2019

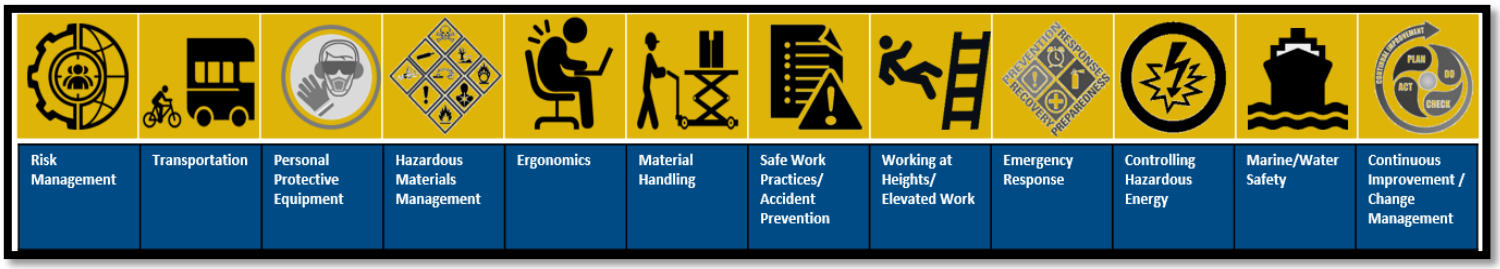
CAL MARITIME

Hazard Communication Safety Program

INJURY ILLNESS PREVENTION PROGRAM

*This sheet should be completed each time the **Hazard Communication Safety Program** is reviewed and/or modified. The Director of Safety and Risk Management is responsible for the review and update this document annually or more frequently as determined or needed per CSU Chancellor's Executive Order 1039 Occupational Health and Safety Policy, 1069 Risk Management as well as Cal Maritime A&F Policy 09-004 IIPP.*

Version	Date Approved	Author	Revision Notes:
1.0	06/01/2016	Marianne Spotorno, CSP Dir. Safety & Risk Management	New Program Draft Document
1.0	03/01/2018	Marianne Spotorno, CSP Dir. Safety & Risk Management	New Program Document rollout to Campus
2.0	08/01/2019	Marianne Spotorno, CSP Dir. Safety & Risk Management	• Campus Emergency Response update. • TSGB component update



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1.0 Purpose & Scope

The purpose of the Injury Illness Prevention Program (IIPP) is to outline Cal Maritime's environmental health and safety requirements, expectations, and responsibilities in order to achieve effective campus safety performance through Integrated Safety Management (ISM). The **Hazard Communication (HazCom) Safety Program** is a subject specific component the supports the overall University IIPP.

The California State University Maritime Academy is committed to providing a safe and healthy work environment for faculty, staff and students. The Cal Maritime Hazard Communication Program (HazCom) has been developed to improve communication and training associated with the use, handling, and storage of hazardous chemicals. The program is designed to increase employee awareness of the hazardous chemicals used in the workplace by providing information about the hazardous chemicals, identifying the associated hazards and harmful effects, and how to protect themselves from the risks of those hazards.

This document uses the Globally Harmonized System (GHS) for classification and labeling of chemicals which was incorporated into the 2013 Cal/OSHA Hazard Communication Standard (California Code of Regulation (CCR), *Title 8, §5194*). From 2013 through 2016, Cal Maritime will be transitioning from the previous standard requirements to the new requirements. By July 1, 2016, Cal Maritime will incorporate all the changes into its HazCom Program.

This Manual applies to all Cal Maritime operations, maintenance and construction activities under the supervision of Cal Maritime personnel. For activities associated with the Training Ship Golden Bear (TSGB) refer to the Vessel Operating Manual (VOM) and/or Shoreside Administrative Manual (SAM). The TSGB is a subject specific component that supports the overall University IIPP.

1.1 Regulatory Standards Reference

Cal Maritime and its subcontractors shall comply with the following requirements.
In case of conflict or overlap of the below references, the most stringent provision shall apply.

- Occupational Safety and Health Act (OSHA), 1904, 1910, 1915,1917,1918,1926
- California Code of Regulations (CCR), Title 8, GISO, CSO, ESO
- Cal/OSHA Hazard Communication Standard (*§5194*).

1.2 CSU-System & Cal Maritime Specific Reference

For additional information on Cal Maritime environmental health and safety policies, refer to:

- CSU Executive Order 1039, 1056, 1069
- Cal Maritime Policy AF 09-003, AF 09-004

1.3 Other Resources

- N U. S. Department of Transportation (*DOT)*
- National Fire Protection Association (*NFPA)*
- Hazardous Materials Identification System (*HMIS*)

2.0 Administrative Duties & Responsibilities

It is the policy of the Cal Maritime to maintain a safe and healthy work environment for each employee (including student and contract employees), and to comply with all applicable occupational health and safety regulations. This Injury and Illness Prevention Program (IIPP) is intended to establish a framework for identifying and correcting workplace hazards within the department, while addressing legal requirements for a formal, written IIPP.

To assist Cal Maritime in providing a safe, compliant, environmentally sound, and more sustainable operation, each department or operational unit is expected to review, understand, and follow the guidance provided in the Injury Illness Prevention Program components and the and the function of the integrated campus safety management system (ICSMS) as related to operations under their control.

In a proactive behavior based environmental health and safety model that entire campus community participation reflects a process that embraces the ability to;

- Eliminate adverse conditions which may result in injury or illness,
- Recommend the establishment of programs to raise safety consciousness in the community, and
- Achieve and maintain a beneficial relationship through continuing communication on issues relating to environmental health and occupational safety.

2.1 Employees (Including Student workers)

It is the responsibility of all faculty and staff to proactively participate and subsequently comply with all applicable health and safety regulations, Cal Maritime policies, and established safe work practices. This includes, but is not limited to:

- Observing health and safety-related signs, posters, warning signals and directions.
- Learning about the potential hazards of assigned tasks and work areas.
- Taking part in appropriate health and safety training.
- Following all safe operating procedures and precautions.
- Participating in workplace safety inspections
- Using proper personal protective equipment.
- Inform coworkers and supervisors of defective equipment and other workplace hazards without fear of reprisal.
- Reviewing the building emergency plan and assembly area.
- Reporting unsafe conditions immediately to a supervisor, and stopping work if an imminent hazard is presented.

2.2 Department of Safety and Risk Management (SRM)

The Director of Safety and Risk Management (SRM), as delegated by the University President, is responsible for the implementation and administrative management for Cal Maritime's Injury Illness Prevention Program (IIPP) that meets the requirements of California Code of Regulations (CCR), Title 8, section 3203) as well as other applicable California and Federal Occupational Safety and Health (Cal-OSHA) requirements.
Further responsibilities are outlined below:

- Provide advice and guidance to all university personnel concerning IIPP compliance requirements;
- Provide centralized monitoring of campus activities related to implementation of campus IIPP;
- Ensure scheduled periodic safety inspections are performed in compliance with regulatory requirements and assist management staff in identifying unsafe or unhealthful conditions;
- Ensure safety and health training programs comply with regulatory requirements and university policy;
- Oversee the maintenance of safety and health records consistent with the requirements of this document and regulatory mandates;
- Ensure program audits, both scheduled and as required by a process, equipment or personnel change, or by a safety program mandate, are performed;

- Interpret existing or pending safety and health legislation and recommend appropriate compliance strategies to university personnel;
- Maintain centralized environmental and employee monitoring records, allowing employee access as directed by law.
- Conduct at least an annual review of this document and make the current revision available on the SRM web site.

2.3 Deans, Directors, Department or Operating Unit Management

Campus Department or Operating Unit Head leadership have an integral campus role and shall have a thorough understanding of Injury Illness Prevention Program components and the function of the integrated campus safety management system (ICSMS) as related to operations under their control.

- The Department Head has primary authority and responsibility to ensure the health and safety of the department's faculty, staff and students through the implementation of the Injury Illness Prevention Program components. This is accomplished by communicating the Cal Maritime's campus emphasis on health and safety, analyzing work procedures for hazard identification and correction, ensuring regular workplace inspections, providing health and safety training, and encouraging prompt employee reporting of health and safety concerns without fear of reprisal.
- Specific areas include employee and student (both student employees and students in academic programs) education and training, identification and correction of unsafe conditions, and record keeping. It is recognized that a substantial amount of responsibility falls at this level.
- Colleges and Departments are encouraged to designate an individual as the College or department safety coordinator, to assist with specific operational environmental health and safety process management components.

2.4 Supervisors and Principal Investigators

Supervisors play a key role in the implementation of the Cal Maritime's Injury Illness Prevention Program components. Supervisors may be Management, Senior Research Associates, Department Chairs, Principal Investigators, or others who oversee a project and/or staff. They are responsible for but not limited to:

- Communicating to their staff and students about Cal Maritime campus's emphasis on health and safety.
- Ensuring periodic, documented inspection of workspaces under their authority.
- Promptly correcting identified hazards.
- Modeling and enforcing safe and healthful work practices.
- Providing appropriate safety training and personal protective equipment.
- Implementing measures to eliminate or control workplace hazards.
- Stopping any employee's work that poses an imminent hazard to either the employee or any other individual.
- Encouraging employees to report health and safety issues without fear of reprisal.

2.5 Academic Programming Faculty and Advisors

It is the responsibility of Faculty, Academic Programming Advisors other Cal Maritime related activities and student clubs to:

- Develop procedures to ensure effective compliance and support of the Injury and Illness Prevention Program components as it relates to operations under their control. Specific areas of responsibility include student education and training, identification and correction of unsafe conditions, and incident reporting.
- Develop and maintain written classroom, laboratory, and activity procedures which conform to regulatory, campus and departmental guidelines.
- Instruct students in the recognition, avoidance, and response to unsafe conditions, including hazards associated with non-routine tasks and emergency operations
- Permit only those persons qualified by education and training to operate potentially hazardous equipment or use hazardous materials, unless under close supervision.
- Supervise students in the performance of activities.

2.6 Students- Cadets

Students are expected to always adhere to safety practices presented by faculty, technical staff, student assistants, graduate assistants or other authorized individuals. They must also report potentially hazardous conditions that become known to them. These reports should be made to their supervisors, faculty advisers, Department of Safety and Risk Management, or other responsible parties.

2.7 Chemical Users

- Is trained on and applies "Safe-Work Rules" for users as outlined in this program.
- Always selects and uses a chemicals in a safe manner.
- Visual inspect prior to use.
- Alerts Owner Department Management when equipment need repair/replacement.
- Assesses work to determine if fall protection should be worn and seeks alternative access methods instead of hand and/or power tools if need be.
- Proactively use Stop Work Authority when they feel there is an unsafe condition present by means of communicating with Department Management and SRM to work collaboratively to resolve and improve identified or perceived condition.

3.0 Process Management

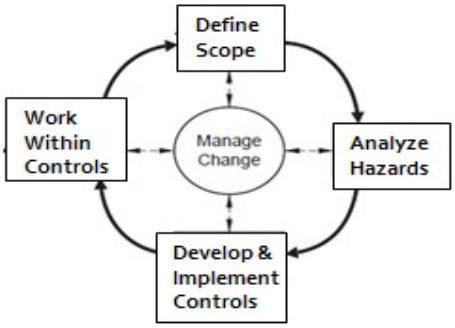
3.1 Hazard Identification, Risk Assessment & Control (HIRAC)

3.1.1 Integrated Safety Management (ISM)

Cal Maritime is committed to having all campus-related work performed safely and in a manner that strives for the highest degree of protection for the Campus Community. To achieve these goals, Cal Maritime implements, the principles of safety through an Integrated Campus Safety Management System (ICSMS).

Simply put, ICSMS applies a plan-do-check-act approach to campus safety management. Five core activities represent the plan-do-check-act approach, and comprise the underlying process for any construction work activity. The five core activities are:

1) Define the Scope of Work
2) Analyze the Hazards
3) Develop and Implement Hazard Controls
4) Perform Work Within Controls
5) Provide Feedback and Manage Change



The identification and analysis of workplace hazards is part of the pre-work planning process. The goal of this core activity is to ensure that the hazards associated with construction work activities are clearly understood and appropriately managed. All new campus work activities, changes to existing work or introduction of new equipment or processes (which introduce new hazards or increase the hazard level) need to be reviewed to analyze hazards, identify safety standards/requirements, and establish appropriate controls. Safety conditions and requirements need to be formally established and in place before construction work is initiated.

The campus Job Hazards Analysis (JHA) process is the principle method for achieving this.

3.1.2 Hazard Identification, Risk Assessment & Determining Control Table (HIRAC)

The EHS Hazard Identification, Risk Assessment and Determining Control Table (HIRAC) process is used to identify, assess and risk-rank Cal Maritime campus-related activities in order to ensure that Cal Maritime Campus Safety programs, activities and work controls are appropriately addressing construction risks. The initial HIRAC assessment and risk-ranking of campus-related activities was conducted during the third quarter, AY 2016-2017. The HIRAC assessment will be reviewed annually, when new campus-related activities are introduced that create or modify assessed risks, and when worksite observations or accident/incident experience identify previously unrecognized or incorrectly categorized risks.

3.1.3 Application of Hierarchy of Controls

In developing hazard controls and preparing the Job Hazard Analysis submittal, the campus shall select means and methods to mitigate worker exposure to workplace hazards using the Hierarchy of Controls as specified in the American National Standards Institute (ANSI) Z10-2005 Occupational Health and Safety Management Systems.
The campus shall make a good faith effort to analyze each hazard and identify the appropriate control(s) using the following hierarchy:

- Elimination or substitution of the hazards where feasible and appropriate;
- Use of engineering controls where feasible and appropriate;
- Application of work practices and administrative controls that limit worker exposures; and
- Provision and use of personal protective equipment

3.1.4 Job Hazards Analysis (JHA)

For the purposes of this section Job Hazard Analysis (JHA) and Job Safety Analysis (JSA) can be used synonymously. A JHA/JSA can be incorporated into a Pre Task Plan, provided there is a section for employees to review, comment and sign. Core components of the scope of work and relative hazards can be electronically completed ahead of time, provided there is room for current site conditions are able to be readily added as applicable. When the scope or conditions change, the change in work plan should be noted in a different colored pen with employee's initially that they have been briefed on the change.
The Department of Safety and Risk Management will work with individual Departments to develop a master Campus JHA library.

- Each employee scheduled to work in the activities identified below shall receive safety training in those activities prior to working on them.
- Subcontractors shall submit a Job Hazards Analysis (JHA) for those construction activities meeting the requirements for performing JHA (see below). The JHA shall be reviewed and authorized to proceed by the Cal Maritime Department of Safety and Risk Management before work commences.
- Subcontractor shall be responsible for submitting a JHA and work procedures to Cal Maritime Department of Safety and Risk Management for review a minimum of seven days prior to the start of work for most work activities.

3.1.4.1 JHA Requirements

A JHA shall be written based on the following conditions:

- Jobs with the highest injury or illness rates
- Jobs with the potential to cause severe or disabling injuries or illness, even if there is no history of previous accidents
- Jobs in which one simple human error could lead to a severe accident or injury
- Jobs that are new to your operation or have undergone changes in processes and procedures
- Jobs complex enough to require written instructions.

If not otherwise specified in a particular project specification, the JHA shall be performed in accordance with the OSHA 3071.

JHA processes. In general the JHA will include:

- Description of work phase or activity
- Identification of potential hazards associated with the activity
- Address further hazards revealed by supplemental site information (e.g., site characterization data, as-built drawings) provided by the subcontractors construction manager.
- A list of the Subcontractor's planned controls to mitigate the identified hazards
- Identification of specialized training required
- Identification of special permits required
- Name of the Subcontractor's Competent Person(s) responsible for inspecting the activity and ensuring that all proposed safety measures are followed.

3.2 Hazard Assessment

⚠ *Note: Each work task will have its own JHA, refer to the JHA Library for more details.*

GENERAL HAZARD IDENTIFICATION & CONTROL MEASURES FOR CHEMICAL & EQUIPMENT USE			
TASK	**HAZARD**		**HAZARD CONTROLS & PROTECTION MEASURES**
CHEMICAL & EQUIPMENT USE	**Trip or fall hazards**		⚓ Walking/working surfaces training for working around uneven, wet and slippery surfaces (includes warning to others of slippery surfaces); use cord cover and keep out of traffic areas
	Cuts, crush, pinch, etc. during operation and/or maintenance of equipment		⚠ Keep protective guards in place; disconnect from power source before servicing; use lockout-tagout; use PPE; keep away from power lines
	Periodic lifting/climbing/bending/stooping		⚓ Use proper lifting techniques; Ergonomic training; use dolly/cars.
	Exposure to hazardous and carcinogenic chemicals		⚓ Wear PPE (gloves, respirators, safety glasses, etc.) as appropriate; refer to MSDS; report spills immediately; practice universal precautions; ⚓ prohibit eating & drinking in work areas; use fume hood whenever necessary; ⚓ ensure fume hood is working properly; ⚓ keep small quantities of keep chemicals to limits size of spills; ⚓ eliminate use carcinogenic materials as much as possible; ⚓ limit exposure to know substances and use protective coverings; ⚓ have absorbent materials handy in case of spills; refer to materials safety data sheet
	Cuts/punctures from sharp instrument		⚓ Use caution and proper techniques; sterilize equipment; ⚓ use sharps containers
	Skin burns, eye/nasal irritation, spills		⚓ Good ventilation, chemicals stored in small quantities to keep spills to minimum and to provide easy handling. ⚓ Store flammables in fire- resistant cabinets. ⚓ Have absorbent materials readily available in case of spills
	Potential electrical shock		⚓ Avoid working around electrical equipment or outlets; ensure insulation on electrical cord is unbroken

TRAINING REQUIREMENTS

DO NOT use this equipment unless an instructor or shop supervisor has instructed you in the safe use and operation and has authorized you to operate this equipment.

✓ IIPP ✓ Dept. Specific ✓ Operators/Owner's Manual ✓ Other:

PERSONAL PROTECIVE EQUIPMENT










Eye Protection	Foot Protection	Hand Protection	Hearing Protection	Body Protection	Head Protection	Respiratory Protection	Fall Protection	Face Shield	OTHER
When exposed to eye or face hazards from flying particles, molten metal, liquid chemicals, acids or caustic liquids, chemical gases or vapors, or potentially injurious light radiation...	When working in areas where there is a danger of foot injuries due to falling or rolling objects, or objects piercing the sole, or will protect the affected	When hands are exposed to hazards such as those from skin absorption of harmful substances; severe cuts or lacerations; severe abrasions; punctures; chemical burns	When exposed to a time weighted average noise level of 85 dBA or higher over an 8 hour work shift.	When exposure to: Intense heat, hot metals, other hot liquids Impacts from materials that can cut, burn Hazardous chemicals Or potentially infectious materials	Where there is a potential for injury to the head from falling objects and/or when there is a risk of impact to head	May be required if removal of contaminants from the air does not fall below permissible exposure level.	When there is a risk of falling from a height greater than 4ft GSO 6ft CSO 6ft MSO When working in confined space	Face shield can be used over the glasses if there is a presence of a lot of flying debris.	

3.3 General Safety Requirements

3.3.1 Hazardous Chemical Identification and Classification

Hazardous chemicals include, but are not limited to, the following:

- "The Hazardous Substance List," commonly known as the Directors List of Hazardous Substances, *8 CCR §339*;
- "Toxic and Hazardous Substances, Air Contaminants," *8 CCR §5155*;
- "Threshold Limit Values for Chemical Substances in the Work Environment," American Conference of Governmental Industrial Hygienists, updated annually;
- "*12th Report on Carcinogens,*" National Toxicology Program, 2011;
- "*Monographs,*" International Agency for Research on Cancer, World Health Organization;
- SDSs for reproductive toxins and cancer causing substances; and
- Any other substance that may present a physical or health hazard as determined by scientific evidence.

Hazardous chemicals can be identified by the hazard classifications noted on manufacturer labels and SDSs. Common hazard classifications include flammable, corrosive, toxic and carcinogen.

3.3.2 Chemical Inventory

General Requirements

All departments that use, handle or store hazardous chemicals must maintain an inventory of the hazardous chemicals present in their work areas. Inventories must be entered in the Cal Maritime CIS, the online inventory system managed by SRM.

Consumer Products

Consumer products must be included in the chemical inventory if the employee exposure to the product is significantly greater than the consumer exposure occurring during the principal consumer use of the product. However, certain minimal inventory thresholds are required for other reporting agencies such as Certified Unified Program Agency (CUPA).

Chemical Inventory System (CIS)

The following CIS links is available on the Safety & Risk Management webpage by simply selecting the MSDS icon.

3.4 Safety Data Sheets (SDS)

General Requirements

Departments must maintain copies of any SDS received with incoming shipments of hazardous chemicals, obtain SDS of hazardous chemicals if received without an SDS, and shall ensure that SDSs are readily accessible during each work shift. SDSs may be maintained in electronic form so long as there are no barriers to employee access.

3.4.1 Globally Harmonized System Format

By June 2015, all SDSs must be GHS-compliant. SDSs will have a consistent 16-section format with the following sections (see Appendix B for details):

- Section 1: Identification
- Section 2: Hazard(s) Identification
- Section 3: Composition/Information on Ingredients
- Section4: First Aid Measures
- Section 5: Fire-Fighting Measures
- Section 6: Accidental Release Measures
- Section 7: Handling and Storage
- Section 8: Exposure Control/Personal Protection
- Section 9: Physical and Chemical properties
- Section 10: Stability and Reactivity

- Section 11: Toxicological Information
- Section 12: Ecological Information (non-mandatory)
- Section 13: Disposal Considerations (non-mandatory)
- Section 14: Transportation Information (non-mandatory)
- Section 15: Regulatory Information (non-mandatory)
- Section 16: Other Information

3.4.2 Trade Secrets

Manufacturers and importers may withhold the specific chemical identity of a hazardous chemical with certain "*trade secret*" provisions. Contact SRM for assistance with addressing "trade secret" information.

3.4.3 Obtaining SDSs

SDSs can be obtained by:

- Requesting copies from your supervisor
- Contacting the vendor directly
- Performing an internet search by entering the product name followed by MSDS
- Contacting SRM for assistance

3.5 Labels and Other Forms of Warning

General Requirements

Every container of a hazardous chemical, except containers that will contain chemicals for immediate use, must be labeled, tagged, or marked to identify the substance and appropriate hazard warnings.

3.5.1 Manufacturer Labels

The manufacturer's original label shall provide:

- Identity of the hazardous substance;
- Signal word;
- Hazard statement(s);
- Pictograms;
- Precautionary statement(s); and
- Name and address of the manufacturer, importer or responsible party.

Labels shall be:

- Legible;
- In English; and
- Prominently displayed on the container.

⚠ The original label **shall not** be removed or defaced unless the container is immediately marked with the required information.

3.6 Workplace Labels

Minimum Requirements

- Every container of a hazardous chemical must be labeled, tagged, or marked, in English, to identify the chemical and to provide appropriate hazard warnings;
- Portable secondary (workplace) containers used immediately by the person performing the transfer do not need labels; and
- Non-hazardous substances (e.g., distilled water) should be labeled in order to avoid confusion.

3.6.1 Acceptable labeling conventions

Best practice is to include all information that is provided on the manufacturer's label.

If a set of abbreviations is used routinely in the work area, definitions of the abbreviations must be posted in a

prominent place in the work area and available to all employees.

- Alternative methods such as signs, placards, process sheets, and operating procedures are acceptable for individual stationary process containers, provided that the information is conveyed to all affected persons. Commonly used labeling systems include Department of Transportation, National Fire Protection Association and Hazardous Materials Identification System.
- Examples of acceptable labeling conventions include:

Small volume containers such as micro-scale test tubes and vials can be placed in a rack and the rack can be labeled with the name of the hazardous chemical and the appropriate hazard;

- Containers are labeled with a symbol and a sign is posted defining the meaning of the symbol; the posted information must include the name of the hazardous chemical and the appropriate hazard; and
- Secondary container labeled with unique product or common name must also contain the appropriate hazard warning; example “concentrated Accel-corrosive.”

3.6.2 Workplace Signage

The poster "*Safety Data Sheets, Labels, and Hazardous Chemical Emergencies*," must be displayed in all areas where hazardous chemicals are used, handled or stored. Departments must fill in all blank spaces (e.g., location of SDSs) on the poster.

3.6.3 Labeled/Unlabeled Pipes

Aboveground pipes transporting hazardous substances (gases, vapors, liquids, semi- liquids, or plastics) shall be labeled in accordance to *8 CCR §3321*, “Identification of Piping.”
Employees shall not work on any unlabeled pipes until:

- The contents of the pipe are determined; and
- Appropriate safety precautions have been determined for the work.

3.6.4 Labels on Containers Leaving Campus

All off campus shipments of hazardous chemicals must comply with the current U.S. Department of Transportation (DOT) requirements and the Cal Maritime Hazardous Chemicals Use, Storage, Transportation and Disposal policy. Hazardous Materials shipment information can be found on the Safety & Risk Management webpage.

3.7 Multi-Employer Workplaces (Informing Contractors and Contract Workers)

Hazard information, which includes access to SDS, must be made available to contractors and contract workers if the work is to be performed in the presence of hazardous chemicals. Contractors and contract workers must also disclose hazard information for hazardous chemicals that are brought into the work area that may affect campus employees.

3.8 Emergency Procedures

Employees shall follow emergency procedures covered in their department-specific Emergency Action Plan and Injury and Illness Prevention Program. Emergency response procedures are also covered in the SDSs, labels, and Cal Maritime Emergency Response Guide.

4.0 Training Requirements

Effective dissemination of safety information lies at the very heart of a successful Injury and Illness Prevention Program. It is essential to provide training for employees concerning general safe work practices as well as specific instruction with respect to hazards unique to each employee's job assignment.

Training content is determined by the Department of Safety and Risk Management, as well as Department Management which is based upon observed hazards, type of equipment, Department need, and work requirements.

- Providing training from within the department as a part of academic programming, or
- Training provided by CSU-System, or
- Training provided by Cal Maritime SRM, or
- A training provider outside the University.

Note: All outside trainer venders are to be reviewed and content approved by SRM. The Department of Safety and Risk Management, in conjunction with various departments have developed training programs designed to meet general safe work practice requirements. These programs are elements of larger programs which service broad campus needs.

Employees expected to utilize chemicals as part of their job duties must be adequately trained prior to using such chemicals.

Employees should be trained in the following areas:

- Be able to recognize hazards associated with different types of chemicals and equipment; and the safety precautions necessary for use.
- The PPE required to be worn during the use of chemicals.
- The proper use of tools and other equipment, be able to recognize defects in tools, which may render them out of service.
- When applicable, provide access to the manufacturer specifications and manual's for specific equipment to be used.
- Department-developed standard operating procedures (SOPs) outlining specific safety precautions for certain tools or activities.
- Signs and symptoms related to the exposures to hazardous chemicals used in the work area;
- Methods that may be used to detect the presence or release of a hazardous chemical.
- This could include industrial hygiene monitoring, the use of continuous monitoring devices, visual appearance, or odors of chemicals;
- Details of manufacturer labels, SDSs and workplace labeling system, and how that information can be used to assure safe handling and storage; and
- Procedure for addressing non-routine tasks involving hazardous chemicals.

Frequency

- Supervisors and Principal Investigators must provide employees information and training regarding the physical and health hazards of the chemicals in the work area before assigning employees to work with hazardous chemicals. Refresher training is required whenever a new chemical hazard is introduced into the workplace or a new or updated SDS is received.

Non-Routine Tasks

- Employees must be provided training or refresher training prior to engaging in a non- routine task. Employees must be provided hazard notification and precautionary measures to avoid or minimize the potential for risk of exposure.

Retraining may be necessary to maintain employee knowledge of working with tools or if a near-miss or injury has occurred.

Training is to be documented and kept in a readily accessible location by the Department designee for access reference as needed by Department Management, Department of Safety & Risk Management, or regulatory agency (e.g. CalOSHA). Submit the completed training roster of attendees to the Department of Safety & Risk Management.

Program Administrators are trained on their roles and responsibilities in the management/maintenance of the requirements and inspections outlined in this program.

Refer to Cal/OSHA Safety & Health Training and Instruction Requirements as outlined in Appendix C of the Injury Illness Prevention Program.

5.0 Document Control & Recordkeeping

Essential records, including those legally required for Workers' Compensation, insurance audits and government inspections will be maintained for as long as required. Individual Departments and/or Colleges will also keep records of steps taken to establish and maintain the Injury and Illness Prevention Program.
They must include:

- Records of scheduled and periodic inspections to identify unsafe conditions and work practices. The documentation includes the name of the person(s) conducting the inspection, the unsafe conditions and work practices identified, and the corrective action(s) taken. These records will be maintained for at least three years.
- Documentation of health and safety training for each employee. Specifically, employee name or other identifier, training dates, type(s) of training and the name of the training provider will be included. Records will be retained for at least three years. Standard forms for maintaining this information can be obtained from the Department of Safety and Risk Management.

Each Department is responsible for maintaining their own records of machine safeguarding inspections / surveys. In addition, Departments must maintain training records of personnel who have been trained on this program and/or to specific equipment as may be necessary to demonstrate training compliance to a regulatory agency. Documents such as JSAs, SOPs, operation manuals, signage, etc… may all function to demonstrate record keeping, safe-operation, warning and training activities.

If modifications are made to any machine, keep all documentation (drawings, specs, receipts, etc.) for as long as the equipment is in service or owned by the University.

Retain all training records for ten years after employees have retired or left University employment. For students, retain records for ten years after the student's projected graduation date.

Training records will be kept in each department and copies will be forwarded to the Department of Safety and Risk Management.

Departments must maintain the following records as part of the hand and portable power tool safety program.

- Employee training records
- Specialized SOPs
- Manufacturer specifications/manuals
- Maintenance/service records

Record	Timeframe/Frequency	Location of Record	Retention Period*
HazCom General	Initial, Annual Refresher for affected employees.	Document on Employee's Safety Training Checklist	3-Years
HazCom Specific	Initial, Annual Refresher for affected employees.	Document on Employee's Safety Training Checklist	3-Years
HazCom Specific	Post incident and/or process management change for affected employees.	Document on Employee's Safety Training Checklist	3-Years

*Refer to the Injury Illness Prevention Program Document Retention Table and/or California State University Systemwide for more information.

Appendix A: Definitions

General Definitions

ANSI:	American National Standards Institute
Authorized person:	Means a person approved or assigned by the employer to perform a specific type of duty or duties or to be at a specific location or locations at the jobsite.
Competent person:	A competent person is a person who is **capable** of identifying existing and predictable hazards in the surroundings or working conditions that are unsanitary, hazardous, or dangerous to employees. The competent person has the **authority** to impose prompt corrective measures to eliminate these hazards. *Examples:* • **Excavation** - Inspectors 1541 • **Fall Protection** Plan implementers & supervisors 1671.1 • **Lift Slab Construction** 1522.1
Confined Space:	Is a space that (1) is large enough and so configured that an employee can enter bodily, (2) has limited or restricted means for entry or exit (e.g., tanks, vessels, vaults, shafts, pits), and (3) is not designed for continuous occupancy.
Construction Manager:	Is the Cal Maritime employee responsible for the supervision and field management of day-to-day needs of a construction project. It may be a project superintendent, a craft supervisor, or a lead person.
Construction work:	For purposes of this section, "Construction work" means work for construction, alteration, and/or repair, including painting and decorating. Construction: is any combination of engineering, procurement, erection, installation, assembly, demolition, or fabrication used to create a new facility, or to alter, add to, rehabilitate, dismantle, or remove an existing facility. It also includes the alteration and repair (including dredging, excavating, and painting) of buildings, structures, or other real property, as well as any construction and excavation activities conducted as part of environmental remediation efforts.
Controlled Access Zone (CAZ)	Means an area in which certain work (e.g., overhand bricklaying) may take place without the use of guardrail systems, personal fall arrest systems, or safety net systems and access to the zone is controlled
Imminent Danger:	Is any condition or practice that could reasonably be expected to cause death or serious physical harm (permanent or prolonged impairment of the body or temporary disablement requiring hospitalization) to employees or the public unless immediate actions are taken.
Project Manager:	Is the Cal Maritime employee representative with overall responsibility for a project. This person ensures subcontractor compliance with subcontract documents, including performance, schedule, budget, and safety.
Shall:	Means mandatory
Should:	Means recommended
Subcontractor:	Is a firm that has sole contractual responsibility for execution of the construction work related to a project, and for compliance with all safety, health, and environmental codes, standards, and regulations.
Qualified Person:	A qualified person is a person **designated** by the employer; and by reason of **training**, experience, or instruction has demonstrated the ability to perform safely all assigned duties; &, when required is properly licensed in accordance with federal, state, or local laws and regulations. Examples: • Mobile Crane & Tower **Crane** Operators 5006.1(a) • **Scaffold** Erection & Dismantling Supervisors 1637(k)(1) • **Demolition** 1736 • **Personal Fall Arrest** System supervisors 1670(b)

Definitions (cont.)

Chemical Definitions-

Article	A manufactured item (1) which is formed to a specific shape or design during manufacture; (2) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (3) which does not release, or otherwise result in exposure to a hazardous substance under normal conditions of use or in a reasonably foreseeable emergency resulting from workplace operations.
Classification	To identify the relevant data regarding the hazards of a chemical; review those data to ascertain hazards associated with the chemical; and decide whether the chemical will be classified as hazardous, and the degree of hazard where appropriate, by comparing the data with the criteria for health and physical hazards. Typical classifications might be flammable, corrosive, reactive and toxic.
Hazardous chemical	Any chemical which is classified as a physical hazard or a health hazard, a simple asphyxiant, combustible dust, pyrophoric gas, a hazard not otherwise classified, or is included in the *Director's List of Hazardous Substance*.
Health hazard	A chemical for which there is statistically significant evidence based on at least one study conducted in accordance with the established scientific principles that acute or chronic health effects may occur in exposed employees. Health Hazard Criteria can be found in *29 CFR §1910.1200- Appendix A* (8 CCR §5194 Appendix A references this federal regulation). Hazards are listed as "H" codes on GHS- compliant labels and safety data sheets (SDSs).
Immediate use	The hazardous substance will be under the control of and used only by the person who transfers it from a labeled container and only within the work shift in which it is transferred.
Label	An appropriate group of written, printed, graphic information elements concerning a hazardous chemical that is affixed to, printed on, or attached to the immediate container of a hazardous chemical, or to the outside packaging.
Near miss	As defined by *OSHA*, refers to incidents where no property was damaged and no personal injury sustained, but where, given a slight shift in time or position, damage and/or injury easily could have occurred.
Physical hazard	A chemical that is classified as posing one of the following hazardous effects: explosive; flammable (gases, aerosols, liquids, or solids); oxidizer (liquid, solid or gas); self-reactive; pyrophoric (liquid or solid); self-heating; organic peroxide; corrosive to metal; gas under pressure; combustible liquid; water reactive; or in contact with water emits flammable gas. Physical Criteria can be found in *29 CFR§1910.1200 Appendix B* (8 CCR §5194- Appendix B references this federal regulation).
Pictogram	A composition that may include a symbol plus other graphic elements, such as a border, background pattern or color that is intended to convey specific information about the hazards of a chemical.
Precautionary statement	A phrase that describes recommended measures that should be taken to minimize or prevent adverse effects resulting from exposure to hazardous chemicals, or improper storage or handling. Statements are listed as "P" codes on GHS-compliant labels and SDSs
Pyrophoric gas	A chemical that will ignite spontaneously in air at a temperature of 130 degrees F (54.4 degrees C) or below.
Safety data sheet (SDS)	Written or printed material concerning a hazardous chemical that is prepared in accordance with 8 CCR §5194(g). (See *Appendix B* for details).
Signal word	A word used to indicate the relative level of severity of hazard and alert the reader to a potential hazard on the label. The signal words used are "danger" and "warning." "Danger" is used for the more severe hazards, while "warning" is used for the less severe.
Simple asphyxiant	A substance or mixture that displaces oxygen in the ambient atmosphere, and can thus cause oxygen deprivation in those individuals who are exposed, leading to unconsciousness and death
Trade secret	Any confidential formula, pattern, process, device, information, or compilation of information which gives its user an opportunity to obtain a business advantage over competitors who do not know or use it. A trade secret shall not include chemical identify information which is readily discoverable through qualitative analysis
Use	To package, handle, react, or transfer
Workplace label	Non-original manufacturer label"- Label placed on a secondary (workplace) container. When hazardous material is removed/transferred from the original manufacturer labeled container to another container (secondary (workplace) container), the secondary (workplace) container must have a workplace label with the exception of portable containers that will contain chemicals for immediate use.

Appendix B: Job Hazard Analysis Template- Sample

SAFETY GUIDELINES		
IMAGE	**SCOPE OF WORK/EQUIPMENT USE**	**DEPARTMENT:**
		HAZARD POTENTIAL EVALUATION
		☐Struck By ☐Struck Against ☐Slip/Trip/Fall ☐Caught In/Between ☐Material Handling ☐Equipment Operating ☐Weather Conditions ☐Hazardous Substance ☐Electrical Hazards ☐Obstruction
		SRM-HIRAC 1 2 3 4

TRAINING REQUIREMENTS			
DO NOT use this equipment unless an instructor or shop supervisor has instructed you in the safe use and operation and has authorized you to operate this equipment.			
❑ IIPP	❑ Dept. Specific	❑ Operators/Owner's Manual	❑ Other:

PERSONAL PROTECIVE EQUIPMENT

 Eye Protection	 Foot Protection	 Hand Protection	 Hearing Protection	 Body Protection	 Head Protection	 Respiratory Protection	 Fall Protection	 Face Shield	 OTHER
When exposed to eye or face hazards from flying particles, molten metal, liquid chemicals, acids or caustic liquids, chemical gases or vapors, or potentially injurious light radiation...	When working in areas where there is a danger of foot injuries due to falling or rolling objects, or objects piercing the sole, or will protect the affected	When hands are exposed to hazards such as those from skin absorption of harmful substances; severe cuts or lacerations; severe abrasions; punctures; chemical burns	When exposed to a time weighted average noise level of 85 dBA or higher over an 8 hour work shift.	When exposure to: Intense heat, hot metals, other hot liquids Impacts from materials that can cut, burn Hazardous chemicals Or potentially infectious materials	Where there is a potential for injury to the head from falling objects and/or when there is a risk of impact to head	May be required if removal of contaminants from the air does not fall below permissible exposure level.	When there is a risk of falling from a height greater than 4ft GSO 6ft CSO 6ft MSO When working in confined space	Face shield can be used over the glasses if there is a presence of a lot of flying debris.	

HAZARDS		HAZARD CONTROLS & PROTECTION MEASURES

IF CONDITIONS CHANGE: STOP WORK IMMEDIATELY-REVIEW WITH SUPERVISOR-DOCUMENT HAZARD-REVIEW WITH SRM

SAFE OPERATING PROCEEDURES				
STEPS/TASKS		**HAZARD POTENTIAL**		**HAZARD CONTROLS & PROTECTION MEASURES**
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				

NOTES

IF CONDITIONS CHANGE: STOP WORK IMMEDIATELY-REVIEW WITH SUPERVISOR-DOCUMENT HAZARD-REVIEW WITH SRM

EMERGENCY RESPONSE			EVACAUTION ASSEMBLY POINT
1	First Aid Kit		
2	AED		
3	Emergency phone	Campus Police- 707-654-1111 or 911	

REMINDER: IMMEDIATELY REPORT ALL INCIDENTS, REGARDLESS OF SEVERITY, TO YOUR SUPERVISOR AND THE DEPARTMENT OF SAFETY & RISK MANAGEMENT.

HOUSEKEEPING & SECURITY		SHOP SUPERVISOR MUST BE PRESENT WHEN SHOP IS OCCUPIED
1	Is the work area/site Clean?	Ensure work area is clean daily and that any hazardous materials are properly disposed of daily
2	Is the work area/site Secure?	Ensure lights are turned off and building is locked upon exiting work for the day.
3		

Appendix C: Safety Data Sheets

The Hazard Communication Standard requires manufacturers to provide GHS-compliant SDSs (formerly known as MSDSs) by June 2015. The SDS must be in a uniform 16-section format which includes the sections described below. This information was taken from the OSHA HazCom SDS Quickcard. Detailed information can be found at https://www.osha.gov/Publications/OSHA3636.pdf.

Section 1, Identification: Includes product identifier; manufacturer or distributor name, address, phone number; emergency phone number; recommended use; restrictions on use.	**Section 8, Exposure controls/personal protection:** Lists OSHA's Permissible Exposure Limits (PELs); Threshold Limit Values (TLVs); appropriate engineering controls; personal protective equipment (PPE).
Section 2, Hazard(s) identification: Includes all hazards regarding the chemical; required label elements.	**Section 9, Physical and chemical properties:** Lists the chemical's characteristics.
Section 3, Composition/information on ingredients: Includes information on chemical ingredients; trade secret claims.	**Section 10, Stability and reactivity:** Lists chemical stability and possibility of hazardous reactions.
Section 4, First-aid measures: Includes important symptoms/effects, acute, delayed; required treatment.	**Section 11, Toxicological information:** Includes routes of exposure; related symptoms, acute and chronic effects; numerical measures of toxicity.
Section 5, Fire-fighting measures: Lists suitable extinguishing techniques, equipment; chemical hazards from fire.	Section 12, Ecological information* Section 13, Disposal considerations* Section 14, Transport information* Section 15, Regulatory information* **Note*: Since other Agencies regulate this information, OSHA will not be enforcing Sections 12 through 15.
Section 6, Accidental release measures: Lists emergency procedures; protective equipment; proper methods of containment and cleanup.	
Section 7, Handling and storage: Lists precautions for safe handling and storage, including incompatibilities.	**Section 16, Other information:** Includes the date of preparation or last revision.

Employers must ensure that:

- SDSs are readily accessible to employees;
- Employees are trained on how to interpret SDSs;
- Document training; and
- Retain records for at least three years

Safety Services SDS search can be found in department binders as well as in the Office of Safety and Risk Management

Appendix D: Pictogram & Labels

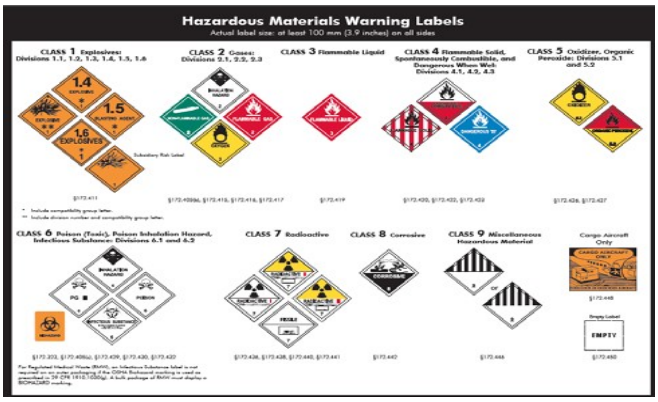
GHS- Hazard Pictograms and Related Hazard Classes

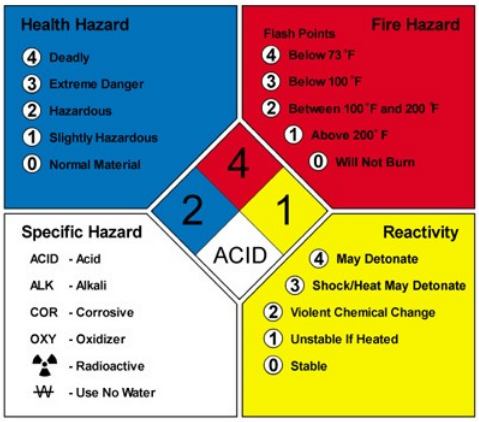
The Hazard Communication Standard requires pictograms on manufacturer labels to alert users of the hazards associated with hazardous chemicals. Pictograms consist of a symbol on a white background with red border and represents a specific hazard. Pictograms are determined by the chemical hazard classification
Pictograms can be downloaded directly from https://www.osha.gov/dsg/hazcom/pictograms/index.html.
OSHA Quick Cards: https://www.osha.gov/pls/publications/publication.athruz?pType=Types&pID=6

Appendix E: Common Labeling Systems: DOT, NFPA, HMIS

There are many labeling systems commonly used to communicate the potential hazards of chemicals. The more commonly used systems are from the U.S. Department of Transportation (DOT), National Fire Protection Association (NFPA) and the Hazardous Materials Identification System (HMIS).

U.S. Department of Transportation (DOT) system categorizes hazardous materials into nine classes: Class 1: Explosives
Class 2: Gases
Class 3: Flammable Liquids Class 4:
Flammable Solids
Class 5: Oxidizers, Organic Peroxides Class 6:
Toxic (Poison)
Class 7: Radioactive
Class 8: Corrosive
Class 9: Miscellaneous
See *U.S. DOT Chart 14* for details.





The **National Fire Protection Association** (NFPA) system consist of a diamond-shaped label with four sections that are color coded:
Blue: Health Hazard
Red: Fire hazard White: Specific
Hazards Yellow: Reactivity
The numbering system ranges from zero (0) to four (4). The larger the number, the greater the hazard. Zero (0) is least hazardous and four (4) is the most hazardous. The NFPA codes describe how a material might behave in a fire situation.

See the *NFPA OSHA Quick Card* for details.

The **Hazardous Materials Identification System (HMIS)** uses a similar numbering system as NFPA. The current version of the HMIS manual (HMIS III) updated the formerly yellow coded "Reactivity" section to an orange "Physical Hazard" section to align with OSHA HazCom standard. The white colored "Personal Protection" section uses the HMIS personal protection index to describe the required personal protective equipment.

HMIS Hazardous Materials Identification System

HMIS Label Example

HMIS HEALTH HAZARD RATING CHART	
* CHRONIC HAZARD	Chronic (long-term) health effects may result repeated overexposure.
0=MINIMAL HAZARD	No significant risk to health.
1=SLIGHT HAZARD	Irritation or minor reversible injury possible.
2=MODERATE HAZARD	Temporary or minor injury may occur.
3=SERIOUS HAZARD	Major injury likely unless prompt action is taken and medical treatment is given.
4=SEVERE HAZARD	Life-threatening, major or permanent damage may result from single or repeated overexposures.

Appendix F: DEPARTMENT POSTING-Sample

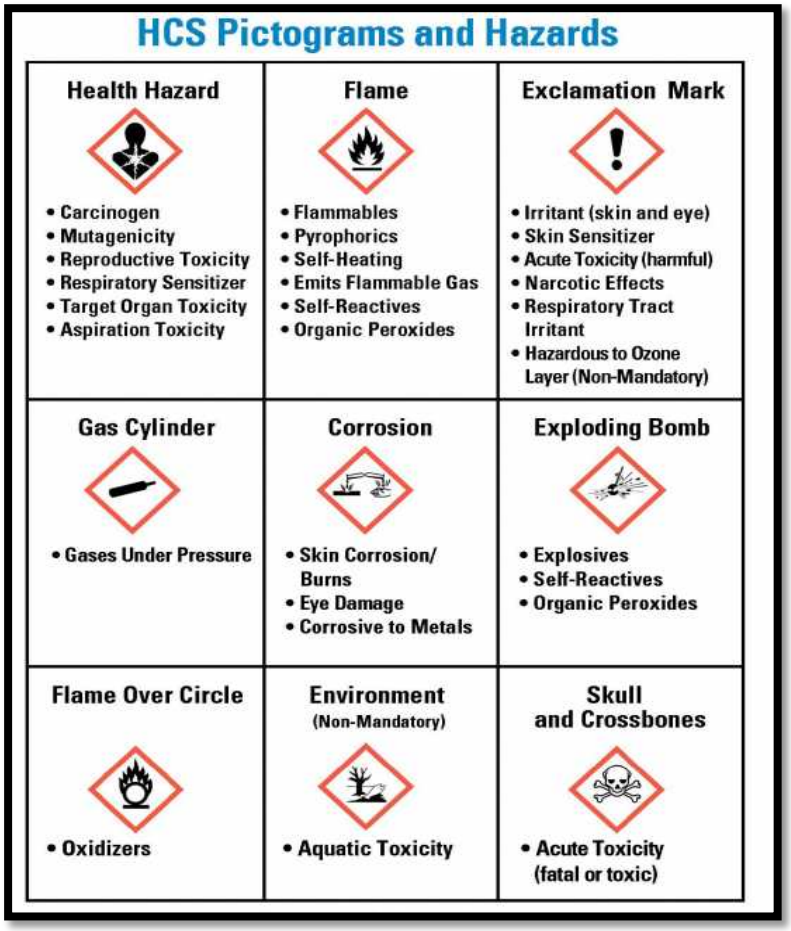
Department Name	
SDS Location	
Contact for SDS Information	

Cal/OSHA's Hazard Communication Standard requires manufacturers of products containing hazardous chemicals to furnish safety data sheets (SDSs) for their products. The SDS provides information such as toxicity, flammability, and reactivity hazard data; handling and storage guidance; and emergency procedures to follow for spills, exposure, and fighting fires.

Manufacturers' labels must contain ***pictograms, signal words, hazard and precautionary statements, product identifier, and supplier information.***

Hazardous chemicals are not limited to the laboratory. Materials such as cleaning agents, paints, art materials, photographic chemicals, and automotive supplies may contain hazardous chemicals. Whenever there is doubt about the hazards associated with any material, contact your Supervisor or Safety at 707-654-1076.

Prior to performing a non-routine or unfamiliar operation that may involve hazardous chemicals, contact your Supervisor, Principal Investigator, or Department Safety Coordinator for information and training.



IN CASE OF EMERGENCY, CALL CAMPUS POLICE x 1111

Note: Dialing 911 directly will not immediately dispatch Cal Maritime Police Department.
Dialing 707-654-1111 will simultaneously dispatch Cal Maritime Police Department as well as other Local Agency Emergency Responders.

For skin or eye contact, immediately flush the affected area with running water for at least 15 minutes. If a substantial portion of the body is involved, use a safety shower. Seek medical attention. If the chemical is toxic, or if its toxic properties are unknown, **call Emergency Services**.

For inhalation or ingestion, follow instructions on the product label or SDS. Seek medical attention or **call Emergency Services**.

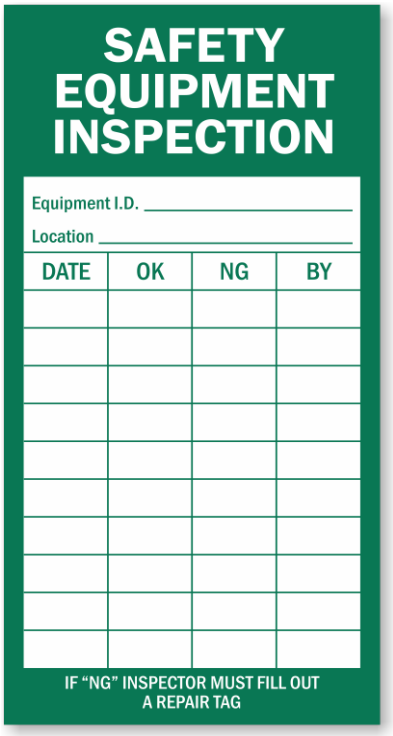
For chemical spills, check product label or SDS for instructions. If you suspect the chemical is flammable, extinguish all ignition sources. If instructions are not immediately available, the spill is large, or if chemical has definite or unknown corrosive, explosive, or toxic properties, evacuate and restrict access to the area and **call Emergency Services**..

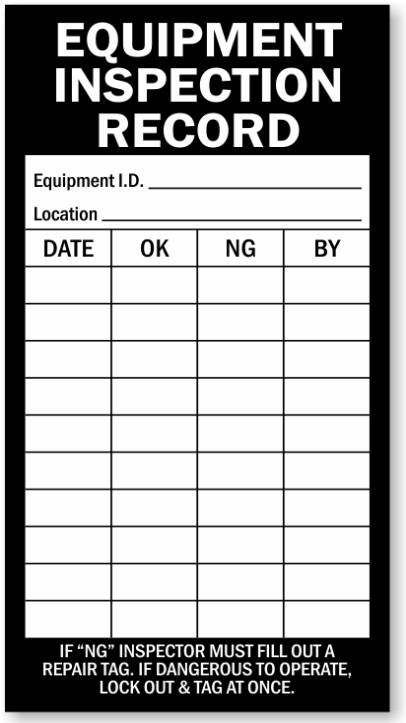
Clean up small spills ***only*** if you are trained and have access to spill kit supplies.

NOTICE TO EMPLOYEES: Under California Code of Regulations, Title 8, section 3204, you have the right to see and copy your medical records and any records your employer maintains of your exposure to hazardous substances or harmful physical agents. In addition, you, your personal physician, or your collective bargaining agent may request information contained in SDSs. No discrimination action (including discharge) may be taken against you if you exercise your legal right.

Appendix G: Inspecting of Equipment

SAMPLE TAGS & LABELS





Labels and Color Coding

SAFETY ASSURED INSPECTION CODING		
MONTH	**MONTH TESTED**	**COLOR OF TAPE(S) TO APPLY TO CORD**
1	January	White
2	February	White + Yellow
3	March	White + Blue
4	April	Green
5	May	Green + Yellow
6	June	Green + Blue
7	July	Red
8	August	Red + Yellow
9	September	Red + Blue
10	October	Orange
11	November	Orange + Yellow
12	December	Orange + Blue
Repair/Damaged		Brown

Appendix H: Lab Safety Assessment Checklist

Environmental Health & Safety Laboratory Safety Assessment

Evaluator(s)			Date	
Department		Location		

Please check Yes, No, Not Applicable for each item.
All No responses require follow-up within 30 days, unless otherwise noted and all Serious Violations require 3 day follow-up.
Retain original copy at the Department level. Submit copy to the Department of Safety & Risk Management

ADMINISTRATIVE/DOCUMENTATION

#	ITEM	REGULATORY REFERENCE	YES	NO	NA	ACTION NEEDED	OWNER	COMPLETED DATE
1	Appropriate signage posted (Right to Know) at all entrances to lab	CCR Title 24 §5003.5, NFPA704						
2	Building Emergency Evacuation Route posted	CCR Title 19 §3.09,						
3	Lab staff are aware of and have access to campus-wide Chemical Hygiene Plan	CCR Title 8 §5191,						
4	CIS updated within past 12 months	CCR Title 8 §5194(e), CCR Title 27§15280,						
5	Emergency contacts posted at entrance to laboratory	CCR Title 8 §3220,						
6	Department Illness and Injury Prevention Plan available and up-to- date.	CCR Title 8 §3203,						
7	Emergency Action Plan available and up-to-date	CCR Title 8 §3220,						
8	Emergency assistance information posted	CCR Title 8 §3400(f)						
9	Hazard Assessment certified within year and roster up-to-date	CSU Policy,						
10	Medical Surveillance Program properly documented	CCR Title 8 §5191(g),						
11	Readily accessible SDS's (hard copy or online)	CCR Title 8 §5194(g),						
12	Annual self-inspection complete	CCR Title 8 §3203						
13	Staff aware of procedure to report exposures or concerns	CCR Title 8 §5191						
14	Staff aware of procedure to report incidents and near misses	CCR Title 8 §5191						
15	Written Standard Operating Procedures available and current	CCR Title 8 §5191,						
16	Appropriate safety information posted on equipment	A&F 09-004 (IIPP)						
17	Centrifuges are maintained to ensure safe operation	A&F 09-004 (IIPP)						
18	Moving parts of equipment properly guarded (opening < 1/2")	CCR Title 8 §4184,						
19	Secondary containment for vacuum pump present	A&F 09-004 (IIPP)						

NOTES:

GENERAL SAFETY								
#	ITEM	REGULATORY REFERENCE	YES	NO	NA	ACTION NEEDED	OWNER	COMPLETED DATE
20	Ceiling tiles in place and in good repair	NFPA						
21	Ergonomic evaluations done for computer work in excess of 4 hours	CCR Title 8 §5110						
22	Food and drink stored away from haz mat; consumed outside of lab	CCR Title 8 §5191 A,						
23	Mechanical devices used for pipetting	CCR Title 8 §5191 A,						
24	Spills promptly cleaned by individuals trained to respond to spill	CCR Title 8 §5191A,						
25	Floor is in good repair to prevent slips, trips and falls	CCR Title 8 §5191A						
26	Furnishings in lab easily decontaminated	CCR Title 8 §5191A						
27	Lab surfaces clean, organized, free of chemical contamination	CCR Title 8 §3362, §5191A						
28	Sink available near exit for hand washing (soap and paper towels)	CCR Title 8 §3366						
29	Sinks labeled "**Industrial Water – Do Not Drink**"	CCR Title 8 §1524						
30	Lab air negative to hallway	CCR Title 8 §5191 A						
31	Refrigerators/freezers appropriately labeled according to use	CCR Title 8 §5191 A,						
32	Ergonomic evaluations completed for repetitive motion activities	CCR Title 8 §5110						
33	Vacuum systems fitted with traps or protective filter	A&F 09-004 (IIPP)						
NOTES:								

GENERAL ELECTRICAL

#	ITEM	REGULATORY REFERENCE	YES	NO	NA	ACTION NEEDED	OWNER	COMPLETED DATE
34	3-prong plugs in 3-prong outlets	A&F 09-004 (IIPP)						
35	Appropriate clearance in front of electrical panels (36")	NFPA 70-110.26/408.4,						
36	Electrical cords not a trip hazard	NFPA 70						
37	Plugs, cords and receptacles in good condition	A&F 09-004 (IIPP)						
38	Extension cords used only temporarily	CCR Title 8§2500.8,						
39	No overloaded outlets, no daisy-chained extension cords or strips	NFPA 70-400.7B,						
40	GFCI devices used within 6' of water source (post 2010)	NFPA 70-210.8(B)(5),						
41	High voltage equipment clearly labeled	CCR Title 8 §2932						
42	High voltage equipment properly guarded	CCR Title 8 §2932						
43	Major equipment plugged directly into outlet	A&F 09-004 (IIPP)						
44	Appropriate personnel trained in Lock Out/Tag Out program	CCR Title 8 §3314						
45	Power strips near liquids have GFCI protection	A&F 09-004 (IIPP)						

NOTES:

FIRE

#	ITEM	REGULATORY REFERENCE	YES	NO	NA	ACTION NEEDED	OWNER	COMPLETED DATE
46	Aisles, exits, adjoining hallways free of obstruction	CCR Title 8 §3272,						
47	Fire alarms, bells, horns and/or strobes free of obstruction	CCR Title 24 §901.8						
48	Fire extinguisher properly mounted	CCR Title 8 §6151						
49	Fire extinguisher maintenance tag current	CCR Title 8 §6151						
50	Fire extinguisher available as required	CCR Title 8 §6151						
51	Fire extinguisher fully charged; pin and/or security seal intact	CCR Title 8 §6151						
52	Fire doors unobstructed and easily closed	CCR Title 8 §3225,						
53	18" of clearance between stored items and fire sprinklers, 24" w/o sprinklers	CCR Title 8 §6170(c)10						

NOTES:

FUMES

#	ITEM	REGULATORY REFERENCE	YES	NO	NA	ACTION NEEDED	OWNER	COMPLETED DATE
54	Audible/visual alarm and/or visual airflow monitor functional	CCR Title 8 §5154.1(e),						
55	Chemical work done more than 6" from front of hood	CCR Title 8 §5191A,						
56	Certified within one year	CCR Title 8 §5154.1(e),						
57	Fume hood illumination is working							
58	Functional fume hood not used for storage, cluttered	CCR Title 8 §5191A,						
59	Users understand how to check for airflow and annual certification sticker	CCR Title 8 §5154.1						
60	Fume hood users have completed specific fume hood training	CCR Title 8 §5154.1						
61	Proper sash height indicated and adhered to	CCR Title 8 §5154.1						

NOTES:

GAS

#	ITEM	REGULATORY REFERENCE	YES	NO	NA	ACTION NEEDED	OWNER	COMPLETED DATE
62	Compressed gas cylinders stored upright and adequately secured	CCR Title 8 §4650,						
63	Compressed gas cylinders labeled with contents and hazards	CCR Title 8 §4650						
64	Compressed gas cylinders have full/empty tags attached	CCR Title 8 §4649,						
65	Compressed gas cylinders properly segregated if stored	CCR Title 8 §4650,						
66	Toxic gases properly stored in ventilated cabinet/fume hood	CCR Title 8 §4650						
67	Compressed gas cylinders capped when not in use	CCR Title 8 §4650,						

NOTES:

PERSONAL PROTECTION EQUIPMENT

#	ITEM	REGULATORY REFERENCE	YES	NO	NA	ACTION NEEDED	OWNER	COMPLETED DATE
68	Eye protection available and used as required by Cal Maritime PPE policy	CCR Title 8 §3382,						
69	Equipment or process sound levels that may exceed 85 dBA	CCR Title 8 §5096,						
70	Face shield available if required	CCR Title 8 §3382,						
71	Gloves worn when skin contact with hazards may occur	CCR Title 8 §3384,						
72	Glove(s) removed prior to exiting lab, handling telephone, etc.	CCR Title 8§5193(4)(F),						
73	Appropriate gloves available for use with hazardous activities	CCR Title 8 §3384,						
74	Lab coats, appropriate to activity are worn	CCR Title 8 §3383,						
75	Long pants worn as required by Cal Maritime PPE policy	EO 1039, AF 09-004						
76	PPE properly cleaned and disinfected or properly disposed of	CCR Title 8 §3387, §3383,						
77	Respirator users have been evaluated by EH&S and included in campus respiratory protection program	CCR Title 8 §5144,						
78	Adequate supply of specialty PPE available	CCR Title 8 §3380(f),						

NOTES:

EMERGENCY ACTION PLAN

#	ITEM	REGULATORY REFERENCE	YES	NO	NA	ACTION NEEDED	OWNER	COMPLETED DATE
79	Emergency eyewash/showers accessible within 10 sec	CCR Title 8 §5162(c),						
80	Emergency eyewash and shower stations free of obstruction	CCR Title 8 §5162(c),						
81	Tests for eyewash and shower current and documented	CCR Title 8 §5162(e) ,						
82	Appropriate chemical spill kits available	CCR Title 8 §5191A,						
83	First Aid Kit available, stocked with unexpired products	CCR Title 8 §3400(c)						

NOTES:

WASTE MANAGEMENT

#	ITEM	REGULATORY REFERENCE	YES	NO	NA	ACTION NEEDED	OWNER	COMPLETED DATE
84	Biomedical waste (red bag) properly disposed of	HSC §117600-118360						
85	Secondary containment used for biomedical waste	CCR Title 8 §5193						
86	Chemical waste containers compatible with contents; good condition	CCR Title 22 §66265.171,						
87	Chemical waste containers closed except when in use	CCR Title 22§66265.173,						
88	Hazardous waste in secondary containment	CCR Title 24§5005,						
89	Chemical waste containers properly tagged/dated/labeled for disposal	CCR Title 22§66262.34,						
90	All wastes within regulatory time limits	CCR Title 22§66262.34,						
91	Tight fitting lid in place on biomedical waste	HSC§ 118280						
92	Universal waste properly labeled/discarded/contained; < 1 year	CCR Title 22§66273.35,						

NOTES:

EARTHQUAKE PREPAREDNESS/ SEISMIC

#	ITEM	REGULATORY REFERENCE	YES	NO	NA	ACTION NEEDED	OWNER	COMPLETED DATE
93	Heavy items are stored on lower shelves	CCR Title 8 §5191 A,						
94	Shelving, file cabinets 5' or over and other tippable items anchored	CCR Title 8 §5191 A,						
95	Overhead storage is secured	CCR Title 8 §5191 A,						
96	Hazardous material storage shelves have lip or guard	CCR Title 24 §5003.9.9,						

NOTES:

MACHINE GUARDING								
#	ITEM	REGULATORY REFERENCE	YES	NO	NA	ACTION NEEDED	OWNER	COMPLETED DATE
97	Machines as specifically having a grinding, shearing, punching, pressing, squeezing, drawing, cutting, rolling, mixing or similar action, in which an employee comes within the danger zone shall be guarded at the point of operation.	CCR Title 8 ,§4184						
98	All saws, cutting tools, heads, shears, and knives that are part of any machine shall be kept sharp, properly set up, adjusted and firmly secured.	CCR Title 8 ,§4186						
99	All point of operation guards shall be properly set up, adjusted and maintained in safe and efficient working condition in conformance with Figure G-8 and Table G-3 or other guard configurations which will prevent the operator's hand from entering the point of operation	CCR Title 8 ,§4186						
100	All repair work performed on metal forming and/or cutting machines, such as punch presses, press brakes, forming rolls, shears, power presses, forging presses and hammers, shall be made: In accordance with the recommendation of the manufacturer(s) or in with good engineering practices	A&F 09-004 (IIPP)						
NOTES:								

TRAINING

#	ITEM	REGULATORY REFERENCE	YES	NO	NA	ACTION NEEDED	OWNER	COMPLETED DATE
101	All personnel completed Fundamentals of Lab Safety	EO/Cal Maritime Policy						
102	Specialized training for lab specific hazards documented	CCR Title 8 §3203, §5191, §5194						
103	Spill training documented	CCR Title 8 §5191						
104	Training on lab specific SOPs documented	CCR Title 8 §5191						
105	Training on Chemical Hygiene Plan documented	CCR Title 8 §5191						
106	Training on IIPP documented	CCR Title 8 §3203						
107	Training to manage or handle hazardous waste documented							
108	Training on Campus Emergency Response							

NOTES:

OTHER

#	ITEM	REGULATORY REFERENCE	YES	NO	NA	ACTION NEEDED	OWNER	COMPLETED DATE
109								
110								
111								
112								
113								
114								
115								

NOTES:

Appendix I: Custodial Storage Area Checklist

CUSTODIAL STORGE AREA CHECKLIST

Evaluator(s):		Location		Date:	

Please check Yes, No, Not Applicable for each item. All No responses require follow-up within 30 days, unless otherwise noted and all Serious Violations require 3 day follow-up.

Retain original copy at the Department level. Submit copy to the Department of Safety & Risk Management.

	INSPECTION ITEMS	Y	N	NA	CORRECTIVE ACTION NEEDED	OWNER	DATE COMPLETE
Administrative							
1	Is there a current IIPP in a location known and accessible to all employees?	☐	☐				
2	Have employees received required IIPP trainings?	☐	☐				
3	Is there a safety bulletin board displaying Emergency phone numbers, evacuation routes safety meeting information?	☐	☐	☐			
4	Are Material Safety Data Sheets (MSDSs) on file and available to employees?	☐	☐	☐			
5	Does the departmental Emergency Operations Plan include a floor plan/map of the department, including emergency evacuation route and procedures?	☐	☐	☐			
6	Is there a first aid kit available	☐	☐	☐			
7	Is there an eyewash station flushed and inspected monthly	☐	☐	☐			
Personal Protective Equipment (PPE)							
8	Is General PPE available and in good working order	☐	☐	☐			
9	Is eye protection available and in good working order	☐	☐	☐			
10	Are gloves available and in good working order	☐	☐	☐			
Chemical Products							
11	Are all containers properly labeled?	☐	☐	☐			
12	Are products in their proper containers	☐	☐	☐			
13	Are products organized	☐	☐	☐			
14	Should some products be moved or replaced	☐	☐	☐			
15	Are some products unfamiliar and do not belong	☐	☐	☐			
16	Is there an SDS for all chemicals in the work area readily available?	☐	☐	☐			
Fire Protection							
17	Are exits visibly marked & clear of obstruction?	☐	☐	☐			
18	Are fire doors closed securely at all times?	☐	☐	☐			
19	Are stairwells clear?	☐	☐	☐			
20	Are proper fire extinguishers available & inspected?	☐	☐	☐			
21	Are special procedures in place for workers with disabilities to assist them to exits?	☐	☐	☐			

22	Are combustible materials stored in assigned storage cabinets or designated areas?	☐	☐	☐			
23	Are materials stored at least 18 inches away from sprinkler heads or 24 inches from ceiling where no sprinkler system	☐	☐	☐			
24	Are fire drills held on a regular basis?	☐	☐	☐			
25	Are electric space heaters plugged directly into walls, have	☐	☐	☐			
26	Are lamps well clear of drapes, papers and other combustible	☐	☐	☐			
Electrical Safety							
27	Are all plugs, cords, electrical panels, and receptacles in good	☐	☐	☐			
28	Are extension cords being used correctly? (They must not be	☐	☐	☐			
29	Is clear access (36" clearance) provided to electrical panels?	☐	☐	☐			
30	Are cord or cable systems used to manage all cords or cables?	☐	☐	☐			
31	Are extension cords at minimum 14 gauge (heavy-duty), *6' or less*, and servicing only one appliance or fixture?	☐	☐	☐			
32	Is faulty or broken equipment removed from service?	☐	☐	☐			
Custodial Operations							
33	Are the lights working and guarded	☐	☐	☐			
34	Is the floor clear of obstacles	☐	☐	☐			
35	Are Wet Floor signs available	☐	☐	☐			
36	Are rags, towels, etc., available	☐	☐	☐			
37	Are the supply shelves earthquake secured	☐	☐	☐			
38	Is the sink clean	☐	☐	☐			
39	Is the hose present and working properly	☐	☐	☐			
40	Are all faucets and hoses in the off position when not in use	☐	☐	☐			
41	Does the sink drain properly	☐	☐	☐			
42	Do you smell any strong orders	☐	☐	☐			
43	Is the vacuum cleaner safe and in good working condition	☐	☐	☐			
44	Is the vacuum cleaner cord in good condition; without cord stress or prong damage	☐	☐	☐			
45	Are all waste materials placed in the proper waste containers and emptied regularly?	☐	☐	☐			
46	Is flooring in good condition with loose rugs and mats secured?	☐	☐	☐			
47	Have missing or loose ceiling tiles been repaired?	☐	☐	☐			

OTHER NOTES:

Appendix J: Correction Action Summary

TIMELINES	WORK ORDER	Same Day	24-hours	15-days	30-days	PROJECT	30-days	90-days	6-month	1-year	Other

#	CATEGORY	ITEM	ACTION NEEDED	WORK ORDER/ PROJECT #					COMPLETION DATE
			Remove/Repair/ Replace	#	P1	P2	P3	P4	

Appendix K: Chemical Inventory

Equipment Inventory

Department **Instructions:** An initial inventory of Equipment owned/operated by each department must be conducted to identify all equipment impacted by this program. This must be done by physical inspection. At Cal Maritime this survey may be conducted by a responsible person in a department, the department's Designated Safety Coordinator (DSC) or their designee and documented on this form. Update this inventory list as equipment is purchased or retired from service, and at least annually

#	Type	Location	JHA Doc #	Required/Recommended Training	PPE
EX.	6-inch Joiner	Carpentry Shop	09-03000	Operation of joiner, including use of push bar	Safety glasses Face shield
1					
2					
3					
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Retain Original at Department Level & Submit Copy to Risk Management

Appendix L: Equipment Inventory

Equipment Inventory

Department **Instructions:** An initial inventory of Equipment owned/operated by each department must be conducted to identify all equipment impacted by this program. This must be done by physical inspection. At Cal Maritime this survey may be conducted by a responsible person in a department, the department's Designated Safety Coordinator (DSC) or their designee and documented on this form. Update this inventory list as equipment is purchased or retired from service, and at least annually

#	Type	Location	JHA Doc #	Required/Recommended Training	PPE
EX.	6-inch Joiner	Carpentry Shop	09-03000	Operation of joiner, including use of push bar	Safety glasses Face shield
1					
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Retain Original at Department Level & Submit Copy to Risk Management

Appendix M: Job Hazard Analysis Library

Document #	Document Title	Date	Comments
09-03001-001	Job Hazard Analysis Manual- Hand & Power Tools	TBD	New Document
09-03001-002			
09-03001-003			
09-03001-004			
09-03001-005			
09-03001-006			
09-03001-007			
09-03001-008			
09-03001-009			
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09-03001-046			
09-03001-047			
09-03001-048			
09-03001-049			
09-03001-050			

Appendix N: Emergency Response

To download and/or print this poster refer to SRM website: Campus Emergency Poster, Campus Emergency Response Guide

CAL MARITIME

911

EMERGENCY PROCEDURES

Evacuation

- Do not use elevators, use nearest stairs and exit.
- Follow directions given by the building monitors or Campus Officials
- Go to designated evacuation point and do not return to building until instructed to do so.
- Assist persons with mobility needs.

Fire

- Evacuate the building and notify occupants as you leave.
- Do not return until authorized by emergency personnel
- Do not use elevators
- Fire Extinguisher Instructions if trained:
- P- Pull pin
- A- Aim at the base of fire
- S-Squeeze handle
- S-Sweep from side to side

Hazardous Spill

- For spills not involving immediate danger, that are confined; contain and notify the Department of Safety & Risk Management (SRM) at 707-654-1076.
- For uncontained spill, contact Cal Maritime Police Department & SRM
- If immediate hazard or emergency exists, dial 911.
- Move away or evacuate the area.

Medical

- For all medical emergencies dial 911
- Be ready to describe natures and severity of the medical emergency.
- Provide the Campus location.
- Keep the victim calm and comfortable.
- Provide basic first aid/CPR/AED if trained.
- Report all work related injuries immediately to: Department of Safety & Risk Management and to Human Resources

Earthquake

- Drop, Cover, Hold under a table or desk or against an interior wall until the shaking has stopped.
- After shaking has stopped check yourself and others for injuries.
- Evacuate the building.
- Move towards the safest location away from building, tree's, power lines.
- Follow the instruction of the building monitors or Campus officials and be prepared for aftershocks

Bomb Threat

- Report all threatening calls to Cal Maritime Police Department
- Ask Caller: When the bomb is going to explode.
- Where the bomb is located?
- What does the bomb look like?
- Why did you place the bomb?
- If suspicious object is found: Do not handle and dial 911 immediately

Shelter in Place

- Stay in building; close and lock doors and windows.
- Move away from windows
- Do not use elevators
- Remain in shelter area until emergency personnel announce that it is safe

Active Shooter

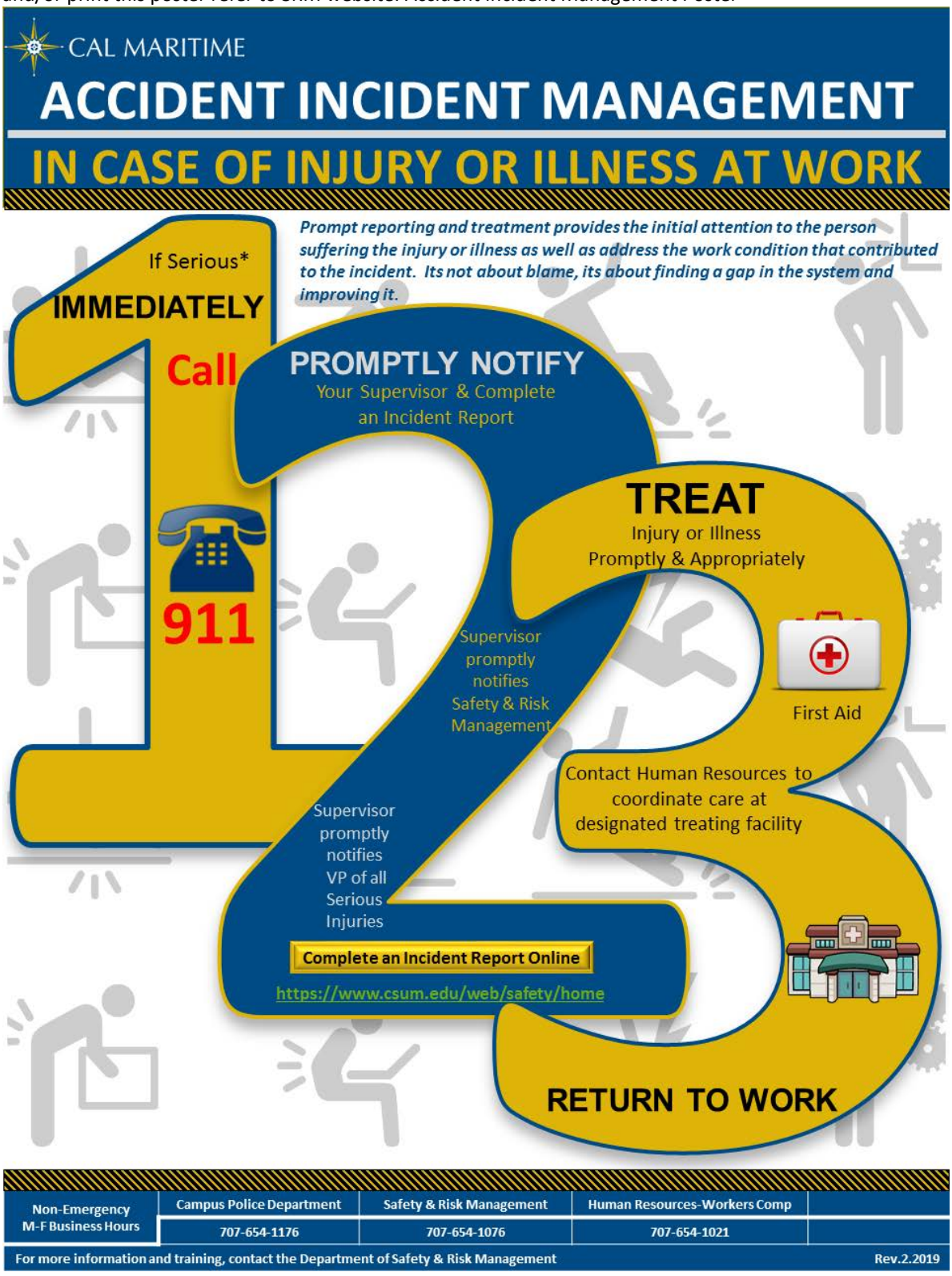
- **RUN**: leave your belongings behind. If there is an escape path attempt to evacuate. Help others if possible
- **HIDE:** If you cannot get out safely. Hide. Lock or barricade doors. Silence your cell phone and stay quiet.
- **FIGHT:** as a last resort, and if you life is in danger, you may attempt to incapacitate the shooter. Work in unison with others.

Non-Emergency M-F Business Hours	Campus Police Department	Safety & Risk Management	Facilities & Maintenance	Human Resources
	707-654-1176	707-654-1076	707-654-1120	707-654-1139

For more information and training, contact the Cal Maritime Police Department or the Department of Safety & Risk Management Rev.2019

Appendix O: Accident Incident Management

To download and/or print this poster refer to SRM website: Accident Incident Management Poster



Appendix P: Training Log

TRAINING SIGN IN SHEET

Subject			**Date**	
Instructor Name				
Department				
Course Level	❑ Awareness	❑ Competent Person	❑ Certified Person	❑ Other
Frequency	❑ Initial	❑ Annual-Refresher	❑ Process Change	❑ Post Incident

The attendees listed have satisfactorily participated and been tested per Regulation/University training requirements.

	PRINT NAME	STATUS (Staff, Faculty, Student)	SIGNATURE
1			
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Retain Original at Department Level & Submit Copy to Risk Management