

**Department of Chemistry
University of Washington**

**Health and Safety Plan
(Accident Prevention Program)**

May 9, 2014

Approved By: _____

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A. INTRODUCTION

1. Scope

The policies and procedures described here apply to all Chemistry Department employees. Policies and regulations are to be followed by all Chemistry employees in Chemistry work areas. Work areas include:

Bagley Hall (Bag)
Chemistry Building (CHB)
Chemistry Library (CHL)

2. Health and Safety Policy

This Accident Prevention Program, or 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. Responsibility

The Dean, Director, Chairs and Supervisors are responsible for maintaining safe work practices in their respective units, including required 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.

4. Safety Officer

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

- Promoting this Health & Safety Plan in our organization
- Updating this Plan, at least annually, with management approval
- Scheduling employee safety training as requested by supervisors
- Coordinating training or safety audits with Environmental Health & Safety
- Provide assistance to supervisors and employees as needed to resolve safety complaints
- Keeping safety information on the website current

- Maintaining department safety records
- Keeping the department administration aware of current safety issues.

B. Employee Health and Safety

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; Employees using fire extinguishers must have previously received training;
- d. Procedures 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 for chemical hazards to which they may be exposed;
- 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. This includes General Asbestos Awareness Training which is mandatory for all employees.

The department Safety Officer provides the orientation training; these trainings are offered routinely, on an as-needed basis. A description of the New Employee Orientation training is provided in a word document; a copy of the document is included in this safety plan as Attachment A. This training description is also published to the Department website. A training record is maintained by the department safety officer as an excel file, including employee name and the date of the training.

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. The EEOP is a separate document, which is posted to the department website under the tab "Health and Safety" which is found after tabbing "Admin and Safety" on the home page of the website. The Chemistry Department EEOP contains:

- a. Building 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), by calling 911.

b. Report form to supervisor and EH&S:

All accidents *and near misses* must be reported to the employee's supervisor and EH&S as soon as possible. Near misses are valuable opportunities to correct unsafe situations, which under slightly different circumstances, would result in serious injury. A report may be filled out by the employee, the supervisor, or both using the Online Accident Reporting System (OARS) at: <http://www.ehs.washington.edu/ohsoars/index.shtm>. There is also a tab on the Department website to enter the OARS program.

EH&S provides copies of the report to the Chemistry Department Safety Officer. The completed reports are stored on the department shared drive (Pluto), where they can be accessed by the Administrator and the Department Chair.

c. Investigation:

All accidents and near accidents must be investigated by the supervisor listed on the report, who then summarizes the details and corrective measures in the above report. EH&S and the Group 6 safety committee review the report. Assistance from EH&S is available by calling (206) 543-7388.

4. First Aid/CPR Training and First Aid Kits

Quick and effective first-aid for an injured University employee or student results from the availability of strategically located first-aid kits and First-aid/CPR certified individuals. Adequate employee access to these resources is addressed in this section.

a. Department First Aid/CPR training

Consistent with the UW First Aid Response Plan (APS 10.5), certified First Aid and CPR assistance is available to department employees. The department guidelines are:

- Office suites have either one First aid/CPR trained person available per floor/suite/area during daytime hours or they may rely upon UW Police Department's rapid response.
- Laboratories have at least one First aid/CPR trained person when the laboratory is occupied.
- Shops have at least one First aid/CPR trained person available when the shop is occupied .

A list of Department First aid/CPR trained persons is provided as Attachment B.

b. First Aid Kits

First aid Kits are inspected periodically so they can be restocked before running out of an item. Locations of first-aid kits and the name of the person responsible for the kit are provided as Attachment C.

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 their safety coordinator or safety committee representative. Assistance from EH&S is available, if needed, to resolve a problem. Safety problems should be reported online using OARS.

6. Safety Meetings: Supervisor Leadership

Each laboratory holds regular meetings with the employees working in the lab; health and safety issues are discussed as necessary. These discussions are documented and the records are maintained by each laboratory supervisor. Administrative groups would cover any safety issues on an as-needed basis during regular meetings; documentation is maintained by the group supervisor. No formal safety meetings are held as a department.

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. At the Organizational and University-Wide levels, 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 (click on Safety Committees).

a. Departmental 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, teams involve employees in the process of identifying and resolving safety issues. Our department

- *has* organized a safety team; the current members of the Departmental safety team are identified on the “Back Page” of this document.

b. Organizational Health and Safety Committees

The University 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 units of that organizational group, including his/her own.

Our department is represented on the Group #6 Organizational Health & Safety Committee.

The current representatives for Group #6 are identified on the “Back Page” of this document.

c. University-wide Health and Safety Committee

In addition, to provide consistency and oversight, a *University-wide Health and Safety Committee* has been established. The committee 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 the Chemistry Department from the Group #6 Organizational Health & Safety Committee are listed on the “Back Page” of this document.

8. Safety Bulletin Boards

Our departmental safety bulletin boards are used for posting DOSH (formerly WISHA) posters, safety notices and safety newsletters. Safety committee minutes, training schedules, safety posters, accident statistics, and other safety education material may also be posted. They are located on the first floor of Bagley Hall, near Room 109, where all employees, students, and visitors can see them (WAC 296-800-19005) and at all University reference stations. Safety committee minutes are posted on the Department website.

C. ACCIDENT/ILLNESS PREVENTION: 6 KEYS**1. Identification of hazards:**

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This is the foundation for our Accident Prevention Program. The boxes we have checked in the following chart, "*Typical WorkSite Safety Issues To Address*," 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 developed Laboratory Safety Manuals for our laboratories (including Chemical Hygiene Plans) if required.
- 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.

A *Job Hazard Analysis* may be performed by the first line supervisor in the following way:

- **Review job injury and illness reports (including “close calls”) to determine which jobs to analyze first.**
- **Involve employees in all phases of the analysis. Explain to workers that you are studying the job, itself, not checking up on them.**
- **Review work plans for an overview of job activities.**
- **First note deficiencies in general conditions, such as inadequate lighting, noise, or tripping hazards that may not be directly related to the job.**
- **Break the job down into steps in the order of occurrence.**
- **Examine each step to determine hazards that exist or might occur.**
- **Determine whether the job could be performed in another way or whether safety equipment or precautions are needed.**
- **If safer job steps can be used, write new procedures to describe specifically what the worker needs to know to perform them.**
- **Determine if any physical changes will eliminate or reduce the danger (e.g. redesigned equipment, different tools, machine guards, personal protective equipment or ventilation).**
- **If hazards are still present, try to reduce the necessity or frequency for performing the job.**
- **Document the assessment: job covered, task, date, and person performing the analysis.**
- **Review recommendations with all employees performing the job.**
- **Review and update the job hazard analysis periodically, especially if an accident occurs in that job.**

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. Some plans (**e.g., Laboratory Safety Manuals, Emergency Evacuation and Operation Plans, Radiation Safety records**) are located elsewhere and are referenced accordingly.

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. When hazards 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:

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**).

c. Administrative Controls

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).

(Administrative controls may include rotation of workers to reduce exposure time, specialized training, or using less hazardous procedures. The best procedures are usually those recognized as safe by professionals working in the field, by equipment manufacturers, by consensus in a specialized group, or simply by tradition. They are often referred to as “standard operating procedures,” (SOP’s), “operating instructions,” “safe practices,” “prudent practices,” “Universal Precautions,” etc., and are often found in something like a manual.)

The following administrative controls are used in our department:

Activity	Admin. Control	Function

d. Personal Protective Equipment

Personal protective equipment (PPE) is used as a “last line of defense” for some hazards, particularly chemicals. Our hazard assessment and training documentation is located _____. The following information is required (UW APS10.4):

- Hazard Assessed, (site, evaluator, date, supervisor verifying)
- PPE Selected
- Type and frequency of Training

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 (**attach sample of checklist, if used**):

More information about conducting inspections at your work-site and sample inspection check lists may be found at the EH&S web-site <http://www.ehs.washington.edu/fsosurveys/checklists.shtm>

4. First Aid and CPR Training

In order to ensure our staff have adequate access to first aid in an emergency (see section B.4), our department requires current *training* for some employees in first aid and CPR certification. According to the UW APS 10.5, which lists jobs, activities, and work-sites that require this, we have established the following training requirements:

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. Listed below are the training requirements for hazards identified in our department, how training is obtained, and how often it must be renewed (**tracked either according to individual or according to position and may vary with degree of potential exposure**). Training records, including completion dates, are kept to maintain program continuity and to satisfy legal requirements. Documentation is kept _____ (**wherever is convenient as long as the location is specified, except for fall protection which requires documentation to be on site – for EH&S classes, you may refer to EH&S Training records**).

<u>Hazard</u>	<u>Type of Training</u>	<u>Frequency</u>	<u>Person/Position</u>
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Additional information regarding training requirements may be found on the EH&S home page under “Training Information”. Supervisors are encouraged to attend EH&S training for hazards faced by employees in their areas of responsibility. The class “HazCom Train-the-Trainer,” for example, would apply to most work places.

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 or 10.6, or called the Occupational Health Nurse at 206.221.7770 and determined that this does not apply to us. **(If it does, how do you plan to comply with this requirement on a continuous basis?)**

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. Note: the EH&S Training office maintains records for EH&S classes.

Department records include:

- Records of employee safety training, including dates when certificates expire, where applicable.
- Copies of OARS reports generated by this Department.

For this Plan we use an online training database, maintained by the Safety Officer. Copies of OARS reports are kept in Administrator files, accessible by a limited number of employees. Individual research groups maintain their own records.

2. Updates:

For this Plan to be useful as a “living document,” it must reflect 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 document provides a convenient place to look for the most recent revision date, the names of key safety personnel, and other information.

E. The Safe Campus Program

While there are specific regulatory requirements for hospitals and late night retail operations regarding workplace violence that don't apply to general University operations, we do recognize that individual attacks on

faculty, staff and students can and have occurred due to domestic violence or workplace violence. As part of maintaining a healthy, safe working environment, the University has developed and administers one UW Violence in the Workplace Policy and Procedure through the Human Resource's Violence Prevention and Response Program. Information on the program/policies is published on the UW website at:

<http://www.washington.edu/admin/hr/polproc/work-violence/index.html>.

University services include nighttime safety escort services, counseling sessions, a dedicated assessment team, and informational materials and training, but services are not limited to these items.

All managers, supervisors, and employees must be aware of the appropriate processes to follow regarding workplace and domestic violence prevention. They can receive assistance in answering any employee questions from the HR Violence Prevention and Response Program Manager. We expect our entire faculty and staff to take Workplace Violence training at least once every biennium, as well as receive information during new employee orientation.

The Chemistry Department Safety Officer schedules regular training sessions for Violence Prevention, and the employee completion of training is documented by the Safety Officer. Records of the training are maintained in the Department Training Database. Employees who cannot attend the Department scheduled training are encouraged to enroll in a training session offered by SafeCampus at another location.

For more comprehensive information, access the SafeCampus website at <http://www.washington.edu/safecampus>.

If any staff has concerns regarding a threat of violence, they are to call:

206-685 SAFE (206-685-7233)

In a life threatening situation or imminent danger call 911, immediately!

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1. Department: Chemistry
2. Last update (date/person): May 9th, 2014/Paul Miller
3. Health and Safety Officer for our department:

Name	Paul Miller, PhD
Phone	(206) 543-8183
E-mail	paulmil@uw.edu
Bldg./Room/Box #	Bagley, Room 303, Box 351700

4. The Chemistry Department Laboratory Safety Team is: AJ Boydston, Gary Drobny, Jim Mayer, Michael Gelb, Forrest Michael, David Ginger, Gary Pedersen (ex-officio) Paul Miller (ex-officio), Brian Holm (ex-officio).
5. The Chemistry Department belongs to the University Group 6: Arts and Sciences. The members of this 2014-2015 committee are:
6. **University-Wide** Safety & Health Committee representative for Group 6:
Tracy Harvey, PhD (206) 543-8183

Member	Unit	E-mail	Phone
Committee Head:			
Robert C. Stacey	Dean	bstacey@uw.edu	543-5340
Elected Members			
Richard Ball	Psychology	richb@uw.edu	685-8281
Nick Giese	Economics	giesen2@uw.edu	765-5939
Wanjiku Gitahi	History	wanjiku@uw.edu	543-5790
Billie Grace	DXArts	bgrace@uw.edu	685-0973
Alex Hansen	Biology	ahansen@uw.edu	543-8358
Angelica Hernandez	American Ethnic Studies	acordero@uw.edu	543-0867
Elena Johns	Music	emjohns@uw.edu	543-2071
Jimmy Johnson	DXArts	jimified@uw.edu	632-0171

Peter Johnston	Chemistry	pvj@uw.edu	685-1812
John Martin (Committee Chair)	Art	jtmartin@uw.edu	543-0748
Ron Maxell	Physics	maxell@phys.washington.edu	543-8588
Paul Miller	Chemistry	paulmil@uw.edu	543-8183
Risa Morgan-Lewellyn	Dance	risam@uw.edu	543-0550
Ulrika O'Brien (Secretary back-up)	Sociology	ulrika@uw.edu	543-5226
Steve Sheetz	Mathematics	sbsheetz@math.washington.edu	543-6303
Heidi Tilghman	CAS Shared Services	tilghman@uw.edu	221-5991
Bev Wessel (Secretary)	Philosophy	wessel@uw.edu	616-7953
Appointed Members:			
Ann DePasquale	CAS Dean's Office	amd@uw.edu	685-4825
Lauren Monroe	Burke Museum	lkmonroe@uw.edu	543-2525
EH&S Ex Officio:			
Emma Alder	Environmental Health & Safety	ealder@uw.edu	221-2852

7. First-Aid/CPR Certified employees in our department:

Graduate students, research associates, and undergraduate students are trained in First-Aid /CPR, and this certification is required to be maintained as long as the employee works in research or teaching laboratories. Employees (staff) working in shops, storerooms, or laboratories are also required to maintain First-Aid /CPR certification. Administrative staff are encouraged to be trained in First-Aid/CPR, in numbers or distribution such that someone trained is readily accessible in each area of the department. Certification records are maintained by the Safety Officer. Training is provided on a regular basis on-site.

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

The Safety Coordinator in each research laboratory is responsible for maintaining the First-Aid kits in the laboratory. The Department Safety Officer is responsible for maintaining the First-Aid kits in common areas.

8. Important **Non Emergency** Phone Numbers:

Building issues: Brian Holm, 3-1616; Gary Pedersen, 3-1612

Chemical/lab issues: Paul Miller, 3-8183; Gary Pedersen, 3-1612

For additional help, See EH&S web-site at www.ehs.washington.edu
Click on "Service Phone Numbers"