

Agenda

Safety meeting
27 January 2014

Topics:

1. Plant Sciences review topics:
 - a. Emergency evacuation and procedures
 - b. Hazardous waste
 - c. Lab attire – <http://ohs.ucr.edu/laboratory/lhat/index/html>
 - d. Chemical hygiene plan (IIPP, EAP)
2. What training is needed – see attached
3. Changes in lab protocols
 - a. Labelling of solutions – full names
 - b. Location of chemicals – sorted by toxic, flammable, corrosive, alphabet
 - c. Lab coats - <http://ohs.ucr.edu/laboratory/lhat/index/html>
 - d. Liquid Nitrogen – face, eye protection, no closed containers, lab coats
4. Lab clean up – assigned areas
5. Who to notify if injured
6. Safety inspection – who, when, consequences

CONTACT INFORMATION 2014

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Site-Specific Responsibility for Chemical Hygiene and Safety

**OFFICE OF ENVIRONMENTAL HEALTH AND SAFETY
UNIVERSITY OF CALIFORNIA, DAVIS**

Department: Plant Sciences

Building: Plant Reproductive Biology (PRB)

Department Chairperson or Director: Chris Van Kessel

Office: 1210 PES

Phone: 2-4377

E-mail: cvankessel@ucdavis.edu

**Principal Investigator, Faculty Member,
or Supervisor * :**

Office: Alan Bennett Ann Powell

Office: 1105 PRB 1143 PRB

Phone: 2-1411 (cell 530 219 1771) 2-1413 (cell 530 219 5021)

E-mail: abbennett@ucdavis.edu alpowell@ucdavis.edu

* person responsible for chemical hygiene and the Chemical Hygiene Plan in the unit or laboratory

Rooms covered by this plan:

PRB 1401 A-F

PRB 1376 (Autoclave/dishwashing)

PRB1317 (potting room)

PRB 1312 (dark room)

PRB 1401 (main lab)

PRB hallway (hallway)

Implementation Date: 1 January 2006

Annual Review Date: 23 January 2006

1 November 2010

19 July 2011

18 January 2013

27 January 2014

Site-Specific Information on Chemical Receiving, Storing, or Dispensing

(If Applicable)

Chemical Hygiene Plan **OFFICE OF ENVIRONMENTAL HEALTH AND SAFETY** **UNIVERSITY OF CALIFORNIA, DAVIS**

Give the location of your laboratory's chemical receiving, storage, or dispensing areas. Describe any ordering policies or procedures for hazardous chemicals. List any chemicals that require prior Principal Investigator approval for purchase.

Location of Chemical Inventory documenting location of all chemicals – Notebook above desk with the open lab computer, next to the Safety Notebook; includes documentation of amounts and hazard classes

General and toxic chemicals located in 1401E on shelves marked ABB

Flammable cabinet at South end of Hallway on shelves marked ABB

Cold flammable chemicals in spark-free freezer in lab area

Cold storage chemicals in walk-in cold room

Freezer storage chemicals in -20oC freezer in 1401F

Corrosives in cabinet in 1401D

Acetone, acetic acid in flammable cabinet in 1401D

Waste under hood in 1401E

Ordering hazardous chemicals should be cleared first with A. Powell to make sure it is necessary and appropriate.

MSDS and Other Reference Materials Available in the Laboratory

Chemical Hygiene Plan
OFFICE OF ENVIRONMENTAL HEALTH AND SAFETY
UNIVERSITY OF CALIFORNIA, DAVIS

Describe how and where MSDSs and other reference materials are available in this laboratory. (See the Bibliography for a list of recommended references).

Chemical inventory list documenting hazard class, precautions, amounts and locations is in the Chemical Inventory notebook above desk with open computer in the lab area.

Specific MSDS for chemicals – some are available in file cabinet in the hallway. Up-to-date MSDS information is available for each chemical by Google searching under the chemical name and asking for the MSDS. Alternatively, the chemical can be searched in the EPA web site resource (<http://www.epa.gov/enviro/html/emci/chemref/index.html>)

Emergency Response Instructions

Chemical Hygiene Plan
OFFICE OF ENVIRONMENTAL HEALTH AND SAFETY
UNIVERSITY OF CALIFORNIA, DAVIS

GENERAL PROCEDURES:

The following are some general instructions for actions to take in case of an emergency:

Medical Emergency

1. Remain calm.
2. Initiate lifesaving measures if required.
3. Call for Emergency Response --- **CALL 911**.
4. Do not move injured persons unless it is necessary to prevent further harm.
5. Keep injured person warm.

Major Incident

1. Attend to injured or contaminated persons and remove them from exposure.
2. Alert people to evacuate the area.
3. Call for Emergency Response -- **CALL 911**.
 - Fire ----- **911**
 - Chemical, radiation, biological spill ----- **911**
 - (Evenings and Weekends) ----- **911**
4. Close doors to affected areas.
5. Have person knowledgeable of incident assist emergency workers.

LABORATORY-SPECIFIC PROCEDURES:

The following are specific instructions for actions to take during an emergency situation in your laboratory.

Any emergency should be communicated to Ann Powell or Alan Bennett.

All injuries must be reported within 8 hours to Ann Powell or Alan Bennett.

Site-Specific Hazardous Material Control Systems (Engineering Controls)

Chemical Hygiene Plan
OFFICE OF ENVIRONMENTAL HEALTH AND SAFETY
UNIVERSITY OF CALIFORNIA, DAVIS

List hazardous material control systems (eg. fume hoods) available in the laboratory. Include information on restrictions, special precautions or procedures, preventative maintenance schedules, and any other information relevant to safe operation in the laboratory.

Fume hoods in 1401 E and 1401 D.

All waste to be stored in containers with attached waste tags (including contents and start dates and group name) that are placed in secondary containers under the hood in 1401E.

Personal Protective Equipment Available in the Laboratory

Chemical Hygiene Plan
OFFICE OF ENVIRONMENTAL HEALTH AND SAFETY
UNIVERSITY OF CALIFORNIA, DAVIS

List the personal protective equipment available to laboratory workers and when it should be used.
See Chapter V for additional information.

Eye Protection:

Goggles/safety glasses – cabinet labeled ABB4 in lab area
UV face shield – in 1401A and dark room

Gloves:

Above cabinet ABB3
Stored in 1401F shelf
Latex and nitrile gloves are available
Insulated extreme hot/cold gloves – on shelf above microwave or in shelves under electroporators

Other Protective Clothing:

Rubber Apron – on hooks under the bulletin board in lab area
Cloth lab coats – on hooks under the bulletin board in lab area
Disposable paper lab coats – in box under lab bench in lab area
No open toed shoes allowed in the lab

Respiratory Protection:

Disposable masks – in cabinet in 1401E

Other:

Hearing protection in lab area belonging to J. Labavitch

Autoclave bags available in autoclave room

Autoclave material to be stored in plexiglass cylindrical containers in lab area or RED hazardous waste containers

Prior Approvals Required

Chemical Hygiene Plan
OFFICE OF ENVIRONMENTAL HEALTH AND SAFETY
UNIVERSITY OF CALIFORNIA, DAVIS

List prior approvals required for particular laboratory functions. The Principal Investigator or Laboratory Supervisor will determine which laboratory operations, if any, will require prior approval.

Questions about use of any equipment should be cleared with A. Powell prior to use.

Use of liquid Nitrogen requires training by A. Powell

Use of qRT-PCR requires training and clearance by B. Blanco or E. Vincente

Use of gradient PCR requires training and clearance by members of PIPRA

Use of the plate reader requires training by B. Blanco or A. Powell

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Department: Plant Sciences

Building: Plant Reproductive Biology (PRB)

Department Chairperson or Director: Chris Van Kessel

Office: 1210 PES

Phone: 2-4377

E-mail: cvankessel@ucdavis.edu

**Principal Investigator, Faculty Member,
or Supervisor * :**

Office: John Labavitch Ann Powell

Office: 1109 PRB 1143 PRB

Phone: 2-0920 (home 530 758 2468) 2-1413 (cell 530 219 5021)

E-mail: jmlabavitch@ucdavis.edu alpowell@ucdavis.edu

* person responsible for chemical hygiene and the Chemical Hygiene Plan in the unit or laboratory

Rooms covered by this plan:

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PRB 1376 (Autoclave/dishwashing)

PRB1317 (potting room)

PRB 1312 (dark room)

PRB 1401 (main lab)

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Implementation Date: 1 January 2006

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1 November 2010

19 July 2011

18 January 2013

27 January 2014

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Location of Chemical Inventory documenting location of all chemicals – Notebook above desk with the open lab computer, next to the Safety Notebook; includes documentation of amounts and hazard classes

General and toxic chemicals located in 1401A on shelves
Flammable cabinet at South end of Hallway on shelves marked JML
Cold storage chemicals in under counter refrigerators
Freezer storage chemicals in -20oC freezer in Hallway
Corrosives in cabinet in 1401D
Acetone, acetic acid in flammable cabinet in 1401D

Waste under lab in 140

Ordering hazardous chemicals should be cleared first with A. Powell to make sure it is necessary and appropriate.

MSDS and Other Reference Materials Available in the Laboratory

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UNIVERSITY OF CALIFORNIA, DAVIS

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Chemical inventory list documenting hazard class, precautions, amounts and locations is in the Chemical Inventory notebook in the lab area.

Specific MSDS for chemicals – some are available in file cabinet in the hallway. Up-to-date MSDS information is available for each chemical by Google searching under the chemical name and asking for the MSDS. Alternatively, the chemical can be searched in the EPA web site resource (<http://www.epa.gov/enviro/html/emci/chemref/index.html>)

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7. Close doors to affected areas.
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Site-Specific Hazardous Material Control Systems (Engineering Controls)

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List hazardous material control systems (eg. fume hoods) available in the laboratory. Include information on restrictions, special precautions or procedures, preventative maintenance schedules, and any other information relevant to safe operation in the laboratory.

Fume hoods in 1401 E and 1401 D.

All waste to be stored in containers with attached waste tags (including contents and start dates and group name) that are placed in secondary containers under lab bench in 1401.

Personal Protective Equipment Available in the Laboratory

Chemical Hygiene Plan
OFFICE OF ENVIRONMENTAL HEALTH AND SAFETY
UNIVERSITY OF CALIFORNIA, DAVIS

List the personal protective equipment available to laboratory workers and when it should be used.
See Chapter V for additional information.

Eye Protection:

Goggles/safety glasses –in lab area
UV face shield – in 1401A and dark room

Gloves:

In lab area
Latex and nitrile gloves are available
Insulated extreme hot/cold gloves – on shelf above microwave or in autoclave room or in cabinets under electroporators.

Other Protective Clothing:

Rubber Apron – on hooks under the bulletin board in ABB lab area
Cloth lab coats – on hooks board in lab area
No open toed shoes allowed in the lab

Respiratory Protection:

Disposable masks – in cabinet in 1401E

Other:

Hearing protection in lab area belonging to J. Labavitch

Autoclave bags available in autoclave room

Autoclave material to be stored in containers with autoclave bags in lab area

Prior Approvals Required

Chemical Hygiene Plan
OFFICE OF ENVIRONMENTAL HEALTH AND SAFETY
UNIVERSITY OF CALIFORNIA, DAVIS

List prior approvals required for particular laboratory functions. The Principal Investigator or Laboratory Supervisor will determine which laboratory operations, if any, will require prior approval.

Questions about use of any equipment should be cleared with John Labavitch or A. Powell prior to use.

Use of liquid Nitrogen requires training by John Labavitch or A. Powell

Use of compressed gas cylinders requires training by John Labavitch

Use of qRT-PCR requires training and clearance by B. Blanco or E. Vincente

Use of gradient PCR requires training and clearance by members of PIPRA

Use of the plate reader requires training by B. Blanco or A. Powell

Required training	Refresher	Who trains	Scope of training
Fundamentals of Lab Safety	3-years	EHS-online	Everyone who works in a lab before any lab activity
Safety Fundamentals for Support Staff	3-years	EHS-online	Everyone who enters labs but does not work there: IT, delivery, facilities
Hazardous materials	3-years	EHS-ILT	Everyone who works in a lab
Fume Hood	no	EHS-online	Everyone who works in a lab
Ergonomic Awareness and Evaluation	no	SDPS	Supervisors or their representative
Lab Radiation Safety	annual	EHS-ILT	Everyone who uses radiation
NIH Guidelines	no	EHS-online	Supervisors in BUA labs
Heat Illness Prevention	annual	EHS-online	All field workers or supervisors
Ron's Field Safety class	3-years	Ron Lane	All field workers or supervisors
Ron's Greenhouse class	3-years	Ron Lane	All greenhouse workers or supervisors
Confined Spaces	no	EHS	All confined space workers or supervisors
Safe Driver Awareness	3-years	SDPS	All employees who drive on university business
Forklift Safety	annual	EHS-ILT	All employees driving forklifts
Initial Health and Safety form	no	Supervisor/PI	All Plant Science employees, visitors and affiliates <u>before</u> any activities
Annual Safety Review	annual	Supervisor/PI	All employees must be trained by their supervisors annual on risks and preventive measures

New requirements:

Contacts:

- [Bart Warren](#) (on campus facilities and equipment) 530-754-0339 or 530-400-9046
- [Katherine Pinney](#) (on campus offices, workrooms and labs) 530-752-8499 or 530-400-7879
- [Ron Lane](#) (greenhouses, fields, off-campus facilities) 530-752-0397 or 530-333-7183
- [Tony Schrick](#) (Primary Laboratory Inspector / creator of Laboratory inspection tool) 530-752-7048 or 530-848-1569; tschrick@ucdavis.edu
- [EH&S](#) at 530-752-1493

Class Name	Class Formats	Required
New! UC Laboratory Safety Fundamentals course description	eLearning: Register	YES: This on-line course must be successfully completed by all existing laboratory personnel prior to October 31, 2013 or before any new worker is granted unescorted access to the laboratory. Refresher training for the Fundamentals of Laboratory Safety will be provided at a minimum of every three (3) years. This course covers relevant campus Laboratory Safety Manual(s) and rights/responsibilities according to applicable regulations (Reference: 8 CCR 5164, 5191, 5194, 3203, 3380-3387), and meets the requirements of the UC Regents Agreement (if completed after 09/24/12).