

STANFORD UNIVERSITY ENVIRONMENTAL HEALTH & SAFETY

HEALTH & SAFETY AT STANFORD

INTRODUCTION AND OVERVIEW



CREDITS *Health and Safety at Stanford: Introduction and Overview* was developed by the Department of Environmental Health and Safety (EH&S) at Stanford University.

Stanford University publishes the *Safety Manual*, which covers safety topics in depth. The *Safety Manual* is available in all campus libraries as well as on the web at the EH&S web site: <u>http://ehs.stanford.edu</u>

For information, publications and updates on health and safety, visit the EH&S web site:

L:	http://ehs.star	nford.edu/
STANFORD Environmental H	with & Salaty - Microsoft Internet Explore	1
In Di Ine Protes Int		
Aginara 💼 Hig Awar startland adla	livpMD4Sprodi	5
	ENVIRONMENTAL HEALTH	& SAFETY
ANO.2 13		
ICINA.com	and the second	
PERSONA LINEY		
NUMBER OF STREET		
RANTERSON BOTH	Contraction of the local division of the loc	10040
	Share and Sold	
The same minimum programs choices book factor		19.9
Select a program below GO		
(and	the second second	
	and the second second	
sterth tHMS		
M News:	0	NAME AND A
	- Marked Minerity	
Share the Arriver	a hand.	
Lit beauers the S	CI Charles Classes	NY N
	G	tran the



CHAPTER ONE	Stanford's Injury and Illness Prevention Program
CHAPTER TWO	Emergency Preparedness and Response
CHAPTER THREE	General Workplace Safety14Fire Safety14Electrical Safety15Ergonomics15Workplace Violence16
CHAPTER FOUR	Laboratory Safety17Radiological Safety19Laser Safety19Biological Safety19
CHAPTER FIVE	Chemical, Radiological and Biological Waste21Chemical Waste21Radiological Waste22Biological Waste22Mixed Hazardous Waste22Waste Minimization23
CHAPTER SIX	Regulatory Overview
APPENDIX	General Workplace Inspection Checklist Appendix I Stanford Safety Information ChecklistAppendix II Information and AssistanceInside Back Cover Emergency InstructionsBack Cover

This handbook gives a brief overview of Stanford's health and safety system. Environmental Health and Safety (EH&S) is the department responsible for assisting the Stanford community in implementing University workplace health and safety principles and policies.

Stanford has an excellent safety record. However, it is a reality that a major earthquake, a serious fire or an accident can occur at any time. We should all strive to become better informed regarding these issues and to follow good safety practices. To prepare yourself, you should become familiar with fire and earthquake safety and know what to do in the event of an emergency. Many of you will also want to get more information on bicycle safety, asbestos, and other issues of general safety concern.

Those of you working, teaching, and conducting research in laboratories will definitely need more information about working safely with chemical, biological, radiological, laser, and other special laboratory hazards associated with the specific research projects at Stanford. This handbook explains how to access that information, as well as the relevant training programs available to you.

If you have any questions regarding safety concerns while at Stanford, speak with your supervisor or call EH&S at 723-0448.

Lawrence M. Gibbs, C.I.H. Associate Vice Provost for Environmental Health and Safety

I INJURY & ILLNESS PREVENTION PROGRAM

INTRODUCTION	Health and safety at Stanford is both a right and a responsibility. This handbook provides an overview of Stanford's Injury and Illness Prevention Program (IIPP), a program developed to manage risks in the work environment.
IIPP	The California Legislature passed The Injury and Illness Prevention
	Program (8CCR3203) on October 2, 1989 (Senate Bill 198). It
	requires every employer to:
	• Provide a place of employment which is safe and healthful for the employees therein.
	• Furnish safety devices and safeguards.
	• Adopt and use practices, means, methods, operations, and
	processes which are reasonably adequate to render the
	employment and place of employment safe and healthful, and
	• Do every other thing reasonably necessary to protect the life,
	safety and health of employees.
RESPONSIBILITIES UNDER THE IIPP	In the spring of 1991, the University Cabinet adopted a policy entitled, Health and Safety at Stanford: Principles, Responsibilities and
Admin Guide 25.5	<i>Practices</i> to reflect IIPP requirements and establish responsible
	institutional conduct regarding environmental health and safety
	hazards. Stanford's IIPP assigns specific responsibilities to managers,
	supervisors, employees and students.
Manager Responsibilities	Managers are responsible for ensuring that:
Admin Guide 25.5	• Individuals under their management have the authority to
	implement appropriate health and safety policies, practices and
	programs.
	• Areas under their management have adequate funding for health
	and safety programs, practices and equipment.
	• Areas under their management are in compliance with Stanford
	University health and safety practices, policies and programs.
D 9/2002	

STANFORD HEALTH AND SAFETY

Supervisor Responsibilities	Supervisors are responsible for the implementation of Stanford's IIPP.
Admin Guide 25.5	This includes:
	• Ensuring that workplaces and equipment are safe, well-maintained
	and in compliance with external agency regulations and Stanford
	policies, programs and practices.
	• Ensuring that health and safety practices and procedures are
	clearly communicated and understood by employees through the
	provision of information and by their attendance at training
	programs.
	• Enforcing health and safety rules fairly and uniformly, as related
	to job performance.
	• Evaluating employees on compliance with safe work practices.
	• Acknowledging employees and students who make a significant
	contribution to a safe workplace and disciplining employees who
	fail to follow safe work practices.
	• Encouraging employees and students to report workplace hazards
	without fear of reprisal.
	• Ensuring that inspections, investigations and health and safety
	training records are kept for the designated period of time.
Employee and Student	Employees and students are responsible for following the
Responsibilities	requirements of Stanford's IIPP. This includes:
	• Keeping themselves informed of conditions affecting their health and safety.
	• Participating in training programs, as required.
	• Adhering to healthy and safe practices in the workplace,
	classroom, laboratory and residences.
	-

• Advising supervisors or instructors of hazards.

EH&S Responsibilities

EH&S is responsible for the development and administration of the IIPP. This involves:

- Assisting supervisors in conducting workplace hazard assessments to identify, evaluate, and correct hazards.
- Providing training and technical assistance to managers and supervisors on implementation of the IIPP.
- Reviewing, updating and evaluating the overall effectiveness of the IIPP.
- Evaluating the adequacy and consistency of training designed by schools and departments.

EH&S has developed the acronym **TRICK** for remembering the five key elements of the IIPP:

- T raining for general workplace and job-specific hazards
- **R** eporting (and investigating) hazards and accidents
- I dentifying workplace hazards
- C orrecting identified workplace hazards
- **K** eeping records and documents



UNIVERSITY COMMITTEE ON HEALTH AND SAFETY

The University Committee on Health and Safety exercises oversight of health and safety programs at Stanford, including those of SLAC, advises the President on the adequacy of Stanford's health and safety programs, policies and organization, recommends priorities and strategies to promote good health and safety on campus, fosters coordination among those units at Stanford having operational responsibility for health and safety, and reviews and recommends to the President University-wide policies with respect to those health and safety matters which are not addressed by the existing administrative panels.

UNIVERSITY SAFETY PARTNERS

The deans of each school and several administrative areas, such as Facilities, Stores, Housing and Food Services, are represented by a University Safety Partner. The mission of the Safety Partners is to provide a collaborative forum for reviewing governmental laws, regulations and University policies and procedures concerning environmental health and safety and for their translation into workplace health and safety practices at Stanford.

OTHER SAFETY GROUPS

Others that play important roles in assuring your health and safety are:



- Dept of Public Safety (Campus Police) 9-911
- Department of Risk Management723-7400Administers Stanford's insurance, Workers' Compensation,self-insured programs and claims, and provides riskconsultation to departments.
- Palo Alto Fire Department 9-911 Provides fire response and fire suppression services to the Stanford community.
- Stanford Fire Marshal at EH&S723-0609Provides fire prevention services which include fire safety
training and code consultation.
- EH&S Hazardous Materials Response Team 725-9999
 Provides services for non-health threatening incidents involving hazardous materials.
- Most importantly, faculty and staff in their role as supervisors are key elements in assuring health and safety at Stanford.

Three Tiers of Safety Training Admin. Guide 25.4

Safety training at Stanford is administered on three levels:Tier I:Introduction to Safety at Orientation and through
this bookletTier II:School or Department-specific Safety Training
Tier III:Job-specific Safety Training

RESOURCES

Resources are available from departments, schools, and EH&S to help supervisors, staff and students carry out their IIPP responsibilities. These resources include training documents, inspection forms and safety training videos, which are available on request. For training classes, see the *Training Opportunities Guide* published quarterly in the *Stanford Report* or call EH&S at 723-0448; for technical training assistance, call 725-1470. 2

EMERGENCY PREPAREDNESS AND RESPONSE

INTRODUCTION

An earthquake, fire or a serious injury can occur at any time. To protect yourself, you need to know what to do in an emergency. Stanford buildings have emergency evacuation rules and routes posted. They have also established Emergency Assembly Points (EAP) near each campus building. Familiarize yourself with these emergency evacuation procedures and know the location of your EAP.

EMERGENCY RESPONSE

DEFINITIONS

Emergency:

An unforeseen event that calls for immediate action to protect individuals, the environment, or property.

Health-threatening

emergency:

An emergency in which there is a clear potential for serious injury to a person if immediate action is not taken. If in doubt, consider the emergency healththreatening. In the event of a health-threatening emergency:

- Call for help:
 - 9-911 from a University phone
 - 911 from a public phone
 - **286** from a School of Medicine phone.
- In case of fire, pull the alarm, evacuate the building immediately and call 9-911 or 286 as soon as safe to do so.
- Follow the emergency evacuation procedures.

To help you prepare for an emergency, fill in the location of the following:

Your Department's Emergency Assembly Point (EAP):

Location of the nearest fire extinguisher:

Location of the nearest first aid kit:

If you have any questions, speak with your supervisor.

Where to Seek Treatment Treatment for a work related injury or illness should be sought at the following locations:

Faculty and Staff:

- Sequoia Occupational Health, 633 Veterans Blvd. Redwood City, CA 94063, 650-364-1565, or
- 2. For emergencies/serious injuries or illnesses, go to the Emergency Room of the Stanford Medical Center.

Students:

- 1. Vaden Student Health Center, 866 Campus Drive, or
- 2. For emergencies/serious injuries or illnesses, go to the Emergency Room of the Stanford Medical Center.

EARTHQUAKE SAFETY As with much of California, a major earthquake is one of the most significant health and safety risks at Stanford. The best defense is to have a personal earthquake preparedness plan.

- Before an earthquake, survey your office or laboratory for conditions that would pose hazards in an earthquake, and identify a safe place to take cover during a quake.
- Familiarize yourself with your department's earthquake emergency evacuation plan and know your Emergency Assembly Point (EAP).
- In the event of an earthquake, 'duck, cover, and hold.' As soon as the initial shock is over, calmly leave the building, taking only essentials such as your glasses, medication, keys and wallet. Go to your EAP. Don't go back in until the building is cleared for reentry.
- Develop a home earthquake preparedness plan.
- Call EH&S at 725-1409 for more preparedness information.

FIRE SAFETY Fire safety procedures:



- Report the fire by pulling the fire alarm box and then call 9-911 (from SU phones) or 911 (from non-SU phones) when in a safe location.
- Evacuate the fire area. Close the door behind you to contain the fire.
- Use the nearest exit or stairway. Do not use elevators
- Drop and crawl if smoke is present.
- Go to your Emergency Assembly Point

LIFE SAFETY BOXES



Life Safety Boxes are found in laboratory buildings. They provide emergency response personnel with information on the hazardous materials in a room. For more information, contact EH&S at 72**3**-**0593**.

RESOURCES

There are plans, checklists and other publications available about earthquake safety. The *Stanford Safety Manual* has a Safety Checklist designed specifically for laboratories. For additional information, call the Earthquake Information Line at 72**3-0569.**

3 GENERAL WORKPLACE SAFETY

INTRODUCTION

Routine housekeeping and safety consciousness in the workplace can prevent accidents such as slips, trips and falls. Fire safety, electrical safety, office ergonomics and an awareness of workplace violence are also important components in maintaining an illness and injury free work environment for Stanford employees and students.

GENERAL SAFETY

Housekeeping and general caution are key factors in avoiding accidents. To prevent injury, several general rules should be followed:

- Keep floors clear of debris and spilled liquids.
- Maintain floor coverings in good condition to avoid tripping hazards caused by loose tile and frayed carpet edging.
- Keep designated walkways and doorways clear, unobstructed, and free of electrical cords, boxes and office equipment at all times.
- When using file cabinets, file materials from the bottom to the top. Only open one file drawer at a time.
- Use proper step stools, not chairs, when climbing to reach high items.
- Properly store and handle any potentially hazardous chemicals.

FIRE SAFETY



- Know the location of fire alarm pull boxes, exits and fire extinguishers.
- Keep exit corridors and stairways free from waste paper, boxes, dirty rags and other combustible storage.
- Keep fire doors closed, except doors equipped with automatic closing devices.
- Turn off or unplug electrical appliances such as coffee makers at the end of each working day.
- Place portable heaters at least 36 inches away from combustible materials such as paper, clothing or curtains.
- Conduct annual evacuation drills.

ELECTRICAL SAFETY



Almost all workplace areas have the potential to present serious electrical hazards. To protect yourself, follow these important guidelines:

- Use extension cords that are appropriately rated for the equipment.
- Avoid the use of extension cords as permanent wiring.
- Be sure the work surface is dry before operating electrical devices.
- Use GFCI (Ground Fault Circuit Interrupt) type receptacles, especially where work areas might become wet.
- Never unplug equipment by pulling on the cord; always remove by the plug.
- Replace frayed or damaged cords.
- Ensure that electrical cords are not damaged by being wedged against furniture or doors. Do not run cords under carpeting.
- Only plug one piece of equipment into each outlet. If more than one socket needs to be used, use an approved power strip with circuit breaker. Do not "daisy chain" extension cords and/or power strips.

ERGONOMICS Ergonomics is the science of adapting tasks, machines and the work space to the capacities and limitations of the human form, in order to promote the health and safety of the worker. Ergonomic wellness in the office setting can be achieved by following these guidelines:

- Educate yourself about potential risks associated with tasks involving prolonged repetitive motion and make the necessary adjustments to achieve the best "fit" for your work situation.
- Avoid performing similar tasks for long durations. Take frequent short breaks or use alternate activities to break up long stretches of work, especially when using a computer for extended periods.
- Utilize proper body posture during work tasks such as computer input or lifting heavy objects.
- Adjust lighting sources to avoid glare.
- For assistance with ergonomic awareness training or workstation evaluations, contact the Occupational Health & Safety Program at 725-3209.

Stanford University strives to provide employees and students a safe

Rev. 8/2002 EH&S

WORKPLACE VIOLENCE

STANFORD HEALTH AND SAFETY

GUIDE MEMO 23.9	en	vironment in which to live and work. Therefore, the University will
	no	t tolerate violence or threats of violence on campus.
	•	Any person experiencing or observing imminent violence should
		call emergency services at 9-911 .
	•	Report any acts or threats of violence to your immediate

supervisor, Human Resources Officer (HRO) or Employee Relations Representative. Such reports will be promptly and thoroughly investigated.

RESOURCES

Expanded information on these topics is available in the SU Safety Manual, and in the Administrative Policy on Workplace Violence (Administrative Guide Memo 23.9) available at: <u>http://ehs.stanford.edu</u>

4 LABORATORY SAFETY

INTRODUCTION	Stanford has more than 2500 laboratories that use over 5,000 different chemicals. EH&S works closely with schools and departments to promote the safe use, storage, and disposal of these chemicals. EH&S also oversees radiological, laser and biological safety.
CHEMICAL SAFETY	Chemical safety in laboratories is addressed in <i>The Chemical Hygiene</i>
CHEWICAL SAFET I	<i>Plan</i> , which includes the following elements in addition to
	laboratory-specific requirements developed by departments and
	faculty.
	 Hazard Communication. All faculty, staff, and students who
	may come into contact with hazardous chemicals in the
	-
	laboratories shall be informed about potential hazards and trained in safe handling methods.
	• Labeling. Chemical containers shall be labeled with the full
	chemical name, appropriate safety information and a warning
	sign.
	• Material Safety Data Sheets (MSDS). The University has
	established a web-based system that covers MSDSs for more than
	90% of the chemicals found in University laboratories, including
	all of the Sigma-Aldrich chemicals. This resource relieves
	laboratories of the responsibility of maintaining paper copies of
	MSDSs. However, laboratories should continue to request
	MSDSs from vendors for specialty chemicals. Set a bookmark
	now for
	http://goddard.stanford.edu/msds/
	• Hazard Identification and Correction. Supervisors are
	responsible for conducting scheduled, periodic inspections of
	workplaces to identify and evaluate workplace hazards and
	unsafe work practices. The frequency of inspections should be
	proportional to the magnitude of risk posed in the particular
	workplace.
	Inspections are also required whenever new substances,

STANFORD HEALTH AND SAFETY

processes, procedures, or equipment which present new or different health and safety hazards are introduced into the workplace. Unsafe conditions which cannot be corrected by the supervisor shall be reported to the next higher level of management. Any supervisor who becomes aware of a serious concealed danger to the health and safety of individuals shall report this danger promptly to EH&S and to all who may be affected.

- Training. Principal investigators (PI), laboratory directors, and supervisors are responsible for informing and training employees and students about hazardous substances in their work areas.
 EH&S works closely with schools and departments, as well as the University Safety Partners to provide technical support and training materials.
- Chemical Inventories. The PIs, laboratory director, and supervisor are responsible for maintaining an up-to-date inventory of the hazardous substances in each laboratory. Contact your department or building safety coordinator if you have questions. The University's overall chemical inventory is maintained by EH&S. Technical assistance is available to PIs, departments, and laboratories by calling EH&S at 723-9667.
- Chemical Storage. All chemicals, including gases, shall be stored in accordance with local, state and federal chemical storage permit regulations. Specific requirements include proper labeling, secondary containment, segregation of incompatible materials, and security of materials. Other requirements may apply. Contact the EH&S Compliance Assistance Program at 723-7487 for advice.

RADIALOGICAL SAFETY



Stanford's Administrative Panel on Radiological Safety, aided by the Local Control Committees, is responsible for exercising the authority delegated under the University's licenses from the State of California and the Nuclear Regulatory Commission. Anyone planning to undertake instruction or research involving the use of material or devices which pose potential radiation hazards shall first apply to the Administrative Panel on Radiological Safety or its Local Control Committee through the Health Physics Office. The procedures are specified in the *Stanford University Radiation Protection Manual*. Contact Health Physics at 72**3-3201**.

LASER SAFETY The Administrative Panel on Radiological Safety and the EH&S Health Physics Office are also responsible for providing guidance on health and safety involving lasers. For a copy of *Laser Safety Policies and Procedures*, contact Health Physics at 72**3-3201.**

BIOLOGICAL SAFETY



Y The Administrative Panel on Biosafety (APB) reviews the University's teaching projects, research, and facilities involving biohazardous agents. Laboratories involved in handling Class 2 or Class 3 biohazardous agents or non-exempt recombinant DNA molecules shall submit an application form to the Panel for review and approval. The APB, through the Biosafety Officer, will conduct periodic inspections of laboratories involved with biohazard or non-exempt recombinant DNA research. Contact EH&S at 725-1473 for more information.

Principal Investigator or	The Principal Investigator or Laboratory Director is responsible for:
Laboratory Director Responsibilities	• labeling biohazard areas and posting a biohazard sign on the
	laboratory door;
	• making sure APB application forms are on file and approved within
	the past year;
	• noting the use of biohazardous agents on the Sponsored Project
	Routing forms (block 14 on the SU-42 Form);
	• training laboratory personnel in appropriate work practices and
	emergency procedures;
	• certifying biosafety cabinets on an annual basis;
	• making sure containment facilities are adequate for the proposed
	research;
	• labeling, storing, and using biohazardous agents in compliance with
	the Stanford University Biosafety Manual:
	http://web.stanford.edu/dept/EHS/prod/researchlab/bio/index.html
	 providing personal protective equipment as needed;
	• maintaining an up-to-date inventory of biohazardous agents in the
	laboratory; and informing employees of hazards.

RESOURCES

Call EH&S at 72**3-0448** for guidance and assistance or to request a copy of the *Stanford University Biosafety Manual* or the *Chemical Hygiene Plan.* Consult the *Stanford Safety Manual* for further information. Contact your PI, laboratory director or supervisor for the location of the MSDS binder for your work area. Copies of the *Radiation Safety Manual* and the *Laser Safety Policies and Procedures* are available from Health Physics at EH&S 72**3-3201**.

CHEMICAL, RADIOLOGICAL, AND BIOLOGICAL WASTE

INTRODUCTION

5

Some of the teaching, research and patient care activities conducted at Stanford result in the generation of chemical, biological or radiological wastes. Disposal of this waste shall be in compliance with all federal, state, and local regulations. EH&S picks up these wastes from various locations on campus. Chemical waste is recycled on-site, or packaged and shipped off campus for disposal in licensed hazardous waste disposal facilities. While there is a myriad of complex laws and regulations governing hazardous waste disposal here are some principle guidelines.

CHEMICAL WASTE For chemical waste:

- The Compliance Assistance Program Team will provide you with the guidelines and explain to you the specific requirements of segregation and labeling, and the special rules for disposing of empty containers and contaminated broken glass. Contact the Program at 723-7487 for assistance.
- Make sure that chemical waste does not get into the general waste stream, go down the drain, or is other wise disposed of by intentional fumehood evaporation.
- For chemical waste pickup, call 725-7520.

RADIALOGICAL WASTE	For radiological waste:
	• Make sure that radioactive waste does not get into the general
	waste stream.
	• DO NOT MIX chemical or biological waste with radioactive
	waste.
	• For packaging, labeling and disposal procedures, see the
	Radiation Safety Manual. For more information, contact the
	Radiological Waste Program at 725-1408.
	•
BIOLOGICAL WASTE	For biological waste:
	• Make sure it does not get into the general waste stream. It is to
	be picked up by SHS Housekeeping and deposited in a
	Stericycle bin.
	• Medical waste shall go into the special red plastic waste bags
	labeled with the universal biohazard symbol or with the word
	"Biohazard" or "Biohazardous Waste."
	• Sharps, such as needles or syringes, contaminated with blood
	or other potentially infectious materials shall be placed into a
	rigid, hard plastic sharps container.
	• To get further information or to arrange pick-ups, call 725-
	1473.
MIXED HAZARDOUS WASTE	Mixed hazardous wastes contain both chemical and radiological
	wastes. Their generation at Stanford is a growing problem. If
	mixed hazardous wastes will be generated, prior approval by the
	Administrative Panel on Radiological Safety is required. Call 723-
	3201 for more information.

WASTE MINIMIZATION Please make every effort to minimize your waste stream through recycling, use of less hazardous chemical substitutes, keeping inventories of potentially redundant materials, buying smaller quantities, and using micro-scale experimentation. All research personnel need to cooperate in efforts to reduce the volume of hazardous wastes generated by the University. Call EH&S at 725-7520 if you need technical assistance regarding hazardous waste.

RESOURCES

Consult the *Stanford Safety Manual*, the *Chemical Hygiene Plan*, *the Biosafety Manual* or the *Radiation Safety Manual*. For more information call EH&S at 72**3-0448**.

6 REGULATORY OVERVIEW

INTRODUCTION

EH&S staff are often asked by faculty, "Why do I have to do chemical inventories or medical surveillance, or handle chemical or infectious waste in this particular manner?" The answer is most often, "Because it's required by the Santa Clara County Hazardous Materials Storage Ordinance, OSHA regulations, or the EPA."

COMPLIANCE ASSISTANCE PROGRAM EH&S' Compliance Assistance Program (CAP) helps groups using hazardous materials to identify rules, regulations, policies and procedures that affect their use and handling. The CAP Team members regularly visit operating areas to answer questions and highlight issues of compliance concern. The team deals with such issues as proper storage, chemical waste management, biosafety, life safety and radiological surveys and waste. To contact the Program, call: 72**3-7487**.

REGULATORY AGENCIES Over 21 different regulatory agencies have some jurisdiction over health, safety and the environment at Stanford University. The EH&S–Regulatory Interaction chart on the following page provides some idea of the range of regulatory agencies EH&S works with on a regular basis.

RISKS ON CAMPUS Given the various types of hazardous materials used at Stanford for teaching, research and patient care, it may seem that hazardous materials are a significant risk on the campus. While they do pose a potential risk, we find, based on historical injury data and a current review of operations, the greatest risks on campus come from bicycle riding, lifting heavy or bulky materials, and slips and falls.

RESOURCES

To obtain copies of specific health and safety regulations, contact EH&S at 72**3-0448**. To contact the Compliance Assistance Program, call 72**3-7487**.

EH&S Regulatory Agency Interaction Supporting the Stanford Community





Environmental Health & Safety

- Chemical Waste
- Biological Waste
- Radioactive Waste
- Radiation Safety/Health Physics
- Fire Safety
- Hazardous Materials Mgmt.
- Environmental Compliance
- Industrial Hygiene
- General Safety
- Biological Safety
- Training and Communications
- Emergency Preparedness
- Program and Compliance Admin.

Regulatory Agencies

- Federal Environmental Protection Agency
- California Environmental Protection Agency
- California Department of Toxic Substances Control
- Federal Occupational Health and Safety Administration
- California Occupational Health and Safety Administration
- The Governor's Office of Emergency Services
- Santa Clara County Health Department
- Santa Clara County Planning Dept. Office of Building Inspection
- Santa Clara County Planning Dept. Fire Marshal's Office
- California Fire Marshal
- Santa Clara County Water District
- Santa Clara County Office of Toxic and Solid Waste Management
- San Francisco Bay Regional Water Quality Control Board

A **PPENDICES**

- APPENDIX ONE General Workplace Inspection Checklist
- APPENDIX TWO Stanford Safety Information Checklist
 - **INSIDE COVER** Information and Assistance
 - **BACK COVER** Emergency Instructions

STANFORD UNIVERSITY ENVIRONMENTAL HEALTH AND SAFETY

GENERAL WORKPLACE INSPECTION CHECKLIST

EH&S has developed this form to assist Stanford faculty and staff in identifying and when necessary, correcting general safety hazards. Periodic inspection and correction of identified hazards is a requirement of Stanford's Injury and Illness Prevention Program (IIPP). If you have any questions or suggestions regarding the content of this survey, please contact EH&S Industrial Hygiene and General Safety Office at 72**5-3209** or 72**3-0448**.

Please send completed forms to:		Room:
Completed by:		Date:
Building:		Room:
Supervisor:	_ Dept:	Phone:
Signature of PI		Date:

For more information, visit the EH&S website: http://www-leland.stanford.edu/dept/EHS/

GENERAL

- 1. Workplace clean and orderly.
- 2. Exits cleared of obstructions and accessible.
- 3. Stored materials secure & limited in height to prevent collapse.
- 4. Suitable warning signs and tags.

TRAINING

- 1. New employees given basic safety training.
- 2. Job-specific safety training held for employees on a regular basis.
- 3. Personnel familiar with applicable Material Safety Data Sheets.
- 4. All personnel familiar with emergency evacuation plan.
- 5. Training documentation current and accessible.

SAFE LIFTING

- 1. Workers trained on and using safe lifting techniques. For information, call the EH&S Industrial Hygiene and General Safety Program at 5-3209.
 - a. Size up/test load.
 - b. Avoid heavy loads split into smaller loads or ask for help.
 - c. When lifting, bend knees to take pressure off the back.
 - d. Consciously firm up abdominals when lifting.
 - e. Never twist.

ERGONOMICS

1. Workers trained on ergonomics, taking frequent breaks, varying activities to interrupt repetitive motions. For more information, call the EH&S Industrial Hygiene Program at 5-3209.

Fire

- 1. Emergency exit signs lit properly.
- 2. Fire alarms and fire extinguishers are visible and accessible.
- 3. Stairway doors are kept closed unless equipped with automatic closing device.
- 4. 18" vertical clearance is maintained below all sprinkler heads.
- 5. Fire extinguishers are serviced annually.
- 6. Corridors and stairways are kept free of obstruction and not used for storage.

Υ	Ν	N/A	COMMENTS /DATE CORRECTED
			Y = SATISFACTORY
			N = NEEDS IMPROVEMENT N/A = NOT APPLICABLE
Y	N	N/A	COMMENTS /DATE CORRECTED
Ŷ	IN	N/A	COMMENTS /DATE CORRECTED
Y	N	N/A	COMMENTS /DATE CORRECTED
Υ	Ν	N/A	COMMENTS /DATE CORRECTED
Y	N	N/A	COMMENTS /DATE CORRECTED
\vdash			
		Ц	
-		\vdash	

EARTHQUAKE

- 1. Bookcases, filing cabinets, shelves, racks, cages, storage cabinets and similar items over four feet tall are anchored to the wall.
- 2. Shelves have lip or other seismic restraints.
- 3. Portable machines or equipment secured against movement using chains, lockable casters, or other appropriate means.
- Top-heavy equipment or apparatus bolted down or secured to withstand accelerations typically expected in an earthquake. These items should be secured to wall studs with large screws (1/4 or 3/16 shank).
- 5. Large & heavy objects stored on lower shelves or storage areas.
- 6. Valuable equipment sensitive to shock damage, such as instruments, computer disks and glassware are stored in latched cabinets or otherwise secured to prevent falling.
- 7. Storage areas uncluttered providing clear evacuation routes in the event of an emergency.
- 8. Cabinets and lockers containing hazardous materials equipped with positive latching or sliding doors.

EQUIPMENT AND MACHINERY

- 1. Clean and working properly.
- 2. Electrical cord in good condition with proper grounding.
- 3. Only extension cords with circuit breakers, and multiple connectors are used but not as fixed wiring.
- 4. Sufficient clearances from combustibles (paper, cardboard or combustible liquids).
- 5. Adequately ventilated.
- 6. Emergency stop mechanisms and dead-man switches identified and in proper working order.

Mechanical safeguards in place and in proper working order. Appropriate Personal Protective Equipment (PPE) available to employees.

N	Y	N	N/A	COMMENTS /DATE CORRECTED
				Y = SATISFACTORY
				N = NEEDS IMPROVEMENT
				N/A = NOT APPLICABLE
┝				
┢				
L				
)	Y	N	N/A	COMMENTS /DATE CORRECTED
F				
F				

GENERAL WORKPLACE INSPECTION CHECKLIST

If you store chemicals in your work area in amounts greater than typical office /household quantities, you are required to complete:

- the following Hazardous Materials and Hazardous Waste checklist sections, and
- a chemical inventory for your department.

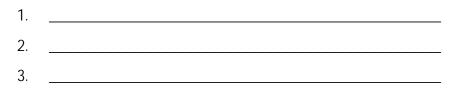
HAZARDOUS MATERIALS

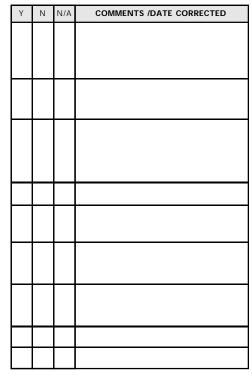
- 1. Original product names (or full chemical names) and hazards clearly identified on labels.
- 2. Containers of non-hazardous substances (e.g., water) labeled explicitly to avoid confusion.
- 3. Secondary containment provided for liquid chemicals, as required (see Stanford Safety Manual) and used for dry chemicals next to or below liquids.
- 4. No hazardous materials stored next to or above sinks.
- 5. Incompatible chemicals (including solids) segregated by Stanford's Compatible Storage Groups (see SU Safety Manual).
- 6. All chemical containers capped and sealed, except when actively adding or removing materials from them.
- 7. Flammable liquids (including flammable liquid wastes) not stored outside of a storage cabinet if in excess of 10 gallons.
- 8. Employees have completed hazard communication training.
- 9. MSDSs and chemical inventory list are readily accessible.

HAZARDOUS WASTE

- Waste containers are sturdy, routinely inspected for leaks, compatible with the waste, and kept closed (i.e., no funnels left sticking out) using screw caps or other tight-fitting closure.
- 2. Containers are labeled with the initial date of accumulation, the words "HAZARDOUS WASTE," the waste's physical state and hazardous properties, and full chemical names.
- 3. Not stored for more than 9 months from the initial date of accumulation.
- 4. Waste pick-up forms submitted for wastes stored more than 8 months from the initial date of accumulation.
- 5. Red bags are only used for infectious wastes, no other wastes.

SITE SPECIFIC INFORMATION





Υ	Ν	N/A	COMMENTS /DATE CORRECTED

Υ	Ν	N/A	COMMENTS /DATE CORRECTED		

STANFORD SAFETY INFORMATION

TIER II TRAINING • DEPT. OF ENVIRONMENTAL HEALTH & SAFETY

REPORTING	Immediately, report all accidents, injuries, illnesses, or unsafe conditions to your
	supervisor or safety coordinator.

- Report any acts or threats of violence to your supervisor, Staff Affairs Officer, or Employee Relations Representative.
- GENERAL As soon as possible, attend the Computer Workstation Ergonomics Training to make sure your workstation is set up ergonomically-correct. Work with your supervisor to make needed fixes ASAP!
 - □ Ask your supervisor what other health and safety-related trainings you may be required to take as part of your work responsibilities.
 - □ To avoid trips and falls, keep work areas clear of floor storage, electrical cords, and other potential obstacles.
- - Earthquake Locate safe areas in your workplace such as under a sturdy desk/table, under interior door frames (be careful of door swings) or in a corner far away from shelves, windows, glass doors, mirrors, hanging objects, and unsecured, heavy objects.
 - □ Secure bookcases, filing cabinets, shelves, racks, cages, storage cabinets, and similar items that are over four feet tall to prevent toppling.
 - □ Equip storage shelves with seismic restraints such as lipped shelf edges or elastic bungee cords from end to end.
 - □ Store large and heavy objects on lower shelves.
 - □ Keep storage areas uncluttered, providing clear evacuation routes.
 - **Fire D** Evacuate the immediate fire area.
 - □ Activate the alarm and call 9-911 from a campus phone (286 from School of Medicine).

		Upon hearing alarm, stop working and proceed to nearest exit, closing the door
		behind you.
		Gather at the emergency assembly point.
		Do not store excessive paper or other combustibles in work areas.
		Keep aisles and hallways clear at all times.
	Th	e fire extinguisher is located
Evacuation		Review your department's evacuation plan.
	Th	e emergency exit for my lab/office is
	Ou	r emergency assembly point is
OTHER TOPICS		Special instructions or hazards specific to your work place. These could include:
		A tour of your work place to identify safety equipment (shower, eye wash,
		personal protective equipment, building alarms, exits).
		Supervised instruction and standard operating procedures on handling of
		hazardous equipment and materials.
		Warning signs.
	Ot	her
	Ot	her
		her

I, _____, have read and understood this health and safety information. I will receive additional training from my supervisor, as needed, on hazards specific to my job.

Date: ______ Supervisor Signature: ______

I NFORMATION & ASSISTANCE

EMERGENCY NUMBERS	In an emergency dial: 9-911 911 286	(from Stanford phones) (from non-Stanford phones) (in the School of Medicine)		
Chemical Spills	For non-emergency spills call 725-9999			
Anonymous Hazard Reporting	To anonymously or confidentially report a hazard or a health safety concern, call 72 3-0448. If you are concerned about the caller ID system consider using a pay phone.			
INFORMATION	All EH&S personnel may be reached by calling 72 3-0448 . For Programs			
Biological Safety	Bio Safety Officer/Laboratory Safety, EH&S 725-1473			
Biological Waste	Stanford Health Services Housekeeping, 725-5049 EH&S for School of Medicine, 723-6336			
Chemical Safety and Inventory	Stanford Chemical Inventory Management, EH&S 725-1472			
Chemical Waste	Chemical Waste Program, EH&S, 725-7520 or 725-7529			
Earthquake Safety	Emergency Preparedness, EH&S, 725-1409			
Environmental Programs	Environmental Program Office, EH&S, 725-7529			
Fire Safety	University Fire Marshall, EH&S, 723-0609			
General Help for Labs & Shops	Compliance Assistance Program, EH&S, 723-7487			
Occupational Health & Safety	Occupational Health & Safety, EH&S, 725-3209			
Radiological and Laser Safety	Health Physics, EH&S, 723-3201			
Radiological Waste	Radiological Waste Program, EH&S, 725-1408 or 725-7529			
Training and Communications	Training and Communications, EH&S, 725-1470			
University Safety Partner	Contact your Human Resources Officer for the name of your department's University Safety Partner and write it below:			
	Name:	Phone:		

EMERGENCY INSTRUCTIONS

Health Threatening \Rightarrow

An emergency in which there is a clear potential for serious injury if immediate action is not taken.

Medical Emergency

- Call 9-911 from SU phones (911 from non-SU phones or 286 from School of Medicine) to report an accident or pull of the nearest fire alarm.
- Find a trained person to administer First Aid or CPR.
- Report the accident to your supervisor

Chemical Spill

- Use safety shower/eye-wash (except with alkali metals.)
- Remove contaminated clothing.
 - Shut doors in the spill area.
- Call 9-911 from SU phones (911 from non-SU phones or 286 from School of Medicine to report the accident or pull the nearest fire alarm
- Contact EH&S at 5-9999

report the accident

Fire or High-level Toxic Gas

Release

Pull the nearest fire alarm.

If toxic gas release, activate the

(911 from non-SU phones or 286

Shut doors to the area.

panic button to halt gas flow.

• Call 9-911 from SU phones

from School of Medicine) to

Evacuate the area.

- Evacuate the building
- Go to your Emergency Assembly Point.

Not Health Threatening \Rightarrow	Medical Accident	Minor Chemical Spill	Radioactive Spill
An emergency in which there is not a clear potential for serious injury if immediate action is not taken. If in doubt, assume the incident is health threatening.	 Have a trained person administer first aid. Report the accident to your supervisor. 	 Alert your neighbors Don't take unnecessary risks! Call EH&S at 3-0448 for advice if you think you need it. Find someone trained to clean up this type of spill or call EH&S Emergency response at: 5-9999 	 Contain the spill and control the area Call Health Physics at 723-3021 List the people who might have been exposed.
OTHER ⇒	Earthquake	Odor	
	 Duck, cover, and hold until the shaking stops. Evacuate the building after the shaking has stopped. Take your 	 Identify the source, if possible, and report the problem to the building manager. Building manager investigates. If it is 	• If there are adverse health symptoms contact EH&S at 3-0448 or 3-2281 (off hours).

٠

- keys, wallet, glasses, medicine
 Go to your Emergency Assembly Point
- Building manager investigates. If it is related to maintenance or repair, the manager calls Work Control who will contact the project manager.