

Caltech Research Safety Policy

Working Alone in a Laboratory

OVERVIEW

“Working Alone” means engaging in research activities in a laboratory or machine shop when no one else is in direct line of sight or within earshot, at any hour of the day.

In general, it is best practice for researchers not to Work Alone. However, Working Alone is prohibited or restricted under certain circumstances, as provided in this policy. Restricted Working Alone requires prior Principal Investigator (PI) written approval in conjunction with implementing a laboratory “communications plan” or “buddy system” as provided by this policy.

RATIONALE

If a person is Working Alone when an incident occurs, their ability to respond and get help could be severely impaired or delayed, which could result in the outcome of the incident being more severe and possibly fatal.

PROHIBITED AND RESTRICTED WORKING ALONE

Prohibited Working Alone

In the following cases, Working Alone is prohibited:

- Minors, volunteers, and interns are never allowed to Work Alone in the laboratory. In addition, other individuals, as identified by their PI or faculty supervisor, will not be allowed to Work Alone in the laboratory.
- Working Alone is prohibited near or on energized and exposed equipment with voltage >50 V.
- Laboratory personnel are prohibited from working alone with machine shop equipment.

Working Alone using the following hazardous materials is prohibited:

- Pyrophoric chemicals
- Potentially explosive materials
- Highly reactive materials (e.g., strong oxidizers, organic peroxides)
- Hydrofluoric acid
- Acutely toxic gases (e.g., carbon monoxide, chlorine)

Laboratories should develop Standard Operating Procedures (SOPs) for using hazardous materials, and these SOPs should indicate that the procedure must not be performed alone.

Restricted Working Alone

Upon being identified by the Division, Laboratory PI, or Faculty Supervisor, any other hazardous activities, materials or equipment may also become Restricted for Working Alone.

Working alone for these activities, materials or equipment is prohibited unless the PI has provided written approval, reviewed by the cognizant Division safety committee or EH&S, and the laboratory group has established a process to provide safeguards for their personnel Working Alone. Appropriate safeguards include:

- Buddy System: Having trained personnel coordinate their work schedule to operate as a “buddy system” where at least two people can check on each other (in person or virtually), periodically; or
- Communication Plan: Establishing a reliable and robust “communication plan,” which includes a timely and periodic check-in process (call, email, text to a designated person or to the PI) during the period of time the person will be working alone.

Written documentation of plan and required approvals must be in place prior to any lab member Working Alone.

It is recommended that the lab review existing and newly created SOPs for activities not covered by this policy and consider incorporating these safeguards for personnel Working Alone.

EH&S is available to provide additional guidance and to support this effort. Contact safety@caltech.edu or 626-395-6727.