

**University of Washington  
College of Engineering  
Dept. of Mechanical Engineering**

**Health and Safety Plan**

Including  
ME EEOP Summary

Updated 5/27/08  
(To be updated annually)

ME faculty and staff are encouraged to take EH&S safety classes.  
Specifically First Aid, CPR and Earthquake Preparedness.

Emergency Phone Numbers:

UW Police	9-1-1
Seattle Emergency/Police	9-9-1-1
Safe Campus	206-685 SAFE (7233)
Facility or Utility Failure	Call 5-1411

---

	Page
Health & Safety Plan	1
Typical Worksite Hazards Checklist	8
Emergency Evacuation and Operations Plan Summary	9
ME Evacuation Floor Plans	
Mechanical Engineering	11
Engineering Annex – 1 <sup>st</sup> floor	12
Fluke – Floor 1, 2, 3	13
Wilcox Hall – Ground	14
“Back page” reference information	15

**Mechanical Engineering  
Health & Safety Plan  
(Accident Prevention Program)**

**A. Scope and Responsibility**

**1. Scope**

The policies and procedures described in this Health & Safety Plan apply to the Mechanical Engineering, College of Engineering, University of Washington, Mechanical Engineering Building, and ME space in the Engineering Annex, Fluke Hall, Wilcox Hall, AERB.

**2. Health & Safety Policy**

This Health and Safety Plan, shares the commitment of the University of Washington to provide a “safe and healthful environment for all individuals associated with the institution, including faculty, staff employees, hospital patients, and visitors” (University Handbook Vol. IV, Part VI, Chapter

4). It follows UW policy set in the Administrative Policy Statements (APS) 10.3, and is consistent with requirements in the Washington State Industrial Safety and Health Act (WISHA) (WAC 296-24, 296-62 and 296-800) which is administered by the Department of Labor and Industries (L&I).

**3. Responsibilities**

The Dean, Director, Chairs and Supervisors are responsible for maintaining safe work practices in their respective units, including health and safety training. We understand that it is University policy that this responsibility can neither be transferred nor delegated (University Handbook, Vol. IV, Part VI, Chapter 4, Section 1.A). Our department requires all employees to comply with health and safety regulations, with departmental policies and procedures that apply to their own conduct on the job, and to report accidents, injuries, and unsafe conditions to their supervisor, and to correct unsafe conditions when feasible (e.g., wiping up small spills and removing tripping hazards).

**4. Safety Coordinator**

We have chosen one individual to serve as a Safety Coordinator for our department (see “Back Page” of this plan). This person has been given adequate authority to carry out the following responsibilities:

- Promoting this Health and Safety Plan in our organization
- Updating this Plan, at least annually
- Scheduling employee safety training requested by supervisors
- Coordinating with Environmental Health & Safety
- Provide assistance to supervisors and employees to resolve safety complaints

- Keeping safety bulletin boards current
- Maintaining safety records
- Keeping the department head aware of current safety concerns.

## **B. Fundamentals: 8 Keys**

### **1. New Employee Health and Safety Orientation:**

All our new employees, including those that are permanent, temporary, or part-time, must receive

instruction for the following:

- a. Reporting procedures for fire, police, or medical emergencies;
- b. Evacuation procedures during an emergency;
- c. Location of fire alarm pull-stations and fire extinguishers (see floor plans, pages 11, 12 and 13); Employees using fire extinguishers must have previously received training;
- d. Procedures and forms for reporting all accidents and incidents to their supervisors and completing a written online report using OARS;
- e. Procedures for reporting unsafe conditions or acts to their supervisors, and, when possible, taking action to correct unsafe conditions;
- f. Exact location of first-aid kits and identification of first-aid certified employees;
- g. Description of UW and departmental Hazard Communication Program;
- h. Identification and explanation of all warning signs and labels used in their work area;
- i. Use and care of any personal protective equipment they are required to use;
- j. Description of safety training they will be required to attend for their job.

The following procedures describe how we provide the above instruction, how and where records are kept, and what person is responsible for providing training.

MEs Employee Safety Orientation Checklist can be found on page 1 of ME's Employee Safety Orientation section included in this binder.

### **2. Emergency Evacuation and Operations Plan (EEOP):**

All University employing units must develop procedures for evacuation in an emergency and for response to fires, bomb threats, chemical spills, earthquakes, etc. We have attached our EEOP summary to this document.

Our EEOP contains:

- a. Building (ME area) floor plans that show safety equipment and exit pathways;
- b. Evacuation procedures;
- c. Evacuation assembly point(s);
- d. Methods for accounting for staff, students, visitors;
- e. Areas of refuge for mobility-impaired occupants.

All department staff must be trained in the EEOP. If an employee moves to a new location, the EEOP must be reviewed for the new work-site.

### **3. Accidents:**

#### a. Medical Emergencies:

All medical emergencies must be reported to the nearest Emergency Medical Services (EMS). Our department calls 9-9-1-1, Seattle or 9-1-1 UW police when there is an emergency medical need.

#### b. Report form to supervisor:

All accidents and near misses must be reported to the employee's supervisor as soon as possible. Near misses are valuable opportunities to correct unsafe situations, which under slightly different circumstances, would result in serious injury. The form "Incident / Accident / Quality Improvement Report" may be filled out by the employee, the supervisor, or both. <http://www.ehs.washington.edu/forms/index.shtm>  
Click on "I" for Incident/Accident...

On-line Accident Reporting (OARS) form:

<http://www.ehs.washington.edu/ohsoars/index.shtm>

Copies of ME's completed forms are distributed to the following people: Sue Chen, Administrator. Forms are retained at ME for 3years, at EH&S for ten years.

#### c. Investigation:

All accidents and near accidents must be investigated by the supervisor who then summarizes the details and corrective measures in the above report. EH&S and the department's safety committee (Group 9) review the report. Assistance from EH&S is available by calling 543-7388.

### **4. First Aid and CPR Access:**

Quick and effective first-aid for an injured University employee results from the availability of strategically located first-aid kits and first-aid/CPR certified individuals whenever department staff are working. Adequate employee *access* to these resources is addressed in this section.

#### a. Department First Aid

Consistent with the UW First Aid Response Plan (APS 10.5), certified first-aid and CPR assistance is currently available to department employees by UW police – phone 9-1-1. Related department training requirements are addressed in section C.4 First Aid and CPR Training. Names and phone numbers of employees who are first-aid/CPR certified are listed on the "Back Page" of this plan.

#### b. First Aid Kits

Locations and sizes of first-aid kits in our department are listed below. First-Aid Kits are inspected periodically so they can be restocked before running out of an item. Names and phone numbers of employees responsible for first-aid kits are listed on the "Back Page" of this plan.

- ME 143 copier room – hanging on the wall above color copier
- Each lab and shops – check with your supervisor

### **5. Safety Problems: Reporting and Resolving:**

Employees are encouraged to report safety concerns to their supervisor. If employees do not feel they can do this, or have done so and do not feel the problem has been resolved, they may discuss the situation directly with administrator or ME Chair. Assistance from EHS is available, if needed, to resolve a problem. Safety problems may be reported online using OARS as you do for accidents/incidents.

<http://www.ehs.washington.edu/ohsoars/index.shtm>

## 6. Safety Meetings: Supervisor Leadership

Safety discussions are regular items at faculty and staff meetings or through emails.

## 7. Health & Safety Committee Participation:

Health & Safety Committees at three organizational levels help determine unsafe conditions and

procedures, suggest corrective measures, and obtain the participation of all UW personnel.

Fifty

percent (or more) of the representatives are elected by employees and fifty percent (or less) are appointed by management. Safety issues may originate at any level. Health & Safety

Committees

are required by Washington State regulation (WAC 296-800-14005). A listing of committees and

current members may be found at the EH&S web-site: [www.ehs.washington.edu](http://www.ehs.washington.edu) (click on Safety

Committees).

### a. Department Health and Safety Teams

Departmental Health & Safety Teams deal with “front line” issues. Large departments may especially benefit from this centralized approach to health and safety issues. In addition to providing a pathway for communication between different sections, committees involve employees in the process of identifying and resolving safety issues. TC does not have a formal health and safety committee. Instead, health and safety issues are discussed in staff meetings (see section B.6).

### b. Organizational Health and Safety Committees

The University system is divided into eleven organizational groupings, each one represented by an *Organizational Health and Safety Committee*. This committee deals with issues the members may have in common but can handle more effectively together. Each elected member represents all organizational units of the group, including his/her own. Unresolved issues may be referred to this committee from departmental committees. Our department is represented on the Group # 9, College of Engineering Organizational Health & Safety Committee.

### c. University-wide Health and Safety Committee

In addition, to provide consistency and oversight, a *University-wide Health and Safety Committee* has been established. Its members come from the official organizational committees. Safety issues referred to this level are relevant to the entire University community. The member(s) who currently represent us from the Group # 9 Organizational Health & Safety Committee are listed on the “Back Page” of this plan.

## 8. Boards

Our departmental safety bulletin board is used for posting WISHA posters, safety notices, safety

newsletters, safety committee minutes, training schedules, safety posters, accident statistics, and

other safety education material. It is located outside office 14 H, Loew Hall where all employees, students, and visitors can see them (WAC 296-800-19005).

## **C. Accident/Illness Prevention: 6 Keys**

### **1. Identification of hazards:**

This is the foundation for our Accident Prevention Program. The boxes we have checked in the chart on page 8, "Typical Work Site Hazards or Preventive Measures," indicate health and safety

concerns present in our own department.

- We consulted knowledgeable staff to identify possible hazards.
- We reviewed records of past injuries to understand their causes.
- We visited all work areas, and examined processes from beginning to end in order to record possible hazardous situations.
- We developed inspection checklists (see section C.3 below).
- We applied recommendations from inspectors outside our department, such as EH&S.
- We consulted the Washington Administrative Code (WAC) Chapters 296-24, 296-62 and 296-

800 for General Safety and Health Standards and Occupational Health Standards established by the State Department of Labor and Industries (L&I), as well as the University of Washington Administrative Policy Statements (APS), 10.3.

- We performed Job Hazard Analyses (JHA). (See below)

### **2. Reduction of hazards:**

Our department head and supervisors have complied with the requirement for a written plan in their areas of responsibility by identifying each of the above hazards, evaluating its potential risk,

and controlling or eliminating it according to the measures described below.

When possible, we modified or designed our facilities and equipment to eliminate employee exposure to hazards. Where engineering controls are not possible, we have instituted work practice controls that effectively prevent employee exposure to the hazard. When these methods

of control are not possible or not fully effective, we require the use of personal protective equipment (PPE), such as safety glasses, hearing protection, etc.

#### **a. Evaluation**

Evaluation of potential risk (probability and magnitude of harm) has been done for certain hazards. Because they are either (1) present in an unknown or a variable amount (such as airborne contaminants like asbestos or carbon monoxide), or (2) subject to complicating factors (such as extreme risk or individual medical sensitivity), monitoring has been done to determine the safest procedures. EH&S has been consulted as needed. The following describes evaluations we have made:

#### **14 Loew Hall**

- Carbon monoxide from loading dock – sign posted to keep the door closed.
- Possible asbestos risk – Asbestos training recommended, and staff reminded to not hang shelves, pictures, etc. on their own.

#### **b. Engineering Controls**

Engineering controls have been employed, whenever possible, as the preferred way to eliminate the following specific hazards (facility or equipment design, e.g., fume hoods, guardrails, proper tool guards, walkway surfacing).

14 Loew Hall

- Not needed at this time.

c. Administrative Controls

- 6 -

Administrative controls, the way a job is done, have been used to reduce some of the hazards in our department, and on-going training is an inherent part of our safety program (see section C.5).

The following administrative controls are used for 14 Loew Hall, Engineering Annex and Engineering Library:

Activity Admin. Control Function

Buidling Evacuation Faculty/Staff meeting training Fire

Earthquake Preparedness Faculty/Staff meeting training during & after actions

EH&S class recommended

Housekeeping MSDS on file information & use

Cleaning products located of products

in one place

Slip/Trip hazards Faculty/Staff meeting training wipe up

Obstruction-Free Aisles Office Safety Inspections keep aisles clear

Air Contaminants Sign on Loading dock door do not add exhaust to hallway

Asbestos Staff meeting training prevent exposure,

Asbestos class now mandatory information

Lifting Faculty/Staff meeting training request assistance

Repetitive Motion/ Faculty/Staff meeting training request information,

Ergonomics EH&S training available obtain proper furniture,

chairs, foot & wrist support

Knives/cutting blades Faculty/Staff meeting training avoid injuries

The following administrative controls are used in Engineering Annex:

Same, except for training at TA Orientation meetings, and loading dock information needed.

Sieg Hall TBD.

Faculty, Staff and Students will be receiving Health & Safety e-mail messages when this plan is in place to review the plan and as a training tool.

d. Personal Protective Equipment – n/a

### **3. Safety Inspections**

To maintain our commitment to safe work practices, and to ensure that our department continues

to meet regulatory standards, we conduct regular, thorough inspections of associated work areas

and continually check for unsafe conditions and practices. We consider these inspections an additional opportunity to provide practical training in safety awareness as well as a systematic method for involving supervisors and others in the process of reducing workplace hazards.

Our department's policy on the frequency and methods for periodic safety inspections, and the location of inspection records is described below:

Office Safety inspections are to be conducted semi-annually using the UW's recommended Office

Safety Inspection Checklist. The checklist and records are maintained at the back of the Health &

Safety Plan binder maintained in TC's main office outside 14 Loew Hall.

#### **4. First Aid and CPR Training**

The UW Police Department provides adequate access to emergency first aid for our employees (see section B.4). Consequently, we do not require employee training in First Aid and CPR. TC employees are encouraged to take CPR and first aid certification classes.

#### **5. Safety Training: On-Going**

To ensure an effective health and safety program, we continually re-educate employees on how to

work safely with all applicable hazards. Supervisors are responsible for this training and for seeing

that safe practices are followed. TC's safety training requirements for hazards are identified on the

Employee Safety and Health Training Check List on page 8. The list includes how training is obtained. Training records, including completion dates, are kept to maintain program continuity

and to satisfy legal requirements. TC tracks safety and health training by individual and maintains

documentation in the personnel file cabinet in the Fiscal Specialist's office.

#### **6. Medical Exams and Vaccinations**

Certain work environments or specific work practices create health risks that require medical examinations or immunizations for employees. Our department has checked the UW APS 10.3 and determined that this does not apply to us.

#### **D. Documentation and Follow-up:**

##### **1. Record-Keeping**

To meet State requirements, our department maintains records of safety activities for varying lengths of time depending upon the type of record, and is able to produce them when requested by

EH&S or L&I.

TC Records created by health and Health and Safety Plan & Location:

New Employee Safety Orientation Personnel File Cabinet

Employee Safety Training (CPR, First Aid, Earthquake preparedness, etc.)

Personnel File Cabinet

Accident/Incident reports Health & Safety Binder

Office Inspection dates/forms Health & Safety Binder

Workplace inspection dates/forms Health & Safety Binder

##### **2. Updates:**

This Plan is a "living document," it reflects the department's current safety program and its current responsible parties. Periodic updates, at least annually, are necessary to ensure this. The "Back Page" of this plan provides a convenient place to look for the most recent revision date, the

names of key safety personnel, and other information.

Check All  
That  
Apply

## Typical Worksite Hazards of Preventive Measures

Offices  
Classrooms  
Hosp./  
Clinics  
Labs  
Shops

Applies: A=Almost Always, B=Commonly, C=May Apply, Blank=Rarely Applies

X Emergency Procedures: Fire, Other (EEOP) A A A A A  
X Earthquake Preparedness A A A A A  
X Housekeeping Hazards A A A A A  
X Slip/Trip Hazards A A A A A  
X Electrical Equipment & Wiring A A A A A  
X Emergency Escapes (Egress) Maintained/Unlocked A A A A A  
X Obstruction-Free Aisles A A A A A  
X Stacks of Stored Materials (Stable/Secure) A A A A A  
Temperature Extremes: Heat/Cold Stress A A A A A  
X HazCom Right-To-Know (Written Program In Place) A A A A A  
X Air Contaminants, Dusts, "Inert" Gases, Vapors A A A A A  
X Asbestos (Present or Handled) A A A A A  
X Lifting > 20 lbs. A A A A A  
X Repetitive Motion, Ergonomics A B A A A  
Motor Vehicles A A B B A  
Hand or Portable Power Tools B B A A A  
Ladders B B A A A  
X Knives or Cutting Blades B C A A A  
Compressed Gas or Equipment A A A A  
Hazardous Waste C A A A A  
Haz-Mat Spills: Operations, Emergency Response A A A A  
Hazardous Materials Stored/Shipped/Transported C B A A A  
Laboratory Chemicals B A A A  
Radioactive Materials Used or Stored A A A A  
Personal Protective Equipment (PPE) C B A A  
Respirator Protection, workplace Evaluations B A A A  
Bloodborne Pathogens/Biohazards/Infectious Waste B A A B  
Welding, Cutting, Brazing B A A A  
Machinery (Machine Guards) B B A A  
Lock-Out/Tag-Out C A B A  
Confined Work Spaces/Oxygen-Deficiency A C C  
Steam or Autoclaves C A A  
Lasers or UV Light C B A A  
Flammable Liquids (Handled or Stored) B A C  
Formaldehyde (Handled or Stored) B A C  
Carcinogens B A A  
Lead or Benzene (Handled or Stored) C A A  
Animals (Handled or Stored) C A  
Loud Noise A A  
Vibration From Tools/Machinery A A  
Heights > 4 Ft. (Possible Falls) C C C A A  
Cranes, Hoists, Derricks, Rigging C C A A  
Powered Platforms (Personal Lifts) C C C A  
Forklifts C A  
Scaffolds C C C B  
Excavation, Trenching or Shoring Activities  
BBQs  
Food Handling C  
Diving

Mechanical Engineering

**Department Emergency Evacuation and Operations Plan  
Summary - 14 Loew Hall**

The purpose of this Emergency Evacuation and Operations Plan (EEOP) is to provide procedures and duties for emergency evacuation for the staff of Technical Communication, Loew Hall for fire, earthquake, bomb threats, chemical spill, and other emergency evacuations as required by Chapter 4 of the Seattle Fire Code, the Washington Administrative Code (WAC 296-24-567), and the UW Emergency Response Management Plan. The Plan contains a building floor plan showing safety equipment and exit pathways; evacuation procedures; identifies evacuation assembly point(s); describes methods of accounting for staff, students, and visitors; and identifies areas of refuge for occupants with a mobility impairment. All department staff are provided with a copy of the Plan.

**Scope**

This plan applies to all occupants in the areas occupied by Technical Communication in building as follows:

Loew Hall, room 14  
Engineering Annex  
Engineering Library

Sieg Hall (a/o August 2008)

TC provides this information for the protection and safety of our staff, their personal and the UW property

located in our buildings. Each staff member is urged to have a family communication plan in case of

these kinds of emergencies. (See Earthquake Preparedness section for suggested plan.)

TC employees are expected to respond immediately to evacuation requests, hang-up telephones and close

doors as they exit. Assist other staff and visitors as needed. Report to meeting site and account for

previous locations of staff and visitors at TC to determine if a search is necessary.

Coordination with University Emergency Operations Plan. As soon as/and IF deemed necessary, a phone

call, or runner will be sent, to the UW Emergency Operations area in the UW Police Department on Boat

Street or HUB Emergency Station.

### **TC Emergency Procedures**

A Building Evacuation Plan (floor plan) is provided to each new employee with the New Employee

Safety Orientation. The floor plan locates safety equipment and exit pathways for each office. Please

note your office location and suggested evacuation route(s) in case of fire, bomb threat, or earthquake.

Evacuation Floor Plans are located on pages 11, 12 and 13.

Emergency food and water supplies currently consist of water, located in room # 20, TC copy room.

Employees are encouraged to provide personal emergency supplies, if they so desire.

TC's non-UW (dedicated line) phone is the FAX machine in 14 Loew Hall. The phone will most likely

be reconnected to service before the UW system phones in an earthquake or power outage situation.

The Chair and Administrator have been provided with a list of employee emergency and home phone

numbers. This list includes home addresses if needed for emergencies. Please provide updated information when you move or when requested by the Fiscal Specialist to keep these records current.

TC employees may be asked to secure or guard building contents in cases of fire or earthquake.

TC employees should review these procedures every 6 months, and participate in emergency and training

offered by EH&S and/or drills as held at TC.

## **“Back Page” Reference Information**

1. Department: Technical Communication, 14 Loew Hall & Engr. Annex, Engr. Library

2. Last Updated: in process 5/1/08 (by Jeff & Susan)

3. Health and Safety Coordinator:

Name: Susan Raub, 685-1558, [susan@u.washington.edu](mailto:susan@u.washington.edu)

Bldg./Room: Loew Hall, 14 H

4. Departmental Health and Safety Committee member: Susan Raub

5. Representatives to Group # 9,

College of Engineering Organizational Safety & Health Committee:

Elected: Susan Raub, [susan@u](mailto:susan@u). (from 01/8 to 12/09)

Chair: Judith Ramey, [jramey@u](mailto:jramey@u). (present to 6/15/08)

6. Organizational Representative to University-Wide Safety & Health Committee:

Jay Herzmark [herzmark@u.washington.edu](mailto:herzmark@u.washington.edu) 221-3354

7. First-Aid/CPR Certified: Name/Phone/Expiration Date: TBD or trained

First-Aid kit: Person responsible for stocking First-Aid Kits (UW APS 10.5)

Carolyn Valerio-Lucas

8. Important Non Emergency Phone Numbers & Web Sites:

EH&S [www.ehs.washington.edu](http://www.ehs.washington.edu)

EH&S Main office 543-7262

UW Emergency Management home page

<http://www.washington.edu/emergency/>

Accident/Incident Reports 543-7388

<http://www.ehs.washington.edu/ohsoars/index.shtm>

Incident/Accident/Quality Improvement form

<http://www.ehs.washington.edu/forms/index.shtm>

Click on “I” for Incident/Accident...

Earthquake Preparedness 543-0465

Ergonomics 543-7388

Indoor Air Quality (Odors) 543-7388

Pest Control 543-7388

Health & Safety Training 543-7201

Preparing yourself and your family

<http://www.washington.edu/emergency/prepare/>

UW Alert [www.washington.edu/emergency](http://www.washington.edu/emergency)

Click on UW Alert icon to sign up for cell or e-mail notices

SafeCampus 685-7233

[www.washington.edu/safecampus](http://www.washington.edu/safecampus)

Preventing Violence Class Schedule/Registration

<http://www.washington.edu/admin/hr/pod/>

Click on Complete Course Catalog

Log in, Scroll to Violence Prevention