



UCIRVINE

Emergency Operations Plan

Annex XIV: Shelter In Place - HAZMAT

Revised October 2014

PROPRIETARY AND CONFIDENTIAL TO
THE UNIVERSITY OF
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PLAN MAINTENANCE & REVISION

The Emergency Services Manager is responsible for maintaining this plan. The plan was developed to serve as a dynamic, living document. It will be updated on an on-going basis and will receive formal review every 3 years.

Record of Changes

Revision #	Issue Date	Summary of Revisions
Initial Issue	April 2014	New
1.1	October 2014	Updated list of delayed Shelter In Place locations



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I. PURPOSE

This plan describes the general procedures to be followed when Shelter In Place is required in response to a major campus emergency. Shelter In Place is the action of seeking immediate shelter indoors following a release of hazardous materials to the outside air. The hazardous materials may be chemical, biological, byproducts of a fire (smoke, ash, etc.), or other harmful contaminant.

II. APPLICABILITY/SCOPE

This plan applies to all UCI owned and operated entities as defined in the Emergency Operations Plan (EOP).

This plan will be implemented based on the decision of the On-Scene Incident Commander and will provide guidance to the Zone Captains, Building Coordinators, Floor Wardens, Campus Police, Environmental, Health and Safety Department, Facilities Management, and the whole campus community.

III. REFERENCES

- UCI Policy #903-40 "Emergency Management" (www.policies.uci.edu)
- UCI Emergency Operations Plan (EOP)
- Zone Crew Checklists
- Protecting Buildings from a Biological or Chemical Attack: actions to take before or during a release. LBNL/PUB-51959 January 10, 2003 (<http://securebuildings.lbl.gov/printer.html>)
- List of Buildings with Remote Shutdown and Reactivation Capability

IV. AUTHORITY/RESPONSIBILITIES

The Emergency Services Manager is responsible for developing and maintaining the Shelter In Place Plan.

V. BASIC PROCEDURES

Activation – as part of the assessment following a hazardous material release or other major campus emergency, the On-Scene Incident Commander will determine the need to implement Shelter In Place procedures. The directive to Shelter In Place will be given to Zone Captains. Zone Captains will, in turn, notify Building Coordinators and Floor Wardens.

The On-Scene Incident Commander can also utilize the UCI zotALERT text notification system to notify all Zone Captains, Building Coordinators and Floor Wardens, as well as the rest of the campus, of the need to implement the Shelter In Place Plan. If appropriate, Zone Captains, Building Coordinators, and Floor Wardens can also be asked to read messages on the UC Irvine Police Department website and the UC Irvine Police Department social media sites.

Steps to Shelter In Place

1. Close all doors and windows
2. If possible, close or seal air vents
3. Close window shades, blinds, or curtains
4. If possible, seal gaps around doors and windows with wet towels and tape
5. Turn off air handling (HVAC) equipment or set to 'Recirculation' to minimize introduction of outside air into building
6. Shut down all experiments/operations
7. Post sign at all entrances and exits, "Shelter In Place in Effect. No Entry or Exit"
8. Move all occupants to an interior room away from as many windows as possible
9. Remain indoors until 'All Clear' message is received from incident commander or designee
10. Following 'All Clear' announcement, open doors and windows and turn on ventilation systems until indoor air has been exchanged with fresh air

Providing Assistance to Persons with Disabilities

- When possible, Floor Wardens should identify persons with disabilities in advance of an emergency situation
- Designate a person in the same or adjacent area to provide assistance as requested or required by the individual
- Assure the safe movement of all persons with disabilities and account for them as soon as possible

Roles and Responsibilities:

- On-scene Incident Commander
 - Following site assessment has authority to order shelter in place for affected buildings
 - Will communicate order to Zone Captains. Positive contact must be made. If Zone Captain is unavailable, communicate directly with Building Coordinators and Floor Wardens
 - Will communicate with Facilities Management to shut off HVAC systems
 - Will communicate 'All Clear' when conditions are safe to do so
- Zone Captains
 - Implement Shelter In Place procedure following Incident Commander's order
 - Work with Building Coordinators and Floor Wardens to pre-designate interior safe areas
 - Provide notification and status updates to Incident Commander or Zone Coordinator (if EOC activated)
- Building Coordinators
 - Implement Shelter In Place procedure following notification from Zone Captain
 - Work with Zone Captains and Floor Wardens to pre-designate interior safe areas
 - Provide notification and status updates to Zone Captains
- Floor Wardens
 - Implement Shelter in Place procedure following notification from Building Coordinator
 - Assure all occupants are kept away from windows
 - Post signage at all entrances and exits
 - Keep calm, keep occupants informed regarding reason for shelter in place and possible duration
 - Work with Zone Captains and Building Coordinators to pre-designate interior safe areas

- Provide notification and status updates to Building Coordinators
- Restore building to normal function following 'All Clear'
- Inventory and replace any items used during the event
- Environmental Health & Safety
 - Activate Emergency Support Team (EST), as needed, to coordinate response
 - Liaise with OCFA and/or contractors, as needed
 - Coordinate communication with labs and Principal Investigators regarding shut down, if necessary
- Facilities Management
 - Provide control of HVAC, either remotely or on-site, as required
- UCI Police Department
 - Issue zotALERT emergency text notifications, as necessary
 - Update UCIPD social media pages
 - Coordinate with Strategic Communications to update www.uci.edu
 - Update 866-IRV-NEWS ZotRadio 1690AM, and other platforms, as appropriate
 - Assist with area isolation and control of building entrances and exits

VI. PROCEDURES FOR DEACTIVATION/ACTIVATION OF HVAC SYSTEMS

The Incident Commander, with the support of the Safety Officer and Biosafety Officer as appropriate, will determine if HVAC systems and other utilities will need to be deactivated. Refer to guidance document: Protecting Buildings From a Biological or Chemical Attack: actions to take before or during a release. LBNL/PUB-51959 January 10, 2003.

To remotely shutdown HVAC systems, the IC will contact the Facilities Management Service Desk at 949-824-5444 during normal business hours to instruct the primary facilities contact to deactivate specific HVAC systems. After hours, weekends, and holidays, the Facilities Management Service Desk phone forwards to Central Plant who will contact the primary facilities contact.

The Primary Facilities Contact will coordinate utilities shutdown. The primary facilities contacts are: Marc Gomez, Alan Smith, Jerry Nearhoof, John Ward, and Kevin Lane.

The IC will provide the following information to facilities:

- Affected buildings
- Affected utilities
- Reason for shutdown
- Anticipated extent of impact of shutdown

The Manager of Central Plant is responsible for implementation of the shutdown procedures and is the point of contact for reactivation. Only Facilities Management Central Plant Manager is authorized to restart the HVAC system after an emergency shutdown.

Facilities Management will maintain a list of buildings that have HVAC systems that can be shut down or reactivated remotely via modem connection (See Section XII). For buildings that do not have remote shutdown/reactivation capability, the IC, with the support of the Safety and Biosafety Officers as necessary, will determine if manual shutdown of the building is appropriate.

Facilities Management will develop building specific shutdown procedures for priority buildings identified as high risk or critical. This includes BSL 3 Laboratories, Physical Sciences Buildings, Administration, etc.

VII. LABORATORY SHUTDOWN PROCEDURES

The Incident Commander, with the support of the Safety Officer, will determine if laboratory shutdown procedures need to be implemented.

The Lab Manager and/or Principal Investigator are responsible for insuring the following:

- Check all temperature, pressure, air sensitive materials, and equipment. This includes glove boxes, distillations and all reactions in progress. Terminate all experiments in progress, if safe to do so.
- Lower fume hood sashes all the way down. No work is allowed in fume hoods.
- All non-essential electrical devices should be turned off. Leave on explosion proof refrigerators and freezers.
- Ensure all chemical bottles and containers are capped off or sealed. Check disconnects of all lasers, RF generators, etc.
- Turn off all gas cylinders at the tank valve. If a flow of inert gas is being used to blanket reactive compounds, leave the gas on. Follow any Standard Operating Procedures that have been developed to address these hazardous operations.
- Check all cryogenic vacuum pumps. The evaporation of trapped materials may cause dangerous conditions if the vacuum pumped is unplugged. Check all containers of cryogenic materials to ensure they are all vented properly.

VIII. ADVANCED NOTICE TO SHELTER IN PLACE

If an incident occurs off-campus, and there is sufficient time (at least 30 minutes) to mobilize large groups of people, direction may be given to gather in buildings that have been identified as providing an extra measure of protection. The criterion for identifying these buildings includes but is not limited to: at least one building per Evacuation Zone, capable of remotely manipulating the HVAC system to minimize exposures, low risk of secondary hazards in the building.

Buildings with remote HVAC shutdown/start up capabilities are listed in Section XII. All buildings listed are suitable for use as Shelter in Place locations however; special considerations need to be given to high hazard lab/science buildings. Additional Shelter In Place instructions will be provided depending on the situation.

In addition to buildings with remote HVAC shutdown/start up capabilities, the following buildings (listed by name and number) are recognized as delayed Shelter in Place locations:

- Zone 1 – Gateway Study Center 101, Langson Library 102, Student Center 113
- Zone 2 - Berkeley Place 4, Social Science Lecture Hall 212, Business Unit II 221, Social Behavioral Sciences Gateway 214
- Zone 3 – Engineering Lecture Hall 305, McDonell Douglas Engineering Auditorium 311, CaliT2 325
- Zone 4 - Physical Sciences Lecture Hall 411, Parkview classroom Building 403, Natural Sciences II (office wing) 402
- Zone 5 – Schneiderman Hall 501, Ayala Science Library 520
- Zone 6 – Krieger Hall 600, Humanities Hall 601
- Zone 7 – Smith Hall 710, Claire Trevor Theatre 711
- Zone 8 – Tamkin Student Lecture Building 831
- Zone 9 - Bren Events Center 901, Crawford Hall 903
- Zone 10 - Facilities Management Building 92
- Zone 11 – current leased office space in Research Park and University Tower
- Zone 12 – University Hills Community Center 1083 California Avenue
- Zone 13 – Anteater Recreation Center 680

Air handling systems in buildings listed in the above section will be secured by designated Facilities Management personnel.

Notification and direction to move to one of the shelter in place locations listed above or in Section XII will be provided to the Zone Captains in the same manner as the Activation Procedure shown above.

Movement of people within the zone will be directed by the Zone Captain with the assistance of all Zone Crew personnel.

IX. ADDITIONAL INFORMATION

The typical duration for a shelter in place activity does not exceed several hours. The 'All Clear' notice will be given as soon as possible.

Students, faculty, and staff cannot be forced to shelter in place. If individuals are adamant about leaving the building and risking exposure to contaminants, record their name, time of leaving, and destination.

All Zone and Building Emergency/Evacuation plans should be modified to include Shelter In Place procedures.

X. DEFINITIONS

Interior Safe Area – an area of assembly for building occupants; Features of an interior safe area may include:

- Above the ground floor
- Minimal windows and vents

- Adequate space for anticipated occupancy. Allow approximately 10 square feet per person
- Consider hallways, conference/meeting rooms, break areas, or restrooms
- Consider having hard wired phone service available in case radios or cell phone systems are compromised during the emergency

Shelter In Place – The action of seeking immediate shelter indoors following a release of hazardous materials to the outside air; The hazardous materials may be chemical, biological, byproducts of a fire (smoke, ash, etc.), or other harmful contaminant

XI. RESOURCES

Equipment

- Signage

**Shelter In Place in Effect
No Entry or Exit**

- Cell Phones/Radios

Personnel

- Incident Commander
- UCI Police Department
- Emergency Services Manager
- Emergency Operations Center (EOC) Staff
- Department Operations Centers (DOC) Staff
- Zone Coordinator
- Zone Captains
- Building Coordinators
- Floor Wardens/Suite or Lab Representatives
- Environmental Health and Safety Staff
- Facilities Management Staff

XII. REMOTE HVAC SHUTDOWN

Buildings with Remote HVAC Shutdown Capability

(Using EMS computers at Central Plant and HVAC shop)

Building Number	Building Name	Zone
2	Multipurpose Academic and Administrative Building	2
3	Education Building	2
4	Law Building/Berkeley Place	2
41	Environmental Health & Safety services facility	8



58	Mesa Arts Building	7
59	Mesa Office Building	7
101	Gateway Study Center (Gateway commons)	1
102	Langson Library (Main Library)	1
111	Administration/Aldrich Hall	1
113	Student Center	1
200	Social Science Hall	2
201	Social Science Tower	2
202	Social Science Lab	2
210	Social Ecology I	2
211	Social Science Plaza A	2
212	Social Science Lecture Hall	2
213	Social Science Plaza B	2
214	Social Behavioral Sciences Gateway	2
215	Social Ecology II	2
221	School of Business II	2
222	School of Business I	2
234	UNEX Building D	2
302	Information & Computer Science	3
303	Engineering Tower	3
304	Information & Computer Science 2	3
305	Engineering Lecture Hall	3
308	Engineering Hall	3
310	ICS/Engineering Research Facility (IERF)	3
311	Rockwell Engineering Center	3
312	Computer Science/Engineering CSE	3
321	Engineering Gateway	3
323	Engineering Lab Facility	3
325	California Institute for Telecom & Info Tech. (Cal-IT2)	3
400	Rowland Hall	4
401	Frederick Reines Hall	4
402	Natural Sciences II	4
403	Parkview Classroom Building	4
411	Physical Sciences Lecture Hall	4
413	Physical Sciences Classroom Building	4
415	Multi-Purpose Science and Technology	4
417	Croul Hall	4
501	Biological Sciences Lecture Hall (Schneiderman Hall)	5
502	Steinhaus Hall	5
506	Qureshey Research Laboratory	5
512	Bonney Research Laboratory	5
514	Greenhouse	5



517	Natural Sciences I	5
519	Biological Sciences III	
520	Ayala Science Library	5
600	Krieger Hall	6
601	Humanities Hall	6
610	Humanities Instructional Building	6
611	Humanities Gateway	6
653	Anteater Instruction and Research Building	3
710	Smith Hall, Rehearsal Studio	7
711	Claire Trevor Theatre	7
712	University Art Gallery/Beall Center for Art & Technology	7
713	Robert Cohen Theatre & Dance Studios	7
714	Arts Instruction & Technology Resource Center (AITR)	7
715	Drama Building	7
718	Orchestra Rehearsal Hall/Choral Studio	7
720	Sculpture/Ceramic Studios/Nixon Theatre	7
721	Contemporary Arts Center	7
722	Art Studio	7
723	Production Studio	7
725	Studio Four	7
726	Music & Media Building	7
727	Art, Culture, & Technology	7
728	Dance & Drama Building/Performance Studios	7
802	Berk Hall/Nursing Science	8
810	Medical Surge I	8
811	Medical Sciences B	8
812	Medical Surge II	8
813	Medical Sciences A	8
817	Beckman Laser Institute (BLI)	8
821	Medical Sciences C	8
825	Medical Sciences D/Cheney Building	8
827	Medical Sciences E	8
831	Tamkin Student Lecture Building	8
835	Irvine Hall	8
836	Medical Education Building	8
837	Gillespie Neuroscience Research Facility	8
839	Sprague Hall	8
843	Hewitt Hall	8
845	Gross Hall	8
850	Gavin Herbert Eye Institute	8
902	Central Plant	9
903	Crawford Hall	9



Shelter In Place in Effect No Entry or Exit