

# LABORATORY AND RESEARCH RAMP UP PLANNING GUIDE AND CHECKLIST

**OVERVIEW:** This checklist is intended to aid laboratory and research groups in planning to ramp-up operations. This checklist works through the following phases of the Laboratory and Research Ramp-up process to minimize potential disruptions and to promote the safety for everyone returning to work. Please <u>contact EHS</u> with any questions.

- Planning Assessment of Activities that must be Conducted On-Campus
- Prepare Evaluation of In-Person Activities and Prepare Strategies to Promote Worker Safety
- Initial set-up and re-configuration of work areas
- Approved Personnel Return to Work

**INSTRUCTIONS**: Laboratory and Research groups returning to work on campus must:

- Use this Laboratory and Research Ramp-up Checklist as a planning tool to prepare for returning to work.
- Provide your unit's <u>Facility Coordinator</u> with the research spaces (buildings/rooms) planning to re-occupy. Facility Coordinators will complete the online Return to Work Space Registration form.
- Submit Pandemic-related Supply orders with General Stores via Penn State eBuy.
- Re-assess your <u>Laboratory and Research Safety Self-Inspection</u> to confirm the safety status of the laboratory space as part of the restart of research operations.

Principal Investigator	Penn State Email	Phone
Campus	Building(s) & Rooms	

#### **PLANNING**

Familiarize yourself with current COVID-19 Working on Campus procedures to promote a safe laboratory and research environment for your returning personnel as well as those continuing to telecommute to promote physical distancing.

ITEM	Complete	N/A	Notes
Review and become familiar with the following COVID-19			
return to work procedures and resources:			
EHS COVID-19 Website for current procedures and			
listing of available services			
<ul> <li>Employee Guidelines for Working on Campus</li> </ul>			
<ul> <li><u>COVID-19 Supervisor Instructions</u> for assessing and</li> </ul>			
reporting suspected COVID-19 cases			
<ul> <li><u>Cloth Mask</u> guidance for universal masking</li> </ul>			
<ul> <li><u>Cleaning Guidelines</u> for Laboratory and Research</li> </ul>			
Facilities			
Prepare list of permissible Laboratory and Research			
Activities based on OSVPR's guidance.			
<ul> <li>What must be done onsite or in-person?</li> </ul>			
<ul> <li>What can be done via telecommute?</li> </ul>			
Research Ramp Down Preparedness			

ITEM	Complete	N/A	Notes
Anticipate that you may need to quickly ramp research	•	-	
back down if local conditions change.			
Review current Research Ramp Down checklist.			
Develop a ramp-down plan.			
Consider delaying more complicated to ramp			
down operations for first few weeks to assess			
potential for COVID-19 resurgence.			
Identify the following for the Research Activities that mus	st be conduct	ted onsi	te
Places / Space Considerations			
<ul> <li>Where do these activities occur?</li> </ul>			
<ul> <li>Is this a singular location or does the work require</li> </ul>			
multiple locations and work stations?			
People			
<ul> <li>Did you identify approved personnel who are</li> </ul>			
required to conduct in-person activities?			
What is the minimum number of people			
required to support in-person operations at any			
one time?			
Equipment and Operational			
<ul> <li>What are the critical in-person operations?</li> </ul>			
<ul> <li>What equipment is required? Are these single user</li> </ul>			
or shared?			
What critical supplies are needed to support these			
operations?			
<ul> <li>Are there vendors and supply chain issues that</li> </ul>			
need to be addressed?			
<ul> <li>What <u>COVID-19 supplies</u> are needed?</li> </ul>			
Return to Work Registration Process			
Space Re-Occupancy Registration: Contact your Facility			
Coordinator to complete the online Space Re-Occupancy			
form once approved by the Unit Executive (e.g., Dean,			
Vice President, Vice Chancellor) as outline in the Return			
to Workplace authorization process.			
Buildings may have been closed with limited or no			
custodial services as well as in an energy set back			
mode.			
Facility ramp-up period may take up to 2-weeks			
for full re-activation. Full workforce cannot return			
until facility is officially re-opened by OPP or			
campus Maintenance.			

#### **PREPARE**

Evaluate the intended in-person activities and prepare strategies to promote personnel safety.

ITEM	Complete	N/A	Notes
Places / Space Considerations			

ITEM	Complete	N/A	Notes
Offices	•	· ·	
Telecommuting should be continued for personnel			
not requiring direct access to in-person activities.			
Continue to avoid performing non-lab activities			
(e.g., computer work, data analysis, paperwork, or			
email) in the lab, especially if there are ongoing lab			
activities.			
Identify strategy to reconfigure shared offices or			
stagger shifts to align with physical distancing			
principles.			
Laboratory and Other Work Areas			
Identify strategy to reconfigure work areas to align			
with physical distancing principles:			
(a) Maintain minimum 6 feet of physical			
distancing			
(b) Avoid using both sides of shared benches			
(e.g., minimize face-to-face)			
A combination of space reconfiguration and/or			
staggering shifts may be required to maintain			
physical distancing.			
Common Areas and Break Rooms			
Identify strategy to reconfigure break rooms to			
align with physical distancing principles.			
Encourage people to find alternative areas for			
breaks.			
Meeting Rooms			
Meetings must be done virtually whenever			
possible.			
<ul> <li>As per OSVPR, "all other research activities should</li> </ul>			
be conducted remotely, including all seminars,			
group meetings, and one-on-one meetings."			
People Considerations			
Staffing Assignments			
Identify personnel needed to help set-up space			
prior to larger workforce return.			
Identify workforce with in-person operational			
expectations, but confirm activities acceptable to			
continue to telecommute. Personnel can split time			
· '			
between in-person and telecommuting.			
<ul> <li>Identify personnel who can continue to primarily telecommute.</li> </ul>			
Physical Distancing:			
How many people should work in an area per shift and maintain 6 feet social distancing?			
and maintain 6 feet social distancing?			
Determine need to stagger shifts.			
Determine need to stagger break periods.			

ITEM	Complete	N/A	Notes
Working Alone: Consider the following criteria for			
working alone when assessing personnel levels:			
<ul> <li>What work can safely be conducted alone?</li> </ul>			
<ul> <li>What work supports having a virtual buddy?</li> </ul>			
What must be postponed due to a high risk of			
injury or other incidents?			
Contact Lists			
<ul> <li>Review or create contact list for all lab personnel,</li> </ul>			
PIs, department contacts, and safety officers.			
Include campus police and campus maintenance as			
appropriate.			
Ensure the contact list is saved where it can be			
remotely accessed by everyone in the lab. Include			
home and cell phone numbers.			
Equipment and Operational Considerations			
Prepare for supply chain disruptions and limited			
availability of materials. Suppliers may still be under stay-			
at-home orders or manufacturing may not have ramped			
up to meet critical order supplies.			
Recognize that order placement may be slower as			
the volume of requests increases.			
<ul> <li>Plan for limited sales of high demand items.</li> </ul>			
<ul> <li>Plan for limited PPE availability (N95s, face shields,</li> </ul>			
and gloves).			
<ul> <li>Plan for some reagents and consumables having</li> </ul>			
limited availability.			
Equipment			
Discourage sharing of tools and equipment as			
much as possible.			
<ul> <li>Stagger shifts if possible for high use shared</li> </ul>			
equipment.			
Establish disinfection protocols between uses.			
Vehicles			
Require only one person per vehicle as much as			
possible.			
Vendors / Supply Chain			
Confirm vendors and supply chain availability			
needed to initiate work activities.			
Confirm loading dock operations are available			
before ordering materials.			
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ITEM	Complete	N/A	Notes
Pandemic Supplies: Determine quantities of pandemic			
supplies needed by personnel and prepare order with			
Penn State General Stores via EBuy.			
Cloth Masks: 2 per person.			
Disinfectants: Work units need to provide			
disinfectants for shared laboratory spaces and			
equipment.			
Hand sanitizer: Provide hand sanitizer if personnel			
are working in areas without access to sinks for			
regular hand washing.			
Core Facility Access: Review any shared facilities, such as			
microscopy areas, analytical laboratories, etc., for any use			
restrictions.			
Delays due to start-up procedures.			
May have restricted schedules to accommodate			
physical distancing.			
<ul> <li>A schedule or electronic calendar sign-up may help</li> </ul>			
coordinate use of shared facilities.			
<ul> <li>Procedure for disinfecting between users.</li> </ul>			
Protocol Reviews and Safety Considerations			
Work Unit Disinfection Plan: OPP or campus	l		
maintenance is cleaning public and common areas. Units			
need to develop a laboratory cleaning protocol and			
schedule to disinfect high touch surfaces and shared			
equipment. See <u>lab disinfection guidance document.</u>			
Unit Specific Plan: Review the Unit Specific Plan for your			
research operations and confirm it is up-to-date for			
planned research activities.			
High Hazard Operations			
Consider delaying highly hazardous research if			
possible, until normal personnel levels can ensure			
people do not work alone.			
Review current high hazard operational			
procedures in the Unit Specific Plan and confirm			
they are current for anticipated research focused			
upon Research Ramp-up. Update SOPs as			
necessary.			
IBC Protocols: Review current biosafety protocols and			
confirm no changes to anticipated research upon			
research ramp-up.			
UIC Protocols: Review current radiation and laser safety			
protocols and confirm no changes to anticipated research			
upon research ramp-up.			
Emergency Plans: Ensure appropriate emergency			
response plans and contact information are in place.			
response plans and contact information are in place.	L	L	1

#### INITIAL SET-UP AND RECONFIGURATION OF SPACES

This phase is used as a buffer period to prepare spaces before the larger workforce returns to campus.

ITEM	Complete	N/A	Notes
People			
Personnel Assignments			
<ul> <li>Confirm only Approved Personnel are supporting</li> </ul>			
set-up of the work space.			
Pandemic Supplies: Obtain and distribute preliminary			
stocks of supplies for personnel returning to campus.			
Cloth Masks: 2 per person.			
<ul> <li>Disinfectants: Work units need to provide</li> </ul>			
disinfectants for shared laboratory spaces and			
equipment.			
Hand sanitizer: Provide hand sanitizer if work			
activities are located in areas without access to			
sinks for regular hand washing.			
Entering the Laboratory or Research Space for the First Ti	me		
<b>Local Alarms:</b> Do not enter a laboratory if an alarm is			
sounding. Contact EHS at 814-865-6391 or Maintenance			
at your campus to report the alarm.			
Mental Hazard Assessment: Before you walk in, do a			
mental hazard assessment for potential:			
Hidden or invisible hazards of your lab.			
<ul> <li>Location of compressed gases, vapor-producing, or</li> </ul>			
high hazard chemicals.			
<ul> <li>Location of hazardous waste storage areas.</li> </ul>			
<ul> <li>Think through how you would detect any problems</li> </ul>			
and how to react before you enter the room.			
Survey for Unsafe Conditions			
<ul> <li>Walk through all of your areas.</li> </ul>			
<ul> <li>Complete a visual inspection looking for any</li> </ul>			
evidence of problems: broken chemical containers,			
old waste, leaks, failed equipment, spills, etc.			
Hazardous Condition Response: If you discover a			
hazardous condition that poses a threat to you or others,			
such as a hazardous material release:			
isolate the hazard,			
<ul> <li>notify occupants in the area,</li> </ul>			
<ul> <li>evacuate the laboratory and close the door,</li> </ul>			
<ul> <li>exit the building if required, and</li> </ul>			
• notify EHS at 814-865-6391 to report the situation.			

ITEM	Complete	N/A	Notes
Reactive and Peroxide-forming Chemical Check: Assess			
reactive and peroxide forming chemicals that may have			
become unstable during the shutdown.			
<ul> <li>Look for chemical containers that are bulging,</li> </ul>			
indented, cracked, have crystals formed around			
the cap, or are otherwise compromised.			
Contact EHS immediately if unstable reactive or			
peroxide forming chemicals are found.			
Signage			
Remove the Laboratory Suspension Sign on			
entrances to the laboratory.			
Check that the <u>Laboratory Information Door Sign</u>			
has up-to-date contact information.			
"Spring Cleaning": Safety Checks and Disposal of Excess N	Naterials in P	reparati	on for Return to Work
Laboratory and Research Safety Self-Inspection: Review			
the last <u>Laboratory and Research Safety Self-Inspection</u>			
Form completed for your laboratory to assess any past			
safety concerns prior to the return to the work area.			
Eyewash stations			
<ul> <li>Flush for <u>3-5 minutes</u> to remove sediment and</li> </ul>			
stagnant water and document on weekly			
inspection sheet.			
<ul> <li>Report problems to your facility coordinator,</li> </ul>			
department safety officer, or campus Maintenance			
department.			
Pour water down dry traps and floor drains to mitigate			
sewer gas smells that are often confused with natural gas			
leaks.			
Check equipment that may have been affected by a			
power disruption.			
<ul> <li>Keep refrigerator and freezer doors closed until</li> </ul>			
temperature levels return to normal.			
Check for leaks that may have occurred if the			
temperature was compromised.			
Review equipment manuals for safe startup			
instructions.			
Check Utilities are in operation, including plumbed DI			
water, house natural gas, electrical outlets, ventilation,			
and compressed air or vacuum lines.			
Check Dewars and cryogen containers for sample storage			
and liquid nitrogen levels.			

ITEM	Complete	N/A	Notes
Check chemical fume hoods and biosafety cabinets are	·		
operating as normal and inspected within the past year			
prior to resuming use.			
<ul> <li>If your fume hood is overdue for inspection,</li> </ul>			
contact your department Safety officer.			
<ul> <li>If your biosafety cabinet is overdue for inspection,</li> </ul>			
contact the inspecting company.			
Review hazardous material inventory to ensure no loss			
of material (chemicals, radioactive, toxins, controlled			
substances). Report any suspected losses immediately to			
University Police and EHS.			
Review gas system start-up procedures for any			
compressed gas cylinders, gas generation station, and/or			
gas distribution systems.			
Request chemical waste pickups for expired or other			
unwanted chemicals.			
Request regulated medical waste pickups for biological			
waste.			
Risk Management: If any damage has occurred as a result			
of the closure, contact Risk Management within 24 hours			
of discovering the loss.			
Work Space Planning and Reconfiguration	T		
<b>De-Clutter and Discard Unwanted Material</b> where			
possible to facilitate the ease of cleaning and disinfection			
of the research spaces.			
Offices: Implement previously identified strategy to			
reconfigure shared offices or stagger shifts to align with			
physical distancing principles.			
Laboratory and Other Work areas:			
Implement previously identified strategy to			
reconfigure work areas to align with physical			
distancing principles.			
<ul> <li>Avoid using both sides of shared benches (e.g.,</li> </ul>			
minimize face-to-face).			
Re-locate workstations and shared equipment as			
appropriate.			
Common Areas, Break Rooms, and Meeting Rooms			
Implement previously identified strategy to			
reconfigure spaces to align with physical distancing principles.			
<ul> <li>Remove excess chairs and reconfigure seating as</li> </ul>			
appropriate.			

#### APPROVED PERSONNEL RETURN TO WORK

Once the previous phase work activities from the Work Unit have been completed AND the building services have been restored by the OPP or Campus Maintenance, Approved Personnel may return to work.

ITEM	Complete	N/A	Notes
People			
Personnel Assignments: Confirm only Approved			
Personnel are returning to work at this time.			
Normal PPE Supplies: Assess stock of PPE needed for			
research operations prior to COVID-19 and order supplies			
to that may have been donated during the shutdown.			
Pandemic-related Supplies: Obtain and distribute			
supplies to personnel returning to campus.			
Cloth Masks: 2 per person.			
Disinfectants: Work units need to provide			
disinfectants for shared laboratory spaces and			
equipment.			
<ul> <li>Hand sanitizer: Provide hand sanitizer if work</li> </ul>			
activities are located in areas without access to			
sinks for regular hand washing.			
Supervisor Training – Hold virtual meetings with			
supervisors coming on duty with focus on the following:			
<ul> <li>Mandating physical distancing protocols.</li> </ul>			
<ul> <li>Enforce the use of masks as per university</li> </ul>			
protocol.			
<ul> <li>Clean common areas that are shared.</li> </ul>			
Employee Training – Hold virtual meetings with returning			
personnel to review the Work Unit's COVID-19 plan			
implementation.			
Ensure personnel have completed Laboratory and			
Research Safety or other required Annual Safety			
Refresher Trainings.			
Re-train personnel on research-specific operations			
and methodologies that may have regressed			
during time away.			
Work Unit COVID-19 Plan Implementation			
<b>COVID-19 Resources</b> : Review the following COVID-19			
return to work procedures and resources with personnel:			
EHS COVID-19 Website for current procedures and			
listing of available services			
<ul> <li>Employee Guidelines for Working on Campus</li> </ul>			
<ul> <li><u>COVID-19 Supervisor Instructions</u> for assessing and</li> </ul>			
reporting suspected COVID-19 cases			
<ul> <li><u>Cloth Mask</u> guidance for universal masking</li> </ul>			
<ul> <li><u>Cleaning Guidelines</u> for Laboratory and Research</li> </ul>			
Facilities			
Cloth Mask and PPE: Distribute and review the cloth			
mask expectations with personnel as well as other PPE			
requirements as part of normal operations.			

ITEM	Complete	N/A	Notes
<b>Physical Distancing:</b> Review the plan to maintain physical			
distancing with personnel. Stagger shifts and break			
periods. Review space re-configuring plans and			
expectations for offices, work areas, break rooms, and			
meeting areas.			
Avoid Working Alone: Review the working alone criteria			
and expectations with personnel.			
Work Unit Disinfection Plan: Review the laboratory			
cleaning protocol and schedule to disinfect high touch			
surfaces and shared equipment with personnel.			