

# FACILITY EMERGENCY PLAN

February, 2006

SSRL Safety Office  
Stanford Linear Accelerator Center  
Menlo Park, California

---

## TABLE OF CONTENTS

### PREFACE

### SSRL EMERGENCY PLAN

#### SECTION A: SAFETY RESPONSIBILITIES

1.0 SSRL Emergency Personnel

1.1 SLAC Person - In - Charge (PIC)

1.2 SSRL Beamline Duty Operator & SPEAR Duty Operator

1.3 Responsibilities of Person in Charge

1.4 Employee Responsibilities

1.5 Supervisor Responsibilities

#### SECTION B: PROCEDURES

2.1 Evacuation

2.2 Alarms

2.3 Shutdown/Shutoff

#### SECTION C: TYPE OF EMERGENCIES

3.0 Reporting An Emergency Condition

3.1 Threats to the Laboratory

3.2 Fire and/or Smoke

3.3 Serious Earthquake

3.4 Personal Injury

3.5 Electric Shock

3.6 Suspected Explosive

3.7 Release of Toxic or Flammable Material

3.8 Power Failure

### 4.0 FACILITY EVACUATION PLAN(S)

### APPENDIX

---

## **PREFACE**

Every Facility at SLAC is required to have in place a "Facility Emergency Plan" which is consistent with the potential, credible emergencies that could occur in that Facility. This "Plan" includes shutdown and emergency procedures for any hazardous equipment operated in the Facility. "Facility Emergency Plans" are to be updated as necessary to reflect the current hazards, and be updated no less frequently than annually.

Facilities at SLAC that require Emergency Plans are buildings with ten or more occupants, or that contain a program critical operation or device, e.g., buildings 01, 02, 03, 04, 05, 07, 09, 10, 11, 16, 23, 44, 50, 100, 117, 118, 120, 130, 131, 137, 140, 748, 749, 750, 751.

The "SLAC Emergency Preparedness Plan" provides policies, crisis management and structure, personnel roles, and general response procedures for major emergencies. Copies of this "Plan" and other safety documents may be found in the SSRL Safety Office.

---

## **SSRL EMERGENCY PLAN**

The purpose of the emergency plan is to decrease the probability of personal injury and to limit potential loss or damage. This goal requires the active participation and cooperation of every individual involved with the facility.

This document is intended to supplement the SLAC Emergency Planning Booklet. It is divided into the following sections: Safety Responsibilities, Evacuation Procedures, Types of Emergencies, Hazardous Areas and Risks Specific to SSRL. Copies can be obtained from the SSRL Safety Office. Operations staff are required to be familiar with both documents.

---

## **SECTION A: SAFETY RESPONSIBILITIES**

[Table of Contents](#)

Safety responsibilities are shared between SLAC and SSRL. In general SLAC has responsibility for the safety of the entire site including SSRL; however, SSRL has its own internal safety organization which takes responsibility for safety of its own facilities until relieved of those duties.

\*Primarily Buildings 120, 130, 131, 117 (SPEAR control room) and associated accelerator facilities.

The following is a list of Emergency Personnel for this Facility listed in order of succession of being in charge of the facility in an emergency until this responsibility is handed off to responders from the Fire Department or the Main Control Center (MCC):

### 1.0 SSRL EMERGENCY PERSONNEL

The following individuals have SSRL responsibilities in matters of security and safety:

<b>SSRL Associate Director</b>	Jo Stöhr
<b>SSRL Deputy Associate Director</b>	Britt Hedman Piero Pianetta
<b>SSRL Assistant Directors</b>	Elizabeth Caplun-Cochrane  Jerry Hastings Bob Hettel
<b>SSRL Safety Officer</b>	Matt Padilla
<b>Building Managers</b>	Brian Choi Ed Guerra Todd Slater
<b>Assistant Building Manager</b>	Ricardo Escobar
<b>Beamline Duty Operators</b>	- Various
<b>SPEAR Duty Operators</b>	- Various

All personnel will assist the SLAC Emergency Personnel, Fire Department or MCC responders as requested, in order to stabilize the situation.

### **1.1 SLAC Person - in - Charge (PIC)**

In an emergency, the laboratory's initial response shall be directed by the Person - in - Charge (PIC). The PIC is the first person on the following list who is on-site and aware of the emergency.

- A. The Accelerator Department Engineering Operator - in- Charge (EOIC)
- B. The senior Fire Department official on-site.

### **1.2 SSRL Beamline Duty Operator & SPEAR Duty Operator**

During machine operation times, the Beamline Duty Operator and SPEAR Accelerator Operator are designated as the PIC for the experimental floor and the accelerator complex respectively, until relieved by either the EOIC or Fire Department official.

### **1.3 Responsibilities of Person in Charge**

The scope of duties of the person in charge during an emergency at SSRL is as follows:

1. To serve as a central communicant, receiving and issuing information relative to the emergency.

\*\*Specific actions and notifications for various types of emergencies are given in the appropriate sections of the Emergency Planning Booklet.

\*\*Generally, public relations aspects of any emergency will be handled by the Director.

2. To take appropriate actions including calling for fire, police or medical assistance, notification of key SLAC and outside personnel, etc.\*
3. To evacuate personnel from areas where clear or potential hazards continue to exist.
4. To see that proper directions ( and escort if necessary) are provided to emergency vehicles and personnel proceeding to the scene of the emergency.
5. To maintain traffic and crowd control as necessary in the vicinity of the emergency.

6. To maintain liaison with fire, medical, and police officials upon their arrival at the scene of the emergency, to relinquish necessary authority to these officials in their areas of responsibility, and subsequently to provide advice and support for their efforts.
7. To maintain a chronological record of events preceding, during and following the emergency and to record these facts in an official report.

The full scope of the above listed responsibilities may not be pertinent for every emergency. The PIC should use his/her judgment and experience in determining actions required in an emergency situation.

It is important that the PIC be aware of secondary hazards during an emergency. Some examples are:

1. Smoke from a fire in one location can spread to another.
2. Fumes from a chemical spill can be carried around by the air handling equipment.
3. Turning off the building power to control one electrical hazard can turn off a critical component elsewhere - such as an exhaust fan or a vacuum pump.

As soon as conditions at the immediate emergency permit, the PIC, or a deputy should look for secondary hazards and take appropriate action.

The direct involvement of the PIC in any emergency will depend upon the nature, extent, and time of occurrence of the emergency.

### **Responsibilities of PIC during normal working hours.**

The direct involvement of the PIC in any emergency will obviously depend greatly upon the nature and extent of the emergency and upon the time when the emergency occurs. Generally, a simple emergency occurring during the daytime and resulting in minor injuries to personnel or minor damage to equipment will be handled by the supervisors who are present in the area of the accident and by SLAC Safety and Medical personnel who are on site. In such cases, the role of the PIC will generally be secondary; upon learning of the accident, he/she should merely check to see that appropriate actions have been taken and notifications made. In effect, the PIC has delegated the primary responsibility for these minor accidents to other qualified personnel. \*

\* Suggested actions together with names and telephone numbers of key personnel are given in the appropriate sections of the SLAC Emergency Planning Booklet.

A more serious accident occurring during the day may require the assistance of outside emergency services including fire department personnel, paramedics, police, etc. Again, it is expected that the role of the PIC would become secondary due to the immediate availability of supervisory personnel, SLAC Safety Office and Medical Office personnel, the Director (or Acting Director), etc. In this case, the PIC should check to see whether

his services are needed and should take specific actions only during the interval required, or until relieved of responsibility by a member of the Directorate.

Responsibilities of PIC after working hours.

The involvement of the PIC in an emergency occurring outside of regular working hours will necessarily be more extensive because of the likelihood that SLAC Safety and Medical personnel and members of the Directorate will be off-site. In this case, he/she should carry out relevant duties from the above list until relieved by a Director or until relinquishing authority at the scene of the emergency to fire or police officials. Following these events, he/she should continue to give support to the efforts of these officials in dealing with the emergency.

#### **1.4 Employee Responsibilities**

1. The main purpose of this emergency plan is to decrease the probability of personal injury to employees of the Lab. and to minimize potential property damage or loss. This purpose requires active participation and cooperation of every individual.
2. Each **employee** will be responsible for:
  - a. Knowing the identity of the PIC of the building or area where he/she works.
  - b. A working familiarity with the emergency plan for that building or area.
  - c. Cooperating fully with those in charge.

#### **1.5 Supervisor Responsibilities**

1. Each **supervisor** will be responsible for:
    - a. Seeing that those under his supervision are familiar with the plan for the building, particularly the recommended exit routes, which must always be maintained clear for emergency egress.
    - b. Rendering whatever assistance the PIC may require during an emergency.
    - c. Maintaining familiarity with the shutdown procedures for all equipment used by those under his/her supervision.
    - d. Knowing the location and use of all safety equipment in his/her area of responsibility.
    - e. Seeing that emergency telephone number stickers are applied to all new telephones.
- 

## **SECTION B: PROCEDURES**

## Table of Contents

Occupants shall evacuate in the event of emergency conditions such as: the emergency Klaxon alarm sounds, fire, explosion, smoke odor, earthquake strong enough to shake books off of shelves.

The following are the emergency procedures for this Facility.

### **2.1 Evacuation**

When the Building Evacuation Alarm sounds (loud continuous Klaxon horn), all personnel are required to exit the building by the most direct and safe route and go to the designated emergency gathering places. At the gathering place, they will report to their supervisor or the PIC who will try and determine possible missing personnel. The PIC or Building Manager will advise the Fire Fighters about who might still be left in the building requiring rescue. Non-emergency personnel will stay at the gathering place until released by a member of the Emergency Personnel Team.

**Remember to stay clear of the buildings and the traffic lanes that would be used by emergency vehicles.**

\* In the event of an earthquake, **DO NOT EVACUATE THE BUILDING UNTIL SHAKING HAS STOPPED.**

The **emergency gathering** places for SSRL buildings are as follows:

Bldg 120, 130, 131, 140, 219, 270, 271, 274, 278, 451, 452, 453, 650, 720, 730	Parking lot below gate 17
SPEAR Bldg's 117, 118, 122, 221 & 226:	Parking lot inside SPEAR ring
Building 6, 137:	Parking lot in front of building 137

\* In the event of an earthquake, **ALL** personnel (including those who may be working in outlying areas example:IR12, building 650) should make their way to the gathering place in the Building 120 parking lot. From here teams will be formed and directed to SSRL buildings to search for missing persons. In the event of a mass casualty incident, the Medical Department will activate the triage area at the southeast corner of B41. This is the location of the medical triage supply trailer (B250), commonly referred to as the "Triage Trailer." Security, PAFD, and MCC have keys to the Triage Trailer.

## 2.2 Alarms

### Building Evacuation Alarm

SSRL has only one type of alarm, a loud continuous klaxon alarm that indicates a threatening situation. When this alarm sounds, facility occupants should use their primary or alternative evacuation routes and report to their assembly point. ([See map](#))

### Status Alarms

Equipment status alarms are designed to draw attention to an anomalous condition that needs readjusting. They do not indicate a threatening situation. There are no status alarms at SSRL that are sufficiently audible as to be confused with a fire alarm.

## 2.3 Shutdown/Shutoff

If safe to do so, managers and supervisors should ensure that potentially hazardous equipment such as those items listed below, is shut off in the event of an evacuation:

- All equipment with a heating coil
  - Welding Equipment
  - High Voltage Systems
  - Electrical Hazards
  - Prompt Radiation Hazards
  - Equipment using flammable or high pressure gases.
  - Electrical motor-driven equipment e.g., saws, drills, etc.
- 

## SECTION C: TYPES OF EMERGENCIES

### [Table of Contents](#)

A variety of emergency conditions may interrupt the normal functioning of SSRL. Occupants of affected buildings will be alerted by the fire alarm or oral announcements to inform them of what actions should be taken.

#### Emergency conditions include:

- a. Fire, explosion, smoke odor
- b. Release of toxic or flammable material
- c. Threats to the Laboratory (e.g. bomb threats)

- d. Earthquake
- e. Landslide, flood, and water damage
- f. Impaired access or egress
- g. Failure of electrical power, gas or water supply

### **3.0 Reporting An Emergency Condition**

#### **Emergency Phone Number: X 9-911**

1. Dial telephone extension 9-911 in all emergencies. (This number is answered by a dispatcher at the Palo Alto Communication Center located at 250 Hamilton Ave., in Palo Alto. This center provides communication for both fire and medical emergencies. Information from the center is relayed by telephone and by voice radio to the SLAC Fire Station).
2. Indicate the situation: THIS IS AN EMERGENCY AT SLAC. Then give sufficient information (building number, local extension, exact location, type of emergency, nature of injuries) over the phone so an effective response to the emergency condition can be made. Wait for the dispatcher to end the phone call by letting him/her hang up first.
3. The responding Fire Chief will ascertain whether circumstances warrant further notification of SLAC safety personnel and will do so if appropriate. Nevertheless, you may wish to inform SLAC medical at ext. 2281 of any special emergencies.
4. Report the problem to your supervisor.

#### **Fire Alarm Boxes**

1. Use fire alarm pull boxes to report a local fire and alert others to its immediate danger.
2. Report the emergency to your supervisor.
3. If possible, return to the alarm box to give information to the firefighters or meet firefighters at your Fire Assembly Area.

\* The fire alarm pull boxes can also be used to alert the onsite fire department that there is an emergency (e.g. medical, toxic gas leak) ongoing at SSRL if you cannot reach a telephone to dial 9-911.

#### **3.1 Threats to the Laboratory**

1. A threat may be received by any employee by phone, note, letter, or by someone in person claiming to have knowledge of such a threat.
2. The recipient should remain calm and listen carefully. Attempt to have another employee present to listen in if possible.
3. Attempt to determine the following:
  - a. Exact location of threat. What building? What room?
  - b. Exact time threatened action will occur.
  - c. If a bomb, is it disguised, concealed, in the open?

- d. Kind and size of bomb: fire, dynamite (how many sticks, etc.)
  - e. How did it enter: mailed or carried?
  - f. Why was it placed in the Laboratory?
  - g. Identity of caller or person reporting.
  - h. Write down characteristics of callers voice: accent, speech pattern, background noise, etc.
4. It is recognized that most of the above information probably cannot be obtained, but an attempt should be made. Call ext. 9-911 and your supervisor as soon as possible.

### **3.2 Fire and/or Smoke**

1. Use a fire alarm box to report the condition if it endangers occupants of the building.
2. Call ext. 9-911 to report the condition if occupants are less immediately endangered.
3. Report the condition to your supervisor and follow his/her instructions.
4. Before Fire Department personnel arrive, use fire-fighting equipment to put out the fire if you can do so safely.
  - a. Water extinguishers: best for paper, rubber, plastic or wood fires.
  - b. CO<sub>2</sub> extinguishers: best for electrical fires.
  - c. Dry chemical extinguishers: best for flammable liquid, gas or grease fires.
  - d. Halon extinguishers: best for computers.

### **3.3 Serious Earthquake**

1. If you are inside a building:
  - a. Stay inside.
  - b. Avoid falling debris and breaking glass by moving away from un-anchored objects and glass windows.
  - c. Stand in a doorway or the corner of a room, or crouch under a table or desk.
2. If you are outside:
  - a. Stay outside
  - b. Move into open areas away from power lines, towers, building and other structures.
  - c. Lie down flat and stay there.
3. After the earthquake:
  - a. Do not smoke, light matches, or operate electrical equipment.
  - b. Avoid electrical wires, broken glass and structural hazards.
  - c. Listen for instructions from the PIC.
  - d. Evacuate the area only if instructed to do so by the PIC or by safety personnel.

### **3.4 Personal Injury**

1. Give immediate first aid if it is required. Make sure the first aid is given by the person in attendance qualified to render assistance without aggravating the victim's injuries.
2. If necessary, remove victim from hazard. (CAUTION: In cases of electrical shock, first assure that the power source is cut and patient is no longer in contact with the electrical source, then administer first aid.) Unless an exposure to greater injury exists at the scene of the accident, no attempt should be made by non-medically trained persons to move an accident victim who appears to have sustained broken limbs or back or head injuries.
3. Bleeding must be stopped, and breathing restored. If heavy bleeding is involved, or if circulation has stopped, take first aid action at once. CALL FOR HELP. For serious bleeding, stoppage of breathing, or toxic effects, do not delay commencing first aid by going for help yourself.
4. Instruct a bystander to call ext. 9-911 to report the injury and summon medical aid. SLAC Medical Department should also be informed at ext. 2281.
5. Continue first aid measures until professional help arrives.
6. Report the injury to your supervisor.

### **3.5 Electric Shock**

1. Make sure the person is not still in contact with an electric circuit; or de-energize the circuit. If this is not possible, a last measure is to use a non-conducting object (perhaps a wooden pole) to remove the person from the live circuit.
2. Phone ext. 9-911 to summon medical aid and our Medical Department (ext. 2281) to see if they can provide assistance. If possible, have an escort meet the emergency services personnel at the north entrance to the building.
3. Begin indicated first aid immediately (heart-lung resuscitation may be needed).
4. Continue first aid until successful or until another competent person relieves you.

### **3.6 Suspected Explosive**

1. Do not touch or attempt to move the object under any circumstances.
2. Report what you have found by calling ext. 9-911.
3. Inform your supervisor and follow his/her instructions as to the need for evacuation.

### **3.7 Release of Toxic or Flammable Material**

1. Anyone detecting a flammable gas leak or flammable liquid spill should call ext. 9-911 and report the condition.
2. In the event of a suspected leak of toxic material, the area must be evacuated immediately, and the emergency reported to ext. 9-911. Only trained and properly equipped emergency personnel may enter the area until it has been checked and cleared.
3. Inform your supervisor of the condition.

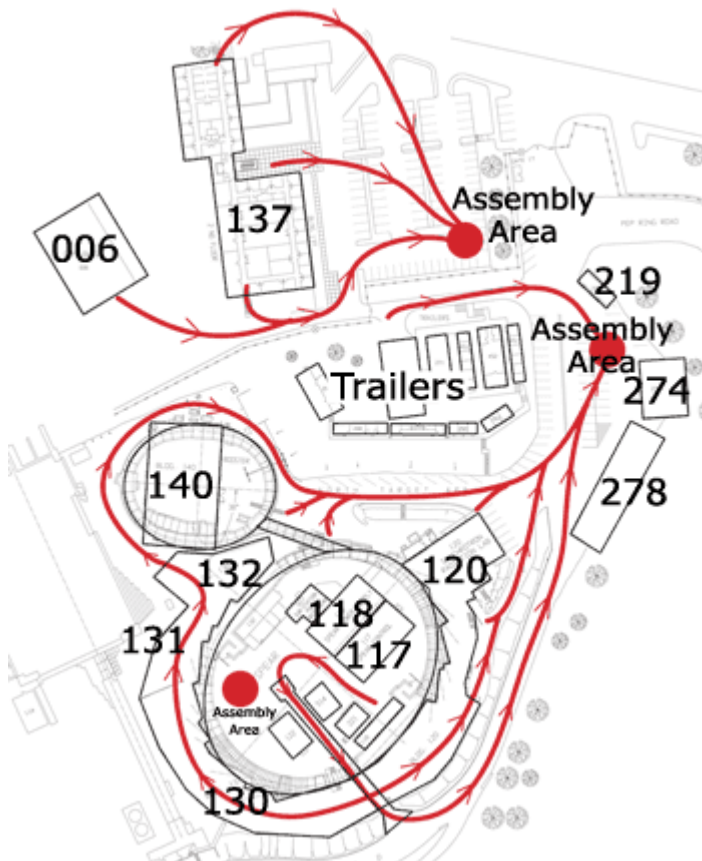
### 3.8 Power Failure

1. Turn off your own equipment as instructed by prior plan or by the PIC.
2. Report to your supervisor.
3. The PIC will determine whether to shut down other equipment and utilities.

### 4.0 FACILITY EVACUATION PLAN(S)

#### Table of Contents

The Facility Evacuation Plan(s) immediately following this text illustrates the assembly points for the SSRL facility.



---

## APPENDIX

### 1. SLAC GENERAL INFORMATION REGARDING EMERGENCIES

#### 1.1 General Responsibility

The following individuals at SLAC have special project-wide responsibilities in matters of safety and security:

<b>Directors:</b>	J. Dorfan K. Hodgson P. Drell J. Cornuelle J. Galayda
<b>Security Officer:</b>	TBD
<b>On-Duty Battalion Chief:</b>	- Various
<b>Medical Officer:</b>	- Various
<b>Operator-in Charge:</b>	- Various

These individuals will be referred to as SLAC "safety personnel" in the following discussion of emergency situations that may arise.

## **2. INCIDENT REPORTING AND PUBLICITY**

1. Consult Business Services regarding DOE requirements for notification, investigation and reporting of incidents.
2. When necessary to release information to the news media, do so through the Public Information Office.

---

**SSRL**

### **FACILITY EMERGENCY PLAN**

**Revision #5.2 -- 02/2006**

---

[SLAC](#)  
[SSRL](#)