

## Maintenance and Construction Activities in Laboratories

### OVERVIEW

This section provides an overview of the operating procedures that Environmental Health and Safety (EH&S) and Facilities Services, Operations have developed for maintenance and construction activities conducted in laboratory facilities.

The purpose of these operating procedures is to:

- Protect maintenance and construction personnel from the chemical, biological, and radiological hazards found in laboratories.

For radiological hazards, contact the Radiation Safety Office (RSO); telephone 509-335-8916; or website at:

[rso.wsu.edu/](http://rso.wsu.edu/)

- Protect laboratory personnel from the hazards associated with maintenance and construction activities.
- Protect research during construction or maintenance activities (e.g. utility interruptions).
- Promote safer and more efficient maintenance and construction activities in laboratories.

### Procedures and Work Permit

Environmental Health and Safety provides the detailed procedures and a work permit form in the *Laboratory Safety Manual*, which is the University's general Chemical Hygiene Plan.

To view the EH&S *Laboratory Safety Manual* web site, go to:

[ehs.wsu.edu/laboratory-safety-manual/](http://ehs.wsu.edu/laboratory-safety-manual/)

Select **Section III: Laboratory Facilities**; then  
Select **Subsection E: Facility Services**.

The detailed procedures are titled Operating Procedures for Performance of Maintenance/Construction Activities in Laboratory Facilities (see also [Process](#)).

The work permit form is titled Work Permit for Maintenance/Construction Activities in Laboratories and is referred to in this section as the Work Permit.

## Maintenance and Construction Activities in Laboratories

### RESPONSIBILITIES

**Department Chair/Director**

The department chair or director is to ensure that the operating procedures are implemented.

**Principal Investigator or Designee**

The principal investigator (PI) or his or her designee:

- Trains employees and students on the components of the Work Permit and operating procedures.
- Submits a work request to Facilities Services, Operations when maintenance and/or constructions activities are to be performed by Facilities Services, Operations in a University laboratory.

The PI or designee submits the work request through the myFacilities Event Notification System website or by contacting Facilities Services, Operations; telephone 509-335-9000. The myFacilities Event Notification System website is accessed at:

myfacilities.wsu.edu

NOTE: The requester must use the Internet Explorer browser version 5.0 or higher in order to submit project requests through this website.

- Clears and decontaminates the authorized work zone in the laboratory (see [Definitions](#)).

If an area cannot be decontaminated, the PI or designee is to contact EH&S for recommendations and standard operating procedures.

- Completes the Work Permit form (see [Work Permit](#)).
- Discusses and reviews the Work Permit with Facilities Services, Operations.
- Contacts Facilities Services, Operations if the department resumes research activities in an authorized work zone before the maintenance and/or construction activities are completed.

## Maintenance and Construction Activities in Laboratories

### PI or Designee (cont.)

NOTE: If the department resumes research activities in the authorized work zone before maintenance/construction activities are completed, the PI or designee must clear and decontaminate the area and submit a new Work Permit to Facilities Services, Operations.

### Facilities Services, Operations Facilities Services, Operations:

- Trains employees on the components of the Work Permit and operating procedures.
- Contacts the PI or designee before performing maintenance and/or construction activities in a laboratory.
- Requests, reviews, and discusses the completed Work Permit with the PI or designee.
- Signs the completed Work Permit, if satisfied.
- Completes a CAUTION sign (see [Caution Sign](#)).
- Posts the signed Work Permit and the completed CAUTION sign at the entrance to the laboratory.
- Posts a description of the maintenance and/or construction activity on the Facilities Services, Operations website at:  
  
myfacilities.wsu.edu
- Conducts maintenance and construction activities.
- Informs the PI or designee if the maintenance/construction activities will create additional hazards or require additional work and decontamination.
- Consults with the PI or designee to review the completed project to ensure that the work conforms to the PI's specifications. Obtains a signature from the PI indicating that the project is completed as specified.
- Closes out the construction and maintenance activities (e.g., contacts PI or designee, removes signs, maintains files).

## Maintenance and Construction Activities in Laboratories

### Employee or Student

The employee or student:

- Knows and complies with the Operating Procedures for Performance of Maintenance/Construction Activities in Laboratory Facilities.

To view the operating procedures document in the online *Laboratory Safety Manual*, Section III.E, go to:

[ehs.wsu.edu/laboratory-safety-manual/](https://ehs.wsu.edu/laboratory-safety-manual/)

Select **Section III: Laboratory Facilities**; then  
Select **Subsection E: Facility Services**.

- Reviews and follows all laboratory signs, Work Permits, and CAUTION signs before entrance into laboratories.
- Contacts the PI or designee or Facilities Services, Operations if questions arise concerning construction and/or maintenance activities conducted in a laboratory.
- Reports unsafe conditions to the PI, designee, faculty member, immediate supervisor, or EH&S.

### Environmental Health and Safety (EH&S)

Environmental Health and Safety:

- Provides detailed procedures and the Work Permit form in the *Laboratory Safety Manual*. To view the online *Laboratory Safety Manual*, go to:

[ehs.wsu.edu/laboratory-safety-manual/](https://ehs.wsu.edu/laboratory-safety-manual/)

Select **Section III: Laboratory Facilities**; then  
Select **Subsection E: Facility Services**.

- Provides assistance to department chairs, directors, PIs, laboratory supervisors, and Facilities Services, Operations in the implementation of the Operating Procedures for Performance of Maintenance/Construction Activities in Laboratory Facilities.
- Provides consultation to the PI or designee and Facilities Services, Operations concerning proper decontamination procedures and standard operating procedures.

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### EH&S (cont.)

- Periodically reviews work areas to ensure compliance with the operating procedures.
- Reviews and modifies the Operating Procedures for Performance of Maintenance/Construction Activities in a Laboratory Facility.

## PROCESS

### Request for Maintenance/ Construction

The PI or designee submits a work request for Facilities Services, Operations to perform maintenance and/or construction in a University laboratory.

The PI or designee submits the work request through the myFacilities Event Notification System website or by contacting Facilities Services, Operations; telephone 509-335-9000. The myFacilities Event Notification System website is accessed at:

[myfacilities.wsu.edu](http://myfacilities.wsu.edu)

NOTE: The requester must use the Internet Explorer browser version 5.0 or higher in order to submit project requests through this website.

See *BPPM* 80.56 and Facilities Services, Operations for more information.

### Primary Steps

After Facilities Services, Operations receives the work request to perform maintenance and/or construction in a laboratory, the following six primary steps must be completed.

#### Step 1

Facilities Services, Operations contacts the PI or designee before performing maintenance and/or construction work activities.

#### Step 2

The PI or designee submits a completed Work Permit to Facilities Services, Operations and prepares the authorized work zone where the maintenance and/or construction activities are to be conducted. See [Definitions](#) for the definition of an authorized work zone.

### *Work Permit*

The Work Permit For Maintenance/Construction Activities in Laboratories is a tool used to assist in effective communication between the PI or designee, Facilities Services, Operations, EH&S, and personnel entering the laboratory.

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Facilities Services, Operations

509-335-9000

Environmental Health and Safety

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## Maintenance and Construction Activities in Laboratories

### *Work Permit (cont.)*

Principal investigators or designees obtain and complete the Work Permit form from the *Laboratory Safety Manual* Section III.E. To view the online *Laboratory Safety Manual*, go to:

[ehs.wsu.edu/laboratory-safety-manual/](https://ehs.wsu.edu/laboratory-safety-manual/)

Select **Section III: Laboratory Facilities**; then  
Select **Subsection E: Facility Services**.

### Step 3

Facilities Services, Operations discusses and reviews the completed Work Permit with the PI or designee.

If Facilities Services, Operations' personnel are not satisfied with the safety conditions of the authorized work zone or laboratory, Facilities Services, Operations does not proceed with the work activities. The department may contact EH&S for assistance with improving the safety conditions of the work zone or laboratory.

### Step 4

When Facilities Services, Operations' personnel are satisfied, Facilities Services, Operations signs and posts the Work Permit at the laboratory entrance and prepares for work activity.

### *Caution Sign*

The CAUTION sign is a tool used to display pertinent information about the construction and/or maintenance activities being conducted in the laboratory.

Facilities Services, Operations provides and completes the caution sign.

### Step 5

Facilities Services, Operations conducts the work activity.

### Step 6

Facilities Services, Operations performs closeout of work activity.

### Detailed Procedures

Detailed procedures for each of the primary steps described above are included in the Operating Procedures for Performance of Maintenance/ Construction Activities in Laboratory Facilities. Environmental Health and Safety provides this document in the *Laboratory Safety Manual* Section III.E.

To view the online *Laboratory Safety Manual*, go to:

[ehs.wsu.edu/laboratory-safety-manual/](https://ehs.wsu.edu/laboratory-safety-manual/)

Select **Section III: Laboratory Facilities**; then  
Select **Subsection E: Facility Services**.

## Maintenance and Construction Activities in Laboratories

### Assistance

Facilities Services, Operations For assistance, contact the Facilities Services, Operations representative identified on the work permit or the Facilities Services, Operations dispatcher; telephone 509-335-9000.

EH&S For assistance, contact the EH&S representative identified on the work permit or the EH&S office; telephone 509-335-3041.

### DEFINITIONS

The following definitions apply to the operating procedures for maintenance and construction activities in laboratories.

#### Authorized Personnel

Authorized personnel are defined as employees specifically authorized by the PI or designee whose duties require the personnel to enter a laboratory where maintenance and/or construction activities are being conducted.

#### Authorized Work Zone

An authorized work zone is defined as the area, as identified by the principal investigator, where construction/maintenance activities are conducted (e.g., building, room number, and location). The authorized work zone may be an entire laboratory or a portion of the laboratory.

If a portion of a laboratory is designated as an authorized work zone, areas within the laboratory that are outside of the authorized work zone are off-limits to unauthorized personnel.

#### Decontamination

Decontamination is defined as the use of physical or chemical means on materials and surfaces to remove, inactivate, or destroy pathogens and/or hazardous chemicals. Decontamination is used to ensure that the materials not expose employees and students to biological or chemical concentrations above the regulatory requirements. See *SPPM* 2.44, 4.20, 5.10, and EH&S for more information.

#### Laboratory

Laboratory means:

- A workplace facility where relatively small quantities of hazardous chemicals are used on a non-production basis.

The laboratory activities involve research and quality control activities. The procedures discussed in this section do not apply to *dry* laboratories such as computer labs.

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## **Maintenance and Construction Activities in Laboratories**

### **Laboratory (cont.)**

- A workplace facility where potentially biohazardous materials are stored or used.

For the current definition of potentially biohazardous material, see the Biosafety website at:

[biosafety.wsu.edu/potentially-biohazardous-materials/](http://biosafety.wsu.edu/potentially-biohazardous-materials/)

See also *SPPM* 2.44, 4.12, 4.20, 5.10, and EH&S for more information.