



**BERKELEY LAB**

Bringing Science Solutions to the World

## Annual Review of WPC Risk-level 3 Activities

**This guide is for Activity Leads.** It outlines how to perform an annual review of a risk-level 3 Activity.

### Roles and Responsibilities:

- The **Activity Lead** is responsible for reviewing their risk-level 3 Activity that is up for annual review within 15 days of it going into review.
- The **EHS Liaison** is responsible for coordinating and facilitating the review and serves as a communication bridge between the Activity Lead and the Assigned Subject Matter Experts.
- The assigned **SME(s)** are responsible for providing input (as needed) when there have been changes or amendments to the hazards and controls (in coordination with the Activity Lead).
- The **Division Safety Coordinator** is responsible for supporting the Activity Lead.

### Purpose of the Annual Review:

The purpose of the annual risk-level 3 collaboration review is to determine if the scope of work, hazards and controls remain accurate for the work currently being performed and anticipated over the upcoming year. This is accomplished by having the Activity Lead review the Activity to either (1) confirm that there have been no changes to the work scope, hazards or controls since the last review or (2) revise or update the Description of Work, and/or hazards and controls when the work has changed. This review is performed annually because risk-level 3 WPC Activities represent the most hazardous work performed at LBNL, so it is important that the formal work authorization accurately reflects the work performed.

### Timing:

There are 30 days to review and approve an Activity that is undergoing annual Collaboration review. In these 30 days all of the following actions need to occur so timeliness is important:

- (1) The Activity Lead needs to complete their review of the Activity (They start the process)
- (2) If there are changes made, the SMEs need to review and provide input
- (3) The EHS Liaison needs to close out the EHS Collaboration review
- (4) The Activity Lead needs to release the Activity for line management approvals ([Guide](#))
- (5) The Project Lead needs to review and approve the Activity
- (6) The Division Safety Coordinator needs to review and approve the Activity
- (7) The Division Director or Approver needs to review and approve the Activity

This shows that there are many people participating in the process over a short period of time.

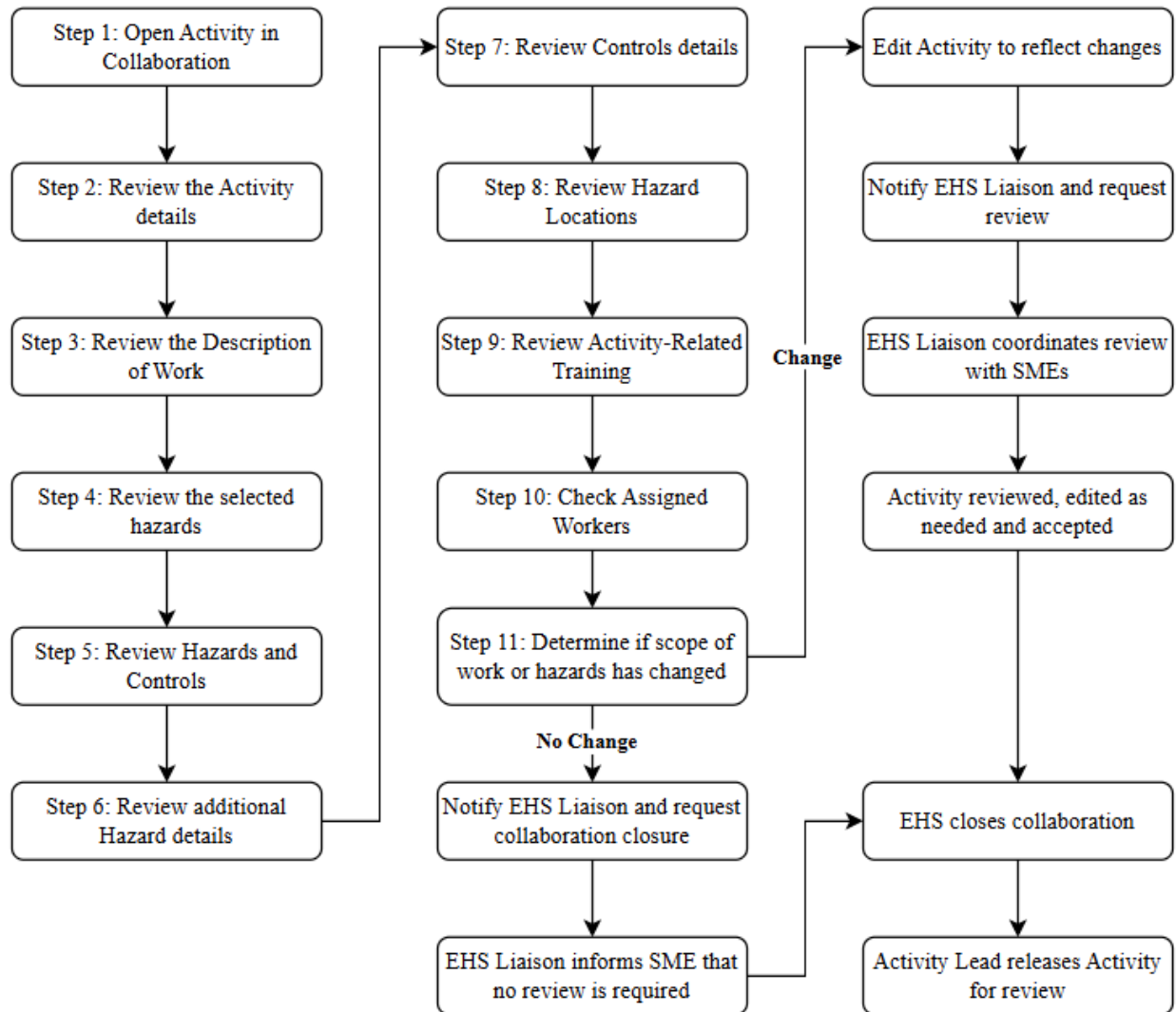
### NOTE:

If your Activity includes Class 3B or 4 lasers or includes radiological hazards, the SMEs for these hazards will always review the Activity as part of their annual review process.

NOTE: There is a checklist on page 9 to determine if an Activity has changed.

## START | Activity Lead Reviews Activity

The following flowchart is a visual representation of the renewal steps for an Activity Lead.



**Step 1: To begin, login to Activity Manager: <https://wpc-am.lbl.gov/> and open the Activity that is in **COLLABORATION**.**

NOTE: 30 days before an activity is due to be renewed, the Activity Manager system creates a copy of the activity and puts it into **COLLABORATION** as shown below.

HI, WELCOME JAMES!  
Your Activity Manager dashboard.

### MY WORK

NEW 1 ACTION REQUIRED 0 INFORMATIONAL 2 FLAGGED 0 ALL 2

	DATE	ACTIVITY ID	
<input type="checkbox"/>	Apr 19, 2024	EH-0481	EHS review of James Test/Demo Activity A has been initiated. <a href="#">Read full description</a>
<input checked="" type="checkbox"/>	Apr 19, 2024	EH-0481	Training required for HAZWOP required for activity

### MY ACTIVITIES

CREATE PROJECT CREATE ACTIVITY

BY ACTIVITY ID BY NAME BY STATUS

EH-0067  
ACTIVE  
Site Visits; Entering Technical Areas ...  
Nappi,Maria G

EH-0018  
ACTIVE  
EHS Division Office  
Lin,Bryan

EH-0481  
COLLABORATION  
James Test/Demo Activity A  
Basore,James D

**Step 2: Review the Activity Details** (as shown below).

A. Update information as needed.

### CREATE ACTIVITY: ACTIVITY DESCRIPTION

MS-0079 - 2-260B CLEANROOM  
ACTIVITY VERSION: 16  
ACTIVITY STATUS: COLLABORATION  
RENEWAL DUE DATE: FEBRUARY 13, 2024

1 Description 2 Define Work 3 Select Hazards 4 Review Hazards & Controls 5 Training Courses

1

Review and update as needed.

Activity Name

2-260B Cleanroom

Parent Project

EMAT Labs

Activity Lead

Rahman,I K M Reaz

Sponsor Division

Materials Sciences

Planned Start Date

January 09, 2015

Brief Description

Operation of the EMAT clean room

Activity Lead Designees

Activity Lead Designee

Add Activity Lead Designee

Location

Building

Room

Add Location

Various (e.g., site-wide)

Infrastructure

Offsite (e.g., field)

Locations

002-0260B

Activity Risk Level

3

EA

+

+

+

Preview

Choose An Action

Save

### Step 3: Review the Description of Work

- A. Review the **Description of Work** and update as needed to reflect the work performed. You can contact your Division Safety Coordinator or the EHS Liaison for support.

1 Description 2 Define Work 3 Select Hazards 4 Review Hazards & Controls 5 Training Courses

EA + Comment Print Preview Choose An Action Save

Description of Work Collaboration Templates and Examples

EH-0329 File Edit View 100%

**A** Review the Description of Work and update as needed

**Description of Work:**

This activity describes the process used by EHS Staff for the planning and execution of on-site Subcontractor work to treat or stabilize chemical containers under an Emergency Permit from the California Department of Toxic Substances Control (DTSC). Detailed steps for obtaining an emergency permit are provided in the attached EHS Procedure 876.1.

Highly qualified reactive materials personnel from Clean Harbors Environmental Services (CHES) will perform all hands-on work. CHES will only perform treatment/stabilization activities outside of Berkeley Lab buildings. A 50 ft. exclusion zone under the control of CHES personnel will be implemented during movement and treatment of the items. Hazards identified in the WPC Hazards & Controls section refer to potential hazards which may be present in laboratory and technical spaces. LBNL Staff are not authorized to handle any hazardous materials under this scope of work.

### Step 4: Review the Selected Hazards

- A. Review the hazards listed in the “Hazards Basket”  
B. Add hazards (if missing)  
C. Remove hazards (if no longer applicable)

RENEWAL DUE DATE: FEBRUARY 13, 2024

1 Description 2 Define Work 3 Select Hazards 4 Review Hazards & Controls 5 Training Courses

EA + Comment Print Preview Choose An Action Save

Activity Risk Level

Tip: Hover your mouse over a category below to view contents.

ASBESTOS BIOLOGICAL CHEMICAL COMPRESSED GASES CONFINED SPACE CRYOGENS DIVISION AND ELECTIVE TRAINING

ELECTRICAL ENVIRONMENTAL ERGONOMICS FALL PROTECTION FIELD AND OFFSITE WORK FIRE PROTECTION GENERAL HAZARDS

HAZARDOUS ENERGY/LOTO HEAT/COLD STRESS HOISTS AND CRANES LASERS LEAD NOISE NON-IONIZING RADIATION

POWERED INDUSTRIAL TRUCKS PRESSURE RADIOLOGICAL RESEARCH LAB EQUIPMENT TOOL & MACHINE USE TRAVEL

WASTE MANAGEMENT WELDING/SOLDERING

**A** Review hazards

**B** Add any hazards that are missing

**C** Remove hazards you no longer use (by clicking the trashcan icon).

**D**

**HAZARD BASKET**

Generation of Hazardous Waste Risk Level 1

MSD - MSD001 Risk Level 1

Non-Oxidizing Corrosives Risk Level 1

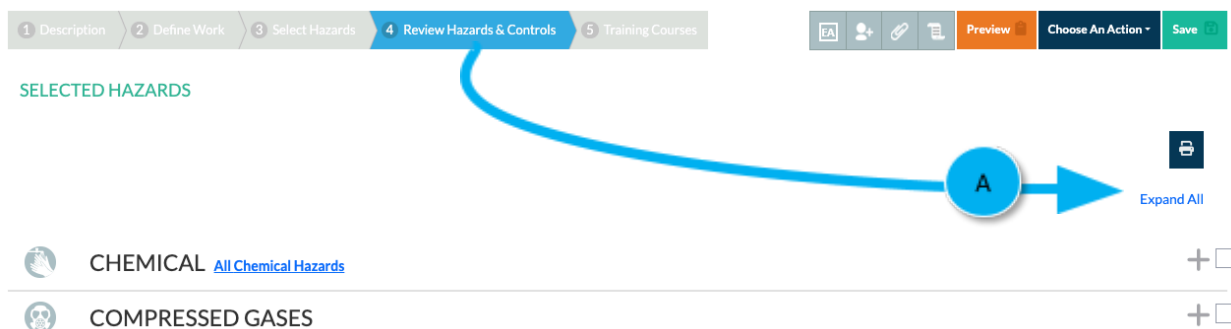
to add them to your activity

Previous Continue Save

**EXAMPLE:** If you use sharps (syringes, needles, razors, etc.) make sure to include the hazard: *Use of Sharps in research.*

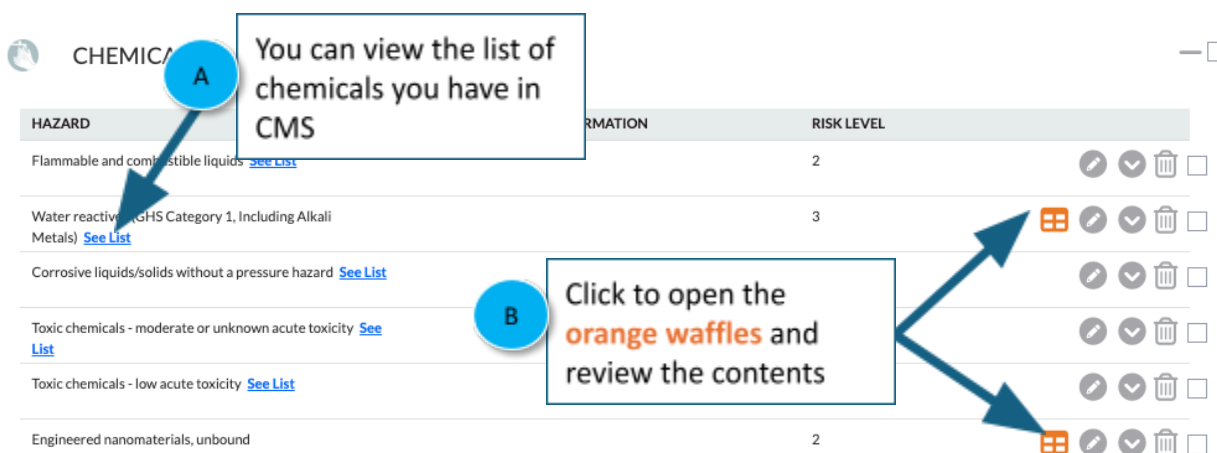
## Step 5: Review all of the Hazards and Controls listed in the Activity

A: Click **Expand All** (as shown) to make it easy to review.



## Step 6: Review Additional Hazard Details

- The link “See List” opens the Chemical Management System and shows you the list of chemicals entered into CMS specific to that chemical hazard. You can refer to this to see what chemicals you already own that may be used in the Activity.
- Open all of the **Orange Waffles** and review the contents (instructions below).



### Reviewing **Orange Waffles**:

- Is anything missing that should be included?
- Is anything listed that should be removed (no longer in use)?
- Are the relevant quantities, concentrations and units included?
- Is the information accurate and complete?

## Step 7: Review Controls Details

- Review the **Activity Specific Information** and update as needed (pencil icon).
- If a control is **not applicable**, select **"No"**

"Applicable?" requires that the Activity Lead determines if the control is applicable to the work performed. If it is applicable, then select "Yes" and the control becomes required. If it is not applicable, select "No" and the control is removed from the activity.

CLASS	CONTROL	ACTIVITY SPECIFIC INFORMATION	APPLICABLE?	
PPE	Wear eye protection based on the hazard of the tasks being performed	PPE should be worn when working with chemicals or entering an area where hazards are present <a href="#">Read More</a>	<input checked="" type="radio"/> Yes <input type="radio"/> No	
ENG	Use a fume hood		<input checked="" type="radio"/> Yes <input type="radio"/> No	
ENG	Use an inert atmosphere glovebox	Lithium metal and lithium salts are stored and handled in an argon atmosphere <a href="#">Read More</a>	<input checked="" type="radio"/> Yes <input type="radio"/> No	
ENG	Use a snorkel		<input type="radio"/> Yes <input checked="" type="radio"/> No	
ENG	Use a barrier such as a portable shield		<input checked="" type="radio"/> Yes <input type="radio"/> No	
PPE	Wear closed toe shoes	Working with chemicals or entering an area where hazards are present <a href="#">Read More</a>	Required	
PPE	Use chemically resistant gloves	PPE should be worn when working with chemicals or entering an area where hazards are present <a href="#">Read More</a>	Required	

**A** Review listed Controls

**B** If a control is not applicable to the work, select "No"

## Step 8: Review Hazard Locations

Review the locations of hazards and update as needed.

### HAZARD LOCATIONS

HAZARDS AND LOCATIONS	062-0250	062-0248
Chemical Synthesis	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Chemically contaminated sharps	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Closed Container Handling	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Flammable/Combustible Liquids	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Generation of Hazardous Waste	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Hot Plate Use	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

## Step 9: Review Activity-related Training

Some training courses are optional and as the Activity Lead you need to determine if they are applicable to the work performed. In the example below, EHS 0657 was determined “Not applicable” so the training is removed from the Activity.

"Applicable?" requires that the Activity Lead determines if the control is applicable to the work performed. If it is applicable, then select "Yes" and the control becomes required. If it is not applicable, select "No" and the control is removed from the activity. X

CONTROL ID	TRAINING COURSE	ACTIVITY SPECIFIC INFORMATION	APPLICABLE?
TRN108	EHS0604 Hazardous Waste Generator Training		Required
TRN189	MSD0010 ISM Principles and Case Studies		Required
TRN068	EHS0348 Chemical Hygiene and Safety		Required
TRN104	EHS0520 Fire Extinguishers		<input checked="" type="radio"/> Yes <input type="radio"/> No
TRN119	EHS0657 Vehicle Transport of Hazardous Materials		<input type="radio"/> Yes <input checked="" type="radio"/> No

**A** Training was determined not to be applicable to the work performed in the Activity

## Step 10: Check Assigned Workers

- Check the workers to make sure that those listed are correct (add/remove as applicable)
- Check their Authorization level, Approval and Training status

1 Description 2 Define Work 3 Select Hazards 4 Review Hazards & Controls 5 Training Courses

**A** Select Workers

Name

**A** Check their authorization level and status

Email All

		SUPERVISOR APPROVAL	WORKER ACCEPTANCE	TRAININGS COMPLETE	
Davies,Evelyn Louise	Authorized to Work	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Assigned by: Davies,Evelyn Louise					
Talosig,Rain	Authorized to Work under Direct Supervision	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Assigned by: Davies,Evelyn Louise					
Weiss,Eli	Authorized to Work under Direct Supervision	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Assigned by: Davies,Evelyn Louise					
Zhu,Julie	Authorized to Work	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Assigned by: Davies,Evelyn Louise					

Previous Save

## Step 11: Determine if activity has changed

- Review the RL3 Activity Change checklist to determine if a change has occurred. (See Appendix A.).
- If there are no changes, move to Step 12.
- If there are changes, email the EHS Liaison to initiate the EHS review process. Once complete, move to Step 12.

## Step 12: Close out your review

- A. Click Define Work, and then click the Collaboration tab.
- B. Give the thumbs up (to indicate you have completed the review).
- C. Email the Liaison to let them know that you completed your review.

**Assign Reviewers** (Want to find expert peers to collaborate?)  
Search and Select an Activity Reviewer

Assign Reviewer

[Add Reviewer](#)

**REVIEWERS**

NAME	ROLE	
Heim,John	Liaison	👍👎
Lee,Daewon	Activity Lead	👍👎
Neitzel,Martin L		👍👎
Davies,Evelyn Louise		👍👎
Johnson,Paul M		👍👎
Moore,Nicholas		👍👎
Alam,Ronan Shikoda	Safety Coordinator	👍👎

**EHS REVIEW COMMENT**

Liaison Name: Heim,John

Due Date:

**Annotations:**

- A:** Click Define Work, and then click the Collaboration tab.
- B:** Click "Thumbs up" to indicate you completed your review.
- C:** Email the EHS Liaison and DSC to let them know you completed the review.



## Appendix A - Risk Level 3 Activity Checklist to Determine Change

This checklist is used as part of the [Activity Lead Risk Level 3 Annual Review Process](#). Use this checklist to help determine if there has been a change to your Risk Level 3 activity. If there has been a change, EHS needs to review the activity before closing collaboration. Notify the EHS liaison and let them know there have been changes. The EHS liaison will facilitate the EHS review. If there has been no change, notify the EHS liaison, and they will close collaboration.

Questions	Check if true*
<b><i>Radiological Hazards</i></b>	
The activity does not include any Radiological hazards.	
<b><i>Laser Hazards</i></b>	
The activity does not include any Class 3B and 4 hazards.	
<b><i>Biological Hazards</i></b>	
The Recombinant Techniques and Categorization Forms are up-to-date (in the attachments section)?	
The work does NOT include any new genes of interest or biological materials for current and future planned work.	
If the activity involves use of sharps (syringes, needles, razors, etc.), the hazard "Use of Sharps in Research Environments" (under "Research Lab Equipment" is selected.	
<b><i>Chemical Hazards</i></b>	
There have been no changes to the scope for how risk-level 3 chemical hazards are used or planned to be used under this Activity (materials, concentration, scale/quantities, frequency of use, equipment, etc.) since the previous review and approval cycle. See additional <a href="#">guidance document</a> for detailed instructions.	
Chemicals are NOT being used in a way that involves quantities/concentrations greater than individual components (e.g. preparing chemical baths, combining individual quantities into larger quantities, distillation, etc.) except as identified or described in the previous review and approval cycle.	
If chemical synthesis is performed, one of the following hazards is selected: "Conducting Chemical Synthesis Tasks" or "Conducting High-Risk Chemical Synthesis Tasks, Including Scale-Up and Large-Scale Chemical Synthesis (for greater than 500mL solvent or 1L or greater flask size)".	

<b><i>Compressed Gas Hazards</i></b>	
The activity does not include new gasses or a change to the quantity, type or concentration of any gasses listed in the “orange waffle” since the previous review and approval cycle.	
There are no plans to change or order any new type of gas, quantity of gas, or concentration of gas (represented in the Toxic gas orange waffle) in the next 12 months.	
Interconnected (i.e., manifolded) compressed toxic gasses or highly toxic gasses remain connected in a way which was identified and described in the previous review and approval cycle.	
All locations of storage and use for toxic gasses are listed on the Activity. (Note: Outdoor storage of toxic gasses and toxic gas mixtures requires SME approval.)	
<b><i>Pressure Hazards</i></b>	
Over the next 12 months, work will be performed at the same exact pressures identified and described in the previous review and approval cycle.	
If using commercial equipment that has a pressure hazard, there are no plans to modify the equipment.	
There are no plans to make changes to a process, or setup or to the equipment that has a pressure hazard.	
<b><i>Cryogen Hazards</i></b>	
If you use cryogen liquids in custom-built or modified equipment, there are no changes or no anticipated changes to the equipment or setup over the next 12 months.	
<b><i>Electrical Hazards</i></b>	
The electrically powered equipment is fully enclosed.	
The scientific equipment has not been modified in any way since the last physical review.	
The operating staff is the same and has not changed.	

\*If all statements are true, no significant change has occurred, and EHS review is not required. If any of the statements above are not true, a change has occurred and a review by EHS is required. If this is the case, contact your EHS liaison to initiate the activity review if this is not already in progress.