



Environmental Health and
Safety Department

Injury and Illness Prevention Program

July 1, 2019

Prepared by:

Author Name: Teresa Fricke

Title: Director of Environmental Health and Safety

Email: teresa.fricke@csusb.edu

(909) 537-3112

Approved By:

Approver Name: Beiwei Tu

Title: Executive Director of Risk Management

Email: beiwei.tu@csusb.edu

(909) 537-4552



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Summary

It is the responsibility of the Director of Environmental Health & Safety (EH&S) to create and maintain this Injury & Illness Prevention Plan (IIPP) and serve as **Program Administrator**. The Program Administrator has the authority to implement all provisions of this program. **All employees** are responsible for supporting the program and for working safely and maintaining a safe and healthful work environment. This Injury & Illness Prevention Plan (IIPP) will be reviewed / updated annually.

Authority

The University Injury & Illness Prevention Plan (IIPP) is created and distributed in accordance with [CSU Executive Order 1039](#).

Purpose

The purpose of this plan is to establish the procedures for campus personnel to prevent/reduce injuries and illnesses.

Approvals

The California State University San Bernardino (CSUSB) Injury & Illness Prevention Plan (IIPP) has been reviewed and approved by:

Beiwei Tu, CIH, CSP
Executive Director, Risk Management

Initial Effective Date: **July 1, 2019**
Date of last Revision: **July 1, 2019**

Management Commitment

CSU Policy

The California State University (the University) is committed to maintaining a safe environment for its students, academic appointees, staff, visitors, and members of the general public. The University will promote comprehensive injury and illness prevention, as well as hazardous materials and environmental management programs in an atmosphere that encourages employees, students, and other campus members to communicate about occupational and environmental health and safety matters without fear of reprisal. It is the policy of the University to conduct its operations in conformance with applicable laws, regulations, Department of Energy (DOE) requirements, and relevant published standards and practices for health, safety, and environmental protection.

CSU Executive Order

CSU EO-1039 provide statements informing all employees that safety is a priority issue with management, and urge employees to actively participate in the program for the common good of all concerned. These policies are available online at <https://www.calstate.edu/eo/EO-1039.html/>

Roles and Responsibilities

President

Is ultimately responsible for the effective implementation of the University's Environmental Health & Safety (EH&S) policies, including Injury and Illness Prevention Program (IIPP) at all facilities under campus control. General policies, which govern the activities and responsibilities of the Environmental Health and Safety program, are established under the authority of the President. President is responsible to:

- Demonstrate a genuine interest in safety-specific issues to ensure department head actions;
- Demonstrate support for the safety programs;
- Demonstrate that while safety is everyone's duty, it is a function of management to ensure a safe working environment

As designated by the President, the individual with responsibility for implementing the IIPP is the Director of Environmental Health & Safety (EH&S), hereafter referred to as the Program Administrator. The Program Administrator has the authority to implement all provisions of this program. All university employees are responsible for supporting the program and for working safely and maintaining a safe and healthful work environment.

Name: Teresa Fricke
Title: Director, Environmental Health and Safety
Address: 5500 University Parkway
San Bernardino, CA 92407
Phone: 909-537-3122

Environmental Health & Safety (EH&S)

EH&S is responsible for:

- Providing consultation to all levels of CSUSB staff and faculty regarding program compliance;
- Developing templates to assist Schools, Colleges, Departments, and Work Units in implementing effective Injury and Illness Prevention Plans;
- Consulting on hazard identification, procedures for correcting unsafe conditions and developing compliance strategies;
- Providing centralized monitoring of campus-wide activities in the areas of environmental compliance, biological safety, chemical hygiene, emergency preparedness, fire safety, hazard communication, hazard identification, hazardous materials management, industrial hygiene, occupational safety, sanitation, and safety education and training;
- Maintaining centralized environmental and employee exposure monitoring records, allowing employee access to records as directed by law;
- Assisting Schools, Colleges, Departments, and Work Units in developing and implementing Integrated Safety and Environmental Management (ISEM).
- Create training and communication materials and coordinate events cross campus to promote safety culture

Department Roles and Responsibilities

The Department should be actively involved in implementing IIPP and has an obligation to ensure those in supervisory positions have the requisite support to implement the safety related accountabilities.

- **Identifying Hazards:** Conduct periodic safety inspections of all spaces,
- **Communication:** Ensure a free flow of safety information through bulletin boards or periodic discussions. Encourage employees to report potential safety problems.
- **Correcting Hazards:** Correct conditions that are discovered during inspections or reported by employees.
- **Investigating Injuries and Illnesses:** Investigate all accidents, injuries, and near-misses, and make appropriate changes to minimize recurrence.
- **Health & Safety Training:** Know the hazards employees face and ensure they're trained to perform their work without illness or injury. The backbone of IIPP training is Integrated Safety & Environmental Management (ISEM), required for every CSUSB employee. EH&S also offers specialized safety training in many areas.
- **Recordkeeping:** Keep safety training, inspection, and accident investigation documents in a centralized file so they're handy for inspectors.

Vice Presidents, Deans, and Executive Officers

The role of the senior management team is critical to the success of the Campus' safety efforts and the integration of safety accountability into the culture of the Campus. The senior management's role includes ensuring subordinate performance relative to safety activity, ensuring the quality of subordinate performance relative to safety, and demonstrating a strong personal belief that safety is important in the management of the Campus.

Directors, Department Chairs / Unit Heads, Laboratory Directors and Managers

Are accountable for establishing, enacting maintaining and enforcing IIPP. Directors, Department Chairs/Unit Heads, Laboratory Directors and Manager shall

- Ensure areas under their management subscribe to and follow the five steps of the CSUSB ISEM program;
- Hold periodic meetings, at least quarterly, or use other means of communication to discuss safety related issues;
- Establish safety planning procedures, as well as work rules and procedures, for all operations and exposures within their areas of responsibilities;
- Ensure that health and safety practices are consistent throughout the Work Unit;
- Monitor environmental health and safety performance;
- Include compliance with health and safety procedures as part of the annual performance evaluation;
- Recognize employees that consistently perform safety and healthful work practices;
- Discipline employees who knowingly violate safety rules or policies.

Supervisors, Faculty, and Principal Investigators (PIs)

Supervisors are key figures in CSUSB's Injury and Illness Prevention Program (IIPP) implementation. It is important that they establish and maintain safe and healthful working conditions, and correct unsafe behaviors and conditions in a timely manner.

Supervisors/Principle Investigators (PIs) should implement IIPP through the following actions:

- Subscribe to and follow the five steps of the CSUSB ISEM program;

- Report and investigate all incidents and accidents within their areas of responsibilities to determine causes and take corrective/preventative action;
- Develop their own knowledge and skills in safety and health training relative to their areas of responsibilities and ensure that all employees receive safety training relative to their work exposure;
- Communicate health and safety practices through the area under their management;
- Provide required general and site-specific training to employees
- Encourage employees to report safety concerns without fear of reprisal;
- Make sure that hazardous waste (Biological, Chemical, Radiological) are properly disposed;
- Make sure Standard Operating Procedures (SOPs) are created for high risk activities;
- Make sure hazardous conditions are corrected in a timely manner;
- Where appropriate, facilitate the implementation of:
 - Workplace Inspections;
 - Work unit specific staff training beyond the required EH&S safety courses offered.

Individual Roles and Responsibilities

The success of CSUSB's Injury and Illness Prevention Program depends on the actions of all staff, faculty, students, and visitors. Employees are responsible for following the requirements of the IIPP through the following actions:

- Perform their assigned job functions in a safety and healthful manner
- Complete all EH&S required generic and site specific training
- Ask your supervisor or faculty when concerned about an unknown or hazardous situation or substance.
- Report all unsafe conditions, practices, or equipment to your supervisor or to campus EH&S.

Safety Communications

CSUSB's communication system strives to be in a form "readily understandable by all affected employees." The system is designed to encourage employees to inform the employer of hazards at the workplace without fear of reprisal by being a two-way system of communication. Safety communications include: Supervisors, Committees, Training, Written Communications, and campus Policies & Procedures.

Supervisors

Supervisors are responsible for communicating with all workers about safety and health issues in a form readily understandable by all workers. All department personnel are encouraged to communicate safety concerns to their supervisor without fear of reprisal. Supervisors are responsible for ensuring that employees are given access to hazard information pertinent to their work assignments. Information concerning the health and safety hazards of tasks performed by department staff is available from a number of sources. These sources include, but are not limited to, Safety Data Sheets (SDS), equipment operating manuals, the Department Safety Coordinator, EH&S, campus libraries, container labels and work area postings.

Safety Talks/Tailgate Meetings

Safety talks can be used to supplement training materials, as safety meeting hand-outs, and as resources when conducting new work activities. These discussions provide valuable information on a variety of topics, including laboratory and chemical safety, worker safety and pest control. These resources are available online at <https://www.csusb.edu/ehs>

Safety Committees

One way in which management can encourage employee participation in their workplace safety program is to create a Safety Committee. The committee can help share the responsibilities of implementing and monitoring the safety program.

Several committees provide forums where employees can freely and openly discuss safety together with members of campus administration. These include the: Campus Risk and Safety Committee, Science Safety Committee, Art Safety Committee, Palm Desert Safety Committee, Teamster and Facility Services Safety Committee (See Appendix C for committee charters).

Information about the meeting dates/times/locations, minutes, and charters, can be found online at <https://www.csusb.edu/ehs>



Figure 1: Safety Committee

Campus Risk and Safety Committee

The Campus Risk and Safety Committee (RSC) is the steering committee to manage and communication campus wide Risk and Safety issues. The committee provides leadership and guidance for CSUSB Risk & Safety program and committees, deal with issues, polices and initiatives that affect the entire campus.

The Campus Safety Committee membership is composed of chairs of safety committees and representatives from campus organizations. The committee meets quarterly and meeting minutes and other safety-related items are posted online at <https://www.csusb.edu/ehs>. The key functions for the committee include but are not limited to:

- Review annual Risk and safety goals and objectives;
- Develop major performance indicators - and track campus performance;
- Provide leadership and guideline to various committees;

- Support and communicate risk and safety message across campus;
- Provide periodic report to upper management

Special Safety Committees

Specialty safety committees are established to focus on and promote safety awareness, build enthusiasm for safety programs and reduce/prevent injuries at the local level. ISEM safety committees report to Campus Safety Committee. Following is the list of the current organization level ISEM committee:

- Science Safety Committee
- Art Safety Committee
- Teamster and Facility Services Safety Committee
- Palm Desert Campus Safety Committee

The Special Safety Committees have the ongoing responsibility to monitor IIPP implementation, to assess compliance with applicable regulations and campus policies, and to evaluate necessary corrective actions at the organization level. The Special Safety Committee meets at least quarterly and includes representatives from various departments of the target organization units. Each department has a designated representative on the committee. The Safety Committee chair may rotate periodically.

The key responsibilities of the committees include:

- Serve as an organization liaison to assist safety program implementation;
- Review quarterly compliance scorecard;
- Review the results of periodic, scheduled workplace inspections to identify any needed safety procedures or programs and to track specific corrective actions;
- Review the summary of all incident investigations;
- Review organization injury data and develop organization specific plan to reduce incident and employee injuries;
- Review supervisors' investigations of accidents and injuries to ensure that all causes have been identified and all hazards have been corrected in a timely manner;
- Where appropriate, submit suggestions to department management for the prevention of future incidents;
- Review alleged hazardous conditions brought to the attention of any committee member, determine necessary corrective actions, and assign responsible parties and correction deadlines;
- When determined necessary by the Committee, the Committee may conduct its own investigation of accidents and/or alleged hazards to assist in establishing corrective actions;
- Submit recommendations to assist department management in the evaluation of employee safety suggestions.

Meeting Minutes

Safety Committee shall prepare and make available to the campus written minutes of issues discussed at the meetings. The Committee meeting minutes must be documented and maintained on file for at least one year.

Safety committee action item documentation and tracking

Health and Safety concerns identified during the committee meetings should be addressed in a timely manner to maintain a safe and healthy working environment and be in compliance with Federal, State and local rules and regulations and CSU policies and procedures.

- Campus Safety Committee meeting minutes serve as a documentation of tracking compliance and action taken. Environmental Health and Safety department should maintain a master list of all health and safety issues identified during the Safety Committee meetings.
- Issues regarding health and safety concerns or compliance are presented at scheduled campus safety committee meetings and are assigned to committee members with a 30 day timeframe for assessment and resolution. The safety committee member will serve as a liaison between the safety committee and the responsible party for the corrective action.
 - If the issue affects more than one responsible party, the allotted 30 days can be extended as long as there is a written plan or procedure to ensure resolution within a timely manner with prior acknowledgement from all parties.
- If the 30 day timeframe has expired or no response/update is provided by the next campus safety committee meeting, EH&S should prioritize and evaluate the issue and status. If needed, EH&S will pursue corrective actions by engaging upper management. The responsible parties should routinely inform EHS of the progress and notify EH&S when the issue is resolved. EH&S will document the completion date on the master list and report it back to the committee during the next Safety Committee meeting. The safety committee meeting minutes shall be updated accordingly.

Communications Resources

EH&S

Environmental Health & Safety (EH&S) provides the campus with the following written communications available online at <https://www.csusb.edu/ehs> (under “Resources”). Examples include Brochures, Fast Facts, Handouts, Posters, Signs and Videos

Websites and Emails

Websites

Websites with real-time safety information and resources are available:

- *Environmental Health & Safety (EH&S)* <https://www.csusb.edu/ehs>

Emails

Messages are periodically sent to staff, faculty, and students using the campus Listserv systems.

Safety Data Sheets

Safety Data Sheets (SDSs) provide information on the potential hazards of products or chemicals. SDSs are available online at <https://www.csusb.edu/ehs> and over the Internet from a variety of sources. To assist with locating and uses SDSs, EH&S provides fact sheets, websites, and training.

Equipment Operating Manuals

All equipment is to be operated in accordance with the manufacturer's instructions, as specified in the equipment's operating manual. Copies of operating manuals should be kept with each piece of equipment in the department. Persons who are unfamiliar with the operation of a piece of equipment and its potential hazards must at least read the operating manual before using the equipment. Training should also be sought from an experienced operator or supervisor.

Hazard Assessment - Identification and Control

Hazard identification and control is an ongoing process and is fundamental to the effectiveness of the IIPP. Supervisors are responsible for hazard assessment for their assigned work areas and EHS is responsible to provide technical support to the supervisors.

Hazard assessment process - Integrated Safety and Environmental Management (ISEM)

Systematically integrate health, safety, environmental considerations, and sustainable use of natural resources into all activities is an effective method of reducing accidents and employee injuries. Five core safety and environmental management functions provide the necessary framework for any activity that could potentially affect faculty, staff, students, visitors, the public, or the environment. The functions are applied as a continuous cycle with the degree of rigor appropriate to address the type of activity and the hazard or environmental aspect involved. Following is a brief summary of the 5 steps

ISEM process:

1. Define the Scope of Activities

Goals and programs are translated into activities, expectations are set, tasks are identified and prioritized, and resources are allocated.

2. Analyze the Hazards

Hazards and environmental aspects associated with the activities are identified, analyzed, and categorized.

3. Develop and Implement Hazard and Operational Controls

Applicable standards and requirements are identified and agreed upon, controls to prevent/mitigate hazards and aspects are identified, the safety and environmental parameters are established and controls are implemented.

4. Perform Activities within Established Controls

Readiness is confirmed and activities are performed safely and in compliance with applicable regulations and policies.

5. Provide Feedback and Assure Continuous Improvement

The appropriate parties obtain feedback on the adequacy of controls, identify opportunities for improving the definition and planning of activities, conduct departmental and independent

oversight and, if necessary, participate in regulatory enforcement actions. As a complement to departmental management, the campus EH&S offices may be contacted to provide safety and environmental assistance, consultation, and independent oversight functions.



PPE hazard assessment

PPE hazard assessment shall be performed for non-office type of jobs. PPE is not required for office environment

Lab PPE hazard assessment

PPE hazard assessment will be completed using an online hazard assessment tool, RSS assessment.

Non-lab PPE hazard assessment

Non-lab PPE hazard assessment will be completed by the supervisor using PPE hazard assessment form (See Appendix D).

Hazard Reports

All Employees are encouraged to report unsafe conditions and practice in their work areas to their supervisor, Safety Committee Members and EH&S. Employee may also report an unsafe condition or hazard using the Hazard Report form available online <https://www.csusb.edu/ehs>, anonymously if desired. The "Hazard Report form" should be filled out when a referral is made to the Safety Committee as a result of a condition discovered during an inspection for which the responsible supervisor could not determine an immediate remedy.

Inspections / Audits

Regular self-inspections of work areas, warehouse, hazard waste storage, shops, and laboratories must be conducted by the supervisors. Supervisors are responsible for self-inspection and EHS is responsible for other inspections. By law, the first of these inspections must take place when the department first adopts the IIPP. The inspections, and corrective actions, should be noted on the corresponding inspections/audit checklists available online at <https://ehs.ucop.edu/inspect>. Corrective actions generated during these regular inspections will be supplemented with additional inspections whenever new substances, processes, procedures, or equipment introduced into the workplace represent a new occupational safety and health hazard or whenever supervisors are made aware of a new or previously unrecognized hazard.

EH&S periodically evaluates the inspections/audits, and provides reports to departmental and campus management on the inspection results and implementation of corrective actions.

Correcting Unsafe / Unhealthy Conditions

Unsafe or unhealthy working conditions, practices or procedures shall be corrected in a timely manner based on the severity of the hazards. Generally, supervisors are responsible for identification and correction of hazards that their staff and/or students face and should ensure that work areas they exercise control over are inspected at least annually. Supervisors should check for safe work practices with each visit to the workplace and should provide immediate verbal feedback where hazards are observed. Supervisors of affected employees are expected to correct unsafe conditions, including chemical spills, as quickly as possible after discovery of a hazard. Small spill can be cleaned by the department. For large spill, Supervisor is responsible to contact EHS for assistance. EHS will coordinate the spill cleanup activities for large spills.

Procedures

Specific procedures that can be used to correct hazards include, but are not limited to, the following:

- Tagging unsafe equipment with “Temporarily Out of Service” signs and providing a list of alternative tools or procedures for employees to use until the item is repaired.
- Stopping unsafe work practices and providing retraining on proper procedures before work resumes.
- Reinforcing and explaining the need for proper personal protective equipment and ensuring its availability.
- Barricading areas that have chemical spills or other hazards and reporting the hazardous conditions to a supervisor or Building Coordinator.

Imminent Hazards

If an imminent hazard exists, work in the area should stop, and the appropriate supervisor must be contacted immediately. If the hazard cannot be immediately corrected without endangering employees or property, all personnel need to be removed from the area except those qualified and necessary to correct the condition. These qualified individuals will be equipped with necessary safeguards before addressing the situation.

Accident Investigation

Injury Reports

Employees who are injured at work must report the injury immediately to their supervisor. Students who are not employees who are injured or involved in an accident should report the incident to their instructor. In either case, if immediate medical treatment is needed, seek medical treatment first. The injured party will be taken to the appropriate hospital or medical facility.

Supervisor should report immediately to EH&S (909)437-3144 allehs@csusb.edu following the procedures in Appendix B “Report severe injuries and fatalities” any work related:

- Fatality
- Injury or illness which requires inpatient hospitalization (for a period in excess of 24 hours), or in which an individual suffers a loss of any member of the body or any serious degree of permanent disfigurement
- Inpatient hospitalization does not include medical observation.

EHS shall report the reportable incident to CAL/OSHA San Bernardino Office (Tel: 909-383-4321) once the report is received from the supervisor.

The supervisor of the injured employee must work with designated department personnel to ensure that the CSUSB ***Injury and Incident Investigation*** report is completed within 24 hours (see Appendix C for incident investigation report form).

Incident Investigation

The supervisor is responsible for performing an initial investigation to determine and correct the cause(s) of the incident. Specific procedures that can be used to investigate workplace accidents and hazardous substance exposures include:

- Interviewing injured personnel and witnesses.
- Examining the injured employee’s workstation for contributing factors.
- Reviewing established procedures to ensuring they are adequate and were followed.
- Reviewing training records of affected employees.
- Determining all contributing causes to the accident.
- Taking corrective actions to prevent the accident/exposure from reoccurring.
- Recording all findings and actions taken.

The supervisor’s findings and corrective actions are documented onto the CSUSB ***Injury and Incident Investigation report*** (See Appendix C) and reviewed by the special safety committee and EH&S.

The special Safety Committee and EH&S will review each accident or injury report to ensure that the investigation was thorough and that all corrective actions are completed. When investigations and/or corrective actions are found to be incomplete, the accident or injury report will be routed back to the supervisor for further follow-up, with specific recommendations noted by the committee and EH&S.

Training

Supervisors are responsible for providing training to their employees:

- To all staff, faculty, students, and affiliates (new and existing),
- To all staff and faculty given new job assignments for which training has not been previously received,
- Whenever new substances, processes, procedures or equipment are introduced to the workplace and present a new hazard.
- Whenever there is awareness of a new or previously unrecognized hazard.

Employee safety training is provided at no cost to the employee and is conducted during the employee's normal working hours on University time. Safety training may be presented by a knowledgeable supervisor, other department personnel, or by representatives from other relevant campus departments.

Initial IIPP Training

When the IIPP is first implemented, all department personnel will be trained on the structure of the IIPP, including individual responsibilities under the program, and the availability of the written program. Training will also be provided on how to report unsafe conditions, how to access the Safety Committee, and where to obtain information on workplace safety and health issues.

Personnel hired after the initial training sessions will be oriented on this material as soon as possible by the Safety Coordinator or appropriate supervisor. These individual training sessions should also be documented.

Training on Specific Hazards

All supervisors must ensure that the personnel they supervise receive appropriate training on the specific hazards of work they perform, and the proper precautions for protection against those hazards. Training is particularly important for new employees and whenever a new hazard is introduced into the workplace. Such hazards may include new equipment, hazardous materials, or procedures. Health and Safety training is also required when employees are given new job assignments on which they have not previously been trained and whenever a supervisor is made aware of a new or previously unrecognized hazard.

Required training

Training identified by regulatory agencies will be considered mandatory, and must be completed. Minimum safety training courses are outlined as follows:

Non Laboratories (e.g., Offices, Classrooms, Arts / Crafts / Shops / Studios, Dining, Housing, Health Center, etc.)	Laboratories (e.g., Research & Teaching Labs, Field Operations, etc.)
Minimum requirements <ul style="list-style-type: none">• Safety Orientation	Minimum requirements <ul style="list-style-type: none">• Laboratory Safety Orientation• Hazardous Waste Management

Depending on the activity of the personnel, additional courses must be completed per training matrix and/or the training **Needs Assessment** available at <https://www.csusb.edu/ehs>

All individuals shall complete either general Safety Orientation (within 30 days of hire), or Laboratory Safety Orientation (before beginning work in a Laboratory/Technical Area). This requirement does not apply to undergraduate students taking courses offered in the course catalog of that campus, unless the work occurs within a research laboratory/technical area.

Needs Assessment

Identification of required training shall be based on hazards (activities or tasks), and accomplished using a training needs assessment, hazard assessment, training matrix, accident / incident investigation report, job hazard analysis / job safety analysis, or any document that provides a risk assessment. The results of a training needs assessment (or equivalent) must be incorporated into a training matrix/plan that is implemented by the supervisor and individual(s). Training matrix/plans may be developed for a group of individuals (or by position) upon consultation with EH&S. Training plans must be developed before individuals assume a new job function, or a new task.

Training Records

Documentation of training shall include the following elements:

1. Course name
2. Name of participant(s)
3. Name of instructor(s) or method of delivery (e.g., "Online", or "Self-Paced")
4. Date
5. Topics covered (or other way in which topics can be identified, such as through a course code)

Documentation may be recorded using the roster template in Appendix D "Training Record", or online at https://csu.sumtotal.host/Core/dash/home/Home_San_Bernardino. Records shall be kept (at minimum) for five years after the training. Thereafter, data shall be maintained in an electronic database indefinitely. Record-keeping shall be decentralized; maintained by supervisors and/or departments who provide training. Records shall be identifiable, retained, and accessible. Data shall be centralized; maintained using an electronic database, such as a campus learning management system (LMS).

Recordkeeping

Documents related to the IIPP are maintained in a safe and convenient location for record keeping. Documents that should be kept on file at CSUSB include:

Campus Records

- Hazard Reports (or Reports of Unsafe Conditions or Hazards)
- Safety Committee meeting documentation
- Training records (database)
- Incident and Investigation Reports
- Exposure Records

Department Records

- Inspections/Audits, including the persons conducting the inspection, any identified unsafe conditions or work practices, and corrective actions.
- Safety meetings (agendas, minutes, handouts)
- Safety talks
- Authorizations & Permits (e.g., Confined Space permits, Hot work permits, Biological Use Authorization, Controlled Substance Use Authorization, Radiation Use Authorization, etc.)
- Training records (rosters, tests, training materials)
- Other

Safety Planning, Rules, & Work Procedures

Ensuring compliance

All personnel have the responsibility for complying with safe and healthful work practices, including applicable regulations, campus policy, and departmental safety procedures. Overall performance in maintenance of a safe and healthy work environment should be recognized by the supervisor and noted in performance evaluations. Employees will not be discriminated against for work-related injuries, and injuries will not be included in performance evaluations, unless the injuries were a result of an unsafe act on the part of the employee.

Standard progressive disciplinary measures in accordance with the applicable personnel policy or labor contract will result when employees fail to comply with applicable regulations, campus policy, and/or departmental safety procedures. Faculty members will be disciplined for unsafe practices in accordance with the Faculty Code of Conduct. Students not employed by the University will be disciplined for unsafe practices in accordance with the Student Code of Conduct. All personnel will be given instruction and an opportunity to correct unsafe behavior. Repeated failure to comply or willful and intentional noncompliance may result in disciplinary measures up to and including termination.

Heat Illness Prevention

All employees work outdoors should follow heat illness prevention procedures listed in Appendix F. If the employee works at a remote location, additional emergency response information specific for the location needs to be developed by the department.

Appendices

These documents are available online:

Appendix A: Safety Committee Charters

Appendix B: Incident Investigation Report

Appendix C: Report Severe Injuries and Fatalities

Appendix D: Non-lab PPE hazard assessment

Appendix E: Training Record (roster)

Appendix F: Heat Illness Prevention Procedure Manual

Appendix A. Safety Committee Charters

Science Safety Committee (SSC) Charter

The Science Safety Committee (SSC), formally known as the Chemical Hygiene Committee, is responsible for evaluating and administering the chemical safety aspects of all University programs involving the research and teaching use of hazardous chemicals under the provisions outlined in the Chemical Hygiene Plan.

CHARGE:

The Science Safety Committee's charge includes:

- Identify and analyze laboratory chemical safety policies and procedures as they affect the campus safety community.
- Recommend corrective and preventative actions to address chemical safety incidents and safety and/or regulatory violations.
- Review and assess Chemical Hygiene Plan for practicality and applicability to campus activities in accordance with campus safety and regulatory requirements.
- Establish and implement inspection criterion and effectively set general laboratory safety rules.
- Provide information and advocacy for the campus community who have safety concerns.

Sub-committees will be created as needed to address specific issues or functional areas. Those committee members, delegated campus personnel, and volunteers will be invited to serve according to area of expertise and interest in the subject.

The delegated chairperson of the SSC is responsible for bringing the concerns and/or reoccurring issues of the SSC to the Dean of the College and the VP Administration and Finance who will then apprise the University President, as appropriate.

MEETINGS:

The SSC will meet as necessary to conduct business, but no less than three times year for each consecutive fall, winter, and spring quarter. The SSC does not meet during summer.

Meeting agenda will be sent out at least a week in advance of a scheduled committee meeting.

Minutes will be taken at each meeting and kept on file in the Environmental Health and Safety office.

Minutes will also be made available for ease of access on the Environmental Health and Safety website under "Safety Committees" (<https://www.csusb.edu/ehs/safety-committees>).

MEMBERSHIP:

Members of the committee will consist of a representative/delegate from each department involved in use and/or storage of chemicals and potential laboratory hazards. Members can include CSUSB faculty, staff, students, and administrators.

2018-2019

SCIENCE SAFETY COMMITTEE MEMBERSHIP

Chair

Co-Chair: TO BE VOTED IN

Co-Chair: Director, Environmental Health and Safety –Teresa Fricke

Members

Natural Sciences Dean –Dr. Sastry Pantula

Equipment Technician, Natural Sciences –James Pelley
Department Chair, Biology –Dr. Mike Chao
Instructional Support Technician, Biology –Tom Benson
Instructional Support Technician, Biology –Dave Coffey
Department Chair, Chemistry – Dr. Kimberly Cousins
Instructional Support Technician, Chemistry –Jose Salazar
Instructional Support Technician, Chemistry –Teo Cristiano
Instructional Support Technician, Chemistry –Courtney Traugh
Department Chair, Physics – Dr. Paul Dixon
Faculty, Physics –Dr. Sara Callori
Department Chair, Health Science – Dr. Claudia Davis
Department Chair, Nursing –Terese Burch
Department Chair, Geological Sciences –Dr. David Maynard
Faculty, Geological Sciences –Dr. Joan Fryxell
Faculty, Geological Sciences –Dr. Erik Melchiorre
Dean, College of Social and Behavioral Sciences –Dr. Rafik Mohamed
Department Chair, Psychology –Dr. Robert Ricco
Faculty, Psychology –Dr. Cynthia Crawford
Administrative Analyst Specialist, Office of Academic Research –Michael Gillespie
Administrative Analyst Specialist, Environmental Health and Safety –Kathy Pierson
Administrative Analyst Specialist, Environmental Health and Safety –Benjamin Virzi
Administrative Analyst Specialist, Environmental Health and Safety –Rominna Valentine Ico

Palm Desert Safety Committee (PDC SC) Charter

The Palm Desert Safety Committee (PDC SC), is responsible with promoting a safe working environment with respect to chemical and physical hazards in all research and teaching laboratories, as well as educational workshops that support liberal arts program for the CSUSB sister campus at Palm Desert.

CHARGE:

The Palm Desert Safety Committee's (PDC SC) charge includes:

- Identify and analyze campus safety by safeguarding personnel, the general public, and the environment through a series of policies and procedures, training programs for the safe use of potential hazards.
- Recommend corrective and preventative actions to address departmental campus safety concerns and incidents, modifications, campus violations, and regulatory requirements.
- Study, review, advise, and recommend policies and procedures relating to the safety of the campus community as it pertains the campus policies and regulatory requirements.
- Provide information and advocacy for the campus community who have safety concerns.

Sub-committees will be created as needed to address specific issues or functional areas. Those committee members, delegated campus personnel, and volunteers will be invited to serve according to area of expertise and interest in the subject.

The delegated chairperson of the PDC SC is responsible for bringing the concerns and/or reoccurring issues of the PDC SC to the Dean of the College and the VP Administration and Finance who will then apprise the University President, as appropriate.

MEETINGS:

The PDC SC will meet as necessary to conduct business, but no less than three times year for each consecutive fall, winter, and spring quarter. The PDC SC does not meet during summer.

Meeting agenda will be sent out at least a week in advance of a scheduled committee meeting.

Minutes will be taken at each meeting and kept on file in the Environmental Health and Safety office.

Minutes will also be made available for ease of access on the Environmental Health and Safety website under "Safety Committees" (<https://www.csusb.edu/ehs/safety-committees>).

MEMBERSHIP:

Members of the committee will consist of a representative/delegate from each department involved in potential campus hazards. Members can include CSUSB faculty, staff, students, and administrators.

2018-2019

PALM DESERT SAFETY COMMITTEE MEMBERSHIP

Chair

Chair: Director, Environmental Health and Safety –Teresa Fricke

Members

Dean, Palm Desert Campus –Dr. Jake Zhu

Director of Campus Operations, Palm Desert Campus –Jack Macfarlane

Equipment Systems Specialist, Palm Desert Campus –Cary Tyler

Community Service Specialist, Palm Desert Campus –Katrina McDowell

Facilities Project Supervisor, Palm Desert Campus –Francisco Castro

Administrative Analyst Specialist, Environmental Health and Safety –Kathy Pierson

Administrative Analyst Specialist, Environmental Health and Safety –Benjamin Virzi

Administrative Analyst Specialist, Environmental Health and Safety –Rominna Valentine Ico

Appendix B: Report Severe Injuries and Fatalities

Name: _____ Title _____ Department: _____

Tel: _____ Email: _____

Date: _____ Time: _____

Any work-related fatality, injury or illness that requires inpatient hospitalization for a period in excess of 24 hours for other than medical observation or in which an employee suffers a loss of any member of the body or suffers any serious degree of permanent disfigurement shall be report to Cal/OSHA within 8 hours.

1. Record following information for the work-related fatality or serious injury and illness

Employer Name: California State University San Bernardino

Employer Phone: 909-537-3122

Employer Address: 1500 University Parkway, San Bernardino, CA 92407

Name and title of the person reporting the incident: _____

Phone number of the person reporting the incident: _____

Name of employer representative to contact at site of incident: Teresa Fricke, EHS Director

Date and time of incident: _____

Location or site of incident: _____

Name and Department of injured employee: _____

Address of injured employee: _____

Phone of injured employee: _____

Nature of injury (example: death, amputation of left arm, puncture wound to right thigh)

Description of incident and whether the incident scene or instrumentality has been altered

List and identity of any law enforcement agencies present at the site of the incident: _____

2. **CALL Environmental Health & Safety (Tel: 909-537-5179) and/or Email allehs@csusb.edu & riskmanagement@csusb.edu IMMEDIATELY OF KNOWING ABOUT THE INJURY OR ILLNESS** to report the fatality or serious injuries or illness information listed above.

Appendix C: Incident Investigation Report Form

CSUSB Incident Investigation Report				
EMPLOYEE DATA	Employee Name:	Sex: <input type="checkbox"/> Female <input type="checkbox"/> Male	Employee's Coyote ID #:	
	Department/Location:	Employee's Work Phone:	Date of Hire:	
	Payroll Title:	Employee (<input type="checkbox"/>) Volunteer (<input type="checkbox"/>) Student-Employee (<input type="checkbox"/>) Non-Employee (<input type="checkbox"/>)		
	Supervisor's Name:	Supervisor's Work Phone:		
INCIDENT INFORMATION	Date of injury/illness:		Location where injury or illness occurred:	
	Nature of the injury/illness:		Body Part(s) affected:	
	Incident type: : <input type="checkbox"/> Injury <input type="checkbox"/> Property Damage <input type="checkbox"/> Injury and property damage <input type="checkbox"/> Near Miss: <input type="checkbox"/> 3 rd party Claim <input type="checkbox"/> Hazmat Spill: <input type="checkbox"/> Special case _____			
	Treatment: : <input type="checkbox"/> No treatment <input type="checkbox"/> First Aid <input type="checkbox"/> Medical treatment, treated at		Restriction <input type="checkbox"/> Yes Estimate days <input type="checkbox"/> No <input type="checkbox"/> NA Lost work day <input type="checkbox"/> Yes Estimate days <input type="checkbox"/> No <input type="checkbox"/> NA	
	Employee's statement:			
	Witness and witness statement:			
	Supervisor's findings:			
Additional information:				
DIRECT CAUSE	INDIRECT CAUSES		BASIC CAUSE	
<input type="checkbox"/> Struck by or against object (indicate) _____ <input type="checkbox"/> Caught in/under/between _____ <input type="checkbox"/> Fall / Slip / Trip <input type="checkbox"/> Material handling or lifting <input type="checkbox"/> Repetitive motion <input type="checkbox"/> Chemical exposure <input type="checkbox"/> Body fluid exposure: _____ <input type="checkbox"/> Needle stick <input type="checkbox"/> Sharps <input type="checkbox"/> Animal bite <input type="checkbox"/> Other, Explain _____ _____ _____ _____	Equipment <input type="checkbox"/> Equipment failure <input type="checkbox"/> Equipment unavailable <input type="checkbox"/> Improper equipment or material used for job Personal protective equipment <input type="checkbox"/> Not worn <input type="checkbox"/> Not readily available <input type="checkbox"/> Not adequate for the task <input type="checkbox"/> Personal protective equipment failure Training/Experience <input type="checkbox"/> Lack of training <input type="checkbox"/> Safety training provided, not followed <input type="checkbox"/> New task for employee or lack of experience Work Area <input type="checkbox"/> Work area set up improperly <input type="checkbox"/> Inadequate lighting or noise issues <input type="checkbox"/> Housekeeping issues <input type="checkbox"/> Environmental factors (rain, wind, temp. etc)	<input type="checkbox"/> Ventilation issues <input type="checkbox"/> Ergonomic factors Employee <input type="checkbox"/> Physically not able to do work <input type="checkbox"/> Employee fatigue <input type="checkbox"/> Unbalanced or poor position or motion <input type="checkbox"/> Incorrect procedures used for task <input type="checkbox"/> Other unsafe practice Assistance <input type="checkbox"/> Difficult to perform task without help <input type="checkbox"/> Safety features or devices not readily available <input type="checkbox"/> Assistive devices not used <input type="checkbox"/> Lack of policy/procedure <input type="checkbox"/> Animal (explain below) <input type="checkbox"/> Other (explain) _____ _____ _____ Use additional pages as needed.	Management Safety Policies & Decisions <i>Inadequate personnel practices regarding:</i> <input type="checkbox"/> Training <input type="checkbox"/> Job observation <input type="checkbox"/> Communication <input type="checkbox"/> Improper employee assignment <input type="checkbox"/> Improper/no assignment of responsibility/accountability <input type="checkbox"/> Other <i>Procedures do not provide for:</i> <input type="checkbox"/> Adequate housekeeping <input type="checkbox"/> Preventive maintenance <input type="checkbox"/> Communication of hazards and means of control <input type="checkbox"/> Documented safe work practices or procedures <input type="checkbox"/> Follow up and/or tracking of hazard correction <input type="checkbox"/> Safety inspections <input type="checkbox"/> Other <i>Safety is not considered in the purchase, installation or use of:</i> <input type="checkbox"/> Equipment, machinery tools <input type="checkbox"/> Supplies or materials <input type="checkbox"/> Outside services <input type="checkbox"/> Other Personnel Factors <i>Experience factors:</i> <input type="checkbox"/> Unsafe practices <input type="checkbox"/> Inadequate skills <input type="checkbox"/> Insufficient knowledge <input type="checkbox"/> History of accidents <input type="checkbox"/> Other	<i>Behavior factors:</i> <input type="checkbox"/> Lack of hazard awareness <input type="checkbox"/> Inattention to tasks <input type="checkbox"/> Inappropriate risk taking <input type="checkbox"/> Repeat accident <input type="checkbox"/> Other <i>Physical factors:</i> <input type="checkbox"/> Lack of required strength <input type="checkbox"/> Lack of required stamina <input type="checkbox"/> Other Environmental Factors <i>Unsafe operating procedures:</i> <input type="checkbox"/> Routine <input type="checkbox"/> Emergency <input type="checkbox"/> Other <i>Unsafe projections/surfaces:</i> <input type="checkbox"/> Equipment <input type="checkbox"/> Supplies/materials <input type="checkbox"/> Structure/furnishings <input type="checkbox"/> Other <i>Unsafe location factors:</i> <input type="checkbox"/> Terrain (uneven, unstable) <input type="checkbox"/> Surroundings (equipment, people) <input type="checkbox"/> Weather conditions <input type="checkbox"/> Access (blocked exits) <input type="checkbox"/> Other <i>Unsafe facility design:</i> <input type="checkbox"/> Access (blocked exits) <input type="checkbox"/> Utility layout (electrical outlets, mechanical & hydraulic systems) <input type="checkbox"/> Lighting, HVAC, noise <input type="checkbox"/> Material handling <input type="checkbox"/> Other

Instructions for Completing the Accident Investigation Report

Employee Data

Employee Name: Record the name of the employee involved.

Sex: M=male; F=female

Employee Coyote ID: The purpose of the Coyote ID is to avoid errors that could arise when two or more employees at the same location have the same name.

Department / Location: The regular department is the "home base" of the employee. It may not necessarily be the department in which the incident occurred. For example, a maintenance person who was injured in the Chemistry department would record Maintenance Department as the regular department. Leave this field blank if the incident was a near-miss, which did not involve a person.

Employee's Work Phone: CSUSB phone number where employee can be reached.

Date Hired: This field will have value for analyzing the incidence of occupational injury and illness among newly hired workers and those with longer tenure. For the relatively infrequent situation where employees are hired, terminated, and then rehired, the employer can, at his or her discretion, enter the date the employee was originally hired, or the date of rehire.

Payroll Title: Record the payroll job classification to which the employee is regularly assigned.

Work Status: Check if the incident involved an Employee, Volunteer, Student-Employee, Non-Employee.

Supervisor Name: Record the name of the employee's supervisor.

Supervisor Work Phone: Record the phone number of the employee's supervisor.

Incident Data

Date of Injury / Illness: Record day, month and year of incident. For latent health issues, record the date when the illness was diagnosed or record the date of the hearing test when the hearing loss was detected.

Location where injury or illness occurred: List the exact location of the incident. For example, Chemical Sciences Room 305.

Nature of Injury. Please classify nature of injury. Burn, bite, chemical splash, fall, etc.

Body Part(s) affected: Self-explanatory.

Incident Type: Select the most applicable incident type (one only)

Treatment: Select the most applicable treatment (one only)

Restricted or Lost Work Days: Select the most applicable answer. Provide estimated days if yes is checked for either type.

Employee's Statement. Record employee's statement as to what occurred.

Witness and Witness Statement. Record witness name and witness statement as to what occurred (if applicable).

Supervisor's Findings: Record any findings supervisor may have regarding the incident.

Additional Information: Record any additional information as necessary.

Direct / Indirect / Basic Causes

In spite of their complexity, most incidents are preventable by eliminating one or more causes. Investigations determine not only what happened, but also how and why. The information gained from these investigations can prevent recurrence of similar or perhaps more serious incidents. Investigative team efforts must focus on all events, as well as the sequence of events, that led to an incident.

Direct Cause – Unplanned release of energy or hazardous material. Example: The knife that cut (laceration) the palm of the hand. Please choose the most appropriate choice.

Indirect Cause – Symptoms – Unsafe Acts and/or Unsafe Conditions. Example: Tripping over unrolled hose left on floor causing contusion to knee. Please choose the most appropriate choice(s). There may be more than one choice.

Basic Causes – (Poor) Management Policies or Decisions, or to Personal or Environmental Factors. Example: Lack of instruction in proper cutting techniques. Lack of supervision to reinforce safe work practices. Personal decision by individual to take a short-cut to save time. Please choose the most appropriate choice(s). There may be more than one choice.

Corrective Action / Possible Alternatives

Action(s) to be taken: What corrective actions will be taken to prevent recurrence of the incident? The following examples provide basic ideas for this section.

<ul style="list-style-type: none">• Use safer materials/supplies• Improve illumination• Improve ventilation• Mandatory pre-job instructions• Job reassignment of employee• Improved inspection procedure• Improved clean-up procedure	<ul style="list-style-type: none">• Improved enforcement• Develop Job Safety Analysis (JSA) or Standard Operating Procedure (SOP) for the job / task• Revise the JSA or SOP• Install/revise safety guard/device• Require protective equipment• Repair/replace equipment• Improved storage/arrangement	<ul style="list-style-type: none">• Improve design/construction• Eliminate congestion• Reinstruction of employees involved• Warning to employees involved• Discipline of employees involved• Preventive instruction of others doing job
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Employee Signature and Date: Self Explanatory

Supervisor or Manager's Signature and Date: Self-explanatory

Appendix D: Non-lab PPE Hazard Assessment

Department: _____ Work area(s): _____

Job/Task(s): _____

Assessment conducted by: _____ Date of assessment: _____

Eye		
<u>Work activities, such as:</u> <input type="checkbox"/> abrasive blasting <input type="checkbox"/> sanding <input type="checkbox"/> chopping <input type="checkbox"/> sawing <input type="checkbox"/> cutting <input type="checkbox"/> grinding <input type="checkbox"/> drilling <input type="checkbox"/> hammering <input type="checkbox"/> welding <input type="checkbox"/> chipping <input type="checkbox"/> soldering <input type="checkbox"/> torch brazing <input type="checkbox"/> working outdoors <input type="checkbox"/> computer work <input type="checkbox"/> punch press operations <input type="checkbox"/> other:	<u>Work-related exposure to:</u> <input type="checkbox"/> airborne dust <input type="checkbox"/> dirt <input type="checkbox"/> UV <input type="checkbox"/> flying particles/objects <input type="checkbox"/> blood splashes <input type="checkbox"/> hazardous liquid chemicals mists <input type="checkbox"/> chemical splashes <input type="checkbox"/> molten metal splashes <input type="checkbox"/> glare/high intensity lights <input type="checkbox"/> laser operations <input type="checkbox"/> intense light <input type="checkbox"/> hot sparks <input type="checkbox"/> other:	<u>Can hazard be eliminated without the use of PPE?</u> Yes <input type="checkbox"/> No <input type="checkbox"/> <u>If no, use:</u> <input type="checkbox"/> Safety glasses <input type="checkbox"/> Safety goggles <input type="checkbox"/> Dust-tight goggles <input type="checkbox"/> Impact goggles <input type="checkbox"/> Welding helmet/shield <input type="checkbox"/> Chemical goggles <input type="checkbox"/> Chemical splash goggles <input type="checkbox"/> Laser goggles <input type="checkbox"/> Shading/Filter (# _____) <input type="checkbox"/> Welding shield <input type="checkbox"/> Other:
Face		
<u>Work activities, such as:</u> <input type="checkbox"/> cleaning <input type="checkbox"/> foundry work <input type="checkbox"/> cooking <input type="checkbox"/> welding <input type="checkbox"/> siphoning <input type="checkbox"/> mixing <input type="checkbox"/> painting <input type="checkbox"/> pouring molten <input type="checkbox"/> dip tank operations metal <input type="checkbox"/> pouring <input type="checkbox"/> working outdoors <input type="checkbox"/> other:	<u>Work-related exposure to:</u> <input type="checkbox"/> hazardous liquid chemicals <input type="checkbox"/> extreme heat <input type="checkbox"/> extreme cold <input type="checkbox"/> potential irritants: <input type="checkbox"/> other:	<u>Can hazard be eliminated without the use of PPE?</u> Yes <input type="checkbox"/> No <input type="checkbox"/> <u>If no, use:</u> <input type="checkbox"/> Face shield <input type="checkbox"/> Shading/Filter (# _____) <input type="checkbox"/> Welding shield <input type="checkbox"/> Other:
HEAD		
<u>Work activities, such as:</u> <input type="checkbox"/> building maintenance <input type="checkbox"/> confined space operations <input type="checkbox"/> construction <input type="checkbox"/> electrical wiring <input type="checkbox"/> walking/working under catwalks <input type="checkbox"/> walking/working on catwalks <input type="checkbox"/> walking/working under conveyor belts <input type="checkbox"/> working with/around conveyor belts <input type="checkbox"/> walking/working under crane loads <input type="checkbox"/> utility work <input type="checkbox"/> other:	<u>Work-related exposure to:</u> <input type="checkbox"/> beams <input type="checkbox"/> pipes <input type="checkbox"/> exposed electrical wiring or components <input type="checkbox"/> falling objects <input type="checkbox"/> fixed object <input type="checkbox"/> machine parts <input type="checkbox"/> other:	<u>Can hazard be eliminated without the use of PPE?</u> Yes <input type="checkbox"/> No <input type="checkbox"/> <u>If no, use:</u> <input type="checkbox"/> Protective Helmet <input type="checkbox"/> Type A (low voltage) <input type="checkbox"/> Type B (high voltage) <input type="checkbox"/> Type C <input type="checkbox"/> Bump cap (not ANSI-approved) <input type="checkbox"/> Hair net or soft cap <input type="checkbox"/> Other:
HANDS/ARMS		
<u>Work activities, such as:</u> <input type="checkbox"/> baking <input type="checkbox"/> material handling <input type="checkbox"/> cooking <input type="checkbox"/> sanding <input type="checkbox"/> grinding <input type="checkbox"/> sawing <input type="checkbox"/> welding <input type="checkbox"/> hammering <input type="checkbox"/> working with glass <input type="checkbox"/> using power tools <input type="checkbox"/> using computers <input type="checkbox"/> working outdoors <input type="checkbox"/> using knives <input type="checkbox"/> dental and health care services <input type="checkbox"/> garbage disposal <input type="checkbox"/> computer work <input type="checkbox"/> other:	<u>Work-related exposure to:</u> <input type="checkbox"/> blood <input type="checkbox"/> irritating chemicals <input type="checkbox"/> tools or materials that could scrape, bruise, or cut <input type="checkbox"/> extreme heat <input type="checkbox"/> extreme cold <input type="checkbox"/> animal bites <input type="checkbox"/> electric shock <input type="checkbox"/> vibration <input type="checkbox"/> musculoskeletal disorders <input type="checkbox"/> sharps injury <input type="checkbox"/> other:	<u>Can hazard be eliminated without the use of PPE?</u> Yes <input type="checkbox"/> No <input type="checkbox"/> <u>If no, use:</u> <input type="checkbox"/> Gloves <input type="checkbox"/> Chemical resistance <input type="checkbox"/> Liquid/leak resistance <input type="checkbox"/> Temperature resistance <input type="checkbox"/> Abrasion/cut resistance <input type="checkbox"/> Slip resistance <input type="checkbox"/> Latex or nitrile <input type="checkbox"/> Anti-vibration <input type="checkbox"/> Protective sleeves <input type="checkbox"/> Ergonomic equipment _____ <input type="checkbox"/> Other:
FEET/LEGS		
<u>Work activities, such as:</u> <input type="checkbox"/> building maintenance <input type="checkbox"/> construction <input type="checkbox"/> demolition <input type="checkbox"/> food processing <input type="checkbox"/> foundry work	<u>Work-related exposure to:</u> <input type="checkbox"/> explosive atmospheres <input type="checkbox"/> explosives <input type="checkbox"/> exposed electrical wiring <input type="checkbox"/> heavy equipment <input type="checkbox"/> slippery surfaces	<u>Can hazard be eliminated without the use of PPE?</u> Yes <input type="checkbox"/> No <input type="checkbox"/> <u>If no, use:</u> <input type="checkbox"/> Safety shoes or boots <input type="checkbox"/> Toe protection <input type="checkbox"/> Metatarsal protection

<input type="checkbox"/> working outdoors <input type="checkbox"/> logging <input type="checkbox"/> plumbing <input type="checkbox"/> trenching <input type="checkbox"/> use of highly flammable materials <input type="checkbox"/> welding <input type="checkbox"/> other:	<input type="checkbox"/> impact from objects <input type="checkbox"/> pinch points <input type="checkbox"/> crushing <input type="checkbox"/> slippery/wet surface <input type="checkbox"/> sharps injury <input type="checkbox"/> blood <input type="checkbox"/> chemical splash <input type="checkbox"/> chemical penetration <input type="checkbox"/> extreme heat/cold <input type="checkbox"/> fall <input type="checkbox"/> other:	<input type="checkbox"/> Electrical protection <input type="checkbox"/> Puncture resistance <input type="checkbox"/> Anti-slip soles <input type="checkbox"/> Leggings or chaps <input type="checkbox"/> Foot-Leg guards <input type="checkbox"/> Other:	<input type="checkbox"/> Heat/cold protection <input type="checkbox"/> Chemical resistance
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BODY/SKIN

<u>Work activities such as:</u> <input type="checkbox"/> baking or frying <input type="checkbox"/> battery charging <input type="checkbox"/> dip tank operations <input type="checkbox"/> fiberglass installation <input type="checkbox"/> sawing <input type="checkbox"/> other:	<u>Work-related exposure to:</u> <input type="checkbox"/> chemical splashes <input type="checkbox"/> extreme heat <input type="checkbox"/> extreme cold <input type="checkbox"/> sharp or rough edges <input type="checkbox"/> irritating chemicals <input type="checkbox"/> other:	<u>Can hazard be eliminated without the use of PPE?</u> Yes <input type="checkbox"/> No <input type="checkbox"/> <u>If no, use:</u> <input type="checkbox"/> Vest, Jacket <input type="checkbox"/> Coveralls, Body suit <input type="checkbox"/> Raingear <input type="checkbox"/> Apron <input type="checkbox"/> Welding leathers <input type="checkbox"/> Abrasion/cut resistance <input type="checkbox"/> Other:	<u>With:</u> <input type="checkbox"/> Long sleeves
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BODY/WHOLE

<u>Work activities such as:</u> <input type="checkbox"/> building maintenance <input type="checkbox"/> construction <input type="checkbox"/> logging <input type="checkbox"/> computer work <input type="checkbox"/> working outdoors <input type="checkbox"/> utility work <input type="checkbox"/> other:	<u>Work-related exposure to:</u> <input type="checkbox"/> working from heights of 10 feet or more <input type="checkbox"/> impact from flying objects <input type="checkbox"/> impact from moving vehicles <input type="checkbox"/> sharps injury <input type="checkbox"/> blood <input type="checkbox"/> electrical/static discharge <input type="checkbox"/> hot metal <input type="checkbox"/> musculoskeletal disorders <input type="checkbox"/> sparks <input type="checkbox"/> chemicals <input type="checkbox"/> extreme heat/cold <input type="checkbox"/> elevated walking/working surface <input type="checkbox"/> working near water <input type="checkbox"/> injury from slip/trip/fall <input type="checkbox"/> other:	<u>Can hazard be eliminated without the use of PPE?</u> Yes <input type="checkbox"/> No <input type="checkbox"/> <u>If no, use:</u> <input type="checkbox"/> Fall Arrest/Restraint <input type="checkbox"/> Traffic vest <input type="checkbox"/> Static coats/overalls <input type="checkbox"/> Flame resistant jacket/pants <input type="checkbox"/> Insulated jacket <input type="checkbox"/> Cut resistant sleeves/wristlets <input type="checkbox"/> hoists/lifts <input type="checkbox"/> ergonomic equipment: _____ <input type="checkbox"/> Other:	<u>With:</u> <input type="checkbox"/> Hood <input type="checkbox"/> Full sleeves
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RESPIRATORY

<u>Work activities such as:</u> <input type="checkbox"/> cleaning <input type="checkbox"/> pouring <input type="checkbox"/> mixing <input type="checkbox"/> sawing <input type="checkbox"/> painting <input type="checkbox"/> fiberglass installation <input type="checkbox"/> compressed air or gas operations <input type="checkbox"/> confined space work <input type="checkbox"/> floor installation <input type="checkbox"/> ceiling repair <input type="checkbox"/> working outdoors <input type="checkbox"/> other:	<u>Work-related exposure to:</u> <input type="checkbox"/> dust or particulate <input type="checkbox"/> toxic gas/vapor <input type="checkbox"/> chemical irritants (acids) <input type="checkbox"/> welding fume <input type="checkbox"/> asbestos <input type="checkbox"/> pesticides <input type="checkbox"/> organic vapors <input type="checkbox"/> oxygen deficient environment <input type="checkbox"/> paint spray <input type="checkbox"/> extreme heat/cold <input type="checkbox"/> other:	<u>Can hazard be eliminated without the use of PPE?</u> Yes <input type="checkbox"/> No <input type="checkbox"/> <u>If no, use:</u> <input type="checkbox"/> Dust mask <input type="checkbox"/> Half face Respirator <input type="checkbox"/> Full face respirator <input type="checkbox"/> PAPR <input type="checkbox"/> Supply Air <input type="checkbox"/> SCBA	<u>With/Type:</u> <input type="checkbox"/> face shield <input type="checkbox"/> acid/gas cartridges <input type="checkbox"/> organic cartridges <input type="checkbox"/> Multipurpose cartridges
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EARS/HEARING

<u>Work activities such as:</u> <input type="checkbox"/> generator <input type="checkbox"/> grinding <input type="checkbox"/> ventilation fans <input type="checkbox"/> machining <input type="checkbox"/> motors <input type="checkbox"/> routers <input type="checkbox"/> sanding <input type="checkbox"/> sawing <input type="checkbox"/> pneumatic equipment <input type="checkbox"/> sparks <input type="checkbox"/> punch or brake presses <input type="checkbox"/> use of conveyors <input type="checkbox"/> other:	<u>Work-related exposure to:</u> <input type="checkbox"/> loud noises <input type="checkbox"/> loud work environment <input type="checkbox"/> noisy machines/tools <input type="checkbox"/> punch or brake presses <input type="checkbox"/> other:	<u>Can hazard be eliminated without the use of PPE?</u> Yes <input type="checkbox"/> No <input type="checkbox"/> <u>If no, use:</u> <input type="checkbox"/> ear muffs <input type="checkbox"/> ear plugs
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Appendix F: Heat Illness Prevention Procedures Manual

A. Applicability

This Heat Illness Prevention Procedures Manual has been created to comply with [California Code of Regulations Title 8, Section 3395, and Heat Illness Prevention](#). The Heat Illness Prevention standard is applicable to any outdoor workplace, whenever environmental or personal risk factors for heat illness are present.

B. Responsibilities

Department Director/Chair/Deans are responsible for insuring that this written procedures manual is implemented and available to employees, and that training is provided to employees. Supervisors must evaluate work conditions before sending employees to perform outdoor work in hot conditions. Cal/OSHA defines a trigger temperature and “shade up” provisions when temperatures reach 80°F, and “high heat” procedures at 95°F. Typically, temperatures above 80°F, especially with heavy physical work activities, would represent conditions where there is a risk of heat illness. Other factors, such as high humidity or work activities restrict the body’s ability to cool itself, such as protective clothing, could result in a risk of heat illness at lower temperatures.

C. Recognizing Heat Illness Risk Factors

Personal Risk Factors

Personal risk factors for heat illness include;

- **General Health & Age:** Those at greatest risk for heat-related illness include people ≥ 65 years old, overweight, ill or taking certain medications. Additional risk factors include; fever, dehydration, heart disease, mental illness, poor circulation, and sunburn.
- **Acclimatization:** the temporary adaptation of the body to work in the heat that occurs gradually with exposure to ambient heat. The body needs time to adapt to working in the heat. When temperatures rise suddenly, an employee is at increased risk for heat illness while their body acclimatizes to the heat. Acclimatization is particularly important for employees who are returning to work after a prolonged absence, recent illness, or recently moving from a cool to hot climate. For heavy work under very hot conditions, a period of 4-10 days of progressively increasing work time is recommended. For less severe conditions, 2-3 days of increasing work activity and duration are recommended (for guidance, see Attachment A).
- **Alcohol & Caffeine:** Alcoholic beverages, coffee, tea or other drinks containing caffeine will dehydrate the body and increase the risk of heat illnesses.

Environmental Risk Factors

Environmental risk factors for heat illness are defined in the regulation as working conditions that create the possibility that heat illness could occur, including air temperature, relative humidity, radiant heat from the sun, and other sources, conductive heat sources such as the ground, air

movement, workload severity and duration, protective clothing and personal protective equipment worn by employees.

The Heat Index (HI) is the temperature the body feels when heat and humidity are combined. The chart below shows the HI that corresponds to the actual air temperature and relative humidity. This chart is based upon shady, light wind conditions. Exposure to direct sunlight can increase the HI by up to 15°F. This table can be used in consideration of the risk factors and the subsequent need for water, rest and shade. Regardless of the actual ambient temperature, provision of water and shade as described above should be implemented whenever the Heat Index exceeds 90°F. See attachment B for guidance on monitoring the weather.

		Temperature (°F)															
		80	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110
Relative Humidity (%)	40	80	81	83	85	88	91	94	97	101	105	109	114	119	124	130	136
	45	80	82	84	87	89	93	96	100	104	109	114	119	124	130	137	
	50	81	83	85	88	91	95	99	103	108	113	118	124	131	137		
	55	81	84	86	89	93	97	101	106	112	117	124	130	137			
	60	82	84	88	91	95	100	105	110	116	123	129	137				
	65	82	85	89	93	98	103	108	114	121	128	136					
	70	83	86	90	95	100	105	112	119	126	134						
	75	84	88	92	97	103	109	116	124	132							
	80	84	89	94	100	106	113	121	129								
	85	85	90	96	102	110	117	126	135								
	90	86	91	98	105	113	122	131									
	95	86	93	100	108	117	127										
100	87	95	103	112	121	132											

Likelihood of Heat Disorders with Prolonged Exposure or Strenuous Activity

Caution
 Extreme Caution
 Danger
 Extreme Danger

D. Identifying Heat Illness

Heat illness is a group of serious and escalating medical conditions that can result from the body's inability to cope with a particular heat load. These illnesses include heat fatigue, heat cramps, heat exhaustion, and heat stroke. The National Institute of Occupational Safety and Health (NIOSH) publication *Working in Hot Environments* describes the symptoms and response measures for several types of heat illness, as follows:

- **Transient Heat Fatigue:** refers to the temporary state of discomfort and mental or psychological strain arising from prolonged heat exposure. Workers unaccustomed to the heat are particularly susceptible and can suffer, to varying degrees, a decline in task performance, coordination, alertness, and vigilance. The severity of transient heat fatigue will be lessened by a period of gradual adjustment to the hot environment (heat acclimatization).
- **Heat Rash:** also known as prickly heat, is likely to occur in hot, humid environments where sweat is not easily removed from the surface of the skin by evaporation and the skin remains wet most of the time. The sweat ducts become plugged and a skin rash soon appears. When the rash is extensive or when it is complicated by infection, prickly heat can be very uncomfortable and may reduce a worker's performance. The worker can prevent this condition by resting in a cool place part of each day and by regularly bathing and drying the skin.
- **Heat Cramps:** are painful spasms of the muscles that occur among those who sweat profusely in heat, drink large quantities of water, but do not adequately replace the body's salt loss. The drinking of large quantities of water tends to dilute the body's fluids, while the body continues to lose salt. Shortly thereafter, the low salt level in the muscles causes painful cramps. The affected muscles may be part of the arms, legs, or abdomen, but tired muscles (those used in performing the work) are usually the ones most susceptible to cramps. Cramps may occur during or after work hours and may be relieved by taking salted liquids by mouth. CAUTION: Persons with heart problems or those on a low sodium diet who work in hot environments should consult a physician about what to do under these conditions.
- **Heat Exhaustion:** includes several clinical disorders having symptoms which may resemble the early symptoms of heat stroke. Heat exhaustion is caused by the loss of large amounts of fluid by sweating, sometimes with excessive loss of salt. A worker suffering from heat exhaustion still sweats but experiences extreme weakness or fatigue, giddiness, nausea, or headache. In more serious cases, the victim may vomit or lose consciousness. The skin is clammy and moist, the complexion is pale or flushed, and the body temperature is normal or only slightly elevated. In most cases, treatment involves having the victim rest in a cool place and drink plenty of liquids. Victims with mild cases of heat exhaustion usually recover spontaneously with this treatment. Those with severe cases may require extended care for several days. There are no known permanent effects. CAUTION: Persons with heart problems or those on a low sodium diet who work in hot environments should consult a physician about what to do under these conditions.
- **Heat Stroke:** is the most serious of health problems associated with working in hot environments. It occurs when the body's temperature regulatory system fails and sweating becomes inadequate. The body's only effective means of removing excess heat is compromised with little warning to the victim that a crisis stage has been reached. A heat stroke victim's skin is hot, usually dry, red or spotted. Body temperature is usually 105°F or higher, and the victim is mentally confused, delirious, perhaps in convulsions, or unconscious. Unless the victim receives quick and appropriate treatment, death can occur. Any person with signs or symptoms of heat stroke requires immediate hospitalization. However, first aid should be immediately administered. This includes removing the victim to a cool area, thoroughly soaking the clothing with water, and vigorously fanning the body to increase cooling. Further treatment at a medical facility should be directed to the continuation of the cooling process and the monitoring of complications which often accompany the heat stroke. Early recognition and treatment of heat stroke are the only means of preventing permanent brain damage or death.

E. Prevention Procedures

General Prevention

- Rest in shaded areas
- Stay hydrated
- Avoid vigorous physical activities in hot and humid weather
- At work, if you must perform physical activities in hot weather:
 - Drink plenty of fluids
 - Avoid alcohol, coffee, and tea - may lead to dehydration
 - Take frequent mini-breaks to hydrate yourself
 - As practical; wear hats, light colored, and light/loose clothes

Provision of Water

Employees are encouraged to drink water frequently and clean, fresh, and cool potable water shall be readily available to employees.

- Supervisors are responsible to ensure employees have an adequate supply of drinking water (for guidance, see Attachment C).
- Supervisors shall encourage the frequent consumption of small quantities of water, up to 4 cups per hour, when the work environment is hot and employees are likely to be sweating more than usual in the performance of their duties.
- Drinking water will be provided in sufficient quantities to provide one quart per employee per hour for the entire shift (at least 2 gallons per employee for an 8-hour shift).
- If there are effective procedures for replenishing the water supply during the shift, a minimum of 2 quarts of water per employee may be provided at the beginning of the shift.

Shade and Rest

A shaded area will be provided which employees may use when they are suffering from heat illness or believe they need a recovery period to prevent heat illness (for guidance, see Attachment D). The shaded area shall be open to the air or ventilated and cooled and access shall be permitted at all times. Canopies, umbrellas or other temporary structures may be used to provide shade, provided they block direct sunlight. Supervisors are responsible for:

- Ensuring that employees have access to shaded or air conditioned areas (i.e. break room) to prevent or recover from heat illness symptoms or to take rest breaks.
- Emphasizing the importance of taking rest breaks and recognizing when a recovery period is needed
- In the event an employee feels discomfort from the heat, accommodating a recovery period to allow the employee to cool down and prevent the onset of heat illness.

High-Heat Procedures:

Additional high-heat procedures are required when the temperature equals or exceeds 95 degrees Fahrenheit. These procedures shall include the following to the extent practicable:

- Ensuring that effective communication by voice, observation, or electronic means is maintained so that employees at the work site can contact a supervisor when necessary. An

electronic device, such as a cell phone or text messaging device, may be used for this purpose only if reception in the area is reliable.

- Observing employees for alertness and signs or symptoms of heat illness.
- Reminding employees throughout the work shift to drink plenty of water.
- Designating one or more employees on each worksite as authorized to call for emergency medical services, and allowing other employees to call for emergency services when no designated employee is available.
- Conducting pre-shift meetings before the commencement of work to review the high heat procedures, encouraging employees to drink plenty of water, and reminding employees of their right to take a cool-down rest when necessary.
- For Agriculture work sites, employee shall take minimum one 10-minute “preventative cool-down rest period” every 2 hours.

F. Responding to Heat Illness Emergencies

Employee Procedures

Any employee who recognizes the symptoms or signs of heat illness in themselves or in co-workers should immediately report this condition to their supervisor. When you recognize signs of heat illness in yourself or in a co-worker:

- Move them to a shaded area for a recovery period of at least five minutes
- If the condition appears to be severe or the employee does not recover, then emergency medical care is needed.
- Immediately report to your supervisor any symptoms or signs of your heat illness you may be experiencing or observing in a co-worker
- Call 911 if supervisor is not readily available

Supervisor Procedures

Supervisors shall:

- Carry cell phones, radios or other means of communication ensuring emergency services can be called and verifying the radios or other means of communication are functional prior to each shift.
- Know the exact work locations and have clearly written and precise directions to the work site for emergency responders.

Emergency Contact Procedures

- Call 911
- Be ready to provide emergency response personnel with directions to work location.
- When working at remote locations you must be able to provide concise directions to emergency response personnel for guidance, see Attachment E)

Further emergency response guidance for supervisors is provided in Attachment F.

Response to Heat Stroke Symptoms:

- Victims of heat stroke must receive immediate treatment to avoid permanent organ damage.
- Always notify emergency services (911) immediately. If their arrival is delayed, they can give you further instructions for treatment of the victim.
- If possible, get the victim to a shady area to rest
- Remove heavy or change to lightweight clothing,
- Cool the victim; effective cooling measures include:
- Administering cool, non-alcoholic beverages,
- Applying cool or tepid water to the skin (for example you may spray the victim with cool water from a garden hose),
- Providing a cool shower or sponge bath,
- Move to an air-conditioned environment or fan the victim to promote evaporation,
- Place ice packs under armpits and groins.
- Monitor body temperature with a thermometer and continue cooling efforts until the body temperature drops to 101-102 degrees.

G. Employee and Supervisor Training

All employees, including supervisors, who may work outdoors in conditions where there are environmental risk factors for heat illness shall be provided Heat Illness Prevention training on the information contained in this document including;

- Environmental and personal risk factors for heat illness as well as the added burden of heat load on the body caused by exertion, clothing, and personal protective equipment
- Procedures for complying with the Cal/OSHA requirements
- The importance of frequent consumption of water, up to 4 cups per hour, when the work environment is hot and employees are likely to be sweating more than usual in the performance of their duties
- The importance of acclimatization,
- The different types of heat illness and the common signs and symptoms of heat illness,
- Importance to employees of immediately reporting symptoms or signs of heat illness in themselves, or in co-workers,
- Employer's procedures for responding to symptoms of possible heat illness, including how emergency medical services will be provided,
- Procedures for contacting emergency medical services, and if necessary, for transporting employees to a point where they can be reached by an emergency medical service provider including clear and precise directions to the work site

In addition, prior to supervising employees performing work that should reasonably be anticipated to result in exposure to the risk of heat illness, effective training on the following topics shall be provided to the supervisor:

- The supervisor shall be trained on their responsibilities in this heat illness prevention program
- The procedures the supervisor is to follow when an employee exhibits symptoms consistent with possible heat illness, including emergency response procedures

- How to monitor weather reports and how to respond to hot weather advisories

Further information can be found in the attached guidelines.

Attachment A: Acclimatization Guidance

When ambient temperatures rise to levels higher than employees are accustomed, supervisors must act effectively by taking the following measures:

- Monitor the weather and be aware of sudden heat wave(s) or increases in temperatures to which employees haven't been exposed to for several weeks or longer.
- Cut short or re-schedule the work day during a heat wave or heat spike (e.g., a sudden increase in daytime temperature of 9°F or more). During the hot summer months, the work shift may start earlier in the day or later in the evening.
- Lessen the intensity of work for new employees during a two-week break-in period (i.e. scheduling slower paced, less physically demanding work during the hot parts of the day and the heaviest work activities during the cooler parts of the day). New employees may be assigned to a "buddy" or experienced coworker to watch each other closely for discomfort or symptoms of heat illness.
- Closely observe all employees during a heat wave and monitor for possible symptoms of heat illness. For employees working in remote locations, maintain frequent communication by phone or radio.
- Train employees and supervisors on the importance of acclimatization.

Attachment B: Guidance- Monitoring the Weather

Recommended Equipment:

Supervisors may find a Heat Index chart, radio, cell phone, and thermometer helpful in monitoring the weather. Supervisors can access the internet (www.nws.noaa.gov), Google (www.google.com) for “weather and location zip code”, or check the Weather Channel TV Network to view the extended weather forecast in order to plan in advance the work schedule, know whether a heat wave is expected and if additional schedule modifications will be necessary. Supervisors without internet access can call the California “*Dial a forecast*” numbers:

- Eureka 707-443-7062
- Hanford 559-584-8047
- Los Angeles 805-988-6610(#1)
- Sacramento 916-979-3051
- San Diego 858-297-2107(#1)
- San Francisco 831-656-1725(#1)

Prior to each workday supervisors should:

- Review the forecasted temperature and humidity for the worksite and compare it against the National Weather Service Heat Index guideline to evaluate the risk level for heat illness.
 - Employees working in direct sunlight are at greater risk and there is a need to adjust the heat index down 15 degrees F.
- Monitor the weather (using www.nws.noaa.gov or with the aid of a simple thermometer) at the worksite. This critical weather information will be taken into consideration, to determine when it will be necessary to make modifications to the work schedule (such as stopping work early, rescheduling the job, working at night or during the cooler hours of the day, increasing the number of water and rest breaks).
- Use a thermometer at the work location and check the temperature every 60 minutes to monitor for sudden increases in temperature, to ensure that once the temperature exceeds 80°F, the shade structures are opened and accessible to the workers and to make certain that once the temperature equals or exceeds 95°F additional High Heat Procedures are implemented.

Attachment C: Guidance on provision of water

Recommended Equipment:

- Water and drink containers, ice, cleaning equipment, whistle or horn

Supervisors must ensure;

- Drinking water containers (5 to 10 gallons each) are brought to the site, so that at least 2 quarts per employee are available at the start of the shift.
- Drink containers ensuring enough disposable cups are made available for each worker and are kept clean until used.
- The water level of all containers every 30-60 minutes and more frequently when the temperature exceeds 90°F. When the water level within a container drops below 50%, water containers will be refilled with cool water. Additional water containers (i.e. 5 gallon bottles) will be available to replace water as needed.
- When the temperature exceeds 90°F carry ice in separate containers, so that when necessary, it will be added to the drinking water to keep it cool.
- Check the work site and place the water as close as possible to the employees (i.e. no more than 50-100 feet from the workers). If field terrain prevents the water from being placed as close as possible to the workers, bottled water or individual containers (in addition to disposable cups and water containers), will be provided so that workers can have drinking water readily accessible.
- Water containers will be relocated to follow along as the work moves, so drinking water will be readily accessible.
- Encourage employees to frequently consume small quantities of water, up to 4 cups per hour, when the work environment is hot and employees are likely to be sweating more than usual in the performance of their duties.
- Provide clean water containers and keep in sanitary condition
- Advise employees of the daily location of the water coolers and remind them to drink water frequently. When the temperature exceeds or is expected to exceed 90°F, hold a brief 'tailgate' meeting each morning to review with employees the importance of drinking water, the number and schedule of water and rest breaks and the signs and symptoms of heat illness.
- Use audible devices (such as whistles or air horns) to remind employees to drink water.
- Increase the number of water breaks when the temperature equals or exceeds 95°F or during a heat wave remind workers throughout the work shift to drink water.
- Stress during employee training, the importance of frequent drinking of water.

Attachment D: Access to Shade requirements

Recommended Equipment:

- Portable canopies, large beach-style umbrellas, or other shade structures, also; chairs, benches, sheets, towels,

Supervisors must ensure:

- Shade structures are brought to the site, to accommodate the employees on the shift and either chairs, benches, sheets, towels or any other items to allow employees to sit in a normal posture fully in the shade without having to be in physical contact with each other or the bare ground. However, chairs, benches, etc. are not required for acceptable sources of shade such as trees.
- Shade structures are opened and placed as close as practical to the workers, when the temperature equals or exceeds 80°F. When the temperature is below 80°F, the shade structures will be brought to the site, but will be opened and set in place upon worker(s) request. Note: The interior of a vehicle may not be used to provide shade unless the vehicle is air-conditioned and the air conditioner is on.
- Point out the daily location of the shade structures to the workers as well as allow and encourage employees to take a cool-down rest in the shade, when they feel the need to do so to protect themselves from overheating.
- Ensure shade structures are relocated to follow along with the employee work groups and double-check they are as close as practical to the employees, so that access to shade is provided at all times. In situations where trees or other vegetation are used to provide shade (such as in orchards), the supervisor will evaluate the thickness and shape of the shaded area (given the changing angles of the sun during the entire shift), before assuming that sufficient shadow is being cast to protect employees.
- For non-agricultural employers, in situations where it is not safe or feasible to provide shade, steps are taken to provide shade upon request or other alternative cooling measures with equivalent protection.

Exceptions:

- Where the employer can demonstrate that it is infeasible or unsafe to have a shade structure, or otherwise to have shade present on a continuous basis, the employer may utilize alternative procedures for providing access to shade if the alternative procedures provide equivalent protection.
- Except for employers in the agricultural industry, cooling measures other than shade (e.g., use of misting machines) may be provided in lieu of shade if the employer can demonstrate that these measures are at least as effective as shade in allowing employees to cool.

Attachment E: Work Planning and Site Checklist Required when temperatures are expected to exceed 80°F.

Department/Group/Project _____

Supervisor Name and Phone Number _____

Worksite Location (specific enough for emergency response, use landmarks if needed):

Expected Temperature: _____

Employees covered (use back as needed): _____

Checklist Completed by: _____ Date: _____

<p>Drinking Water Availability At least one quart (4 cups) required per employee per hour for the entire shift, i.e. an 8 hour shift requires 2 gallons per employee <input type="checkbox"/> Plumbed water <input type="checkbox"/> Water cooler provided <input type="checkbox"/> Bottled water provided <input type="checkbox"/> Other, describe below:</p>
<p>How will employees be provided access to sufficient drinking water? For backcountry trips or other work in remote locations describe expected natural water sources and treatment methods (e.g. filtration, boiling, chemical disinfection).</p>
<p>Shade May be provided by any natural or artificial means that does not expose employees to unsafe or unhealthy conditions. Shade is not considered adequate when heat in the area does not allow the body to cool (e.g. sitting in a hot car). <input type="checkbox"/> Building structures <input type="checkbox"/> Trees <input type="checkbox"/> Temporary Canopy/Tarp <input type="checkbox"/> Vehicle with A/C <input type="checkbox"/> Other, describe below:</p>
<p>How will employees be provided access to adequate shade?</p>
<p>Emergency Medical Procedures All employees must be able to provide clear and precise directions to the work site <input type="checkbox"/> Cell phone service available <input type="checkbox"/> If no cell service, describe emergency plan below:</p>
<p>What are the procedures for contacting emergency medical services, and if necessary, for transporting employees to a point where they can be reached by an emergency medical service provider? Where is the nearest phone? (use back as needed)</p>
<p>For remote locations, list employees on site trained in First Aid and verify that a field safety plan in place and available:</p>
<p>High Heat Procedures - Required when temperatures expected to exceed 95° F If possible limit strenuous tasks to morning or late afternoon hours. Rest breaks in shade must be provided at least 10 minutes every 2 hours (or more if needed). Effective means of communication, observation and monitoring for sign of heat illness is required at all times. Pre-shift meeting required. <input type="checkbox"/> Direct supervision <input type="checkbox"/> Buddy system <input type="checkbox"/> Reliable cell or radio contact <input type="checkbox"/> Other, describe below:</p>
<p>List names of any new employees working in heat for less than 14 days that must be supervised at all times:</p>

First Aid Reference and Emergency Response - Signs and Symptoms of Heat Illness

Signs & Symptoms	Treatment	Response Action:
<p>HEAT EXHAUSTION</p> <ul style="list-style-type: none"> • Dizziness, headache • Rapid heart rate • Pale, cool, clammy or flushed skin • Nausea and/or vomiting • Fatigue, thirst, muscle cramps 	<ol style="list-style-type: none"> 1. Stop all exertion. 2. Move to a cool shaded place. 3. Hydrate with cool water. 	<p>The most common type of heat illness. Initiate treatment. If no improvement, call 911 and seek medical help. Do not return to work in the sun. Heat exhaustion can progress to heat stroke.</p>
<p>HEAT STROKE</p> <ul style="list-style-type: none"> • Disoriented, irritable, combative, unconscious • Hallucinations, seizures, poor balance • Rapid heart rate • Hot, dry and red skin (possibly moist and pale) • Fever, body temperature above 104 °F 	<ol style="list-style-type: none"> 1. Move (gently) to a cooler spot in shade. 2. Loosen clothing and spray exposed skin with water and fan. 3. Cool by placing ice or cold packs along neck, chest, armpits and groin. 4. Do not place ice directly on skin. 	<p>Call 911 or seek medical help immediately.</p> <p>Heat stroke is a life threatening medical emergency. A victim can die within minutes if not properly treated. Efforts to reduce body temperature must begin immediately!</p>

Other Notes
(Attach other documents, maps, etc. as needed)

Related Resources

Emergency Medical Response: 911
 Campus Police Emergency Number: (909) 537-5999
 Weather Forecasts: <http://www.wunderground.com/> or <http://www.weather.gov/>
 Office of Environment, Health & Safety: <https://www.csusb.edu/ehs>
 CSUSB Heat Illness Prevention Fact Sheet: <https://www.csusb.edu/ehs/policies-and-procedures>
 Cal/OSHA Heat Illness Information and Regulations: <https://www.dir.ca.gov/dosh/heatillnessinfo.html>

Attachment F: Remote Location Emergency Response Information

Work Location: _____
(include map for remote locations)

Directions to the Work Location:

Nearest Medical Care facility:

Name: _____

Address: _____

Phone: _____

Directions to Medical Care facility:

Indicate means of communication:

Phone Number (if applicable):

Means of transport to nearest Medical Care location:

Attachment G: Emergency Response Guidance

Recommended Equipment:

First aid kit, radios, cell phones, or other forms of communication; flashlights, reflective vests

Written Response Procedures:

Supervisors must have a written response procedure developed for each location or department. This must include having a map along with clear and precise directions (such as streets or road names, distinguishing features and distances to major roads) at a remote, off-campus site, to avoid a delay of emergency medical services.

Prior to starting work, supervisors must;

- During a heat wave or hot temperatures, remind and encourage workers to immediately report to their supervisor any signs or symptoms they are experiencing.
- Ensure a qualified, appropriately trained and equipped person will be available at the site, to render first aid if necessary.
- Determine if a language barrier is present at the site and take steps to ensure emergency medical services can be immediately called in the event of an emergency.
- Carry cell phones or other means of communication, to ensure that emergency medical services can be called and check that these are functional at the worksite prior to each shift

Emergency Response:

- Take immediate steps to keep the stricken employee cool and comfortable once emergency service responders have been called (to reduce the progression to more serious illness).
- At remote locations such as rural farms, lots or undeveloped areas, designate an employee or employees to physically go to the nearest road or highway where emergency responders can see them.
- If daylight is diminished, the designated employee(s) shall be given reflective vest or flashlights in order to direct emergency personnel to the location of the worksite, which may not be visible from the road or highway.

Attachment H: Heat Illness Prevention Program Compliance Checklist

Department/Unit: _____ Supervisor: _____

Completed by: _____ Date: _____

Heat Illness Program			
	Yes	No	Comments
Do employees perform work outdoors, or in indoor areas where Heat Illness is likely to occur?	<input type="checkbox"/>	<input type="checkbox"/>	If no , Heat Illness Protection Program not required.
Have employees reviewed CSUSB Heat Illness Program manual?	<input type="checkbox"/>	<input type="checkbox"/>	If no , direct employees to review CSUSB Heat Illness Program Manual.
Training			
Have employees received documented Heat Illness Training?	<input type="checkbox"/>	<input type="checkbox"/>	If no , ensure employees receive Heat Illness training
Have the supervisors received documented Supervisor Heat Illness training?	<input type="checkbox"/>	<input type="checkbox"/>	If no , ensure supervisors receive documented Supervisor Heat Illness training (available through EHS).
Heat Illness Prevention Measures			
Have employees been given time to acclimate to their environment? (Gradually exposed to regular working conditions for a least four to fourteen days for at least two hours per day in the heat.)	<input type="checkbox"/>	<input type="checkbox"/>	If no , closely monitor employee(s) for signs and symptoms of heat illness and allow employee(s) to acclimate before performing strenuous work in heat.
Do employees have access to shade? (Shade means the blockage of direct sunlight. Shade is not considered adequate when heat in the area of shade defeats the purpose of shade, which is to allow the body to cool (e.g. sitting in a hot car). Shade may be provided by any natural or artificial means that does not expose employees to unsafe or unhealthy conditions.)	<input type="checkbox"/>	<input type="checkbox"/>	If no , develop and implement procedures for providing shade to employees.
Are employees provided or do they have access to sufficient drinking water? (At least one quart per employee per hour for drinking for the entire shift.)	<input type="checkbox"/>	<input type="checkbox"/>	If no , develop and implement procedures for providing access to sufficient drinking water.
Are employees allowed and encouraged to rest in the shade for a period of no less than five minutes at a time when they feel the need to do so to protect themselves from overheating?	<input type="checkbox"/>	<input type="checkbox"/>	If no , allow and encourage employees to take breaks in a cool, shaded area as needed to allow the body to cool and dissipate internal heat load.
Do supervisors monitor weather conditions and when possible schedule outdoor work during cooler times of the day to reduce the risk of heat illness?	<input type="checkbox"/>	<input type="checkbox"/>	If no , Supervisors are responsible for monitoring weather conditions and scheduling work appropriately.
Are new employees closely monitored by a supervisor or designee for the first 14 days of the	<input type="checkbox"/>	<input type="checkbox"/>	If no , develop procedures to closely monitor employees for the first 14 of

employee's employment by the employer when temperatures exceed 80° F			employment when temperatures exceed 80° F.
Emergency Medical Procedures			
	Yes	No	Comments
Are there procedures for contacting emergency medical services, and if necessary, for transporting employees to a point where they can be reached by an emergency medical service provider?	<input type="checkbox"/>	<input type="checkbox"/>	If no, develop procedures. Special procedures may be necessary for remote/off-site workers.
Are there procedures for ensuring that, in the event of an emergency, clear and precise directions to the work site can and will be provided as needed to emergency responders? These procedures shall include designating a person to be available to ensure that emergency procedures are invoked when appropriate.	<input type="checkbox"/>	<input type="checkbox"/>	If no, develop procedures. Special procedures may be necessary for remote/off-site workers.
Have employees been trained on these procedures?	<input type="checkbox"/>	<input type="checkbox"/>	If no, train employees on Emergency Medical Procedures.
High Heat Procedures (only required for agricultural, construction, landscaping and transportation workers when temperatures exceed 95° F)			
Do employees perform agricultural work, construction, landscaping, or transportation and loading/unloading of heavy goods?	<input type="checkbox"/>	<input type="checkbox"/>	If yes , High Heat Procedures must be implemented when temperatures exceed 95° F. (See High Heat Procedures section below.) If no , High Heat Procedures not required to be implemented but are recommended to be used as needed to ensure employees' safety.
Are effective means of communication by voice, observation, or electronic means maintained so that employees at the work site can contact a supervisor when necessary in place when temperatures exceed 95° F? (An electronic device, such as a cell phone or text messaging device, may be used for this purpose only if reception in the area is reliable.)	<input type="checkbox"/>	<input type="checkbox"/>	If no , develop procedures to ensure effective means of communication are in place when temperatures exceed 95° F.
Are new employees closely monitored by a supervisor or designee for the first 14 days of the employee's employment by the employer when temperatures exceed 95° F?	<input type="checkbox"/>	<input type="checkbox"/>	If no , develop procedures to closely monitor employees for the first 14 of employment when temperatures exceed 95° F.
Are employees observed for alertness and signs or symptoms of heat illness when temperatures exceed 95° F?	<input type="checkbox"/>	<input type="checkbox"/>	If no , observe employees for signs and symptoms of heat illness when temperatures exceed 95° F.
Are there Pre-shift meetings before the commencement of work to review the high heat procedures, encourage employees to drink plenty of water, and remind employees of their right to take a cool-down rest when necessary	<input type="checkbox"/>	<input type="checkbox"/>	If no , schedule pre-shift meetings when temperatures exceed 95° F.
Notes			

