



**SAN MATEO COUNTY
COMMUNITY
COLLEGE DISTRICT**

INJURY & ILLNESS PREVENTION PROGRAM

**For Compliance with
California Code of Regulations, Title 8
&
General Industry Safety Orders, Section 3203**

April 2014

Office of Facilities Planning, Maintenance & Operations

April 2014

INJURY AND ILLNESS PREVENTION PROGRAM

EMERGENCY PHONE NUMBERS

San Mateo County Community College SMCCD

3401 CSM Drive, San Mateo

All Emergencies (Fire, Police, Medical)	911
College of San Mateo Campus Security	650-574-6415
Campus Facilities Coordinator/Physical Plant	650-574-6577
College of San Mateo Campus Health Services.....	650-574-6396
Kaiser Hospital (Nearest Emergency Services).....	650-299-2015
Police (San Mateo)	650-522-7627
Vice Chancellor of Facilities Planning, Maintenance & Operation	650-574-6512
Vice Chancellor of Human Resources	650-358-6767

Cañada College

4200 Farm Hill Boulevard, Redwood City

All Emergencies (Fire, Police, Medical)	911
Campus Security	650-306-3420
Facilities Coordinator/Physical Plant	650-306-3325
Campus Health Services	650-306-3309
Sequoia Hospital (Nearest Emergency Services).....	650-369-5811
Police (Redwood City)	650-780-7100

College of San Mateo

1700 W. Hillside Blvd, San Mateo

All Emergencies (Fire, Police, Medical)	911
Campus Security	650-574-6415
Campus Facilities Coordinator/Physical Plant	650-574-6577
Campus Health Services	650-574-6396
Kaiser Hospital (Nearest Emergency Services)	650-299-2015
Police (San Mateo)	650-522-7627

Skyline College

3300 College Drive, San Bruno

All Emergencies (Fire, Police, Medical)	911
Campus Security	650-738-4199
Campus Facilities Coordinator/Physical Plant	650-738-4166
Campus Health Services	650-738-4270
Kaiser Hospital (Nearest Emergency Services)	650-299-2015
Police (San Bruno)	650-616-7100

TABLE OF CONTENTS

INTRODUCTION	1
POLICY STATEMENT	2
INJURY & ILLNESS PREVENTION PROGRAM	3
3.1 AREAS OF RESPONSIBILITY	3
3.2 ADHERENCE TO HEALTH AND SAFETY POLICIES & PROCEDURES	9
3.3 SAFETY COMMUNICATION	10
3.4 HAZARD ASSESSMENT AND CONTROL	11
3.5 SAFETY AND HEALTH TRAINING	13
3.6 RECORDKEEPING	15
3.7 ACCIDENT REPORTING AND INVESTIGATION	16
3.8 ACCIDENT INVESTIGATION	18
3.9 WORK-RELATED VEHICLE ACCIDENT REPORTS	19
3.10 HAZARD COMMUNICATION	20
	Appendix Page
APPENDIX	1
Appendix A - Safety Inspection Checklist	1
Appendix B - Safety Training Record Roster	6
Appendix C - New Employee Safety Training Checklist	7
Appendix D - Respiratory Protection Program	8
D-1 - Qualitative Respirator Fit Testing & Assignment Record	12
Appendix E - Safety Guidelines - General	13
Appendix F - Safety Guidelines - Chemical Usage	
Appendix G - Safety Guidelines – Laboratories	
Appendix H - Accident Reporting and Investigation Forms	
H-1 - Supervisor’s Injury/Illness Investigation Report Form	48
H-2 - Incident Review Team Report	49
H-3 - Work Related Vehicle Accident Report	50
H-4 - Injurer’s Injury/Illness Incident Report	52
H-5 - Report of District Vehicle Accident	53

1. INTRODUCTION

In 1973, the State of California adopted its own safety and health program, as permitted by the federal Occupational Safety and Health Act (OSHA) of 1970. The California Department of Industrial Relations, Department of Occupational Safety and Health (Cal/OSHA) establishes comprehensive occupational safety and health regulations that protect the working women and men of California. On October 2, 1989, Senate Bill No. 198 (the Injury Prevention Program law) was enacted by the California Legislature. SB 198 reinforces Cal/OSHA Industry Safety Orders (GISO) 3203 and California Labor Code Section 6401.7.

As incorporated into Title 8 of the California Code of Regulations (CCR), the regulation mandates that all California employers develop an Injury and Illness Prevention Program (IIPP) that details the means and methods each employer will use to ensure the safety and health of its employees. As an expansion of the existing San Mateo County Community College SMCCCD (SMCCD) safety practices and procedures and to comply with state requirements, the following IIPP has been formulated.

2. POLICY STATEMENT

It is the policy of SMCCCD to provide a safe and healthy campus environment for SMCCCD personnel, students, and visitors and to promote safety awareness at all levels. To help achieve this goal, the SMCCCD will promote a comprehensive IIPP that integrates a cooperative effort of the whole campus community to identify and eliminate unsafe conditions/practices, to control health hazards, and to comply fully with all applicable safety and health regulations.

As delegated by the SMCCCD, individual College deans, directors, department chairs, managers, and supervisors shall take a leadership role in ensuring the IIPP's effectiveness by promoting safety awareness for those they supervise and ensuring that all operations under their control are conducted in compliance with applicable regulations, SMCCCD policy, and this IIPP.

This IIPP shall include the identification of the persons responsible for program implementation, the methods for identifying and evaluating hazards, and the means for correcting unhealthy conditions and work practices in a timely manner. Safe work practices shall be promoted through education, training and enforcement.

Each SMCCCD employee is expected to be responsible for preventing workplace injuries/illnesses by continuously performing their job duties consistent with SMCCCD's safety program requirements.

3 INJURY & ILLNESS PREVENTION PROGRAM

3.1 AREAS OF RESPONSIBILITY

3.1.1 Vice Chancellor of Facilities Planning, Maintenance & Operations

1. Vice Chancellor of Facilities Planning, Maintenance, and Operations, as delegated by the Chancellor, is responsible for the overall implementation and management of the SMCCCD IIPP and shall:
 - a. Provide guidance to SMCCCD personnel concerning IIPP compliance requirements;
 - b. Provide centralized monitoring of campus activities related to implementation of the IIPP at each campus;
 - c. Ensure scheduled periodic safety inspections are performed in compliance with regulatory requirements and assist management staff in identifying unsafe or unhealthful conditions;
 - d. Ensure safety and health training programs comply with regulatory requirements and SMCCCD policy;
 - e. Maintain safety and health records consistent with the requirements of this document and regulatory mandates;
 - f. Ensure program audits, both scheduled and as required by a process, equipment or personnel change, or by a safety program mandate are performed;
 - g. Interpret existing or pending safety and health legislation and recommend appropriate compliance strategies to SMCCCD personnel; and
 - h. Conduct at least an annual review of this document and make the current revision available to all SMCCCD personnel.

3.1.2 Vice Chancellor of Human Resources

1. Vice Chancellor of Human Resources is responsible for supporting the employee safety training component of the IIPP by:
 - a. Develop procedures and job descriptions to identify employees who work in positions that require specialized safety training;
 - b. Assist Deans, Directors, and Supervisors in their development of Departmental safety training programs by providing advice, guidance and information concerning regulatory requirements relative to training content;
 - c. Provide other training resources such as videos, training packets, PowerPoint presentations and on-line training materials; and
 - d. Provide opportunities, in coordination with College Facilities Departments, for specific training to include, but not be limited to:
 - i. Bloodborne Pathogens
 - ii. Respiratory Protection and Respirator Use
 - iii. Portable Fire Extinguishers
 - iv. CPR and First Aid
 - v. Fire Prevention and Response
 - vi. Emergency Alarm and Exit Procedures
 - vii. Earthquake Preparedness and Response
 - viii. General Safety Awareness
 - ix. Medical Emergencies

3.1.3 SMCCCD Safety Committee

1. The following are the responsibilities of the SMCCCD Safety Committee:
 - a. Exercise oversight of all health and safety programs at SMCCCD;
 - b. Advise the Vice Chancellor of Facilities Planning, Maintenance and Operations and Vice Chancellor of Human Resources on the adequacy of SMCCCD health and safety programs, policies, and organization;
 - c. Recommend needs, priorities, and strategies to promote good health, safety, and environmental practices at the SMCCCD Colleges; and
 - d. Foster cooperation among units at SMCCCD having operational responsibility for health and safety, and reviews and recommends to the Vice Chancellor of Facilities Management, Maintenance and Operations the adoption of SMCCCD policies with respect to those health and safety matters that are not addressed by existing administrative panels.

3.1.4 College Administrators

1. The following are the responsibilities of the College Administrators:
 - a. Become familiar with the IIPP and ensures its applicable and effective implementation;
 - b. Be aware of all safety considerations when introducing a new process, procedure, machine, chemical or material to the work place or classroom;
 - c. Give maximum support to all programs and committees whose function it is to promote safety and health;
 - d. Actively participate in safety committees as required; and
 - e. Review accidents to ensure that required reports are completed and appropriate action is taken to prevent accident reoccurrence.

3.1.5 College Safety Committees

1. Each College will have a local safety committee with representation from campus security, faculty, administration, health clinic, buildings & grounds and office staff. They will meet on a monthly basis and report all findings to the College President. Topics discussed in the monthly College Safety Committee meeting should include, but not be limited to:
 - a. Work-related employee accidents, injuries, and illnesses since the last meeting;
 - b. Status and results of accident/injury/illness investigation reports for incidents reported;
 - c. Review and update annually College safety policies and Emergency Evacuation Plan;
 - d. Review and make recommendations related to facility and departmental inspection reports;
 - e. Identify and review training topics to be considered, scheduled, and available to faculty and staff; and
 - f. Identify and review safety promotional ideas and/or incentive programs.

3.1.6 College Department Deans, Directors, and Supervisors

1. The following are the responsibilities of the College Department Deans, Directors, and Supervisors:
 - a. Become familiar with SMCCCD safety policies, programs and procedures;
 - b. Develop and maintain area specific safety procedures where known hazards or hazardous materials are present;
 - c. Establish clearly outlined safety responsibilities in the job descriptions that govern their employees;
 - d. Ensure that each academic department using or storing hazardous chemicals implements and maintains a site-specific Chemical Hygiene Plan in accordance with the HAZCOM Program;
 - e. Ensure that SDSs for hazardous chemicals in use by their

respective departments are readily available to employees;

- f. Ensure that all chemicals are properly labeled and stored and that appropriate hazard warning information is contained on each label. Labels must be in English;
- g. Ensure the appropriate handling and disposal of hazardous waste by each of their departments by requiring coordination of disposal and waste manifesting with the SMCCCD Senior Buyer;
- h. Ensure that employees who choose to or are required to wear air-purifying respirators during work activities receive appropriate initial and annual respirator training and participate in annual medical evaluations to confirm that they can safely wear a respirator;
- i. Maintain a current list of all chemicals used in the workspaces under their control;
- j. Conduct an annual inventory of all chemicals present in each work space, including total quantity on hand of each chemical, to be submitted to the SMCCCD Senior Buyer for use in updating each College's Hazardous Materials Business Plan; and
- k. Arrange for initial hazardous communication program and special chemical hazard training to newly hired employees, and annual employee training thereafter.

3.1.7 SMCCCD Faculty and Staff

- 1. The following are the responsibilities of the SMCCCD Faculty and Staff:
 - a. Be familiar with and comply with all applicable SMCCCD and Departmental safety and health policies and regulations;
 - b. Be familiar with and comply with established and applicable safe work practices at all times;
 - c. Wear appropriate safety equipment as required;
 - d. Maintain equipment in good condition, with all safety guards in place when in operation;
 - e. Immediately report all injuries, regardless of how minor, to your supervisor;

- f. Encourage co-workers to work safely; and
- g. Immediately report all unsafe conditions observed, without fear of reprisal, to their immediate supervisor or Campus Police.

3.1.8 Campus Security & Health Services

1. The following are the responsibilities of the Campus Security and Health Services:
 - a. Ensure that any work-related injury or illness to which they are a responder, resulting in hospitalization or death is immediately reported to the Vice Chancellor of Human Resources and the Vice Chancellor of Facilities Management, Maintenance & Operations (See Section 3.7 – Accident Reporting and Investigation)

3.2 ADHERENCE TO HEALTH AND SAFETY POLICIES & PROCEDURES

3.2.1 College Deans, Directors and Supervisors are responsible for the development, communication, and enforcement of written policies and procedures related to:

1. SMCCCD and College safety policies and procedures.
2. Department safety and health requirements in subject areas including personal protective equipment requirements, employee conduct, emergency exit procedures, Chemical Hygiene Plans, etc.
3. Task specific procedures that include mandatory safety requirements for working with known hazardous materials or activities.

3.2.2 College Deans, Directors and Supervisors shall:

1. Include a statement concerning adherence to health and safety policies and procedures in each employee performance appraisal.
2. Take appropriate disciplinary action with any employee who fails or refuses to follow established safety procedures.
3. Encourage recognition of employees who follow safe and healthful work practices. The method of recognition shall be determined by the department administrator.

3.3 SAFETY COMMUNICATION

3.3.1 The SMCCCD utilizes several means and methods to develop and communicate with employees on matters related to occupational safety and health such as:

1. Conduct monthly SMCCCD and College Safety Committees.
2. Conduct semester meetings of Academic Departmental Staff where SMCCCD and Departmental safety programs are reviewed and safety issues discussed.
3. SMCCCD Human Resources Department provides copies of the SMCCCD IIPP and Hazard Communication Program to new faculty and staff during their initial employment orientation.
4. Academic Department conducts initial and annual site specific training to faculty and staff regarding known Departmental physical and chemical hazards.
5. Maintenance Department conducts monthly safety topic reviews and specialized safety training to employees of current and relevant safety and health issues.
6. College Safety Committee periodically posts current and relevant safety and health notices on Campus bulletin boards;
7. Provide a proactive response to direct inquiries.

3.4 HAZARD ASSESSMENT AND CONTROL

- 3.4.1 Annually, the Office of the Vice Chancellor of Facilities Management, Maintenance and Operations will coordinate audits of each College's health and safety activities to ensure compliance with this and other applicable regulatory requirements.
- 3.4.2 Each Semester, each College Dean, Director and Supervisor shall conduct a formal safety inspections of their respective facility, equipment and projects to identify unsafe conditions and work practices. The appropriate Safety Inspection Checklist (Appendix A) shall be used to conduct the inspection. The Office of the Vice Chancellor of Facilities Management, Maintenance and Operations will provide assistance and guidance on an as needed basis. Completed inspection records and any corrective actions taken to rectify an unsafe condition(s) shall be maintained by the appropriate Dean, Director or Supervisor for a minimum of three (3) years.
1. The inspection shall be a continuous interrupted activity and not be mixed in during the day's other activities.
 2. The inspection should focus on unsafe practices, unsafe conditions, defective equipment, defective tools, and poor housekeeping practices.
 3. Immediate corrective action should be taken whenever possible. If corrective actions will require additional time, the inspector will write up appropriate suggestions.
 4. A copy of the inspection report and the recommendations should be submitted to the Department Dean or Director and a copy should be forwarded to the Vice Chancellor of Facilities Planning, Maintenance and Operations.
 5. Whenever a Department adds, deletes or modifies a work task, material/product, piece of equipment or procedure that results in creating new or different exposure hazard(s), all affected employees must receive training specific to that hazard(s). The training must be provided prior to implementing the change and may be delivered by a qualified party determined by the Department's manager or supervisor. Documentation of the training must be kept by the Department for 30 years from the date of training.

3.4.3 In addition to the periodic safety and health inspections conducted by each Department, the SMCCCD may conduct specialized inspections. These inspections will typically be conducted as a result of a workplace accident or a request/complaint. Upon completion of each inspection, the SMCCCD will provide a report, to the Department administrator, of the observed deficiencies and recommendations for corrective action(s). The Department administrator is responsible for completing the corrective action(s) and returning the Notice of Corrected Violation form in Appendix A to the SMCCCD within the required time frame.

3.5 SAFETY AND HEALTH TRAINING

- 3.5.1 Effective dissemination of safety information is an essential element of a successful IIPP. It is necessary to provide employee training on general safe work practices and specific instruction related to hazards unique to each employee's job assignment.
- 3.5.2 Supervisors are the primary safety trainers. However, College Administrators, Deans, and Directors must ensure that Supervisors under their charge are trained to recognize and abate safety and health hazards to which their employees are exposed. Part of each College's Administrator, Dean, Director and Supervisor safety training responsibility includes ensuring that their College's or Department's safety training records are appropriately maintained by the specific college or department. Additionally, each safety training class must be recorded on a document at least as comprehensive as the sample Safety Training Record Roster provided in this document (See Appendix B).
- 3.5.3 Training and instruction which ensures that each employee is knowledgeable about the materials and equipment they will be working with, what known hazards are present and how they are controlled shall be provided to:
1. All new employees.
 2. All employees given new job assignments for which training has not previously been received and documented.
 3. Whenever new substances, processes, procedures or equipment are introduced into the workplace and represent a new hazard.
 4. Whenever the employer is made aware of a new or previously unrecognized hazard.
 5. Supervisors are to familiarize themselves with the safety and health hazards to which employees under their responsibility may be exposed.

3.5.4 Training and instruction shall inform employees:

1. Success of the SMCCCD's IIPP depends on mutual cooperation,
2. On the safe work procedures required for their jobs, and how these procedures protect them against exposure.
3. When personal protective equipment is required or needed, how to use it and maintain it in good condition.
4. What to do if emergencies occur in the workplace.

3.5.5 All employees must be informed and understand that:

1. They shall not undertake a job until they have received instructions on how to perform it properly and safely.
2. They shall not undertake any job that appears to be unsafe. Mechanical safeguards must always be kept in place.
3. They are to report to their immediate supervisor all unsafe conditions encountered during work.
4. Any work-related injury or illness suffered, however slight, must be reported immediately to the appropriate administrator.
5. Personal Protective equipment must be used when and where required, and maintained properly.

3.6 RECORDKEEPING

3.6.1 Cal/OSHA regulations have requirements for the maintenance and retention of records for occupational injuries and illnesses, medical surveillance, exposure monitoring, inspections and other activities relevant to occupational health and safety. To comply with these many requirements, and to demonstrate that critical elements of this IIPP are being implemented, the following records retention schedule shall be kept by the SMCCCD:

1. The Vice Chancellor of Human Resources shall maintain the following records for the minimum length of time indicated below:

Record Description	Retention Period
Notices of Safety Violations	3 years
Reports of Corrected Safety Violations	3 years
Employee safety training documents conducted by the SRMIS office	Duration of employment career
Cal/OSHA 300 Log and Summary of Occupational	5 years
IIPP audit and inspection records	3 years
Accident Report forms	3 years
Safety postings	3 years

2. Departments shall maintain the following records for the minimum length of time indicated below:

Record Description	Retention Period
Periodic inspection records	3 years
Safety meeting agendas	3 years
Employee safety training documents	Duration of employee's career

3.6.2 The applicable College or Department is responsible for maintaining these records and must be able to present them to Cal/OSHA or other regulatory agency if requested. IIPP audits will include a review of the college's or department's record keeping practices.

3.7 ACCIDENT REPORTING AND INVESTIGATION

3.7.1 Definitions: First Aid vs. Medical Treatment

1. **First Aid Treatment:** “One-time treatment and subsequent observation of minor scratches, cuts, burns, splinters, and so forth, which do not ordinarily require medical care.” For example, first aid treatment includes cleaning, bandaging, applying cold compresses, splinting to limit movement, etc. First aid treatment must be provided in the office or in the field.
2. **Medical Treatment:** “Treatment administered by a physician or by registered professional personnel under the standing orders of physician.” Any medical treatment must be reported to the workers’ compensation carrier.

3.7.2 Procedures for Injuries Requiring First Aid Treatment

1. Provide first aid treatment in the office or in the field. If unsure whether first aid injury or not, contact your Supervisor or the SMCCCD Office of Human Resources. Employee is to complete the Injured’s Injury/Illness Incident Report (Appendix H – H-4). In order to provide first aid treatment, it is imperative for all offices to have First Aid Kits available in the office and in each vehicle. If medical complications from a first aid treatment develop later, such as infection, the employee can open a workers’ compensation claim through the SMCCCD Office of Human Resources at the later date.
2. The supervisor should fill out the Supervisor’s Injury/Illness Investigation Report (Appendix H-1) with the injured worker collaboration. Forward the completed forms to your Supervisor and the SMCCCD Office of Human Resources. Investigation of First Aid injuries can be helpful to avoid possible major injuries in the future.

3.7.3 Procedures for Filing Workers' Compensation Reports (Injuries Requiring Medical Treatment)

1. Provide first-aid immediately. If medical treatment is necessary and injury/illness occurs in or near the office, use the college health center. Employee is to complete the Injurer's Injury/Illness Incident Report (Appendix H – H4). You may pre-designate in writing your personal physician prior to an injury/illness occurring. SMCCCD has "medical control" of injured personnel treatment for the first 30 days of all Workers Compensation claims; unless a pre-designation of personal physician exists. If emergency medical treatment is necessary while working on a SMCCCD campus, go to the nearest medical facility.
2. Call the SMCCCD Office of Human Resources to file a workers' compensation claim. Timely 24-hour reporting is critical.
3. Your supervisor or the SMCCCD Office of Human Resources will provide the appropriate forms and direct the injured worker to the designated clinic.
4. The area SMCCCD Office of Human Resources will contact the workers' compensation insurance carrier per instructions from the carrier.
5. The SMCCCD Office of Human Resources will maintain the CAL/OSHA 300 log of injuries and illnesses.
6. The employee's Supervisor or the SMCCCD Office of Human Resources should call the employee at home before the end of the day to inquire how the medical appointment went, what the prognosis is. The employee should be informed of their responsibility to keep in touch with the office on a daily basis regarding their progress and return to work status.
7. If upon returning from the clinic, it was determined that first aid and diagnostic tests were the only treatment provided, it may be possible to pay the clinic directly and not file a workers' compensation claim. Contact the SMCCCD Office of Human Resources if there is a question as to whether the case is first aid only.

3.8 ACCIDENT INVESTIGATION

- 3.8.1 When occupational illnesses/injuries occur, or near miss incidents with the potential for injury or property damage occur they will be investigated by the manager/supervisor. All recordable occupational injuries and illnesses will be investigated. First aid cases will be investigated at the discretion of the SMCCCD Office of Human Resources. Appropriate corrective action will be determined during this investigation. The investigation will be documented on the Supervisor's Injury/Illness Investigation Report (Appendix H-1).
- 3.8.2 The purpose of the investigation is to find the cause of an accident and prevent further occurrences, not to fix blame.
- 3.8.3 The investigation will determine at least the following:
1. Who and what was directly involved in the accident.
 2. Who and what was indirectly involved in the accident.
 3. Where and when the accident occurred.
 4. The cause of the accident.
 5. Steps and procedures to prevent re-occurrence.
- 3.8.4 The investigation should be conducted within 24 hours of the accident or incident or as soon as practical after the accident.
- 3.8.5 At the discretion of the SMCCCD Office of Human Resources, a further investigative procedure with employee's supervisor will be convened. This form is shown as Appendix H-2.

3.9 WORK-RELATED VEHICLE ACCIDENT REPORTS

- 3.9.1 Report vehicle accidents to your immediate Supervisor, who will report to the Executive Vice Chancellor's Office.
- 3.9.2 After reporting the accident to the claims representative, the employee should review the Accident Report (Appendix H, Form H-3) and complete Report of District Vehicle Accident (Appendix H – Form H-5).
- 3.9.3 If the vehicle accident involves injury to an employee, the supervisor with the employee collaboration should also complete the Supervisor's Injury/Illness Investigation Report (Appendix H-1) and the workers' compensation new injury reporting forms with the Office of Human Resources.

3.10 HAZARD COMMUNICATION

3.10.1 Purpose

1. This section establishes the requirements for hazard communication as required by 29 CFR 1910.1200 (Title 8 CCR 5194 in California). All employees have the right to know about the hazardous materials and operations present in their workplace.

3.10.2 Hazardous Materials Definition

1. A hazardous material is defined as having one or more of the following characteristics:
 - a. International Agency for Research on Cancer (IARC) and found to be a carcinogen or potential carcinogen, is listed in the Annual Report on Carcinogens published by the National Toxicity Program (NTP) or is regulated by CAL/OSHA as a carcinogen. Example: benzene.
 - b. Corrosive - A substance that causes visible destruction of, or irreversible alterations in, living tissue by chemical action at the site of contact. Example: sulfuric acid.
 - c. Highly Toxic - A chemical with an oral LD50 of 50 mg or less per kg of body weight (50 mg/kg) or a skin LD50 of 200 mg or less per kg of body weight (200 mg/kg) or a LC50 in air of 200 ppm or 2000 mg/m³, Example: Aldrin, Dieldrin (organochlorine pesticides).
 - d. Irritant - A substance, which is not corrosive, but which causes a reversible inflammatory effect on living tissue by chemical action at the site of contact; includes skin, eye, mucous membrane, or respiratory irritants. Examples: sulfur dioxide - respiratory irritant, solvents (toluene) - skin irritant.
 - e. Sensitizer - A substance that causes an allergic reaction in normal tissue after repeated exposure to the substance. Sensitizers affect a substantial proportion of exposed people but not all people. Example: isocyanates.
 - f. Toxic - A chemical with an oral LD50 of 50 to 500 mg per kg of body weight or a skin LD50 of 200 to 1000 mg per kg of body weight or an LC50 in air of 200 to 2000 ppm or 2000 to 20,000 mg/m³.

- g. Target Organ Effect - A chemical which has a primary toxic effect on an organ system within the body. Examples:
 - i. liver – chlorinated compounds
 - ii. kidneys – cadmium
 - iii. blood-forming system – benzene
 - iv. central nervous system - toluene, ethyl benzene, gasoline
- h. Flammable - A substance with a flashpoint less than 100°. Example: toluene.
- i. Combustible - A substance with a flashpoint greater than 100° F but less than 200° F.
- j. Compressed Gas - A gas contained in a tank or cylinder with absolute pressure exceeding 40 psi (pound per square inch).
- k. Explosive - A chemical compound that detonates as a result of shock or heat. Example: nitroglycerin.
- l. Organic Peroxide - An organic compound that is a structural derivative of hydrogen peroxide where one or both of the hydrogen atoms have been replaced.
- m. Oxidizer - A substance that initiates or promotes combustion in other materials through the release of oxygen. Examples: nitrates, perchlorates and peroxides.
- n. Pyrophoric - A substance that will ignite spontaneously in air at a temperature of 130° F or below. Example: phosphorus, titanium dichloride.
- o. Water Reactive - A substance that reacts with water to release a gas that is either flammable or presents a health hazard. Example: sodium.

3.10.3 Safety Data Sheets

1. Each Department, Laboratory, Workshop and Studio will acquire and maintain a Safety Data Sheet (SDS) for each hazardous material they use or store.
2. Each fixed job site will maintain a SDS for each hazardous material used at the job site, including materials used by outside contractors with which SMCCCD personnel may come in contact.
3. Individuals buying chemicals are expected to request an SDS from the manufacturer, importer, or distributor of any chemical at the time of purchase. The SDS will be given to the person responsible for the Department, Laboratory, Workshop and Studio where the chemical will be used so that they can incorporate the SDS into their respective Chemical Hygiene Plan and make it available to any person using the chemical.

3.10.4 Hazardous Material Inventory

1. Each Department, Laboratory, Workshop and Studio will be required to conduct a hazardous material inventory. The inventory is to be updated annually and be available in their Chemical Hygiene Plan. Each inventory will include the following information for each item of hazardous material.
 - a. Common or chemical name of the material
 - b. Quantity on hand

3.10.5 Labeling

1. To be in compliance with 29 CFR 1910.1200, each container of a hazardous material must be labeled to identify the hazards of that material. All containers should maintain the manufacturer's labeling including hazard warnings. When small quantities of a hazardous material are removed from larger containers, the smaller containers must be labeled with the chemical identity and all appropriate hazard warning information prior to issue. An exception to this is a small quantity of a chemical that will be used during the same work shift by the individual who did the chemical transfer.

3.10.6 Training

1. All personnel who work with, or are exposed to, any chemical material which is deemed to be hazardous will receive appropriate training provided by their supervisor. The following will be the minimum annual training requirements for personnel working with hazardous materials. Employees will also be trained on any new materials introduced into the work place or when new information regarding existing materials is brought to the attention of the supervisor.
 - a. Explanations of methods and observations used to detect the presence or release of a hazardous substance in the work place. This will include an explanation of industrial hygiene monitoring, visual appearance or odor of chemical being released, etc.
 - b. The physical and/or health hazards of chemicals in the work area.
 - c. Steps personnel can take to protect themselves from recognized hazards, including specific procedures that have been implemented to protect personnel from exposure to hazardous chemicals. This will include explanation of appropriate work practices, emergency procedures, and personal protective equipment to be used.
 - d. The details of the Hazard Communication Program, including the specifics of hazardous material labeling, Safety Data Sheets (location and how to read) and how personnel can obtain and use appropriate hazard information.
 - e. Training may be conducted in several ways. Formal classroom training, work center safety meetings, on-the-job instruction, and printed information sheets may all be used to convey hazard communication information.
 - f. All training will be documented.

3.10.7 Non-Routine Tasks

1. Employees (for the purpose of hazard communications training) will be trained as to the hazards of substances used as part of non-routine job tasks, prior to performing those tasks. Non-routine tasks are those operations performed infrequently (once or twice a year, or periodically) or those jobs the employee has never performed before. Each supervisor is responsible for adequately training his employees of hazardous tasks. The specification for the job must include job safety requirements and information regarding possible hazards.

3.10.8 Contractors

1. Subcontractors will be informed of hazardous substances used by SMCCD at each campus to which their employees may be exposed. The SMCCD project manager will provide contractors or subcontractors the necessary information so the contractor can train their employees on the hazardous substances brought onto the site by SMCCD. If requested by the contractor, this information will include applicable SDSs. An appropriate warning should be made that the supplied information is not all-inclusive and that many job hazards are due to the nature of the contractor's business.

APPENDIX A
ANNUAL SAFETY INSPECTION CHECKLIST
LABORATORY, STUDIO OR WORKSHOP

Building & Room # _____ **Date:** _____

I. Housekeeping:

- | Yes | No | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Is the lab in a disorderly condition? |
| <input type="checkbox"/> | <input type="checkbox"/> | Is there evidence of chemical spills? |
| <input type="checkbox"/> | <input type="checkbox"/> | Are floors in need of a cleaning? |
| <input type="checkbox"/> | <input type="checkbox"/> | Are bench tops cluttered with unused equipment or lab ware? |
| <input type="checkbox"/> | <input type="checkbox"/> | Are the emergency shower/eyewash stations blocked? |
| <input type="checkbox"/> | <input type="checkbox"/> | Is there evidence of eating or drinking in the lab? |
| <input type="checkbox"/> | <input type="checkbox"/> | Are tripping hazards present? |

Comments:

II. Chemical Use and Storage

- | Yes | No | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Have employees received Right-to-Know training for the chemicals in use? |
| <input type="checkbox"/> | <input type="checkbox"/> | Are chemicals stored according to hazard class? |
| <input type="checkbox"/> | <input type="checkbox"/> | Are secondary containers labeled with identity & hazard class information? |
| <input type="checkbox"/> | <input type="checkbox"/> | Are copies of the SDSs readily available for the chemicals in use? |
| <input type="checkbox"/> | <input type="checkbox"/> | Are outdated chemicals kept beyond their usefulness? |
| <input type="checkbox"/> | <input type="checkbox"/> | Are refrigerators/freezers properly labeled / used for the storage of flammables? |
| <input type="checkbox"/> | <input type="checkbox"/> | Are shelves/cabinets for chemical storage in good condition? |
| <input type="checkbox"/> | <input type="checkbox"/> | Are flammables stored in the flammable storage cabinet? |
| <input type="checkbox"/> | <input type="checkbox"/> | Are acids and bases stored properly? |
| <input type="checkbox"/> | <input type="checkbox"/> | Are volatile chemicals with Permissible Exposure Levels < 100 parts per million restricted to use in the hood? |
| <input type="checkbox"/> | <input type="checkbox"/> | Are compressed gas cylinders properly secured and labeled? |

Comments:

List the type and the number of gallons of flammable solvents stored outside of a flammable solvent cabinet:

Acetone (1A) _____ Ethyl Ether _____
 Hexane (1A) _____ Pentane (1A) _____
 Methanol (1A) _____ Toluene (1B) _____

Note any instances of incompatible storage:

III. Hazardous Wastes

A. Hazardous Waste generated in this area:

Waste Description	Generation Rate (units)

- | | | |
|--------------------------|--------------------------|---|
| Yes | No | |
| <input type="checkbox"/> | <input type="checkbox"/> | Have all process been evaluated for proper waste disposal procedures? |
| <input type="checkbox"/> | <input type="checkbox"/> | Do procedures indicate a proper route of disposal for all products? |
| <input type="checkbox"/> | <input type="checkbox"/> | Are wastes transferred to the proper containers? |
| <input type="checkbox"/> | <input type="checkbox"/> | Are waste containers properly labeled as to their contents and hazards? |
| <input type="checkbox"/> | <input type="checkbox"/> | Are containers of wastes properly stored in the satellite area? |

Comments:

IV. Personal Protective Equipment

Are staff using/wearing the following personal protective equipment?

- | | | |
|--------------------------|--------------------------|--|
| Yes | No | |
| <input type="checkbox"/> | <input type="checkbox"/> | Lab Coat |
| <input type="checkbox"/> | <input type="checkbox"/> | Safety Glasses |
| <input type="checkbox"/> | <input type="checkbox"/> | Safety Goggles when necessary |
| <input type="checkbox"/> | <input type="checkbox"/> | Gloves compatible with the chemicals in use |
| <input type="checkbox"/> | <input type="checkbox"/> | Apron |
| <input type="checkbox"/> | <input type="checkbox"/> | Respirator |
| <input type="checkbox"/> | <input type="checkbox"/> | Are lab coats/gloves removed before leaving the lab? |

Comments:

V. Hoods

Yes No

- Are hoods cluttered with material or equipment?
- Are hoods being used to store chemicals that are not in use?
- Have the hoods been recently calibrated (face velocity)?
- Are the hoods being used properly by staff?
- Are the slots/baffles blocked by equipment or chemicals?
- Are equipment/processes placed 6 inches behind the face of the hood?

Comments:

VI. Emergency Procedures

Yes No

- Have staff been trained in emergency procedures?
- Are emergency procedures posted?
- Are emergency response phone numbers displayed near the phone?
- Are exits marked?
- Are spill cleanup procedures and kits available for all materials in use?

Yes No

- Solvents
- Acids/Bases
- Broken Glass/sharps
- Other (list)

- Are emergency shower/eyewash stations readily available?
- Are appropriate fire extinguishers readily available?
- Has the fire extinguisher been recently maintained?
- Is there a first aid kit available in the room?
- Is there a fire blanket in the area?

Comments:

VII. Equipment

- | | | |
|--------------------------|--------------------------|--|
| Yes | No | |
| <input type="checkbox"/> | <input type="checkbox"/> | Is equipment used within its designed purpose? |
| <input type="checkbox"/> | <input type="checkbox"/> | Is apparatus properly secured/supported? |
| <input type="checkbox"/> | <input type="checkbox"/> | Are fail safes in use when possible? |
| <input type="checkbox"/> | <input type="checkbox"/> | Are all water/glassware connections secured? |
| <input type="checkbox"/> | <input type="checkbox"/> | Do electrical plugs or cords show evidence of: |
| Yes | No | |
| <input type="checkbox"/> | <input type="checkbox"/> | Frayed cords |
| <input type="checkbox"/> | <input type="checkbox"/> | Overloaded cords (warm to the touch) |
| <input type="checkbox"/> | <input type="checkbox"/> | Altered or damaged plugs (ground removed) |
| <input type="checkbox"/> | <input type="checkbox"/> | Extension cords or power strips in use |

Comments:

VIII. Standard Operating Procedures (SOPs)

- | | | |
|--------------------------|--------------------------|---|
| Yes | No | |
| <input type="checkbox"/> | <input type="checkbox"/> | Are SOPs available for the process(s) being conducted in the lab? |
| <input type="checkbox"/> | <input type="checkbox"/> | Are the SOPs reviewed or updated with new information? |
| <input type="checkbox"/> | <input type="checkbox"/> | Are the staff following the SOPs as written? |

Comments:

IX. Biosafety

Source(s) of infectious waste: _____

- | | | |
|--------------------------|--------------------------|--|
| Yes | No | |
| <input type="checkbox"/> | <input type="checkbox"/> | Are used needles are bent, not broken? |
| <input type="checkbox"/> | <input type="checkbox"/> | Are all sharps are placed in labeled puncture-resistant containers? |
| <input type="checkbox"/> | <input type="checkbox"/> | Are hands washed after glove removal/hand contact with infectious agents? |
| <input type="checkbox"/> | <input type="checkbox"/> | Is Personal Protective Equipment (PPE) removed before leaving the work area? |
| <input type="checkbox"/> | <input type="checkbox"/> | Is aerosolization, splashing or spraying kept to a minimum? |
| <input type="checkbox"/> | <input type="checkbox"/> | Is eating, smoking or drinking prohibited in the labs? |
| <input type="checkbox"/> | <input type="checkbox"/> | Is the appropriate PPE available and in use? |

- Is the area posted with a BIOHAZARD symbol & name of the infectious agent?
- Are warning labels affixed to containers of infectious waste?
- Have staff received training to work with infectious waste?
- Are work surfaces decontaminated after procedures, spills and at the end of the shift?

How is the infectious waste disposed of? _____

APPENDIX B
Safety Training Record Roster

Trainer(s) _____ Date _____

Subjects Covered _____

Print Name	Signature	Date
------------	-----------	------

1) _____

2) _____

3) _____

4) _____

5) _____

6) _____

7) _____

8) _____

9) _____

10) _____

11) _____

12) _____

13) _____

14) _____

15) _____

16) _____

17) _____

18) _____

19) _____

**APPENDIX C
New Employee Safety Training Check List**

(This report to be completed with the Supervisor and the employee within five working days of employment or new job assignment, and filed with Human Resources.)

Name _____ Date Employed: _____
Department Assigned: _____

Type of Work _____
Employee Past Work Experience _____

Any Physical Limitations? _____
If yes, please explain: _____

I HAVE BEEN INSTRUCTED IN THE FOLLOWING:

	Yes	No	NA
1. District Injury & Illness Prevention Program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. District Hazard Communication Program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. College Emergency Evacuation Program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Safety rule enforcement procedures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Use of tools and equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Proper personal protective equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Lifting and use of lifting equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. How, when and where to report injuries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Importance of housekeeping	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Special hazards of job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. When and where to report unsafe conditions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Safe operation of vehicle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Employee Signature Date

Follow-up on employee will be observed by:

Employee has performed operation to the satisfaction of the undersigned. An observation was made at time of the 30th day of employment.

Supervisor Date

Important: If this employee is transferred to another type of job, a new safety instruction report must be made out.

**APPENDIX D
RESPIRATORY PROTECTION PROGRAM**

A. USE OF RESPIRATORS

Where the use of respirators is necessary to maintain exposure below permissible exposure limits, the employee is provided, at no cost, with the proper respiratory equipment. Respirators are selected and used in accordance with the requirements of California Code of Regulations Title 8, Section 5144

B. REQUIREMENTS

1. Written Standard Operating Procedure governing the selection and use of respirators. A written standard can be found at the end of this chapter.
2. Respirators are selected on the basis of hazards to which the worker is exposed.
3. The user is instructed and trained in the proper use of respirators and their limitations.
4. Where practicable, the respirators are assigned to individual workers for their exclusive use.
5. Respirators are regularly cleaned and disinfected. Those issued for use by more than one worker are thoroughly cleaned and disinfected after each use.
6. Respirators are stored in a convenient, clean and sanitary location.
7. Respirators used routinely are inspected during cleaning and worn or deteriorated parts are replaced.
8. Only approved or accepted respirators are used. The respirator furnished will provide adequate respiratory protection against the particular hazard for which it is designed in accordance with standards established by competent authorities. (NIOSH is testing and certifying respirators).

The person responsible for developing and implementing the respiratory protection program is:

Name	Title	Department
------	-------	------------

The written standard operating procedures and all documentation related to the respiratory protection program are maintained at the following location:

Name	Title	Department
------	-------	------------

C. STANDARD OPERATING PROCEDURE

1. Use of Respirators

- a. In areas where the respirator user/wearer, with failure of respirator, could be overcome by a toxic or oxygen-deficient atmosphere, at least one additional person shall be present. Communication (visual, voice, or signal line) shall be maintained between both or all individuals present.
- b. Every respirator wearer receives fitting instructions including demonstrations and practice in how the respirator should be worn, how to adjust it, and how to determine if it fits properly. Respirators are not to be worn when conditions prevent a good face seal. Such conditions may be a growth of beard, sideburns, a skull cap that projects under the face piece, or temple pieces on glasses. The worker's diligence in observing these factors is evaluated by periodic check. Ensuring good face piece fit may be done by following the manufacturer's face piece fitting instructions.
- c. When corrective spectacles or goggles are required, they shall be worn so as not to affect the fit of the face piece. Wearing of contact lenses in contaminated atmospheres with a respirator is not allowed. A system for mounting corrective lenses inside full face piece is to be used.

2. Maintenance and Care of Respirators

- a. The equipment is properly maintained to retain its original effectiveness. This includes:
 1. Inspection for defects (including a leak check)
 2. Cleaning disinfecting
 3. Repair
 4. Storage
- b. A routine inspection before and after each use is performed. A respirator that is not routinely used but is kept ready for emergency use is inspected after each use and at least monthly to assure that it is in a satisfactory working condition.
- c. Respirator inspection includes a check of the tightness of connections and condition of the face piece, headbands, valves, connecting tubes, and canisters. Rubber or elastomeric parts are inspected for pliability and signs of deterioration. Stretching manipulating rubber or elastomeric parts with a massaging action will keep them pliable and flexible and prevent them from taking a set during storage.
- d. A record of inspection dates and findings is kept for respirators maintained for emergency use.

- e. Routinely used respirators are collected, cleaned, and disinfected as frequently as necessary to insure that proper protection is provided for the wearer. Respirators maintained for emergency use are cleaned and disinfected after each use.
- f. No attempt is made to replace components or to make adjustment or repairs beyond the manufacturer's recommendations.
- g. After inspection, cleaning and necessary repair, respirators are stored to protect against dust, sunlight, heat, extreme cold, excessive moisture and damaging chemicals. Respirators placed at stations and work areas for emergency use are quickly accessible at all times.
- h. Respirators are packed and stored so that the face piece and exhalation valve will rest in a normal position and function will not be impaired by the elastomer setting in an abnormal position.
- i. Instructions for proper storage of emergency respirators are found in "use and care" instructions mounted inside the carrying case lid.

3. Identification of Gas Mask Canister

- a. Gas mask canister is identified by two means:
 - 1. Properly worded labels
 - 2. Color coded
- b. Laboratory supervisor sees that all gas mask canisters purchased are properly labeled and colored before they are placed in service, and that the labels and colors are properly maintained at all times thereafter until the canisters have completely served their purpose.
- c. Canisters are labeled with the following warning:

"Gas masks should be used only in atmospheres containing sufficient oxygen to support life (at least 16 percent by volume), since gas mask canisters are only designed to neutralize or remove contaminants from the air."
- d. Gas mask canisters are coated with distinctive colors or combination of colors, such that they are clearly identifiable by the user and clearly distinguishable from one another. The color coding is listed in the following table:

ATMOSPHERIC CONTAMINANTS TO BE PROTECTED AGAINST		COLORS ASSIGNED
1.	Acid Gases	White
2.	Hydrocyanic Acid Gas	White with 1/2" green stripe completely around the canister near the bottom.
3.	Chlorine Gas	White with 1/2" yellow stripe completely around the canister near the bottom.
4.	Organic Vapors	Black
5.	Ammonia Gas	Green
6.	Acid Gas & Ammonia Gas	Green with 1/2" white stripe completely around the canister near the bottom.
7.	Carbon Monoxide	Blue
8.	Acid Gases & Organic Vapors	Yellow
9.	Acid Gases, Organic Vapors & Ammonia Gases	Brown
10.	Particulates (dusts, fumes, mists, fogs, or	Canister color for contaminants as smokes) in combination with any of the above designated above, with 1/2" gray stripe gases or vapors completely around the canister near the top.
11.	All of the above atmospheric contaminants	Red with 1/2" gray stripe completely around the canister near the top.

APPENDIX D-1 QUALITATIVE RESPIRATOR FIT TESTING & ASSIGNMENT RECORD

Employee Name: _____ Employee #: _____

Type of Respirator(s) Issued (Manufacturer, Model Number, Type)

Cartridge Used: Organic Vapor _____ HEPA _____ Other _____

Test Agent: Irritant Smoke _____ Isoamyl Acetate (banana oil) _____

***** FIT TEST PROCEDURE

1. Respirator is selected by test subject.
2. Cartridges are attached to respirator (HEPA for irritant smoke, organic vapor cartridge for banana oil / isoamyl acetate).
3. Respirator is inspected, donned, adjusted, and worn for 10 minutes.
4. Visual check for comfort and fit; negative and positive fit-checks.
5. Use chamber or enclosure for concentration of test agent.
6. Test agent (irritant smoke or banana oil) is applied to potential leak points during:
 - Normal breathing (1 minute)
 - Deep breathing (1 minute)
 - Slowly turn head from side to side (3 cycles, 5 seconds each position)
 - Reading / verbal communication (1 minute)
 - Facial contortions; i.e. grimace, smile, frown (15 seconds) Bend over and touch toes (repeat for 30 seconds)
 - Jogging in place (30 seconds)
 - Normal breathing (1 minute)
 If test agent is detected (i.e. by smell or coughing), re-adjust respirator or choose another size or style.
7. Visual re-check for comfort and fit, then respirator is removed.
8. Check subject's response to irritant smoke (coughing response) or banana oil (banana odor).

***** For full-face respirator:

Wear prescription glasses? _____ yes _____ no (obtain glasses kit for full-face)
Wear contact lenses? _____ yes _____ no

Types of Air Contaminants:

Do you work with asbestos? _____ yes _____ no
Do you work with other regulated carcinogens? _____ yes _____ no

If yes, fit-test required every six months.

Other air contaminants, fit-test required annually.

***** Date of last respiratory protection training: _____

Date of last medical examination: _____

I, _____, acknowledge that I have on this date been successfully fit-tested for the respirator specified.

_____ (Signature) _____ (Date)

_____ (Fit-tester name and signature) _____ (Date)

APPENDIX E
SAFETY GUIDELINES – GENERAL

TABLE OF CONTENTS

SECTION	APPENDIX PAGE #
1.0 GENERAL SAFE WORK PRACTICES	15
2.0 FIRE SAFETY.....	16
3.0 MATERIAL HANDLING.....	17
4.0 USE OF TOOLS, MACHINERY & EQUIPMENT	17
5.0 MOBILE EQUIPMENT AND VEHICLES	18
6.0 SCAFFOLDS, GUARD RAILS, LADDERS	19
7.0 OFFICE AND BUILDING SAFETY	20
8.0 CONFINED SPACES	20
9.0 ISOLATION & LOCKOUT-TAG-OUT	21
10.0 RADIATION SAFETY	21
11.0 HEAT STRESS	22
11.1 General Information.....	22
12.0 COLD STRESS	23
12.1 Signs and Symptoms of Cold Disorders	23
12.2 Factors Contributing to Cold Disorders Include	23
12.3 Work Practices to Prevent Cold Disorders	24
13.0 BLOODBORNE PATHOGEN EXPOSURE CONTROL PLAN	24
13.1 Purpose	24
13.2 Scope	24
13.3 Method of Compliance	24
13.4 Communication of Hazards	25
13.5 Exposure Determination	25
13.6 Control Procedures	25
13.7 Incident Investigation & Notification	25

13.8	Post-Exposure Evaluation	26
13.9	Hepatitis B Vaccination	26
13.10	Training	27
13.11	Recordkeeping	27
14.0	FALL PROTECTION	28
14.1	Standard systems for fall protection	28
14.2	Requirements for Guardrails	28
14.3	Safety Nets	28

GENERAL SAFETY GUIDELINES

This section contains specific codes of safe work practices for various operations and/or tasks. These codes should be used when training employees on job hazards and safe work procedures. This section of the Injury and Illness Prevention Plan will be distributed to all personnel as a separate “Code of Safe Work Practices” manual and will be included in the New Employee Orientation.

General Safe Work Practices

Fire Safety

Material Handling

Use of Tools, Machinery, Equipment

Mobile Equipment and Vehicles

Scaffolds, Guard Rails, Ladders

Office and Building Safety

Radiation Safety

Heat Stress

Cold Stress

Bloodborne Pathogens Exposure Control Plan

Fall Protection

1.0 GENERAL SAFE WORK PRACTICES

Each employee must follow safe practices and give all possible assistance to maintaining safe operations. Unsafe conditions and/or unsafe acts must be reported promptly to the project manager, field supervisor, or other proper authority, as well as the office safety representative.

Deans, Directors, and Supervisors will be held responsible for all employees observing and obeying every safety rule, regulation, and order and will take such action as necessary to maintain safety compliance, to make facility, laboratory, workshop and studio safety inspections each quarter and mitigate safety problems discovered.

All injuries, no matter how slight, must be reported immediately to your supervisor. Prompt reporting is essential so that proper first aid treatment or medical attention arrangements can be made.

No intoxicating substances (i.e., alcohol, illegal/illicit drugs, etc.) of any kind are permitted on SMCCCD property and drinking of alcohol by employees during work hours is absolutely prohibited. Anyone known to be under the influence of an intoxicating substance will not be allowed on the job. Note that some prescription medication can impair an employee’s ability to perform the assigned duties safely.

No firearms or other weapons are permitted on the SMCCCD property.

Each employee shall operate equipment only when all guards and other protective devices are properly secured and correctly adjusted. Employees are required to promptly report all deficiencies to their Supervisor.

Fighting, horseplay, or scuffling on SMCCCD property is prohibited. Crowding or pushing when boarding or leaving any vehicle or equipment is prohibited.

An employee must not attempt to lift heavy or bulky objects beyond his/her capacity. (Size up load. Get help when needed. Keep back straight, knees bent, and lift with leg muscles.)

Makeshift devices are not to be used instead of ladders for reaching elevated locations.

Both hands are to be used to climb or descend ladders.

Employees are to walk carefully and be alert at all times. Running in the work area is not permitted except to avoid danger.

Aisles, passageways, fire extinguishers, eye washer and safety shower corridors are not to be blocked at any time.

When driving, employees are to observe all local traffic rules and speed limits. Employees are required to wear seat belts.

Wearing of hand protection, eye protection, foot protection, protective clothing, hood, head protection, respirator, and other safety equipment is mandatory in areas and operations where specified by operating procedures, laboratory procedures, or the Departmental Health and Safety Plan.

Food and beverages are not to be consumed in laboratories or in work areas where toxic materials are stored, handled or used. Prior to eating, drinking, or smoking, employees are required to wash their hands.

Only qualified persons shall repair or otherwise work on electrical equipment.

2.0 FIRE SAFETY

Firefighting equipment must not be obstructed and is to be used for fire fighting purposes only.

The use of gasoline as a cleaning solvent is strictly forbidden. An approved cleaning solvent in approved, labeled containers must be used to clean tools, machinery, and equipment.

No burning, welding or other source of ignition will be applied to any enclosed tank or vessel, even if there are some openings, until it has first been determined that no possibility of explosion exists (tank has been inerted) and authorization for the work is obtained from a Supervisor.

Fire extinguishers will be inspected monthly to ensure that they are in their proper location and that they are charged. The monthly check should consist of a visual check that the extinguisher is undamaged and pressurized in the green area. Additionally, the unit should be inverted to prevent settling of the powder. Fire extinguishers will be serviced annually by an outside fire extinguisher company. In the office and laboratory areas, the maximum travel distance to a fire extinguisher will not exceed 75 feet.

Any individual who may be required to operate a fire extinguisher should receive annual training on its operation.

Gasoline must be stored in and dispensed from safety cans. A safety can has a spring mounted lid and a spark arrestor in the spout.

Flammable liquid containers including safety cans are to be stored in an approved flammable storage cabinet.

3.0 MATERIAL HANDLING

To lift safely, size up a load before lifting and get help if load is bulky, heavy, or of an unwieldy length:

- Be sure of your footing.
- Lift with your legs, while keeping your back straight.
- Keep your balance; don't twist under strain or jerk the load.
- Keep the load close to your body.

When two or more persons are carrying long items or materials together, all persons should carry the material on the same shoulder, and should lift and lower in unison.

Do not throw material, tools, or other objects from buildings, structures, or vehicles.

Be careful where you are walking and make sure you have good footing and posture when you lift or carry equipment. Ensure that your work area is clear so that you do not have to move around or over an obstacle.

Avoid twisting. Twisting is a major cause of injury. If you have to change direction when lifting or carrying, move your feet first. During lifting there is already stress on the lumbar area of your back. The rotating movement in a twist greatly increases that stress.

Whenever feasible, use mechanical help (hand cart, forklift, push cart, wheelbarrow) to move heavy objects.

Whenever feasible, arrange work area such that lifting or setting down heavy objects is at waist height.

Minimize the distance a heavy object must be carried.

Minimize the number of times a heavy object must be lifted.

4.0 USE OF TOOLS, MACHINERY, EQUIPMENT

Inspect tools frequently for defects. Turn in all tools which are burred, mushroomed, have split or loose handles, worn or sprung jaws, generally unsafe, etc.

Use tools properly; do not use a wrench for a hammer, a screw driver for a chisel, pliers for a wrench, pipe or Stilson wrenches as a substitute for other wrenches, a pipe handle-extension or "cheater" on a wrench, etc.

Do not lift or lower portable electric tools by means of a power cord, use a hand line. Likewise, never throw tools, equipment, or material up or down from one working level to another, always use a hand line.

Keep cords of electrical equipment coiled when not in use. When in use, make sure cords are positioned to avoid being run over by vehicles or equipment.

When using any electrically-powered equipment, make sure it is properly grounded by using 3-wire receptacles and extension cords, and a properly grounded source.

Shut down machinery before cleaning, oiling, or adjusting.

Never leave nails or spikes protruding from planks, boards, or other timbers. Pull them out or clinch them (bend them over) into the wood.

Do not attempt to operate machinery or equipment without proper training.

Do not wear loose or frayed clothing, dangling ties, finger rings, etc. when operating or working near moving machinery or other mechanical sources of entanglement.

Do not attempt to repair or adjust machinery while in operation, nor attempt to oil moving parts, except on equipment that is designed or fitted with safeguards to protect the person performing the work.

Do not work under vehicles supported by jacks or chain hoists without protective blocking that will prevent injury if jacks or hoists should fail.

Air hoses should not be disconnected at compressors until hose line has been bled.

Do not operate hand or power tools for which you have not been trained.

5.0 MOBILE EQUIPMENT AND VEHICLES

Do not ride on equipment, rigging, or on any loads being moved by heavy equipment.

Keep out from under loads, and keep clear of moving loads.

All SMCCCD operated vehicles must contain a fire extinguisher, first aid kit, disabled vehicle reflective triangles or flares, seat belts, and proof of insurance. It is the responsibility of the employee assigned to an SMCCCD field vehicle to maintain the vehicle and its equipment. Vehicle equipment will be replaced as necessary. Replacement of equipment lost or rendered unusable through negligence will be the responsibility of the employee assigned the vehicle.

All SMCCCD personnel who, in the course of their work, are operating or riding in a motorized vehicle equipped with seat belt and/or shoulder harness assemblies will wear such protection whenever the vehicle is in motion. Failure to wear such protection may result in disciplinary action.

Operate tractors, backhoes, forklifts, carryalls and other vehicles cautiously where there is a possibility of overturning in dangerous areas like edges of deep fills, cut banks, and steep slopes.

Operators of forklifts must be trained and certified to operate the equipment.

6.0 SCAFFOLDS, GUARD RAILS, LADDERS

Always inspect scaffolds before getting on them. Wooden scaffolds must be securely tied to the building or structure by means of a wire rope or boards. Metal scaffolds must be securely tied to the building or structure when the height of the scaffold exceeds 3 times the base dimension. Suspended scaffolds must have wire ropes that are properly tied to a secure support.

At a minimum, scaffold width must be 20 inches.

All scaffolds must be equipped with a toe board, a top guard rail of 42 inches plus or minus 3 inches above the walking/working level and an intermediate guard rail if working height is six (6) feet or more above a lower level.

All scaffolds must have a safe and unobstructed means of access, such as a walkway, stair, or ladder. If a ladder is used, it must be securely attached to the scaffold. Horizontal members of end frames may be designed and used as a climbing device provided the steps are reasonably parallel and level and provide a good handhold and foothold.

Repair or report promptly to your project manager or supervisor, any damage to scaffolds, false work, or other supporting structures.

Never leave an opening unprotected. Provide a cover or guardrail, or report the condition to your project manager or field supervisor immediately.

Inspect all ladders thoroughly before use for defects in rungs and rail. Always position a ladder so that you are able to face the ladder and use both hands while climbing.

Position a ladder so that the distance from the base of the ladder to the wall is 1/4 the length of the ladder.

Tie or lash the top of the ladder in place.

Use only the proper length extension or straight ladder. Ladders used to reach a walkway or roof must extend at least thirty-six (36) inches above the landing.

Do not stand on any of the top three rungs of a straight ladder or the top two steps of a step ladder.

When adjusting the length of an extension ladder, make sure the locking device is fully secured before attempting to use the ladder.

Do not use metal ladders when working with or near electrical circuits of any type or in places where electrical contact can be made.

Do not use painted ladders at any time.

The minimum clear length of rungs or cleats on ladders will be sixteen (16) inches.

A clear width of at least fifteen (15) inches will be provided each way from the center line of the ladder in the climbing space.

The distance from the center line of rungs, cleats, or steps to the nearest permanent object in back of the ladder will not be less than seven (7) inches except when unavoidable obstructions are encountered.

7.0 OFFICE AND BUILDING SAFETY

Do not use extension cords for permanent wiring.

Open only one drawer of a file cabinet at a time.

Fire extinguishers will be placed so that the maximum travel distance does not exceed seventy-five (75) feet. Fire extinguishers will be inspected monthly to ensure that they are in their proper location and that they are charged. The monthly check should consist of a visual check that the extinguisher is undamaged and pressurized in the green area. Additionally, the unit should be inverted to prevent settling of the powder. Fire extinguishers will be serviced annually by an outside fire extinguisher company.

Do not block access to emergency exits.

Do not use unprotected spike type memo holders.

Do not use chairs as stepping stools.

Do not place electrical and telephone cords so as to create a tripping hazard.

Do not remove or defeat grounding prongs on electrical plugs.

Maintain a minimum 3 foot clear distance in front of all electrical breaker panel boxes. Store equipment or materials no closer than 18 inches of fire sprinkler heads.

Keyboard users should set up work stations properly; i.e., adjustment of chair, placement of monitor and keyboard, and adjustment of lighting. Contact your Human Resources Representative for more information.

Keyboard users will take short, frequent "micro-breaks". Frequent micro-breaks of one minute or less several times a day are more beneficial than longer, less frequent breaks. Micro-breaks should include stretching or movement of back, neck, shoulders, and arms as well as focusing on an object several feet away.

8.0 CONFINED SPACES

Cal/OSHA requires that workers in a confined space be trained in operating and rescue procedures, including instructions in any hazards they may encounter. Such hazards not only include those directly related to the limited area and difficult access/egress, but also those related to other health and safety hazards present. The level of training required is not covered in the 40-Hour Hazardous Waste Operations and Emergency Response class. Additional training is needed.

Confined space is defined by CAL/OSHA as an area:

- Which is sufficiently large to allow employee entry, but which has a limited or difficult means of entry and egress; and Is not designed for continuous employee occupancy.

CAL/OSHA defines two types of confined spaces: permit-required and non-permit-required.

Permit-required confined spaces are confined spaces that are hazardous to enter unless special precautions are taken. SMCCD employees will not be allowed to enter permit-required confined spaces. All such work will be completed by outside contractors with appropriate training.

A permit-required confined space has one or more of the following characteristics:

- Contains or has the potential to contain hazardous atmospheres
- Contains a material that has the potential for engulfing an entrant
- Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-sectional area
- Contains any other recognized serious safety or health hazards.

A permit-required confined space is one in which one or more hazards capable of causing serious physical harm or death is present.

A “non-permit” confined space does not contain or potentially contain a hazard capable of causing serious physical harm or death. Such hazards include dangerous air contamination, an engulfment or entrapment hazard, or other potentially serious safety or health hazards.

Dangerous air contamination is defined as an atmosphere presenting a threat of causing death, injury, acute illness, or disablement due to the presence of flammable, explosive, toxic, asphyxiating or otherwise injurious or incapacitating substances.

Prior to beginning any confined space work, notify your supervisor and review specific instructions and guidelines for confined-space work.

9.0 ISOLATION/LOCKOUT-TAGOUT

Isolation means the process by which a permit space is removed from service and completely protected against the release of energy and material into the space by such means as: blanking or blinding; misaligning or removing sections of lines, pipes, or ducts; a double block and bleed system; lockout or tagout of all sources of energy; or blocking or disconnecting all mechanical linkages

Lines that may convey flammable, injurious or incapacitating substances into the confined space must be disconnected, blinded, or blocked off by positive means. Also, all energized equipment must be de-energized and/or isolated, locked out and tagged out.

10.0 RADIATION SAFETY

SMCCCD utilizes equipment with radioactive sources, such as the X-ray machine in the College of San Mateo Department of Dental Assisting. Each such Department has its own radiation safety program in place. This section summarizes the elements of a radiation safety program. Contact the appropriate Department Dean or Chairperson for full details and requirements of their respective program.

The Radiation Safety program includes specifications for the following:

- Licensing
- Leak tests
- Dosimetry badges
- Physical inventory
- Transportation of sources
- Listing of emergency phone numbers
- Signs posted on secured storage rooms
- Utilization logs
- Training; radiological safety, operation of equipment, and transportation of equipment

Each employee who operates equipment with a radioactive source will wear a radiation dosimetry badge as required regulation. The applicable Department will maintain radiation exposure records for all required personnel. Dosimetry records should be maintained until written permission is received from the licensing agency to discard. Employees will strive for radiation exposure which is “As Low As Reasonably Achievable” (ALARA).

Each office will maintain the required documentation.

11.0 HEAT STRESS

Each employee should be aware that the effects of ambient temperature may cause physical discomfort, loss of efficiency, personal injury, and increased accident probability. In particular, heat stress is a concern when wearing protective clothing which decreases evaporative heat loss from sweating and reduces body ventilation.

11.1 General Information

Signs, symptoms, and treatment of heat related illness include:

- Heat Rash: Prickly heat; caused by bacteria. Treatment is to wash with anti-bacterial soap.
- Heat Cramps: Muscle spasms or pain in the hands, feet, and abdomen; caused by excessive loss of salts or electrolytes. Treatment is to drink water or Gatorade.
- Heat Exhaustion: Extreme weakness or fatigue, clammy and moist skin, body temperature normal or slightly higher than normal, dizziness, nausea, or fainting; caused by inadequate blood circulation or dehydration. Treatment is to rest in a cool place and replace body fluids.
- Heat Stroke: Hot, dry, red skin, no sweating, strong rapid pulse, confused, convulsions, or unconscious; caused by breakdown of body’s heat regulating mechanism. Heat stroke may be life threatening and **REQUIRES IMMEDIATE MEDICAL ATTENTION.**

Work practices to prevent heat stress include:

- Provide time for employees to acclimate to heat. Acclimatization can occur after a few days of exposure to a hot environment. Level of acclimatization will also

decrease after a few days in a cooler environment, e.g., at home over a long weekend or a vacation.

- Modify work / rest schedules according to monitoring requirements (see Sections 3c and 4d).
- Replace loss of body fluids and electrolytes. Drinking water and electrolyte replenishment fluids shall be provided in the support zone. Quenching of thirst is not an adequate indicator of replacing liquids or electrolytes sufficiently. Workers should drink a minimum of 16 ounces of water prior to the start of work daily and throughout the day as needed.
- Provide shelter (air conditioned, if possible) or shaded areas for rest periods.
- Wear loose cotton clothing and a hat when in Level D.

12.0 COLD STRESS

12.1 Signs and Symptoms of Cold Disorders

Hypothermia, generalized:

Initial symptoms are uncontrollable fits of shivering, the sensation of cold, slow and sometimes irregular heartbeat, weak pulse, and change in blood pressure. Later symptoms are vague or slow slurred speech, memory lapses, incoherence, and drowsiness. Most cases of hypothermia develop in air temperatures between 30° to 50° F (2° - 10° C). Effective temperature is lower when there is a wind, i.e. the wind-chill factor.

Frostbite, localized:

There are three degrees of frostbite: first degree, which is freezing without blistering or peeling; second degree, which is freezing with blistering or peeling; and third degree, which is freezing with death of skin tissue. Symptoms of frostbite include: skin color changes to white or grayish-yellow, progresses to reddish-violet and finally turns black as the tissue dies; pain may be felt at first but subsides; blisters may appear; and the affected part is cold and numb. The most vulnerable parts of the body are the nose, cheeks, ears, fingers, and toes.

12.2 Factors Contributing to Cold Disorders Include:

- Exposure to humidity and high winds;
- Contact with wetness or metal;
- Inadequate clothing;
- Fatigue;
- Age;
- General health and physical fitness (people who are physically unfit or obese may not acclimate to the cold readily);
- Physical conditions such as allergies, vascular disease, excessive smoking and drinking, and specific drugs and medicines.

12.3 Work Practices to Prevent Cold Disorders

- Provide time for employees to acclimate to cold;
- Provide warm, sweet, caffeine-free drinks and soups for fluid replacement and caloric energy;
- Keep head, neck, and hands covered to reduce heat loss and wear several layers of clothing with outer layer windproof and waterproof;
- Provide general or spot heating, if possible;
- Shield work area from high air velocity from wind or drafts; Provide heated warming shelters for breaks;
- Institute work-rest regimens in accordance with ACGIH Threshold Limits Value guidelines based on wind-chill factor.

13.0 BLOODBORNE PATHOGEN EXPOSURE CONTROL PLAN

13.1 Purpose

The purpose of the Exposure Control Plan is for control of and medical response to bloodborne pathogen exposures. The Plan provides compliance with federal OSHA standard 29 CFR 1910.1030 for Bloodborne Pathogens. The Plan is designed to reduce occupational exposure to human blood and certain body fluids and tissues that are potentially infectious for Hepatitis B Virus (HBV), Human Immunodeficiency Virus (HIV), and other bloodborne pathogens.

13.2 Scope

The Plan applies to all SMCCCD personnel who as an ancillary duty may provide first aid and/or CPR in an emergency situation. These employees must maintain active bloodborne pathogens training as well as active CPR and First Aid training.

The control procedures presented in this Plan should be followed by any employee with exposure to human blood, body fluids possibly contaminated with blood, and certain body fluids (cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, vaginal secretions, semen, breast milk) during the course of their job duties. These fluids will be considered potentially infectious for HBV and HIV and every effort should be made to avoid contact.

13.3 Method of Compliance

Universal precautions shall be observed to prevent contact with blood or other potentially infectious materials. "Universal precautions" means that you assume all blood is infectious and take the necessary protective measures.

13.4 Communication of Hazards

SMCCCD personnel are unlikely to encounter biohazard containers or have a need to dispose of blood-contaminated material. However, in the event of a serious accident or encountering unknown containers in a site investigation, labeling and disposal requirements are listed below.

Special labeling and identification is required to be sure that all employees recognize infectious hazards and that infectious materials are treated with special care. The containers must be either red in color and clearly labeled with orange or orange/red labels with the biohazard symbol and lettering in a contrasting color.

All blood-contaminated waste must be disposed of according to specific state and local contaminated waste disposal rules. At the time of an incident, place the contaminated materials in the proper containers. Contact the proper state and local waste disposal authorities for instructions for disposal as soon as feasible after the incident.

13.5 Exposure Determination

The anticipated exposure risks for SMCCCD employees are associated with medical emergencies requiring CPR; stabilizing a victim with bleeding or open wound(s); clean-up of blood, body fluids, or tissues; or broken or sharp objects that might be contaminated with blood. SMCCCD employees are not designated medical providers. SMCCCD personnel will render "Good Samaritan" first aid. SMCCCD personnel are n

For control purposes, all human blood or body fluids will be considered potentially infectious for HBV and HIV and every effort should be made to avoid contact.

13.6 Control Procedures

For first aid response in which the victim is bleeding, vomiting, or has an open wound, the responder shall wear disposable gloves. If the response involves bleeding control, the responder should wear protective clothing (e.g. Tyvek coveralls) and protective eyewear. Additionally, if the bleeding control involves spurting blood, the responder should also wear goggles or a face shield.

When providing CPR, the responder shall wear disposable gloves and use a one-way inhaler barrier (e.g. "Kiss of Life", ambu-type respirator).

After completion of any emergency response procedures described above, responding personnel shall decontaminate protective equipment, discard all disposable protective clothing, and wash all potentially contaminated skin surfaces. Any contaminated work surface shall be cleaned with a detergent solution. All contaminated materials shall be disposed of in accordance with the above "Communication of Hazards" section.

13.7 Incident Investigation and Notification

The SMCCCD Public Safety must promptly conduct an incident investigation and notify the Corporate Health and Safety Manager of the incident. The incident investigation should be documented on the Supervisor's Accident investigation form. In addition, the following information is required:

- The circumstances surrounding the exposure incident and identification of the emergency response personnel and the source individual (victim).

- Work practice controls in place at the time of the incident.
- Personal protective equipment and/or clothing in use at the time of the incident.
- Any failures of the above controls at the time of the incident.

13.8 Post-Exposure Evaluation

The exposed employee shall be referred immediately to one of SMCCCD's approved medical clinics for a confidential medical evaluation and follow-up. The post-exposure evaluation and follow-up, including laboratory tests and any needed vaccinations, will be provided at no cost to the employee. The evaluations and procedures will be made available at a reasonable time and place and will be provided according to the U.S. Public Health Service. All laboratory tests will be conducted with an accredited laboratory.

SMCCCD shall provide the following information to the medical clinic:

- A copy of the Bloodborne Pathogen standard (29 CFR 1910.1030 or applicable state regulation).
- A description of the employee's duties as they relate to the exposure incident.
- Documentation of route(s) of exposure and circumstances in which the exposure occurred, including identification of source individual.
- Results of source individual's blood testing, if available.
- All medical records relevant to appropriate treatment of employee.

The evaluation and follow-up should include at least the following elements:

- The source individual's blood shall be tested as soon as feasible and after consent is obtained in order to evaluate for HBV or HIV infectivity. When the source individual is already known to be infected with HBV or HIV, testing need not be repeated.
- Results of the source individual's testing shall be made available to the exposed employee and the exposed employee shall be informed of applicable laws and regulations concerning disclosures.
- The exposed employee shall be tested for HBV and HIV serological status after consent is received.

The employee shall be counseled by the physician regarding the risk of HIV, HBV, and other bloodborne infections.

13.9 Hepatitis B Vaccination

SMCCCD will make available the Hepatitis B vaccine and vaccination series to all employees who have occupational exposure.

If the employee chooses not to accept the vaccine, a Declination Statement should be obtained with the employee's signature. The Declination Statement must contain the same language as that found in Appendix A of the Bloodborne Pathogen standard (Refusal to Accept Statement). The employee reserves the right to receive the Hepatitis B vaccination at a later date if they remain occupationally at risk for Hepatitis B.

13.10 Training

All personnel who may provide medical emergency response (CPR and/or First Aid) shall receive initial training and annual refresher training on bloodborne pathogen exposure control. Training shall cover the following elements:

- An accessible copy of the Bloodborne Pathogens.
- A general discussion of bloodborne diseases including the epidemiology and symptoms.
- An explanation of the modes of transmission of bloodborne pathogens.
- An explanation of SMCCCD's Exposure Control Plan and its location.
- An explanation of the methods of recognizing tasks and other activities that may involve exposure to blood or other potentially infectious materials.
- An explanation of the use and limitations of methods to reduce exposure during emergency response, including work practices and personal protective equipment.
- Information on the selection, types, location, use, removal, handling, decontamination, and disposal of personal protective equipment.
- Information on the HBV vaccination, including efficacy, safety, method of administration, benefits, and that it will be offered free of charge.
- Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious material.
- An explanation of the procedures to follow if an exposure incident occurs, clean-up, the method of reporting, and medical follow-up.
- An explanation of the signs and labels required by Communication of Hazards.
- An opportunity for interactive questions and answers.

13.11 Recordkeeping

Exposure Incident: An occupational bloodborne pathogen exposure incident shall be classified and documented as an injury for CAL/OSHA 200 recordkeeping purposes. In addition, SMCCCD's Supervisor Accident Investigation form must be filled out.

Medical Records: A confidential medical record for each exposed employee shall include the following:

- The employee's name and Social Security number.
- A copy of the employee's HBV vaccination status including dates of all Hepatitis B vaccinations and any medical records concerning the employee's ability to receive HBV vaccination.
- A copy of all results of examinations, medical testing, and follow-up procedures.
- A copy of the information provided to the medical clinic.
- A confidential copy of any healthcare professional opinion related to the exposure incident.

Healthcare Professional's Written Opinion: For each post-exposure evaluation, SMCCCD shall provide to the affected employee, through the medical clinic, a written report concerning the physician's recommendations within 15 days of completion of evaluation. This information shall include an employee's Hepatitis B vaccine status, including indication for vaccine and whether such vaccination was completed shall be provided. It shall also include a statement that the employee was informed of all results.

The medical records will be kept at least the duration of employment plus 30 years.
Training records: The training records shall be maintained for 3 years and shall include the following information:

- Dates of training session.
- Contents or summary of training session.
- Names and qualifications of person(s) conducting training.
- Names and job titles of all persons attending training.

14.0 FALL PROTECTION

Fall protection requirements apply :

- Where employees work 6 feet or more above ground or the next level
- Includes ramps, runways
- Faces of formwork or reinforcing steel
- Areas above holes including skylights
- Edges of excavations
- Falling Objects
- Roofs
- Residential construction
- Any area that you can fall >6 feet into

14.1 Standard systems for fall protection:

- Guardrails
- Safety Nets
- Personal Fall Arrest System

14.2 Requirements for Guardrails:

- Top edge height must be 39-45 inches from working level
- There must be mid rails
- Must withstand 200 lb. of pressure
- No openings in system more than 19 inches wide

14.3 Safety Nets

- Install as close to working area as possible
- Never more than 30 feet below area
- Should be inspected once a week

APPENDIX F SAFETY GUIDELINES - CHEMICAL USAGE

The following provides information on general chemical safety and is recommended as a basis for each laboratory, studio, or workshop within SMCCCD to develop their own site-specific Safety Plan and Control Procedures.

Do:

- Keep only the amount of chemicals you need for the immediate project.
- Perform laboratory, workshop, or studio work in the laboratory, workshop, or studio; not in storage or other spaces.
- Store toxic substances in unbreakable containers. Keep them in a clearly marked ventilated area.
- Check stored chemicals regularly for deterioration, and/or broken containers.
- Store breakable containers in chemically resistant trays or over wrap containers.
- Dispose chemicals, broken glass, and other wastes in the containers specifically approved for that use.
- Clean up broken glass and spills immediately.
- Post signs to warn others of toxic hazards in the laboratory, workshop, or studio.
- Keep the laboratory, workshop, or studio clean and neat.
- Dispose of materials safely and legally.
- Practice good personal hygiene in the laboratory, workshop, studio.
- Know what to do in an emergency.

Don't:

- Consume food or beverages, or smoke in areas where chemical material is being used or stored.
- Use damaged glassware or equipment.
- Store chemicals near heat or sunlight, or near other substances with which they might react dangerously.
- Pour chemicals down the drain.
- Store materials on bench tops.
- Store materials on floors or other places where they create tripping hazard.
- Keep materials that are no longer needed.
- Leave operating equipment unattended.
- Leave materials out at night - put them back in storage areas.
- Fool around in the laboratory, workshop, or studio.

HAZARDOUS MATERIALS

Not every laboratory, workshop, or studio will require the use of chemicals. When chemicals are used, you must, for safety purposes, consider them as potentially hazardous. Hazardous chemicals are defined as those labeled as having a physical or health hazard. A chemical is a physical hazard if it is a combustible liquid, a compressed gas, explosive, flammable or organic peroxide, an oxidizer, pyrophoric, unstable or water reactive. It is a health hazard if there is evidence that the chemical can cause health problems.

There are publications entitled **Safety Data Sheets (SDS)** available for most commercially produced chemicals that contains specific chemical hazard and safe handling information for that chemical. It is prepared in accordance with Occupational Safety and Health Administration (OSHA) Hazard Communication Standards. Every producer or manufacturer is required to have available an SDS for every chemical they market.

The **SDS** contains the following information:

- Substance Identification
- Components and Contaminants
- Physical Data
- Fire and Explosion Data
- Toxicity
- Health Effects and First Aid
- Reactivity
- Conditions to Avoid
- Spill and Leakage Procedures
- Protective Equipment

An SDS must be acquired and made available in the laboratory, workshop, or studio for each hazardous chemical used. SDSs are presented in Appendix D of this Chemical Hygiene Plan.

LABORATORY, WORKSHOP, OR STUDIO SAFETY

In the laboratory, workshop, or studio, it is important that you know what safety equipment is available, where it is located, how to use it and where all the exits are located. Since accidents are not programmed, it is essential that you know what to do when one occurs. **First**, and foremost, you must protect yourself and those around you. **Secondly**, assist to correct or contain what occurred. The **third** requirement is to clean up the area of the accident. It may be necessary to wear additional protective clothing, so be certain you know beforehand where such clothing is located.

GENERAL SAFETY RULES

Employees have the right to know of the hazards associated with laboratory, workshop, studio activities they undertake - it is public law - so be sure you understand all you need to know before starting your work.

There are many precautions you should undertake on your own. These are listed below:

- **Do not work alone** in the laboratory, workshop, or studio where hazardous chemicals are used;
- Use the required protection equipment;
- Provide appropriate labels, including name, date and contents, are on all containers that hold chemical combinations you are storing;
- Avoid direct contact with any of the chemicals you are using;
- Do not smell, inhale or test any chemical;
- Do not dispense more of any chemical than is needed;
- Be familiar with the laboratory, workshop, studio ventilation system especially the hoods;
- Know where the first aid equipment is located;
- Check your equipment before adding a hazardous chemical;
- Respond quickly to hazardous chemical spillage and be certain that if you are the recipient of the spillage, you wash all body areas which were exposed to the chemical;
- Keep hazardous chemicals off clothing and wash your face and hands if spillage or splashing occurs;
- Clean up spills immediately;
- Constantly check your equipment; and
- Know the chemical ingredients of the chemicals, paints and cleaning fluids you are using.

If your laboratory, workshop, or studio work requires electrical circuitry to operate equipment or for research, do the following before applying electrical power:

- Locate emergency cut-off switch;
- Check bonding if it is required;
- Mark all open connections;
- Keep all electrical circuits away from liquids;
- Properly ground equipment if necessary; and
- Comply with electrical safety codes.

Additional safety measures may be required. Please observe them.

Chemicals, incautiously handled, can result in serious bodily injury and severe property damage. Skin contact with corrosive chemicals can cause ulcerated burns or dermatitis; inhalation, absorption or ingestion of toxic chemicals can cause illness or death; flammable liquids and solids can cause sustained fires and/or explosions. Basic information such as boiling point, flash point, vapor pressure, toxicity, explosive limits, incompatibility of the chemicals used and the observance of the following procedures will greatly aid in minimizing the potential hazards involved in laboratory, workshop, studio work.

1. Treat any unfamiliar chemical material as hazardous.
2. Consider a mixture at least as hazardous as its most hazardous component.
3. Do not use any unlabeled substances.
4. Follow all chemical safety instructions to the letter.
5. Keep SDSs for each substance in use on hand in the laboratory, workshop, or studio.
6. Photosensitive chemicals must be kept out of direct rays of sunlight.
7. Unused chemicals should never be returned to stock bottles.
8. Chemical spills should be handled cautiously:
 - a. If a spill is flammable, immediately shut off all electrical heating units and open flames within the area
 - b. Use exhaust hoods to ventilate room.
 - c. Avoid breathing fumes. If respiratory protection is required because concentrations are questionable or offensive call 911 for an emergency response spill team.
 - d. Wear rubber gloves when cleaning up corrosive materials. Each laboratory, workshop, studio is equipped with a spill kit containing:
 - Absorbent material (such as kitty litter) to be used as containment & for absorption).
 - Eye protection.
 - Nitrile gloves.
 - Dust mask (not to be used as a respirator).
9. Don't take chances. When in doubt, contact your Department Head, Dean or Supervisor immediately or make reference to the following:
 - a. Manufacturers Safety Data Sheets
 - b. SMCCCD Emergency Response Guidebook.

HAZARDOUS CHEMICAL WASTE DISPOSAL

- a. All art supplies purchased or brought into campus laboratories, studios or workshops must have the prior approval of the Department Head, Dean or Supervisor.
- b. Chemical wastes generated by College laboratories, studios or workshops, shops and custodial services as well as abandoned reagents, outdated medical supplies, solvents, thinners, oils, cleaning fluids and their containers will be securely stored. Hazardous waste disposal is arranged and scheduled by completing a Hazardous Waste Disposal Request form (Appendix G-5 of this document and available on the intranet) and forwarding it to the SMCCCD Senior Buyer. Based on the requests received, the SMCCCD Senior Buyer will schedule hazardous waste disposal with an appropriate vendor during each semester break, only if hazardous waste disposal has been requested. SMCCCD College facilities personnel do not transport, package or dispose of hazardous waste generated by academic departments. The selected hazardous waste disposal vendor will pre-print a hazardous waste manifest for each College where hazardous waste is to be collected. Department Heads, Deans, and Supervisor should make a copy of the manifest when collection is made, but should not sign the manifest. When all collections of hazardous waste at a College have been completed, the hazardous waste disposal vendor will contact the College's Facility Manager to sign the actual hazardous waste manifest "on behalf" of the waste generator (the individual College, not the individual Department). This procedure will provide that the documentation of/for hazardous waste disposal from each College is consolidated in one location and that only one representative from each College is authorized to sign the manifest.

Collection and Segregation

1. Waste solvent will be collected separately by type. Chlorinated hydrocarbons will be separated from non-chlorinated hydrocarbons. Flammable and combustible liquid waste will be collected and stored in accordance with safe handling procedures for these wastes. The proper disposal methods as stated on the SDSs for each substance will be followed.
2. Waste acids and alkalines will be collected in separate glass containers with screw caps.
3. Solid waste chemicals will be collected in appropriate screw cap glass containers.

IDENTIFICATION AND LABELING

Once material is declared waste, labeling is the most important component in assuring proper disposal. All waste chemical containers must be labeled, along with the date of preparation.

TRANSFER

Properly identified labeled wastes will not be moved. Final packaging and drum labeling will be carried out by a permitted hazardous waste transporter.

FIRST AID

1. All injuries to SMCCCD employees, regardless of how minor, must be immediately reported to the appropriate Department Head, Dean or Supervisor to provide comprehensive treatment and prompt medical attention.
2. Chemical spillages on the skin should be immediately flushed away with copious amounts of water for at least 15 minutes and immediately report the incident to your Department Head, Dean or Supervisor to arrange for a supplemental medical evaluation and appropriate treatment. If irritation or pain persists, report to your Department Head, Dean or Supervisor to arrange additional medical attention.
3. Eyes contaminated with chemicals should be immediately flushed with plenty of water for at least 15 minutes and report the incident to your Department Head, Dean or Supervisor to arrange for supplemental medical evaluation and appropriate treatment.
4. Wash hands frequently when handling bottles of chemicals. Use chemical resistant gloves when working with corrosive and/or toxic chemicals.
5. In case of suffocation, due to inhalation of fumes, remove victim from contaminated area (rescuers must wear proper respiratory protection) to fresh air and get medical assistance by dialing 911.

ENGINEERING CONTROLS & PERSONAL PROTECTIVE EQUIPMENT

1. All precautions listed in the section titled "Precautions for Safe Handling and Use" on the SDS will be followed.
2. All container transfers involving chemicals classified as corrosive, flammable, toxic or carcinogenic will be made in an operating fume hood with door raised to level no higher than the 100 cubic foot per minute mark.
3. Personal protective equipment will consist of gloves, goggles, aprons, and dust masks. The use of respirators is limited to employees with a doctor's clearance for use of any particular type of respirator. All employee respirator use will be governed by the "Respiratory Protection Plan" of the College in accordance with CFR 29 1910.134 (see also Appendix F-5 of this Chemical Hygiene Plan).
4. Each laboratory, workshop, studio supervisor will provide that proper housekeeping practices are followed and maintained.

EMERGENCY PROCEDURES - CHEMICAL SPILLS OR RELEASES

A. Know the Name of the Material Being Handled

Look for identifying label. The name of the chemical will be prominently displayed. Check the label for precautions and warnings. Very often the name of the chemical does not give an immediate clue as to procedures necessary to protect persons, contain the chemical and/or clean up the spill. Some chemicals have many different names and can be identified only by using appropriate references or calling the manufacturer.

B. Skin Contact

If the words ACID, CAUSTIC or CORROSIVE appear, keep in mind that water in generous amounts must be used to wash these chemicals off the skin.

C. Clothing Contact

If chemicals listed in B are splashed on shoes or clothing, the articles must be removed immediately. The area of skin under the clothing must be rinsed with large amounts of water. Shoes must be washed off under running water - use a brush or cloth to scrub the shoe. Articles of clothing must be submerged in running water and agitated to provide dilution of the chemical.

D. Respiratory Contact

Breathing fumes or dusts from spilled chemicals should be avoided. The vapors or dusts from many chemicals are irritating to mucous membranes even in small amounts. Occasional short-term exposure causes effects, which last only a few minutes. Some chemicals such as acids, chlorine, ammonia and certain powders may cause tissue damage that will last for several days. In very heavy concentrations, non-toxic vapors or gases may cause asphyxiation when released in confined spaces.

E. The Spill

1. If in doubt, leave the bottle or carton right where it falls; don't touch it with bare hands. (Rubber or plastic gloves may be needed).
2. Obtain all information possible such as the name of the product, the manufacturer, address and phone number. The name of the chemical may be the trade name or the actual chemical name.
3. Make certain it is spelled correctly; and then,
4. **Call Your Dean, Department Head, and/or Supervisor.**
5. If trained to use a spill kit, contain the spill by surrounding the spill area with an absorbent, such as kitty litter, oil-dri, floor-dri, vermiculite or with sand. This

action is imperative especially if the spill is large (4-5 gallons); the material is flammable and occurs near a floor drain. Containment will also facilitate clean up.

F. Evacuation

1. The odor of a chemical is not necessarily an indicator of its possible effect. Do not remain in an enclosed space and breathe fumes from a spilled or released chemical, liquid or powder.
2. Always ventilate the space by opening doors and windows. This will dilute vapor concentrations and help prevent development of harmful or flammable levels of vapors or dust. (A spill team member with a respirator may have to ventilate; others may have to leave immediately).

G. Clean up

The local Fire Department Spill Team, in cooperation with the Administrator and/or supervisor will supervise the clean up and disposal of released chemicals by properly dressed and equipped personnel.

H. Warnings

1. Liquids may be flammable. Do not permit open flames or cause sparks by turning lights on or off. Shut off all motors and open flames and leave off.
2. Liquids or powders may be corrosive. Any contact with the skin must be washed off with water immediately.

SUMMARY OF PROCEDURES

1. Always check to see what you are handling.
2. Wash chemicals off skin with water - immediately.
3. Remove and immediately wash clothing after a chemical splash.
4. Leave broken bottles and cartons where they fall. Write down chemical name and telephone number. Contact your supervisor.
5. Evacuate - ventilate.
6. The Department Head, Dean and / or supervisor will supervise the clean up by the local City Fire Department spill team.
7. Warning: Treat all liquids as flammable and corrosive.
8. Keep spill absorbent material (kitty litter, oil-dir, floor-dri, vermiculite or sand) on hand in the laboratory, workshop or studio to use as a dam to contain liquid spills.

If it is necessary to use a respirator to determine the chemical name and to ventilate the area, wait for the arrival of the City Fire Department spill team to perform that task.

During the day shift, contact your supervisor and report the spill or release. After 5:00 pm or on weekends call facilities/security department. Be prepared to give the proper information about the spill, such as chemical name, quantity spilled, location and any other pertinent information.

Warn others in the area of the spill or release. Evacuate the immediate area. Shut off all electrical devices and extinguish any open flame heat sources if material is flammable.

ACCIDENT AND EMERGENCY REPORTING

All accidents or emergencies will be reported immediately to:

1. Applicable Dean, Department Head, or Supervisor.
2. Vice Chancellor of Facilities Planning, Maintenance & Operations
3. Applicable College Facilities Coordinator (for minor spills)
4. Local City Fire Department (for chemical spills, fires, explosions)
5. Cal/OSHA Regional Office (for Cal/OSHA recordable injuries)

FIRES AND EXPLOSIONS

Small fires that can easily be extinguished without evacuating the building or calling the fire department, are among the most common laboratory, workshop, studio incidents. Actions to be taken in case of a small laboratory, workshop, studio fire are:

1. Alert other personnel in the laboratory, workshop, studio and send someone for assistance.
2. Attack the fire immediately, but never attempt to fight a fire alone. A fire in a small vessel can often be suffocated by covering the vessel with an inverted beaker or a watch glass. Use the proper extinguisher, directing the discharge of the extinguisher at the base of the flame. (All laboratories, studios or workshops, are furnished with ABC fire extinguishers which can be used for Class A - ordinary combustible solids such as paper, wood, coal, rubber, and textiles; Class B - petroleum hydrocarbons and volatile flammable solvents; Class C - electrical equipment).
3. Avoid entrapment in a fire; always fight a fire from a position accessible to an exit. If there is any doubt whether the fire can be controlled by locally available personnel and equipment, the following actions should be taken:
 - a. Activate the emergency alarm system; this will automatically notify the fire department and give them the location.
 - b. Confine the emergency (close hood sashes, doors between laboratory, workshop, studios and fire doors) to prevent further spread of the fire.
 - c. Assist injured personnel.
 - d. Evacuate the building to avoid further damage to personnel.

In case of explosion, immediately turn off burners and other heating devices, stop any reactions in progress, assist in treating victims, and vacate the area until it has been decontaminated.

Adopted from *Prudent Practices for Handling Hazardous Chemicals in Laboratory, Studios or Workshops: National Research Council* (National Academy Press, 1981. Washington, D.C.)

Provisions for Medical Evaluation Consultation

SMCCCD will provide employees who work with hazardous chemicals an opportunity to receive medical attention, including any follow-up examinations the examining physicians determines to be necessary, under the following conditions:

1. Whenever the employee develops signs or symptoms associated with a chemical exposure;
2. When exposure monitoring reveals an exposure level routinely above the Action Level, or in the absence of an Action Level, the Permissible Exposure Level for an CAL/OSHA regulated substance; and
3. Whenever an event takes place in the work area (such as a leak or spill) which results in the likelihood of a hazardous chemical exposure. SMCCCD will provide specific exposure related information to examining physicians (substance identity, description of exposure, etc.). Examining physicians will submit a written opinion to the SMCCCD, which discusses the findings of the examination.

RECORDKEEPING

The SMCCCD will establish and maintain for each employee an accurate record of any measurements taken to monitor employee exposures and any medical consultation and/or examinations (including tests or written opinions). Records will be kept, transferred and made available to employees or their representatives in accordance with Cal/OSHA's Access to Employee Exposure and Medical Records Standard (California Code of Regulations Title 8 Section 3204).

Employee Information and Training

Information

1. The SMCCCD "Hazardous Materials Plan," the SMCCCD "Regulated Hazardous Waste Disposal" procedures, and the "Department's Chemical Hygiene Plan" are on file in each Department office and Office of the Vice Chancellor of Facilities, Maintenance and Planning. Employees will be given information concerning prudent laboratory, workshop and studio practices at the beginning of each semester.
2. Signs or symptoms of chemical exposure can be found by referring to the

appropriate SDS.

3. SDSs can be found in the individual laboratories, studios or workshops s. Material suppliers must send SDSs with initial purchase of the chemical substance.

Training

1. Employees will be shown the various ways chemicals can enter the body, how they affect the body, and how to protect themselves.
2. Employees will be taught the difference between physical and health hazards.
3. Employees will be shown the various methods of control - both engineering and personal protective.
4. Employees will be given details on the Chemical Hygiene Plan and their rights under the law.

APPENDIX G SAFETY GUIDELINES – LABORATORIES

In addition to the specific laboratory standard operating procedures, the following general requirements are recommended (**NOTE: Departments should revise these General Requirements as appropriate. Select, revise and use as appropriate**):

1. Routes of emergency exit will be clearly indicated and unobstructed;
2. All fire extinguishers will remain functional and accessible;
3. Access to the laboratory will be restricted to authorized personnel only;
4. Working in the lab alone is prohibited;
5. Safety glasses and a lab apron/coat are mandatory at all times in the laboratory;
6. Avoid all skin exposures to hazardous chemicals;
7. Other personal protective equipment will be used as directed by the Laboratory/Workshop/Studio (L/W/S) Technician;
8. Safety instruction signs, warning signs and exit signs will be utilized and maintained in legible condition;
9. Smoking, food, and beverages are prohibited in the laboratory at all times;
10. Good housekeeping procedures will be conducted daily;
11. Counter tops and work benches will be maintained clean, neat and orderly;
12. If an incidental spill occurs, clean it up immediately;
13. If a significant spill or leak occurs, the premises will be vacated immediately or the emergency response plan will be instituted;
14. Safety Data Sheets (SDSs) received will be submitted to the L/W/S Technician;
15. No manufacturer's label will be removed or defaced from the original container;
16. Identifying labels will be utilized on all successive containers;
17. Breakable containers will be transported within a compatible, unbreakable, secondary container;
18. Equipment which is damaged or malfunctioning will not be used, particularly chipped glassware;
19. Electrical equipment will be maintained in good condition;
20. Compressed gas cylinders will be secured in an upright position;
21. Pipetting by mouth suction is strictly prohibited;

22. Procedures which are new or unfamiliar will be referred to the L/W/S Technician
23. Carcinogens will only be utilized only at the direction of the L/W/S Technician
24. A comprehensive annual inventory, accompanied by an SDS for each chemical listed, will be compiled by the L/W/S Technician and made a part of this Chemical Hygiene Plan.
25. Continuous records of chemical purchases and hazardous waste disposal will be maintained on all chemicals by the L/W/S Technician;
26. Hazardous waste disposal will be scheduled during each semester break by the L/W/S Technician, in coordination with the SMCCCD Senior Buyer.
27. Chemical stock will be rotated so that the shelf-life is not exceeded;
28. Incompatible chemicals will be segregated from each other;
29. Chemical disposal will be in accordance with SMCCCD procedures and all applicable laws and regulations;
30. Flammable liquids will be stored in a flammable storage cabinet;
31. Laboratory hoods will be utilized for all substances with an exposure level of 50 parts per million (ppm) or less, or unknown exposure limits or carcinogens;
32. Laboratory hoods will maintain a capture velocity of 100 linear feet per minute at the face of the hood;
33. Hood usage and incompatible chemicals will be segregated;
34. Hoods will not be utilized for storage purposes;
35. The L/W/S Technician will determine the adequacy of all lab hoods;
36. All personnel will wash their hands prior to entering and leaving the laboratory;
37. Respirators will be provided, maintained, used, and inspected in accordance with the SMCCCD Respiratory Protection Program;
38. Air purifying and air supplied respirators may only be worn by employees who:
 - are enrolled in the SMCCCD medical surveillance program
 - who have received annual medical authorization to wear a respirator
 - have secured annual respirator fit testing
 - have had initial and annual SMCCCD Respiratory Protection Program training
39. Safety inspections will be conducted by the L/W/S Technician at least once each semester and documented.

General Safety Dos and Don'ts:

Make sure you are properly trained in the use, storage, and handling of chemicals including reading and/or having access to SDS sheets.

General Chemical Safety

Chemicals, incautiously handled, can result in serious bodily injury and severe property damage. Skin contact with corrosive chemicals can cause ulcerated burns or dermatitis; inhalation, absorption or ingestion of toxic chemicals can cause illness or death; flammable liquids and solids can cause sustained fires and/or explosions. Basic information such as boiling point, flash point, vapor pressure, toxicity, explosive limits, incompatibility of the chemicals used and the observance of the following procedures will greatly aid in minimizing the potential hazards involved in laboratory work.

1. Treat any unfamiliar chemical as hazardous.
2. Consider a mixture at least as hazardous as it's most hazardous component.
3. Do not use any unlabeled substances.
4. Follow all chemical safety instructions to the letter.
5. Keep SDSs for each substance in use on hand in the laboratory.
6. Never test chemicals by taste. Assume that all are toxic. To sample a gas by odor, fan some towards the nose with the hand after filling the lungs with air.
7. Do not pipette chemicals or start siphons by mouth.
8. Keep stopcock firmly in place to avoid leakage on hands and arms when using a dropping or separatory funnel.
9. When heating flammable liquids, use a water bath or an electric mantle. Do not apply direct heat or flame.
10. Use exhaust ventilation hoods for chemical reactions involving toxic, aromatic or obnoxious gases such as hydrogen cyanide, phosgene, hydrogen sulfide, hydrogen fluoride, metal carbonyls and mercaptans.
11. Flammable chemicals that require refrigeration must be kept in an explosion proof refrigerator. Any refrigerator or walk-in with ordinary lights, door switch or internal regulator is **NOT** explosion proof.
12. Photosensitive chemicals must be kept out of direct rays of sunlight.
13. Unused chemicals should never be returned to stock bottles.
14. A compound that develops a gas by hydrolysis when exposed to air should not be tightly closed or stoppered once it has been opened.
15. Reagent bottles should be filled only to the shoulder in order to allow for pressure adjustments.
16. Use a " safety carrier" when transporting corrosive liquids.
17. Chemical spills should be handled cautiously.
 - a. If a spill is flammable immediately shut off all electrical heating units and open flames within the area.
 - b. Use exhaust hoods to ventilate room.

- c. Avoid breathing fumes. If respiratory protection is required because concentrations are questionable or offensive, call your supervisor.
- d. Wear rubber gloves when cleaning up corrosive materials. Each lab is equipped with a spill kit containing:
 - 1. Vermiculite (to be used as containment and for absorption)
 - 2. Eye Protection
 - 3. Nitrile gloves
 - 4. Dust mask (for cleanup of powders only, not to be used as a respirator)

18. Don't take chances. When in doubt as to how to handle a chemical, ask!!!

GENERAL PROTECTIVE EQUIPMENT PERFORMANCE

1. Eye and Face Protection

Eye and face protection must be worn in the laboratory whenever there is reasonable probability of an injury that could be prevented by their use. Suitable eye and face protection is made conveniently available by the Chemistry Department whenever operations present the hazard of flying objects, glare, liquids, injurious radiation or a combination of these hazards. Employees must use the protectors. These stipulations apply also to supervisors, management and visitors while they are in hazardous areas.

a. Minimum Requirements

Eye and face protectors must meet the following minimum requirements:

- 1. Provide adequate protection against particular hazards for which they are designed.
- 2. Be reasonably comfortable when worn under the designated conditions.
- 3. Fit snugly without interfering with the movements or vision of the wearer.
- 4. Be durable.
- 5. Be capable of being disinfected.
- 6. Be easily cleanable.
- 7. Be kept clean and in good repair.

b. Selection

Each eye, or eye and face protector is designed for a particular hazard. In selecting the protector, consideration should be given to the kind and degree of hazard, and the protector should be selected on that basis.

Where a choice of protectors is given, and the degree of protection required is not an important issue, worker comfort may be a deciding factor.

c. Corrective lenses

Persons using corrective lenses are required to wear eye protection, must wear face shields, goggles, or spectacles of one of the following types:

1. Spectacles with protective lenses providing optical corrections.
2. Goggles worn over corrective spectacles without disturbing the adjustment of the spectacles.
3. Goggles that incorporate corrective lenses mounted behind the protective lenses.

d. Contact Lenses

Contact lenses do not provide eye protection. Gases and vapors can concentrate under such lenses and cause permanent eye damage.

Furthermore, in the event of a chemical splash into the eye, it is often nearly impossible to remove the contact lenses to irrigate the eye because of unconscious spasm of the eyelid. Their use in the laboratory is discouraged and in no circumstances are they allowed without suitable eye protection.

2. Gloves

When working in the laboratory environment, the hands are often the most likely point of contact with hazardous chemicals. Skin or hand contact can occur in several circumstances, such as direct immersion, splashing, spills, contact with solvent-coated objects, or the selection of improper gloves. The most effective means of preventing skin exposure are by:

- a. Substitution of a less hazardous substance; or
- b. Redesign of experimental set up.

If these methods are not feasible or successful in eliminating potential exposure completely, gloves may be necessary.

a. Glove Selection

The most important thing to remember in selecting gloves is that there is no one glove material that is impervious to all chemicals. The glove selection process should include:

1. Review of the SDS for the material. This reference or chemical permeation and degradation guides available from glove manufacturers

may provide information on the type of glove that should be used with the chemicals you plan to handle.

2. Evaluation of the additive or synergistic effects of a mixture of materials. You must establish that all of the chemicals in a mixture have been considered in selecting an appropriate glove.
3. Determination of the potential consequences of skin contact by the chemical. You should be aware of the symptoms of overexposure and the health effects the material is capable of producing.
4. Establishing a decontamination procedure for gloves that will be used more than once. The decontamination process must be effective in removing contamination and suitable for the glove chosen (not cause degradation of the glove material).
5. Establishing the dexterity and sizing requirements. Gloves come in all shapes and sizes. A glove that is too large, thick or stiff may not be satisfactory for precise laboratory work. A glove that is too small will cause the hand to fatigue easily.
6. Determination of the physical resistance properties required of the glove. It needs to be cut and puncture resistant and insulated to protect against heat or cold.
7. Other considerations might include selection of a contrasting color to highlight contamination, glove length, cuffs to catch drips and the use of liners to absorb moisture and reduce irritation.

b. Glove Use

1. Before donning gloves, they should be checked for imperfections, cracks or pinholes.
2. Avoid touching anything except work materials. Remove gloves before touching door knobs, light switches, hood sashes or lab notebooks.
3. Wash hands immediately after removing the gloves.

3. Fire Extinguishers

The use of fire extinguishers in the Chemistry Department laboratories conforms to the following guidelines:

- a. Portable fire extinguishers suitable to the conditions and hazards involved are provided and maintained in an effective operating condition.

- b. Portable fire extinguishers are conspicuously located and mounted where they will be readily accessible. Extinguishers are not to be obstructed or obscured from view.
- c. Portable fire extinguishers are given maintenance service at least once a year and a written record kept to show the maintenance or re-charge date.
- d. The employees are provided with an educational program to familiarize them with the general principles of fire extinguisher use and the hazards involved with initial stage fire fighting.
- e. The portable fire extinguisher program instituted at the Chemistry Department conforms to the CAL/OSHA Fire Protection Standard – 29 CFR 1910.157.

4. Eyewash and Safety Showers

Where the eyes or body of any person may be exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eye and body are provided within the work area for immediate emergency use.

- a. Safety Showers - The shower is periodically tested to be capable of drenching the subject immediately. It has a downward-pull ring connected to a quick-opening valve.
- b. Eyewash Fountains - The eyewash fountains must provide a soft stream of water for an extended period of time.

The locations of eyewash fountains and safety showers are clearly marked and employees are familiarized with their locations and functioning. Access to these locations is free of clutter at all times.

Eyewash fountains and safety showers are inspected and tested for proper functioning every three months.

5. Other Protective Clothing

Laboratory coats are routinely worn by laboratory personnel. The design of coats is such that they can be removed quickly. Rubber or PVC protective aprons are also worn when large quantities of corrosives or other materials posing a skin contact hazard are being handled.

6. Fire Blankets and First Aid Kits

Fire blankets and first aid kits are also periodically inspected and a record is kept of their inventory and test dates.

7. Department Policy and Assigned Responsibility

It is Department policy to provide all laboratory employees with the necessary equipment to help protect them from injury. All laboratory personnel are expected to be thoroughly familiar with the general principles and procedures in the preceding paragraphs and must adhere to the following policies:

- a. All personnel and any laboratory visitors are required to wear eye protection in eye hazard areas.
- b. Areas of the laboratory where the use of additional personal protective equipment is required are identified and clearly indicated.
- c. Every laboratory worker should be familiar with the location and proper use of the available protective clothing and safety equipment. Instructions on the proper use of such equipment are available to all personnel.

APPENDIX H-1

**ACCIDENT REPORTING AND INVESTIGATION
SUPERVISOR'S INJURY/ILLNESS INVESTIGATION REPORT FORM**

Campus: † SKY † CSM † CAÑ † CHANC OFFICE

Employee Name:			
Department:		How Long Employed:	
Job Title:		Location of Accident:	
Date Reported:		Date & Time of Accident:	
Was Employee Sent/seen by Dr?	<input type="checkbox"/> YES <input type="checkbox"/> No	If Yes, where?	
Was First Aid Given?	<input type="checkbox"/> YES <input type="checkbox"/> No	Was Time Lost?	<input type="checkbox"/> YES <input type="checkbox"/> No
First Aid Given By Whom?		How Many Days?	

IDENTIFICATION OF THE ACCIDENT FACTORS

Injury and/or Damage:

Brief Description of Accident (What Happened):

Accident Type (check one)	Struck By <input type="checkbox"/> Struck Against <input type="checkbox"/> Overextended	Fall <input type="checkbox"/> Repetitive Motion <input type="checkbox"/> Caught In / On / Between	Inhalation <input type="checkbox"/> Ingestion <input type="checkbox"/> Absorption	Contact With Electrical Current <input type="checkbox"/> Exposure to Temperature Extremes <input type="checkbox"/> Rubbed or Abraded
Any Witnesses?	Provide Name(s):			

ACCIDENT CAUSES

What Specific Act was Responsible for this Accident?

What Specific Condition was Responsible for this Accident?

REASONS - Why was the Act Committed and/or Why did the Condition Exist? (please specify on the lines below)

Lack of Knowledge/Experience Attitude Human Limitation Condition

CORRECTIVE ACTION

What Do You Suggest be Done to Prevent a Similar Accident?

Instruction / Training Motivation / Discipline Proper Equipment Placement Repair / Eliminate Recommend to Manager

(Please Specify)

What Actions Have You Taken?

Supervisor Signature	Date	Administrator Signature	Date
----------------------	------	-------------------------	------

APPENDIX H-2

ACCIDENT REPORTING AND INVESTIGATION

INCIDENT REVIEW TEAM (IRT) REPORT

The IRT is to be convened by the administrative manager as soon as possible following an injury or near miss at the discretion of the SMCCCD Office of Human Resources. The purpose of the IRT is to find ways to prevent the incident from recurring. The IRT is to consist of the Supervisor and SMCCCD Office of Human Resources additional pages (photos) as necessary.

Initial information:

Date of incident: _____
IRT members
Supervisor Manager (or designee) _____
Department Dean or Director (or designee) _____
Office of Human Resources Rep. (or designee) _____
Photos of site: Yes ___ No ___
Incident site visit by IRT: Yes ___ No ___
Supervisor's report completed within 24 hours by: _____

Injured person

Name: _____
Hire Date: _____
Length of time doing task at time of incident: _____
Extent of injury: First Aid _____ Medical Treatment _____
Light Duty _____ Lost Time _____
Supervisor's Name _____

Incident Investigation

Brief description of incident: _____

Witnesses: _____	Interviewed Y/N	Statement Attached Y/N
Witnesses: _____	Interviewed Y/N	Statement Attached Y/N

Initial corrective actions implemented: _____

Incident analysis: Mark each area **A** (Adequate) or **D** (Deficient)

<u>Equipment</u>	<u>Material</u>	<u>People</u>
___ Selection	___ Selection	___ Selection
___ Arrangement	___ Placement	___ Placement
___ Use	___ Handling	___ Training
___ Maintenance	___ Process	___ Leadership

Corrective Action: _____

By Whom: _____ Due Date: _____

APPENDIX H-3 WORK RELATED VEHICLE ACCIDENT REPORTS

Accidents/Automobile Liability Claims-All automobile liability claims for SMCCCD vehicles should first be reported to the employee's Supervisor and then to the SMCCCD Executive Vice Chancellor's Office, regardless of campus affiliation. After an accident occurs the employee should:

1. Stop. Determine extent of injuries and/or damage. If there are any injuries or if the damage is visually assessed to be \$1,000 or more, the employee should contact the police to come to the accident scene. (If needed, obtain medical help for other injured parties and notify your Supervisor of injury.
2. Get the facts (listed in items 1 through 8 below). The employee involved should contact their Supervisor immediately and the Executive Vice Chancellor's Office within 24 hours.
3. Do not admit fault. Discuss the facts or give statements only to the police or your Supervisor. All automobile accidents must be reported even when they are not serious in nature, not the employees fault, or not all the facts are obtained.
4. After the accident has been reported to your Supervisor and/or the SMCCCD Executive Vice Chancellor's Office, the employee should complete the Report of District Vehicle Accident (Appendix H, Form H-5). The completed Report of District Vehicle Accident should be sent to the employee's supervisor and the SMCCCD Executive Vice Chancellor's Office

The employee involved in the accident should acquire the following information from all parties involved in the accident

1. When and Where. Including the date, time, city and state.
2. Others involved. Driver or pedestrian? Include name, phone number, address, city, state, zip, vehicle (year, make and model), license plate number, and driver's license.
3. Describe damages. Damage to all vehicles and injuries to all parties involved.
4. Owner of Other Vehicle. Include name, phone number, address, city, state, zip, vehicle (year, make and model), license plate number, driver's license number, insured with and policy number. (Get the insurance information even if they say they want to pay for it out-of-pocket without notifying their insurance company.)

5. Driving Conditions (dry, wet, ice, snowy, muddy, etc.). Driving on what street? How fast? In what direction? Signal given? Lights on? These questions should be answered for both SMCCCD vehicle and the other vehicle in the accident.
6. Police Investigation. Include department, badge number, report number, etc.
7. Injuries. If anyone is hospitalized, list name and location of hospital.
 - a. If an injury has occurred to the employee, please report to your immediate supervisor and complete workers' compensation new injury claim forms. The Supervisor must then complete the Supervisor's Injury/Illness Investigation Report (Appendix H-1).
8. Witnesses. List name, address, and phone number.

Failure to report an accident is grounds for disciplinary action up to and including termination.

Appendix H-4 Injurer's Injury/Illness Incident Report

Injurer's Name: _____ Date of Injury: _____ † Male † Female

Campus: * SKY * CSM * CAÑ * CHANC OFFICE

Category: *Permanent Employee * Adjunct Faculty *Short-Term/Student Asst *Visitor *Student * Volunteer

Home Address: _____ Date of Birth: _____

Home Telephone: _____ Alternative Telephone: _____ SS#: _____

Description of Incident: Time of injury/illness: _____ AM/PM Incident Location: _____

What were you doing before the incident occurred?

How did the injury occur (give all factors of contribution to accident/object/substance directly harmed you)?

What was the injury or illness (body part injured and type of injury)? _____

Witnesses Name(s): _____

Health Care:

Student Insurance Information: † Advise student to report to health center if medical claim needs to be filed.

Health Center Care Treatment: † College Nurse † First Aid † 911 † Campus Security † Other: _____

Care Administered by: _____

Employment/Volunteer Health Care:

Note: Must have Pre-designated Personal Physician in writing before the injury/illness occurred.

If pre-designation did not occur, must refer injurer to District Designated Medical Facility List for medical treatment.

Pre-designated Personal Physician or Facility / Physician Where Treatment Occurred Contact Information:

Name: _____ Address: _____

Were you seen in the emergency room? _____ Were you hospitalized overnight as an in-patient? _____

If no medical treatment is needed, please select the below.

† I decline medical treatment at this time. Should I decide to obtain medical treatment in the future, I will notify Human Resources and/or my supervisor. I understand that my failure to do so may cause a delay, as well as possible denial of payment for any treatment.

Employment Information:

Department: _____ Supervisor Name: _____

Job Title: _____ Date of Hire: _____ Time Work Started: _____ AM/PM

Signature of Injurer: _____ **Date:** _____

Health Center Distribution: District Office, Operations, Health Center, Instructor

Please return this form to Human Resources.

This form can be used for any type of incident reporting and awareness.

District Vehicle

Driver: _____

License #: _____

Vehicle Year & Make: _____

Vehicle License #: _____

Area of Damage: _____

Describe How Accident Occurred

Diagram & Miscellaneous
(If Necessary)

If you are involved in an accident

1. Call an ambulance for anyone seriously injured.
2. Secure names and addresses of all persons in the other vehicle.
3. Be sure to obtain names and addresses of all witnesses.
4. Obtain license number and State of registration of adverse vehicle.
5. Do not admit responsibility.

APPENDIX H-5

**San Mateo County
Community College
District**

3401 CSM Drive
San Mateo, CA 94402

(650) 358-6786

**Report of District
Vehicle Accident**

1. Stop at once.
2. Provide assistance to any injured party.
3. Contact the local police authority.
4. Phone your supervisor if there is personal injury or extensive property damage.
5. **DO NOT** discuss the accident with anyone other than the police authority, your employer or an insurance administrator.
6. Complete this report as soon as possible and submit to the Executive Vice Chancellor's Office.

LIABILITY COVERAGE

THIS VEHICLE IS OWNED BY A PUBLIC ENTITY AND IS SELF-INSURED. PURSUANT TO THE CALIFORNIA GOVERNMENT CODE, SECTION 16020 (B) (4) OF THE CALIFORNIA VEHICLE CODE SPECIFICALLY EXEMPT PUBLIC ENTITIES FROM HAVING TO PROVIDE PROOF OF FINANCIAL RESPONSIBILITY.

San Mateo County Community College District

Accident Date: _____ Time: _____

Location: _____

Police Agency Called: _____

Police Report Number: _____

Other Party

Name: _____

Address: _____

Phone: Home: _____

Work: _____

Driver's Lic#: _____

Auto Year & Make: _____

Plate Number: _____

Area of Damage: _____

Prior Damage: _____

Insurance Company: _____

Policy #: _____

Tel Number: _____

Number of Passengers: _____

Injured

Name: _____

Address: _____

Phone: Home: _____

Work: _____

Nature of Injury: _____

Name: _____

Address: _____

Phone: Home: _____

Work: _____

Nature of Injury: _____

Name: _____

Address: _____

Phone: Home: _____

Work: _____

Nature of Injury: _____

Name: _____

Address: _____

Phone: Home: _____

Work: _____

Nature of Injury: _____

Witness

Name: _____

Address: _____

Phone: Home: _____

Work: _____

Name: _____

Address: _____

Phone: Home: _____

Work: _____

Name: _____

Address: _____

Phone: Home: _____

Work: _____

Name: _____

Address: _____

Phone: Home: _____

Work: _____