Hazard Assessment & Corrections Work Unit Safety

Please save this document and complete.

How to complete the assessment:

- 1. Review each item in each topic area.
- Identify any follow-up actions.
 Track all action items to compl
 Note completion date. Track all action items to completion, including training and documentation.

Frequency: Complete Hazard Assessment & Corrections forms at a minimum of every 3 years, or whenever your work environment changes significantly.

Training: Provide work unit specific training identified in the Hazard Assessment at a minimum of every 3 years for employees, and at time of hire for new employees or whenever your work environment changes significantly.

Record Keeping: Maintain Hazard Assessment & Corrections forms, including training documentation indefinitely.

Safety Representative: Steven Kennedy

Work Unit: Dr. A. Richard Chamberlin Labs (NS1 4403C, 4403D, 4403E, 4403F)

Date: 10/30/2009

REQUIRED TOPICS:

- **Emergency Preparedness**
- Security (Workplace & Personal Security)
- Ergonomics
- Fire Safety
- Electrical Hazards
- Equipment/Instrument Use
- Slips, Trips & Falls

WORK UNIT SPECIFIC TOPICS:

- **Chemical Fume Hoods**
- Clean Areas
- **Compressed Gases**
- **Controlled Substances**
- Cryogenic Liquids
- Hazardous Chemicals (Corrosives, Flammables, and Poisons)
- Highly Hazardous Operations/Equipment
- Particularly Hazardous Substances (Carcinogens, Highly Toxic, Reproductive Toxins, Pyrophorics, Reactives, Explosives)

Hazard Assessment & Corrections Work Unit Safety Emergency Preparedness

Safety Representative: • Assess each item below by walking through work unit and/or surveying employees. • Check all that apply. • Add additional information, if applicable.	Identify follow-up actions, if necessary: Fix problem Refer staff to EH&S training Create workgroup to solve issue Develop work unit specific Standard Operating Procedures (SOP) Include in work unit specific training	Enter date follow-up action is complete.
 [x] Staff know what number to call in an emergency. Campus - 9-1-1 UCI Medical Center - (714) 456-6123 	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We have reviewed the evacuation assembly locations for our site on the Emergency Procedures poster located on our floor. Also see the <u>UC Irvine Campus Emergency Zone Locator Map or UCIMC Emergency Procedures Flipchart for Code Red</u> .	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We have a work unit emergency call list available.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We have a plan to contact staff after hours in the event of an emergency.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We know where to obtain blue <u>UC Irvine</u> <u>Campus Emergency Procedures flipchart</u> and have them posted in prominent locations in the work unit and everyone is familiar with the content.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[] We have encouraged our staff to maintain personal kits of emergency supplies (food, water, extra clothing, etc.).	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We have reviewed the UC Irvine Injuries and Medical Treatment flyer.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We know the purpose of the Emergency Notification Information (ENI) postings and keep them current.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We check for monthly performance and flush tests on emergency equipment.	It is done by Facilities & Maintenance.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We reviewed specific pages on the <u>UC</u> <u>Irvine Campus Emergency Procedures flipchart</u> or <u>UCIMC Emergency Procedures Flipchart</u> covering hazardous materials spill response.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We reviewed the methods to Report Safety Concerns.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on

	Website 11/6/2009
[] Other:	

Hazard Assessment & Corrections Work Unit Safety Security -Workplace and Personal

Safety Representative: • Assess each item below by walking through work unit and/or surveying employees. • Check all that apply. • Add additional information, if applicable.	Identify follow-up actions, if necessary: • Fix problem • Refer staff to EH&S training • Create workgroup to solve issue • Develop work unit specific Standard Operating Procedures (SOP) • Include in work unit specific training	Enter date follow-up action is complete.
[] We have performed a security assessment of our work place. (Contact UCI Police or UCIMC Security for assistance if needed.)	N/A	
[x] We keep doors locked when rooms are unoccupied.	Share info with Chamberlin Lab Members	Emailed to Research Group and Posted on Website 11/6/2009
[x] We have a way to keep track of keys for the work unit.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We know to call UCI Police at (949) 824-5223 or UCIMC Security as (714) 456-5222 if a suspicious persons is observed.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] My staff knows what to do in the event of receiving a bomb threat call. See the UCI Emergency Procedures flip chart or UCIMC Emergency Procedures Flipchart for Code Yellow.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[] We have a security alarm and we use it properly.	N/A	
[x] We have shared with our staff the guidelines for Identifying and Handling a Suspicious Package.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[] Other:		

Hazard Assessment & Corrections Work Unit Safety Ergonomics

Safety Representative: • Assess each item below by walking through work unit and/or surveying employees. • Check all that apply. • Add additional information, if applicable.	Identify follow-up actions, if necessary: Fix problem Refer staff to EH&S training Create workgroup to solve issue Develop work unit specific Standard Operating Procedures (SOP) Include in work unit specific training	Enter date follow-up action is complete.
[x] Staff utilizes EH&S provided Ergonomic Self Evaluation Tools to help identify risks for ergonomic injuries and to help identify strategies for prevention.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We encourage all staff to sign up for applicable ergonomics training, such as Back Safety Training. View available EH&S sponsored courses at www.ted.uci.edu .	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[] Other:		

Hazard Assessment & Corrections Work Unit Safety Fire Safety

Safety Representative: • Assess each item below by walking through work unit and/or surveying employees. • Check all that apply. • Add additional information, if applicable.	Identify follow-up actions, if necessary: Fix problem Refer staff to EH&S training Create workgroup to solve issue Develop work unit specific Standard Operating Procedures (SOP) Include in work unit specific training	Enter date follow-up action is complete.
[x] Exits in our area are clearly marked.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] When fire extinguishers are not charged or are non-functional, we report to (949) 824-5444 for Irvine locations or (714) 456-5700 for UCIMC locations.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We keep fire doors closed and not propped open.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We know the procedures for responding to fire emergencies. See the UCI Emergency Procedures flip chart.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[] Other:		

Hazard Assessment & Corrections Work Unit Safety Electrical Hazards

Safety Representative: • Assess each item below by walking through work unit and/or surveying employees. • Check all that apply. • Add additional information, if applicable.	Identify follow-up actions, if necessary: Fix problem Refer staff to EH&S training Create workgroup to solve issue Develop work unit specific Standard Operating Procedures (SOP) Include in work unit specific training	Enter date follow-up action is complete.
[x] We use extension cords only as temporary power connections.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We do not overload the outlet or circuit.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We keep electrical cords in good condition and keep grounding pins intact on all three-prong plugs.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We maintain 36" clearance in front of circuit breaker panels.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] Staff is trained in the use of electrical equipment.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] The electrical equipment in our area is UL or FM approved.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[] Other:		

Hazard Assessment & Corrections Work Unit Safety Equipment/Instrument Use

Safety Representative: • Assess each item below by walking through work unit and/or surveying employees. • Check all that apply. • Add additional information, if applicable.	Identify follow-up actions, if necessary: Fix problem Refer staff to EH&S training Create workgroup to solve issue Develop work unit specific Standard Operating Procedures (SOP) Include in work unit specific training	Enter date follow-up action is complete.
[x] We follow procedures in all manufacturer maintenance and operations manuals.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We maintain written procedures for hazardous operations.	Share info with Chamberlin Lab Members. Procedures located in Safety on Site Manual	Emailed to Research Group and Posted on Website 11/6/2009
[x] We dispose of unneeded electrical items utilizing the EH&S disposal and recycling services for campus or by calling (714) 456-5700 at UCIMC.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[] We maintain equipment safety interlocks and guards.	N/A	
[x] Staff uses potentially hazardous equipment independently without supervision only after demonstrating competence.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We store heavy/hard objects at waist level or below.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We open file cabinets only one file drawer at a time.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We fill file cabinets from the bottom to the top instead of from the top down.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We ensure tippable items like cabinets, bookcases, etc. are secured when over 42".	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[] Other:		

Hazard Assessment & Corrections Work Unit Safety Slips, Trips and Falls

Safety Representative: • Assess each item below by walking through work unit and/or surveying employees. • Check all that apply. • Add additional information, if applicable.	Identify follow-up actions, if necessary: Fix problem Refer staff to EH&S training Create workgroup to solve issue Develop work unit specific Standard Operating Procedures (SOP) Include in work unit specific training	Enter date follow-up action is complete.
[x] We keep floor clean and dry.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] When we observe a spill, we go out of our way to clean it up before someone slips.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We close file cabinets and desk drawers between uses.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We keep aisles and walkways free of electrical cords.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We use stable footstools.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[] Other: We keep aisles and walkways free of solvent bottles and laboratory equipment.	Share info with Chamberlin Lab Members.	

Hazard Assessment & Corrections Work Unit Training Documentation for Required Topics

Trainer: Steven Kennedy

Date: 11/6/2009

Trainee Name	Trainee Signature	Date
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Hazard Assessment & Corrections Work Unit Safety Chemical Fume Hoods

Safety Representative: • Assess each item below by walking through work unit and/or surveying employees. • Check all that apply. • Add additional information, if applicable.	Identify follow-up actions, if necessary: Fix problem Refer staff to EH&S training Create workgroup to solve issue Develop work unit specific Standard Operating Procedures (SOP) Include in work unit specific training	Enter date follow-up action is complete.
[x] We use a chemical exhaust hood to prevent exposure to volatiles and particularly hazardous substances like carcinogens, reproductive toxins and acute poisons. See Section 4 and Section 5 of the Chemical Hygiene Plan.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We verify that fume hood performance certifications are performed annually. Prior to use, staff verify that visual indicator is present to show hood is operating. Staff keep sashes in place and stores only minimal amounts inside hood. See Engineering Controls in Lab Safety Guidelines .	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] When a chemical exhaust hood is tagged as inoperative or substandard, we make arrangements to use an acceptable alternative.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] Other: Hoods are kept free from clutter. Chemicals are not stored in the fume hoods.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009

Hazard Assessment & Corrections Work Unit Safety Clean Areas

Safety Representative: • Assess each item below by walking through work unit and/or surveying employees. • Check all that apply. • Add additional information, if applicable.	Identify follow-up actions, if necessary: Fix problem Refer staff to EH&S training Create workgroup to solve issue Develop work unit specific Standard Operating Procedures (SOP) Include in work unit specific training	Enter date follow-up action is complete.
[x] We follow CLEAN AREA procedures outlined in EH&S website: Laboratory Safety/Clean Areas.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[] We discuss work unit specific procedures for the following top hazards in this area:		
[x] Other: Clean Areas include the break room, desk areas, and all computers.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009

Hazard Assessment & Corrections Work Unit Safety Compressed Gases

Safety Representative: • Assess each item below by walking through work unit and/or surveying employees. • Check all that apply. • Add additional information, if applicable.	Identify follow-up actions, if necessary: Fix problem Refer staff to EH&S training Create workgroup to solve issue Develop work unit specific Standard Operating Procedures (SOP) Include in work unit specific training	Enter date follow-up action is complete.
[x] My staff is trained in proper handling, storage, and use of compressed gasses. Resource: <u>Compressed Gas Safety training</u> .	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We contain highly toxic gases inside gas cabinets or exhaust hoods. See Section xII of Appendix D in Laboratory Safety Guidelines.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[] We have toxic gas monitoring equipment in place.	N/A	
[x] We discuss work unit specific procedures for the following top hazards in this area:	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] Other: Cylinders are chained to a mounted bracket. Cylinders are moved with a chained dolly, and with the caps covering the valve.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009

Hazard Assessment & Corrections Work Unit Safety Controlled Substances

Safety Representative: • Assess each item below by walking through work unit and/or surveying employees. • Check all that apply. • Add additional information, if applicable.	Identify follow-up actions, if necessary: • Fix problem • Refer staff to EH&S training • Create workgroup to solve issue • Develop work unit specific Standard Operating Procedures (SOP) • Include in work unit specific training	Enter date follow-up action is complete.
[x] We follow the Controlled Substance Policy of the UCI Administrative Policies & Procedures.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We implement the Controlled Substance Program.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[] Staff purchasing or picking-up controlled substances have obtained proper Signature Authorization.	N/A	
[x] We store controlled substances in a secured area where access is limited to approved personnel.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We keep complete <u>inventories</u> of controlled substances transactions for two years.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[] We discuss work unit specific procedures for the following top hazards in this area:		
[] Other:		

Hazard Assessment & Corrections Work Unit Safety Cryogenic Liquids

Safety Representative: • Assess each item below by walking through work unit and/or surveying employees. • Check all that apply. • Add additional information, if applicable.	Identify follow-up actions, if necessary: Fix problem Refer staff to EH&S training Create workgroup to solve issue Develop work unit specific Standard Operating Procedures (SOP) Include in work unit specific training	Enter date follow-up action is complete.
[x] My staff is trained on the hazards of cryogenic materials. See Section Ix of Appendix D in Lab Safety Guidelines and/or Material Safety Data Sheets for specific cryogenic information.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We provide cryogenic insulated gloves, safety goggles, full-face shield, and apron and require staff to wear them. See Personal Protective Equipment Program for further details.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[] We discuss work unit specific procedures for the following top hazards in this area:		
[x] Other: Liquid nitrogen cylinders are transported with the assistance of a dolly.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009

Hazard Assessment & Corrections Work Unit Safety Hazardous Chemicals (Corrosives, Flammables, and Poisons)

Safety Representative: • Assess each item below by walking through work unit and/or surveying employees. • Check all that apply. • Add additional information, if applicable.	Identify follow-up actions, if necessary: Fix problem Refer staff to EH&S training Create workgroup to solve issue Develop work unit specific Standard Operating Procedures (SOP) Include in work unit specific training	Enter date follow-up action is complete.
[x] We follow procedures in the Chemical Hygiene Plan and/or Material Safety Data Sheets to protect people from the health hazards associated with hazardous chemicals.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] My staff is required to wear appropriate personal protective equipment to prevent exposure to hazardous chemicals. For further information visit the EHS Personal Protective Equipment Program.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We keep a maximum of five gallons of flammable solvent, including flammable solvent waste, outside of the UL-rated flammables cabinets. See EHS Fire Prevention Program.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We store flammable materials away from heat, arc sources, and highly hazardous operations. See EHS Fire Prevention Program.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We discuss work unit specific procedures for the following top hazards in this area: Heat guns and open flames are not used where flammable materials are present.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[] Other:		

Hazard Assessment & Corrections Work Unit Safety Highly Hazardous Operations/Equipment

Safety Representative: • Assess each item below by walking through work unit and/or surveying employees. • Check all that apply. • Add additional information, if applicable.	Identify follow-up actions, if necessary: Fix problem Refer staff to EH&S training Create workgroup to solve issue Develop work unit specific Standard Operating Procedures (SOP) Include in work unit specific training	Enter date follow-up action is complete.
[x] We have developed written Standard Operating Procedures for the operation. Visit the EH&S SOP Library for more information.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We have addressed additional safety equipment required for the operation. Contact your school coordinator at (949) 824-6200 for assistance.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We locate highly hazardous operations away from storage of hazardous materials.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[] We discuss work unit specific procedures for the following top hazards in this area:		
[x] Other: The solvent purification systems and thermal stills are used according to standard operating procedures.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009

Hazard Assessment & Corrections

Work Unit Safety

Particularly Hazardous Substances (Carcinogens, Highly Toxic, Reproductive Toxins, Pyrophorics, Reactives,

Explosives)

Safety Representative: • Assess each item below by walking through work unit and/or surveying employees. • Check all that apply. • Add additional information, if applicable.	Identify follow-up actions, if necessary: Fix problem Refer staff to EH&S training Create workgroup to solve issue Develop work unit specific Standard Operating Procedures (SOP) Include in work unit specific training	Enter date follow-up action is complete.
[x] We follow procedures in Section 5 of the Chemical Hygiene Plan which specifically address safety for particularly hazardous chemical work in laboratories.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We have reviewed the specific Material Safety Data Sheets (MSDS) with my staff. MSDSs are accessible at: http://www.ehs.uci.edu/msds.html.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We maintain and follow a written Standard Operating Procedure (SOP) when using these materials. For assistance on SOPs, please visit the EH&S SOP Library.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We follow the EH&S Proper Storage and Segregation guidelines.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We create Designated Areas for working with these materials. For details see Designated Areas For Particularly Hazardous Substance Control .	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We ensure that chemical fume hoods operate at the required velocity for these materials. For more information, please contact the Campus Chemical Hygiene Officer at 824-6200.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We make available and use safety shields when explosive reaction is possible. Please see Section 4.4 of the Chemical Hygiene Plan.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] My staff uses the buddy system when working with Particularly Hazardous Substances having a potential to cause serious acute injury. Refer to Section 4 and Section 10 in the Chemical Hygiene Plan.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[x] We discuss work unit specific procedures for the following top hazards in this area: Pyrophoric and organometallic substances are utilized according to standard operating procedures. Hazardous compounds are destroyed according to recommended procedures.	Share info with Chamberlin Lab Members.	Emailed to Research Group and Posted on Website 11/6/2009
[] Other:		

For all laboratory specific topics listed above.

Trainer: Steven Kennedy

Date: 11/6/2009

Trainee Name	Trainee Signature	Date
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