Safety Services:
The Research Safety Unit provides coordination and support related to regulatory program compliance, loss control, accident management, IH, safety and IH training, chemical product evaluation, PPE selection, regulatory agency support and citation management, and equipment approval for field and laboratory based research efforts. In addition, staff works on lab design standards and conducts comprehensive analyses of all major laboratory construction projects.

- **Accident Management** (faculty, students, staff and visitors): Staff manages the campus’ research accident management program. Staff conducts research related accident/incident investigations for serious injuries and audits investigations conducted by members of the campus research community.

- **Hazard Exposure Assessment**: Staff trains research lab personnel on use of the UC online Laboratory Hazard Assessment Tool (LHAT) to determine appropriate PPE to be utilized when performing hazardous work activity and to meet UC PPE Policy. Staff coordinates purchase/distribution of basic lab PPE (lab coats, gloves, safety glasses, etc.) in cooperation with research personnel. Staff provides researchers with support in the development of laboratory specific Chemical Hygiene Plans to mitigate risks related to chemical usage, storage and disposal.

- **Laboratory Safety Inspection Program**: Staff conducts periodic laboratory safety inspections at all campus labs (annually at a minimum). This comprehensive inspection evaluates the extent to which lab conditions and operating practices are in compliance with regulatory standards and UCSB policies. A corrective action notice is provided to each lab indicating actions necessary to achieve compliance.

- **New Lab or Significant Modification Reviews**: Staff conducts design review and periodic inspections during the construction of new laboratory facilities to identify potential safety issues. Staff also coordinates with the Principal Investigators, inspectors, contractors, and project management to ensure all concerns are appropriately addressed. Staff approves occupancy when safety requirements have been met.

- **Other Inspections and Audits**: In addition to routine inspections, staff conducts inspections, as a result of field safety efforts, complaints, incidents (emergency response), construction activity, accidents and injuries, as well as citations and inquiries by regulatory agencies, local fire authority and the Santa Barbara County Public Health Department. In addition, staff annually tests and certifies lab fume hoods to meet CalOSHA requirements and conducts annual assessments of site specific Chemical Hygiene Plans.

- **Regulatory Compliance**: Staff reviews existing, new and proposed regulatory requirements and works with research faculty and staff to develop programs to ensure compliance with applicable standards (e.g. Chemical Hygiene Plan, Hazard Communication, Injury and Illness Prevention, Business Plan, Respiratory Protection, etc.). Staff provides assistance to faculty and staff in the implementation of these programs. EH&S estimates over 20 significant CalOSHA required programs that apply to campus research operations.

- **Training**: Staff develops and conducts trainings for regulatory required programs and other research safety-related topics. In addition, staff works with researchers to conduct comprehensive laboratory specific Training Needs Assessments intended to provide researchers with tools to identify and track all required safety training. Also staff routinely offers Fundamentals of Laboratory Safety course to all lab workers to meet the UC Laboratory Safety Training Policy requirements.
Risk Management Services:

The Risk Management Services Unit coordinates and administers the University’s Risk Management Program at the campus level in accordance with the directives and general guidelines of the UCOP Risk Services. Staff services include the administration of UC insurance programs and policies, handling of claims and litigation, risk analysis, contract review, issuing of UC certificates of insurance, policy interpretation, liaison with the Third Party Administrator, UCOP Risk Services and General Counsel, and processing of subpoenas and authorizations for release of information.

- **Contract Review:** Staff works with the Contracts Office, Office of Real Estate Services, Design & Construction Services, Office of Research, and Procurement Services to evaluate and resolve insurance and indemnification issues in leases and agreements with 3rd party organizations and vendors.

- **Insurance Services:** Staff manages the University’s self-insurance programs that include automobile physical damage, general, employment, and automobile liability, professional medical and hospital liability (for the Student Health Center), property, and workers’ compensation. In addition, staff administers a variety of commercial insurance programs, which include fine arts, aviation, marine, student off-campus coverage, crime, boiler and machinery, travel accident insurance, and Special Events Liability Insurance. University operations and the loss exposures that arise out of those operations are covered by over 50 self-insurance programs and commercial insurance policies.

- **Litigation and Claims Management:** Staff coordinates the processing and handling of all claims and litigation with the University’s third-party claims administrator, UCOP Risk Services, UC Office of General Counsel, and local counsel. Staff manages the e-Discovery process and at the direction of University Counsel, provides notices to individuals and IT staff and tracks preservation holds.

- **Public Records Requests:** Staff reviews, coordinates and prepares the campuses response to California Public Records Act and Information Practices Act requests. Staff provides technical and practical assistance to the campus on matters related to public access to and disclosure of information maintained in University files.

- **Risk Analysis:** Staff assists management and campus departments in the identification, evaluation, mitigation, and elimination of loss exposures created by campus activities and the use of University facilities by non-University individuals and/or groups.

- **Subpoenas and Authorizations for the Release of Records:** Staff requests records from campus custodians of record and prepares their release. In addition, staff consults with campus and local counsel, as needed, and is responsible for accepting and processing subpoenas and authorizations for the release of records.
Workers’ Compensation Services:
The Workers' Compensation Program is responsible for the administration and provision of benefits to University employees injured in the scope and course of their employment.

- **Ergonomic Program Management:** Staff provides office and non-office individual Ergonomic Assessments, ergonomic training (i.e. Back care, Safe Lifting and Body Mechanics course). In addition, staff consults and provides ergonomic product evaluation and consultation services for office layout and furniture purchases. Staff coordinates the campus Ergonomic Matching Fund Program.

- **Management of UCOP “Be Smart About Safety” (BSAS) Program:** Staff administers the UCSB BSAS program. Staff solicits, evaluates and approves campus proposals to fund Loss Prevention and Loss Control proposals to reduce the frequency and/or severity of loss in the Workers’ Compensation, General, Employment, Auto and Property Liability programs.

- **Regulatory Compliance:** Staff reviews regulatory requirements and develops programs to ensure campus compliance with applicable standards, UC and campus specific insurance programs and California Workers’ Compensations program requirements. Staff provides assistance to the campus community in the implementation of these programs, including preparation and submission of CalOSHA annual summary of injuries.

- **Workers’ Compensation Claims Management:** Staff coordinates the processing and handling of all work-related claims and litigation with the University’s third-party claims administrator, UCOP Risk Services, and local counsel. In addition, staff is responsible for the coordination of University benefits with Temporary Disability; obtaining disability status, and assisting with returns to work. Also, staff prepares campus rate models for the review and approval of senior management.

In addition, EH&S staff supports faculty and staff with specific consultative services, including:

- Staff responds to faculty, staff, student and community based complaints and investigates anonymous tips.
- Staff provides employee training to Principal Investigators, facilities trade staff, and professional staff. These training topics typically focus on employee protection and safe work practices, including respiratory protection, safe lifting techniques, fire extinguishers, environmental compliance, ladder safety, lock-out/tag-out, etc. Staff also presents information on current safety-related topics. One-on-one training is provided to employees after hearing shift or potential exposures to occupational hazards. Staff also meets with faculty, staff and administration to instruct and assist with the implementation of safety programs.
- Staff conducts IH monitoring for known or suspected contaminants in the workplace such as asbestos, mold, and lead. Individual exposure is evaluated and communicated to each employee.
- Staff provides consultative services to all employees, students and parents seeking information on environmental health and safety pertaining to the campus.
**Performance Measurement**

The following charts and table represent various ways EH&S communicates performance objectives.

**Total Recordable Incident Rate from FY 2011/12 through FY 2014/15**

Measures the number of CalOSHA recordable injuries.

The average TRIR for colleges and universities in 2014 was **1.9**.

There was a **34%** reduction between CY 2011 and CY 2015.

**Total Number of Recordable Injuries from FY 2011/12 through FY 2014/15**

Measures the number of CalOSHA recordable injuries.

There was a **24%** reduction between CY 2011 and CY 2015.
**Services Overview**

**OSHA Recordable by Nature**

Measures the number of CalOSHA recordable injuries by the Nature of the Injury.

Sprains and Strains were the largest injury cause for CY 2015.

**Workers’ Compensation Claims per 100 Employees**

Measures the number of workers’ compensations claims filed per 100 employees. The chart compares UCSB to other UC campuses.

The average WC per 100 employees for the UC campuses was **2.65**.
Workers’ Compensation Claims per 100 Employees from FY 2011/12 through FY 2014/15.

Measures the number of workers’ compensations claims filed per 100 employees. The chart compares performance from FY 2010/11 through FY 2014/15.

Over the past 5 years there has been a 10% reduction in claims per 100 employees.

Workers’ Compensation Claims by FY 2010/11 through FY 2014/15.

Measures the number of workers’ compensations claims for each fiscal year.

Over the past 5 years there has been a 12.5% reduction in claims.

*All claim types (Medical, Indemnity, First Aid, Pending, etc.) by FY of Injury*
Number of Liability Claims by FY 2010/11 through FY 2014/15

Measures the number of liability claims.

Over the past 5 years there has been a 15% increase in claims.

<table>
<thead>
<tr>
<th>Year</th>
<th>Auto</th>
<th>Employment</th>
<th>General</th>
<th>Property</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010/11</td>
<td>59</td>
<td>1</td>
<td>30</td>
<td>32</td>
</tr>
<tr>
<td>2011/12</td>
<td>63</td>
<td>1</td>
<td>25</td>
<td>34</td>
</tr>
<tr>
<td>2012/13</td>
<td>68</td>
<td>2</td>
<td>19</td>
<td>21</td>
</tr>
<tr>
<td>2013/14</td>
<td>53</td>
<td>4</td>
<td>23</td>
<td>19</td>
</tr>
<tr>
<td>2014/15</td>
<td>64</td>
<td>2</td>
<td>27</td>
<td>32</td>
</tr>
</tbody>
</table>

Workers’ Compensation Claims by Department

Measures the number of workers’ compensations claims that occurred by department (Top 10) within FY 2014/15.

The Department with the highest number of claims filed was Housing and Residential Services, which represented 43% of all claims filed.
Number Trained for CY 2015: Fundamentals of Laboratory Safety

Measures the number of people trained during CY 2015.

In CY 2015 staff trained **904** people.

---

Number of Scientific Dives Conducted for FY 2014.

Measures the number of scientific dives conducted involving UCSB personnel.

In CY 2014, UCSB had **more** scientific dives than any other University in the world.
Number of Environmental Compliance Regulatory Programs CY 1990 through CY 2015.

Measures the number of regulatory mandated compliance programs on campus.

Between 1990 and 2015 UCSB had a **1,066%** increase in the number of mandated compliance programs.


Measures the number of permitted combustion emissions on campus.

Between 1992 and 2015 UCSB had a **3,550%** increase in the number of permitted combustion emission sources.
Percent completion of Required Title 19 Inspections for CY 2015.

Measures the number of completed Title 19 inspections by occupancy type for CY 2015.

In CY 2015, staff completed 43% of the inspections.

<table>
<thead>
<tr>
<th>Occupancy Type</th>
<th>Inspections Required</th>
<th>Inspections Completed</th>
<th>Percent complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Rise</td>
<td>2</td>
<td>2</td>
<td>100%</td>
</tr>
<tr>
<td>Assembly</td>
<td>60</td>
<td>21</td>
<td>35%</td>
</tr>
<tr>
<td>Residential</td>
<td>159</td>
<td>60</td>
<td>37%</td>
</tr>
<tr>
<td>Educational</td>
<td>7</td>
<td>3</td>
<td>42%</td>
</tr>
<tr>
<td>Institutional</td>
<td>2</td>
<td>1</td>
<td>50%</td>
</tr>
<tr>
<td>Laboratory</td>
<td>27</td>
<td>27</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>257</strong></td>
<td><strong>114</strong></td>
<td><strong>43%</strong></td>
</tr>
</tbody>
</table>

Table is from the UCSB Fire Prevention Division 2015 OSFM Annual Activity Report (FY 2015)
Title 24 / Title 19 Statistics (*Note: Percent complete not included in report sent to State.*)
Contact Information

565 Mesa Road, Santa Barbara, California 93106-5132
Phone: (805) 893-7534  After hours (TAC): 805-893-3194  Website: http://www.ehs.ucsb.edu
Office Hours: 8:00 am to 12:00 pm and 1:00 pm to 5:00 pm, Monday through Friday

John Sterritt, Director of EH&S, Risk and Emergency Services (Cell: 805-698-0993)
E-mail: john.sterritt@ehs.ucsb.edu
Robin Weil, Administrative Assistant (Office: 805-893-4447)

Administrative Services
(vacant)

Environmental Services, Environmental Compliance Services and Biological Safety Services
Ali Aghayan, Office: 805-893-8533  Cell: 805-451-7623  E-mail: Ali.Aghayan@ehs.ucsb.edu

Emergency Services
Jim Caesar, Office/Cell: 805-450-1437  E-mail: James.Caesar@ehs.ucsb.edu

Fire Prevention Services
Joe Harkins (Interim Campus Fire Marshal), Office: 805-893-7751  Cell: 805-729-3282
E-mail: Joe.Harkins@ehs.ucsb.edu

Research Safety Services, Industrial Hygiene Services and Dive and Boat Safety Services
David Vandenberg, Office: 805-893-4899  Cell: 805-450-3680  E-mail: David.Vandenberg@ehs.ucsb.edu

Radiation Safety Services
Jim Casto, Office: 805-893-3588  Cell: 805-680-2118  E-mail: Jim.Casto@ehs.ucsb.edu

Risk Management, Workers' Compensation and Insurance Services and Industrial (Non-Research) Safety Services
E-mail: Mari.Tyrrell-simpson@workcomp.ucsb.edu
Welcome to Environmental Health & Safety.
We provide guidance and services to the campus community to promote the integration of health, safety, and environmental stewardship into all University activities.

What are my basic safety/environmental rights and responsibilities at UCSB?
(faculty, staff, management, Department Safety Reps, students)

PROGRAMS & SERVICES

- Biological Safety
- Dive & Boat Safety
- Emergency Planning
- Environmental Compliance
- Environmental Health
- Ergonomics
- Field Safety
- Fire Prevention
- General Safety

- Hazard & Exposure Assessments
- Hazardous Waste
- Industrial Hygiene
- Injury & Illness Prevention
- Lab Safety & Chemical Hygiene
- Personal Protective Equipment (PPE)
- Radiation Safety
- Risk Management
- Workers' Compensation

QUICKLINKS

- Safety Spotlight Newsletters
- OSHA's Form 300A: Summary of Work-Related Injuries & Illnesses for 2015
- Annual Clery Act Campus Security Report
- Annual Fire Safety Report
- 60 Day Fire Log
- Safety Data Sheets (MSDS)
Standard Operating Procedures (Sample)

HIGH PRESSURE REACTION VESSELS
STANDARD OPERATING PROCEDURE TEMPLATE

Type of SOP: Hazard Class Hazardous Chemical Process

To customize this SOP, add lab-specific information to the sections below marked in RED, as applicable. Completion of the last section ("Lab-Specific Information") is required. Also, any of the content below may be amended with lab-specific information to enhance worker safety as desired.

HAZARD OVERVIEW
Failure of a high-pressure vessel would clearly be a significant threat from flying debris and reaction constituents. There have been several vessel failures at UCSB, but fortunately no one was injured, but did result in property damage.

1. PERSONAL PROTECTIVE EQUIPMENT (PPE)
Specific: See below with special attention to the need for blast shields/barriers as appropriate.
General: See the PPE information under Sec. II of the UCSB Chemical Hygiene Plan regarding:
- the UC PPE Policy and policy summary (what a PPE is needed and when/where to use)
- obtaining your PPE via use of the Laboratory Hazard Assessment Tool
- glove selection criteria
- respirator use, etc.

2. SPECIAL HANDLING PROCEDURES
Perform high-pressure operations only in special chambers equipped for this purpose. Commercially available high pressure reactor vessels are designed and manufactured to ensure safe operation when used within the temperature and pressure limits for which they are rated. However, in the end it is the user’s responsibility to make sure that the selected vessel is compatible with the reagents and conditions to which it will be exposed during the experiment.

To this end, the user must:
- Select a vessel which has the capacity, pressure rating, corrosion resistance and design features that are suitable for its intended use.
- Operate the vessel within a suitable barricade/shield, if required.
- Establish training procedures to ensure that any person handling the equipment knows how to use it properly.
- Maintain the equipment in good condition, and test periodically per the vendor’s instructions to ensure that the vessel is remains structurally sound.
- Complete a hazard assessment before initiating the experiment, including:

Safe Work Procedure Checklist:

1. PRE-Operation:
   - Task (e.g. Drawings, instructions, specifications etc) is clearly understood.
   - Appropriate guarding is in place.
   - Make sure release valve is clean and free from obstruction.
   - Lock the wheels to prevent movement.
   - Check all fittings are securely connected prior to being pressurised.
   - Identify ON/OFF switch.

2. Operation:
   - Start compressor noting pressure increase and cut out/in pressure.
   - Do not leak or squelch the hose.
   - Listen for any leaks when using the compressor and report these immediately.
   - Check the compressor pressure at regular intervals.
   - Release the pressure in hose prior to unscoping.

3. POST-Operation:
   - Release the pressure from the hose and vessel.
   - Store air hose off the ground to prevent contamination from dirt.
   - Return all tools to their storage area.

EH&S, Risk and Emergency Services
Inspection Checklists (Sample)

UNIVERSITY OF CALIFORNIA SANTA BARBARA
MACHINE SAFEGUARDING CHECKLIST

**Requirements for all safeguards - questions**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do the safeguards provided meet the minimum OSHA requirements?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do the safeguards prevent workers hands, arms and other body parts from making contact with dangerous moving parts?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are the safeguards firmly secured and not easily removable?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do the safeguards ensure that no object falls into the moving parts?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do the safeguards permit safe, comfortable, and relatively easy operation of the machine?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Can the machine be started without removing the safeguards?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is there a system for shutting down the machinery before safeguards are removed?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Can the existing safeguards be improved?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Mechanical Hazards**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is there a point-of-operation safeguard provided for the machine?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Can it be the operator's hands, fingers, body or other body parts?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is there evidence that the safeguards have been tampered with or removed?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Could you suggest a more practical effective safeguard?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Could machine be made on the machine to eliminate the point of operation hazard entirely?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power Transmission Appurtenances</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are there any unsafeguarded gears, sprockets, pulleys, or flywheels?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are there any exposed belts or chain drives?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are there any exposed set screws, keys, collars, etc.?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are starting and stopping controls readily accessible?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are there any escape passageways?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are safeguards provided for all hazardous moving parts of the machine, including auxiliary parts?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

UCSB Ladder Inspection Form

<table>
<thead>
<tr>
<th>Type</th>
<th>Rigidity</th>
<th>Material</th>
<th>Size</th>
<th>FL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circle Area of Damage</td>
<td>Ladder tagged as damaged &amp; removed from use</td>
<td>Ladder in good condition</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Ladder Inspection Checklist

<table>
<thead>
<tr>
<th>Type</th>
<th>Rigidity</th>
<th>Material</th>
<th>Size</th>
<th>FL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circle Area of Damage</td>
<td>Ladder tagged as damaged &amp; removed from use</td>
<td>Ladder in good condition</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

EH&S, Risk and Emergency Services

Modification date: 6/1/2016
Communication Tools

**Wet Weather Safety Tips**

No. 31-2016  
EH&S  
February 2016

In rainy day, it is very important to be aware of the conditions while walking, driving and biking.

**When Walking:**
- Wear shoes with good traction. Avoid high heels.
- Maintain a reasonably slow walking pace and don’t turn sharply.
- Focus on your path of travel to identify and avoid potential trip and fall hazards.
- Keep your hands free as much as possible to assist you in maintaining your balance.
- Walk on designated pathways. Avoid shortcuts, as they may be slippery.
- When using stairways, hold onto the handrail.
- When entering buildings, wipe your shoes on door mats to avoid tracking water into building.
- If door mats are soaked, inform the building manager.
- If you spot a building area that is slippery, contact Facilities Management x9300.

**When Driving:**
- Turn on your headlights – you will see better and increase your visibility to others.
- Reduce your speed – it takes longer to stop in wet weather.
- Increase your following distance and watch for brake lights ahead.
- When driving on the freeway, drive in the center lanes as water tends to pool in the outside lanes.
- Avoid use of cruise control on rainy or slick surfaces; cruise control can increase the chance of hydroplaning.

**When Biking:**
- Reduce your speed and increase following distance during wet conditions.
- Avoid puddles, sand, and oily surfaces where possible.
- Be highly visible. Use bike lights and wear high-visibility clothing.
- Avoid taking or other use of cell phones.
- Keep both hands on the handlebars at all times.

If you see something, say something!

Contact the office of Environmental Health and Safety at (805) 893-4447 if you have any questions.
In addition to the various health and safety programs described in the document above, there are also some formal campus policies and regulatory standards on specific issues as noted below. These are generally based upon current regulations, standards and accepted good practices. These policies include:

**UCSB/UC EH&S, Risk and Emergency Services Policies**

- Environmental Health and Safety General (5400)
- Biological Safety
- Dogs on Campus (5415)
- Fires, Barbecues and Open Fires
- Hazardous Substances Communication Program (5430)
- Use of Pesticides (5435)
- Respiratory Protection (5440)
- Seismic Hazard Reduction (5445)
- Skating and Skateboarding (5450)
- Small Boat Operations (5455)
- Smoking, Tobacco, and Unregulated Nicotine Products
- Welding, Cutting, and Hot Work Operations (5465)
- Laboratory Safety Training (UC policy)
- Personal Protective Equipment (UC policy)
- Minors in Laboratories and Shops (UC policy)
UCSB/UC RISK MANAGEMENT AND INSURANCE PROGRAMS

- Regents’ Bylaw - Standing Order 100.4/DD(9) (Prohibits defense and indemnification for conduct of persons other than UC officers, agents, employees, students, invitees, & guests.)
- General Liability Insurance Program (Business and Finance Bulletin, BUS-81)
- Employment Liability Insurance Program (Business and Finance Bulletin, BUS-81)
- Auto Liability Insurance Program (Business and Finance Bulletin, BUS-81)
- Property, Fine Arts, Library Materials, & Boiler & Machinery Insurance Programs (Business and Finance Bulletin, BUS-81)
- Marine and Aviation Insurance Programs (Business and Finance Bulletin, BUS-81)
- Insurance Requirements (Business and Finance Bulletin, BUS-63)
- Travel Requirements (Business and Finance Bulletin, G-28)
- Use of University Vehicles (Business and Finance Bulletin, BUS-46)

REGULATORY REQUIREMENTS (partial list)

<table>
<thead>
<tr>
<th>Regulations</th>
<th>Legal Citation</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal - OSHA</td>
<td>29 USC 651 et seq. Occupational Safety and Health Act</td>
<td>OSHA issues health and safety regulations for the protection of workers.</td>
</tr>
<tr>
<td>Federal - Occupational Carcinogens</td>
<td>29 CFR 19-B680.101 et seq. OSHA Occupational Carcinogens</td>
<td>Outlines the requirements for an occupational carcinogen program.</td>
</tr>
<tr>
<td>Federal - Hazard Communication</td>
<td>29 CFR 1910.1200: OSHA</td>
<td>Establishes criteria to evaluate dangers posed by hazardous materials; requires employers to provide hazardous materials information to employees.</td>
</tr>
<tr>
<td>Federal – Department of Transportation (DOT)</td>
<td>49 CFR 100-199 Pipeline and Hazardous Materials Safety Administration, Department of Transportation</td>
<td>Regulations for the safe and secure transport of hazardous materials in commerce.</td>
</tr>
<tr>
<td>CalOSHA - Injury and Illness Prevention Program</td>
<td>8 CCR 3203</td>
<td>Requires implementation of an effective injury and illness prevention program. Includes regular safety inspections, injury and illness investigation and prevention, slip and fall prevention, investigation of indoor air quality, ergonomics, lasers, and airborne pathogens.</td>
</tr>
<tr>
<td>CalOSHA “Occupational Exposure to Chemicals in Laboratories”</td>
<td>8 CCR, 5191</td>
<td>Regulates chemical exposures and physical hazards in laboratories via Chemical Hygiene Plan.</td>
</tr>
<tr>
<td>CalOSHA Electrical Safety, Elevators, Construction, General Industry</td>
<td>8 CCR 330-8618</td>
<td>Establishes comprehensive safety standards for general industry; electrical, elevator, boiler and telecommunications safety requirements. Includes noise and non-ionizing radiation requirements, ergonomics, lasers, airborne pathogens, PPE, medical surveillance, cranes / hoists / rigging, forklifts, aerial lifts, etc.</td>
</tr>
<tr>
<td>Regulations</td>
<td>Legal Citation</td>
<td>Summary</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td>-------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>CalOSHA Sections Construction Safety Orders</td>
<td>8 CCR 1502-1938</td>
<td>Establishes requirements for site safety, trenching / shoring, hot work, respiratory protection and inspections at construction sites.</td>
</tr>
<tr>
<td>CalOSHA High Hazard Operations</td>
<td>8 CCR 1669-1672, 2320, 3314, 5156-5159: Cal/OSHA</td>
<td>High hazard operations, fall protection, lockout / tagout, and Confined Space entry.</td>
</tr>
<tr>
<td>CalOSHA Bloodborne Pathogens</td>
<td>8 CCR 5193</td>
<td>Outlines the requirements for a Bloodborne Pathogen Exposure Control Plan.</td>
</tr>
<tr>
<td>CalOSHA Hazard Communication</td>
<td>8 CCR 5194</td>
<td>Rules for notifying workers of hazardous material use, requirements for worker safety training.</td>
</tr>
<tr>
<td>CalOSHA - Ergonomics</td>
<td>8 CCR 5110</td>
<td>Requires assessment, training, and control of exposures related to repetitive motion injuries.</td>
</tr>
<tr>
<td>CalOSHA Occupational Carcinogens</td>
<td>8 CCR Sections 5200-5220</td>
<td>Establishes standards for industrial and laboratory use of known carcinogens, including formaldehyde, arsenic and benzene. Sets forth procedures to be followed for inspections and violations.</td>
</tr>
<tr>
<td>CalOSHA Emergency Eyewashes and Showers</td>
<td>8 CCR 5162</td>
<td>Requirements for periodic testing of eyewashes and showers.</td>
</tr>
<tr>
<td>CalOSHA Portable Fire Extinguishers</td>
<td>8 CCR 6151</td>
<td>Requirements for placement and inspection of portable fire extinguishers.</td>
</tr>
<tr>
<td>CalOSHA Chemical Fume Hoods and Biological Safety Cabinets</td>
<td>8 CCR 5154.1, 5154.2</td>
<td>State guidelines for operation and maintenance of chemical fumes hoods and biological safety cabinets.</td>
</tr>
<tr>
<td>CalOSHA Airborne Contaminants</td>
<td>8 CCR 5155</td>
<td>Lists specific exposure limits for many chemicals.</td>
</tr>
<tr>
<td>CalOSHA Respiratory Protection</td>
<td>8 CCR 5144</td>
<td>Outlines the respiratory protection program requirements.</td>
</tr>
<tr>
<td>CalOSHA Accident Prevention and First Aid</td>
<td>8 CCR 3464</td>
<td>Establishes requirements for Accident Prevention and First Aid.</td>
</tr>
<tr>
<td>Fire/Panic Safety Standards</td>
<td>19 CCR 1-1355</td>
<td>Electrical, mechanical, plumbing fire safety standards; fire protection system (sprinklers, fire extinguishers, smoke detectors) and flammable materials standards.</td>
</tr>
<tr>
<td>Food and Drugs</td>
<td>21 CFR 1300-1314</td>
<td>Establishes DEA requirements for the purchase, use, storage and disposal of Controlled Substances and Federal List I and List II Chemicals.</td>
</tr>
<tr>
<td>State Building Standards Commission</td>
<td>24 CCR</td>
<td>Building standards including mechanical, electrical, and plumbing standards. Also, swimming pools.</td>
</tr>
<tr>
<td>California Fire Code</td>
<td>24 CCR</td>
<td>Building requirements associated with fire protection.</td>
</tr>
<tr>
<td>California Department of Health Care Services/Gases for Medical Use</td>
<td>22 CCR 70849</td>
<td>Requires gases to be stored safely.</td>
</tr>
<tr>
<td>Regulations</td>
<td>Legal Citation</td>
<td>Summary</td>
</tr>
<tr>
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<td>--------------------------------------------</td>
</tr>
<tr>
<td>California Department of Health Care Services Radiation Safety</td>
<td>17 CCR Section 30253</td>
<td>Requirements for radiation safety.</td>
</tr>
<tr>
<td>California Department of Health Care Services Public Health</td>
<td>17 CCR</td>
<td>Vector control, food safety, pool sanitation requirements.</td>
</tr>
<tr>
<td>California Department of Health Care Services Drinking Water Standards</td>
<td>23 CCR</td>
<td>Establishes standards for drinking water.</td>
</tr>
</tbody>
</table>