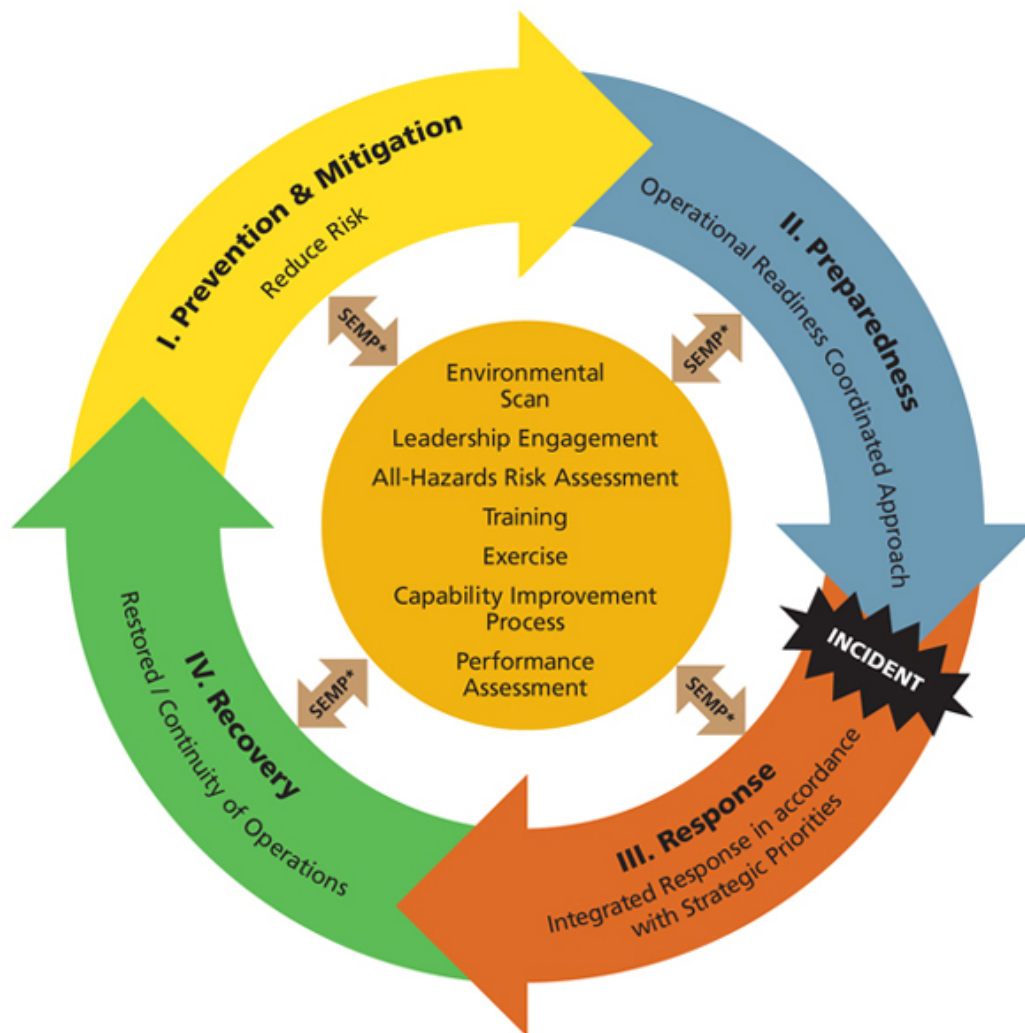


# EMERGENCY ACTION PLAN

## DIVISION OF CHEMISTRY AND CHEMICAL ENGINEERING



April 2025

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## EMERGENCY ASSEMBLY AREAS

Building Assembly Area (Assigned by the Division for Buildings)

**The Division Command Center is located in the Iris Garden north of Gates Annex, along San Pasqual walkway**

<u>Building</u>	<u>Assembly Location</u>
Beckman Institute	Lawn east of Beckman Institute and south of the Gene Pool
Braun Lab	Lawn west of Braun near Wilson
Broad Center	Lawn west of Broad Center near Wilson
Chen Lab	On West Moore walkway south of Chen and north of the Broad Cafe
Church Lab	Lawn west of Church near Wilson
Crellin Lab and Gates Annex	Area north of Gates Annex Chemistry Library (The Iris Garden)
Jorgensen	Lawn south of Jorgensen Lab
Noyes Lab	North side parking lot of Schlinger, north of Schlinger group
Schlinger Lab	North side parking lot of Schlinger, south of Noyes group
Spalding Lab and Fairchild Library Subbasement	Lawn east of Spalding Lab and north of Hameetman Center

Campus Assembly Area (Assigned for Campus wide evacuations)

Braun Athletic Center – Baseball Field; Alternate Site – Track Field

# EVACUATION MAP



## Beckman Institute

Lawn east of Beckman Institute and south of the Gene Pool

## Braun Lab

Lawn west of Braun near Wilson

## Broad Center

Lawn west of Broad Center near Wilson

## Chen Lab

On West Moore walkway south of Chen and north of the Broad Cafe

## Church Lab

Lawn west of Church near Wilson

## Crellin Lab and Gates Annex

Area north of Gates Annex Chemistry Library (The Iris Garden)

## Undergraduate Labs (Church and Crellin)

Under the oak tree just north of Church

## Noyes Lab

North side parking lot of Schlinger, north of Schlinger group

## Schlinger Lab

North side parking lot of Schlinger, south of Noyes group

## Spalding Lab and Fairchild Library Supplement

Lawn east of Spalding Lab and north of Hameetman Center

## Jorgensen Lab

Lawn south of Jorgensen Lab

## DIVISION RESPONSE COORDINATORS

# Division Command Center

Grace Liang-Franco  
CCE Operations Officer  
(626) 241-5990 cell  
Office ext. 3030

Sarah Reisman  
CCE Division Chair  
(626) 578-0510 home  
Chair office ext. 6044

Joe Drew  
CCE EH&S Liaison  
(626) 812-8700 home  
(626) 327-6129 cell  
Office ext. 2745

Anya Janowski  
Assistant to the Operations Officer  
(818) 497-2663 cell  
Office ext. 6099

Kerry Gomez  
Assistant to the Division Chair  
(626) 502-5339 cell  
Office ext. 3904

EHS Command Center		
Lauriane Quenee, Catherine Chistensen, Haick Issaian, Larry Martinez		
CCE Division Command Center		
Sarah Reisman, Joe Drew, Anya Janowski, Kerry Gomez, Grace Liang-Franco		
Building Coordinators		
Beckman Institute	Braun	Church
Susan Ruffins	Allen Lee	Lauren Breeyear (co-coordinator)
	Sowmya Chandrasekar (backup)	Katie Fisher (co-coordinator)
		Kenya Zeigler (co-coordinator)
Crellin	Noyes	Schlenger
Annette Luymes	Ann Mao	Julianne Just/Schlenger
	Elisha Jung Okawa (backup)	Tomomi Kano/Schlenger (backup)
Spalding		
Allison Kinard		
Mi Kyung Kim (backup)		
Floor Wardens/Safety Officers		
Beckman Institute	Braun	Broad
Eric Lei/Goddard	Eunny Bae/Campbell	Monica Breckow/Mayo
Chi Zhang/Goddard	Shawn Yoshida/Chong	Ruben Bay'on/OLAR
Jay Winkler/Gray	Allen Lee/Clemons & Rees	Carina Rinaldo/OLAR
Natasha Reich/Lewis	Chris Bley/Hoelz	
David Delgadillo/Nelson	Carl Parker	
	Allen Lee/Rees	
	Maria Altshuller/Semlow	
	Sowmya Chandrasekar/Shan	
Church	Crellin	
Hailan Yu/Hsieh-Wilson	Chris Marotta/Dougherty	
Sergio Lovera/Nelson	Paul Oyala/EPR	
Nate Hart/Shops	Alvin Torres/Fiscal Office	
Liam Ordner/Robb	Scott Virgil/MassSpec	
Martin Mendez/Machine Shop	David Vender Velde/NMR	
	Allen Lee/Rees	
	Skylar Osler/Robb	
	Max Robb/Robb	
	Greg Rolette/Stockroom	
	Rebecca Fox/Crellin 1st Floor	
	Aracely Sustaita/Crellin 3rd Floor	
	Naiara Lebron Acosta/Morstein	
Noyes	Schlenger	Spalding
Matthew Espinosa/Agapie	Richard Flagan-Ryan Ward/Flagan-Seinfeld	Mi Kyung Kim/2nd Floor Admin
Jesse (Jack) Beauchamp	Ting Hei Matthew Wong/Fu	Sabine Brinkmann-Chen/Arnold
Sijing Du/Chan	Matt Ratanapanichkich/Ismagilov	Casey Ritts/Arnold
Ayantika Sengupta/Cushing	Rohit Srikanth/Kornfield	John Brady
Jay Winkler/Gray	Drew Tarnopol/Peters	Tufan Oz/Demirer
Maria Blankemeyer/Hadt	Katelyn (Kate) Gallagher/Reisman	Mark Legendre/Demirer
Dominic Covelli/Lewis	Sara Siddiqui/Stoltz	None/Giapis
Margarita Davis/Marcus	Scott Virgil/Catalysis Center	Suresh Guptha/IT Admin
Zach Auvil/Okumura	Matt Cooper/Ismagilov	Sonjong Hwang/NMR
Chris Povinelli/See		Julio Revilla/Shapiro
Ziyao Luo/Sharma		Sophie Miller/Tirrell
Xiaotian Bi/Wei		Channing Klein/Manthiram
Ziguang Yang/Wei		Michael Vici/UG Lab
Dan Weitekamp		Jihoon Oh/Wang
Linde + Robinson	Jorgensen	S. Mudd
Ryan Ward/Seinfeld		Pin Hsun (Albert) Hsieh/Blake

Last updated: 06/10/2025



## BUILDING COORDINATORS

Building Coordinators are responsible for implementation of evacuation plans for their respective buildings, communicating with floor wardens, and conducting visual inspections of the building for evacuation hazards.

Building Coordinators conduct periodic safety walk-throughs of the building and participates in an annual evacuation drill. Building Coordinators should maintain a list of individuals trained in First Aid/CPR who are willing to administer care during an emergency.

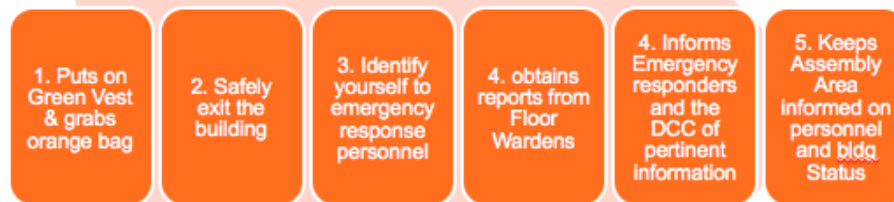
### Before an Emergency

- Know location of emergency assembly areas
- Become familiar with occupants and develop a roster
- Identify those who may need additional assistance
- Know who the floor wardens are
- Identify yourself to Bldg. occupants as the Bldg. Coordinator
- Keep the Orange Trauma Bag current
- Notify FWs when you will be on vacation
- Be familiar with the location of the following emergency equipment:
  - Fire alarm pull stations
  - Fire Extinguishers
  - Emergency Exits
  - Evacuation Routes
  - First aid supplies
  - Emergency supplies
  - Emergency shower and eye wash stations
- Determine how you will communicate with floor wardens, bldg. occupants, and the Division Control Center



## During an Emergency

**Each building has a Building Coordinator**  
In the absence, a FW should step in.



**Never compromise your own safety**

Caltech

## FLOOR WARDENS/SAFETY COORDINATORS

Safety Coordinators are assigned to each lab group or floor within a building to provide assistance to occupants and visitors during evacuations and other emergency situations. Safety Coordinators direct the evacuations of their lab to the nearest emergency exit; prevent individuals from using the elevators, provide pertinent information about individuals remaining inside the building or about hazardous conditions to the Building Coordinator, direct individuals to the assembly area and discourage individuals from re-entering the building until it has been cleared by Campus Security or the Pasadena Fire Department.

### Before an Emergency

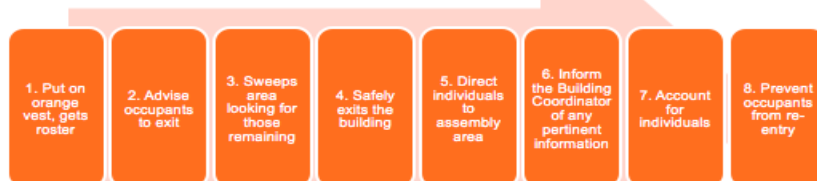
- Know location of emergency assembly areas
- Become familiar with occupants and develop a roster
- Identify those who may need additional assistance
- Know where the 'Orange bag' is kept
- Know who the other floor wardens are
- Identify yourself to others in your area as a floor warden
- Be familiar with the location of the following emergency equipment:



- Fire alarm pull stations
- Fire Extinguishers
- Emergency Exits
- Evacuation Routes
- First aid supplies
- Emergency supplies
- Emergency shower and eye wash stations
- Let people in your area know they will need to check in with you before leaving the assembly area
- Determine how you will communicate emergency information to the Bldg. Coordinator

### During an Emergency

One Safety Officer Per Lab (minimum)



Never compromise your own safety

Caltech

## SAFETY COORDINATOR GUIDE



### SCOPE

The scope of the Laboratory's Safety Program includes:

- General Laboratory Safety
- Fire Prevention
- Earthquake Preparedness
- Hazardous Materials Safety
- Hazardous Waste Management

### LABORATORY RESPONSIBILITY

The lab's faculty member has the overall responsibility for all the lab activities, which include:

- Injury and Illness Prevention
- The OSHA Laboratory Standard

Day-to-day details have been delegated to the group's Safety Coordinator.

## **GROUP SAFETY COORDINATOR RESPONSIBILITIES SAFETY INFORMATION**

The Group Safety Coordinator is expected to obtain safety information for the lab

- Safety Data Sheets
- Chemical Hygiene Plan
- Biosafety Manual
- Emergency Response information
- Recipient of new information and guidelines

## **DIVISION SAFETY COMMITTEE**

The Safety Coordinator interacts with the Division Safety Committee as well as the Environment, Health, and Safety Office by:

- Investigating incidents and taking appropriate corrective action
- Acting as the group contact for the semi-annual Safety Survey
- Arranging for corrective action for any identified safety issues
- Acting as hazardous waste coordinator for the group
- Acting as a Safety resource for the group

## **SAFETY ORIENTATION**

The Safety Coordinator provides orientation and safety training to any new lab member. See [Appendix A](#). New members may include:

- Researchers
- Visitors
- SURF/MURF, Summer Hires
- Caltech Undergraduates
- Volunteers

## **TECHNICAL RESOURCE**

The Safety Coordinator provides technical guidance to any group member for proposed experimental work where hazardous materials are being used.

## **EVACUATION COORDINATOR**

The Safety Coordinator acts as Evacuation Coordinator/Floor Warden in emergencies such as fire or earthquake by:

- Developing a plan for shutting down experiments when evacuating the lab
- Evacuating the lab
- Providing new members of the group with specific safety and emergency response training unique to the group

## EXAMPLE WORKPLACE SPECIFIC SAFETY ORIENTATION CHECKLIST

### WORKPLACE SPECIFIC SAFETY ORIENTATION CHECKLIST FOR INCOMING RESEARCHERS

The Caltech Academic Divisions are concerned that all researchers know, understand, and observe good safety practices and procedures. For your benefit and safety, we require that you complete this safety checklist together with the Safety Coordinator in your laboratory. *This must be done immediately!*

### INSTRUCTIONS:

Please discuss the items on this sheet with the Safety Coordinator in your laboratory or with your mentor. Check off the items or mark N/A if they do not apply to your research environment. ( Note: The Emergency Procedures section applies to all researchers).

Any researcher must receive work area specific safety training before starting a project in a laboratory. Safety Training should:

- Discuss Emergency procedures.
- Discuss available safety related resources including [www.safety.caltech.edu](http://www.safety.caltech.edu).
- Discuss lab specific hazards which may include processes, equipment, chemicals, and/or contact with animals.

The researcher must provide the name of the group's Safety Coordinator or mentor, sign the form, and return the completed form to the appropriate Division Office.

### PERSONAL INFORMATION

Researcher's First Name:	Researcher's Last Name:
Phone:	Email:
Position:	Lab Group
Coordinator Last Name	Coordinator First Name

### Emergency Procedures

- ☐ For Campus Emergencies, dial 5000
- ☐ Location of the nearest emergency exit and alternate route
- ☐ Emergency assembly point for the building: \_\_\_\_\_
- ☐ Location of fire extinguishers
- ☐ Locations of pull stations
- ☐ Locations of eyewash and shower stations
- ☐ Locations of first aid kits
- ☐ Contents of the Caltech Emergency Response Guide
- ☐ Notify Safety Officer or supervisor of any injury/illness at work
  - ☐ Campus Hot Line 1- (626) 395-3291 and 1- (888) 427-7465
- ☐ Safety Data Sheets locations (<https://safety.caltech.edu/sds>)

## HAZARD SPECIFIC TRAINING

For a list of current trainings available through the Environment, Health, and Safety Office go to [www.safety.caltech.edu/training](http://www.safety.caltech.edu/training).

Check Applicable Hazards	Topic	Training by (Safety Office, Safety Coordinator, other)	Date Trained
--------------------------	-------	--	--------------

- ☐ New Researcher Orientation
- ☐ Biological Safety
- ☐ Blood Borne Pathogens (working with human cells, blood, tissue and fluids)
- ☐ Chemical Handling Procedures
- ☐ Chemotherapy/cytotoxic drugs
- ☐ Controlled Substances
- ☐ Cryogenics
- ☐ Euthanasia/anesthetic agents
- ☐ Hazardous Waste Handling
- ☐ High pressure applications
- ☐ High vacuum applications
- ☐ High voltage applications
- ☐ Hydrofluoric acid handling
- ☐ Non-innocuous euthanasia/anesthesia agents
- ☐ Personal Protective Equipment
- ☐ Radiation (i.e. laser, UV, etc.)
- ☐ Radiation (i.e. X-ray)
- ☐ Radioactive isotopes
- ☐ Standard wet chemistry
- ☐ Other: \_\_\_\_\_
- ☐ Other: \_\_\_\_\_
- ☐ Other: \_\_\_\_\_

I reviewed and understand the above-mentioned Safety Orientation items.

Researcher \_\_\_\_\_

Date: \_\_\_\_\_

Safety Officer \_\_\_\_\_




Date: \_\_\_\_\_

Division	Division Administrator	Mail Code
Biology and Biological Engineering	David Warren	156-29
Chemistry and Chemical Engineering	Grace Liang-Franco	164-30
Engineering and Applied Sciences	See Building Administrator	See Building Administrator
Geology	Aleen Boladian	170-25
Physics, Math, and Astronomy	Shawna Silesky	103-33

## CCE DIVISION ESSENTIAL FUNCTIONS

Identify department critical operations and resources that need to be protected; e.g. research, freezers, animals, equipment, data/confidential records; individuals responsible for protecting and salvaging departmental resources; and plans in place to ensure continuation of critical operations (data back-up, off-site storage, etc.)

THE FOLLOWING FUNCTIONS WILL REQUIRE EMERGENCY POWER EXCEPT AS NOTED.

	Red = Primary power need
	Yellow= Secondary power need
	Green = Tertiary power need

Building	Room	PI	N/A	Red	Yellow	Green
BI	B209	H.B. Gray				Cold Room
BI	B204	H.B. Gray		-70 Freezer	-20 Freezer	
Braun	118	C.S .Parker		-70 Freezer	-20 Freezer	
Braun	118	A. Hoelz	X	On back up Generator		
Braun	118	S. Shan		-80 Freezer	-30 Freezer	-80 Freezer
Braun	134	J.L. Campbell				-20 Freezer
Braun	118	J.L. Campbell		-80 Freezer	-80 Freezer	
Braun	321	W.M. Clemons		-80 Stirling Ultracold Freezers (TWO)		
Braun	321	D.C. Rees		-80 Stirling Ultracold Freezer		
Broad	130 (soon 134)	S. Mayo				-80 Freezer
Broad	131	S. Mayo				-20 Freezer
Broad	133	S. Mayo				Small Incubator
Broad	136	S. Mayo				Large Incubator
Broad	138	S. Mayo				Beckman Floor Centrifuge
Church	B106G	A. Ondrus		CryoTank	-80C Freezer B	-20C Freezer B
Church	105	L. Hsieh-Wilson		-80 Freezer	-20 Freezer	-20 Freezer
Church	202	R.H. Grubbs				-20 Freezer
Church	217	R.H. Grubbs		Glovebox 1	Glovebox 2	
Church	320	M. Robb		Refrigerator	Glovebox	Freezer
Crellin	157	Stockroom		-20 Freezer	-20 Freezer	-20 Freezer
Crellin	247	D.A. Dougherty		-80 Freezer		

Crellin	255	D.A. Dougherty			-20 Freezer	-20 Freezer
Crellin	262	CMM		-80 C Ultra Freezer		
Crellin	264	D.C. Rees		-80 C Upright Freezer		
Linde Robinson	G16	Flagan/ Seinfeld		Freezer / fridge		
Noyes	B101	L. Wei		-80 C Ultra Freezer		-20 C Flammable Refrigerator
Noyes	B109B	L. Wei			CO2 Incubator for Cell Culture	
Noyes	B156	R.G. Hadt		Glovebox	-80 Freezer	-20 Freezer
Noyes	129B	J.K. Barton				Coldroom
Noyes	129D	J.K. Barton		-80 Freezer	-80 Freezer	
Noyes	227	N.S. Lewis		Glovebox		
Noyes	301/303	T. Agapie		Glovebox 2&3	Glovebox 1&4	
Noyes	309	T. Agapie				Glovebox 5&6
Noyes	321	H.B. Gray			Glovebox	
Noyes	329	K.A. See				Glovebox
Noyes	329B	K.A. See		UPS power	UPS power	
Schlinger	B102	R.F. Ismagilov			PHCBI -80C Freezer	Grey Thermo -20C Freezer
Schlinger	B102F1	R.F. Ismagilov		-80C Minifreezer		
Schlinger	104	J. Kornfield		-80 Freezer		
Schlinger	108	J. Kornfield		-20 Freezer		
Schlinger	202	G.C. Fu		-20 Freezer	-20 Freezer	
Schlinger	208	J.C. Peters				Glovebox
Schlinger	212	G.C. Fu				Glovebox
Schlinger	213	J.C. Peters			Glovebox	
Schlinger	302	B.M. Stoltz		-20 Freezer	Glovebox	
Schlinger	308	B.M. Stoltz				Mass Spec
Noyes	325	H.B. Gray		4° Refrigerator		
Spalding	B132	M. Davis		-80 Freezer		
Spalding	122	M. Vivic				4° Deli Fridge
Spalding	242	F. Arnold		Eppendorf Cryo Cube Upright -80 Freezer	New Brunswick - 80C Chest Freezer	
Schlinger	312	S. Virgil				Glovebox
Spalding	312	D. Tirrell			-80 Freezer	
Spalding	332	D. Tirrell		-80 Freezer		
Spalding	332	D. Tirrell				-20 Freezer
Spalding	348	F. Arnold				Flammable Fridge

Updated 6/22/2022

## Appendix A

### DEFINITIONS:

**Alternates:** individuals assigned as back-ups to specific emergency response positions.

**Building Coordinator:** designated by the department/division as the primary emergency contact for the building; responsible for implementation of the emergency action plan; assists with the safe evacuation of the work area (with assistance of floor wardens); assesses injuries and damage to the work area personnel/property and reports status to the DCC.

**Department/Division Control Center (DCC):** Departments and Divisions should establish an area where individuals can convene to identify and manage Dept/Div specific issues during or following an emergency. The DCC communicates either by runner, radio, telephone or fax to the Emergency Operations Center. Status updates, resource requests and information is shared to help determine our response priorities.

**Emergency Action Plan (EAP):** prepared by each campus department/division, the EAP is specific to each work area and outlines various emergency responsibilities of staff, evacuation routes and evacuation assembly areas, emergency supplies, and emergency notification plans.

**Emergency Hotline:** an emergency information hotline for the campus community. Following a major emergency situation, updates on the status of the campus and instructions will be recorded on the hotline.

Staff Information: (888) 427-7465

Student Information: (888) 427-7512

**Emergency Operations Center (EOC):** the EOC is where crisis management committee members gather to coordinate the response to an emergency impacting the campus community, deploy emergency response teams, and communicate with outside support services. The primary EOC location is in the Physical Plant Conference Room.



**Evacuation Assembly Areas (EAA):** areas designated by each department where occupants of evacuated buildings assemble to await further instruction and “all clear” notifications.

**Floor Wardens:** designated employees that assist the building coordinator in building evacuations. Floor Wardens direct other employees out of the work area, make observations of injured/damage, and assist individuals with special needs. Floor Wardens are equipped with an orange vest and yellow bump-caps.

## SAFETY COORDINATOR REPORT

Reports should be sent to your Building Coordinator

<b>GROUP NAME:</b>				Date:	Report #
				Time:	
Safety Coordinator Name:					
<b>CRITICAL ISSUES/CONCERNS:</b>					
Has the lab and offices been evacuated? YES / NO					
<b>PEOPLE – How many are accounted for?</b>					
Is Headcount Complete?	# Trapped	# Missing	# Injured	Additional Comments/Names of Missing	
Yes / No					
<b>LABORATORY – Was the lab cleared?</b>					
Can Lab Be Occupied?	Damage			Hazards e.g. Hazmat Spills, Flood	
Yes / No / Unsure	Major	Mod	Minor	None	
<b>ADDITIONAL COMMENTS:</b>					

## BUILDING COORDINATOR REPORT

Reports should be sent to your Division Control Center

<b>BUILDING NAME:</b>				Date:	Report #
				Time:	
Building Coordinator Name:					
<b>CRITICAL ISSUES/CONCERNS:</b>					
Has Building Been Evacuated? YES / NO					
<b>PEOPLE – How many accounted for?</b>					
Is Headcount Complete?	# Trapped	# Missing	# Injured	Additional Comments	
Yes / No					
<b>BUILDING</b>					
Can Building Be Occupied?	Building Damage			Hazards e.g. Hazmat Spills, Flood	
Yes / No / Unsure	Major	Mod	Minor	None	
ADDITIONAL COMMENTS:					

## DIVISION CONTROL CENTER (DCC) BUILDING STATUS REPORT

Reports can be sent to the EOC via Runner, Radio, Phone or Fax

<b>Division / Department Name:</b> Chemistry and Chemical Engineering			<b>Date:</b>		<b>Event Report #</b>
			<b>Time:</b>		<b>Releaser Initials:</b>
<b>DCC Leader: Joe Drew</b>	✓	Please provide contact numbers below and indicate preference			
<b>DCC Location:</b> Iris Garden on San Pasqual Walk between Crellin and Parsons Gates		<b>VHF Radio Freq:</b>			
		<b>DCC Phone #:</b>			
		<b>DCC Fax #:</b>			
		<b>Other (e.g. sat phone, cell phone)</b>			
<b>CRITICAL ISSUES/CONCERNS:</b>					
<b>Building Name</b>	<b>Evacuated</b>	<b>Can bldg. be occupied?</b>	<b># of Injuries</b>		<b>Notes</b>
List building names	Yes/No	Yes/No	Major	Minor	Information/Observations/Comments