



WORKING ALONE

1. PURPOSE

1.1 This procedure sets forth a set of standards to promote awareness and facilitate safety when working alone on High or Moderate Risk activities in University of Notre Dame (UND) laboratories.

2. SCOPE

2.1 This procedure applies to High or Moderate Risk activities involving laboratory personnel working alone at the University of Notre Dame. Working alone is defined as a situation where it is unlikely that a second person will be present or within earshot of the researcher to respond to any potential emergencies.

3. RESPONSIBILITIES

3.1 Principal Investigator (PI) or supervisor:

- 3.1.1 Establish whether researchers under their supervision will be allowed to work alone. If permitted, establishes whether researchers can work alone on High or Moderate Risk activities.
- 3.1.2 Determine whether there are any activities that pose an Unacceptable Risk and are prohibited from being conducted alone (Section 4.3.2)
- 3.1.3 Comply with the UND Working Alone Procedure requirements.
 - Ensure minors are prohibited from working alone in the laboratory on High or Moderate Risk activities.
 - Document and communicate to all laboratory personnel when working alone is and is not permitted.
 - Assign a risk rating to the task being conducted alone (Appendix A).
 - Communicate the results of the risk rating to all participants who are working alone.
 - Require use of the WorkAlone App if indicated by a High or Moderate Risk Level (Appendix B).
- 3.1.4 Provide written procedures when necessary that include additional safety measures for staff and/or students working alone, in order to eliminate or minimize identified risks.
- 3.1.5 Review annually, training on Working Alone and the WorkAlone App located within the Office of Information Technology (OIT) Knowledge Base Articles [ND Safe – Using WorkAlone \(How-To\)](#) and [ND Safe – WorkAlone Responsibilities](#).

3.1.6 Submit an [Incident Report](#) for all reported working alone incidents.

3.2 Laboratory Personnel:

- 3.2.1 Obtain permission from the PI or supervisor prior to working alone.
- 3.2.2 Review safety protocols/risk mitigation with the PI or supervisor for all High or Moderate Risk activities.
- 3.2.3 Participate in determining the risk rating for the task being done alone.
- 3.2.4 Minimize the quantity of handled chemicals and materials.
- 3.2.5 Follow University and lab specific written protocols and procedures.
- 3.2.6 Understand emergency procedures and have complete all appropriate lab safety training.
- 3.2.7 Utilize appropriate risk mitigation equipment (e.g., conducting work in a hood, using the sash, using shields when needed) and strategies (e.g., avoid working in confined spaces).
- 3.2.8 Wear required Personal Protective Equipment (PPE) (e.g., gloves, lab coat, safety glasses, closed toe shoes).
 - Minimum PPE is required when personnel are in laboratories and non-laboratory spaces with hazards. PPE requirements for laboratories are stated in the [Chemical Hygiene Plan](#) (CHP) with additional resources in the [Personal Protective Equipment Procedure](#).
 - Headphones or earbuds should not be worn when working alone on High or Moderate Risk activities.
- 3.2.9 Review annually, training on Working Alone and the WorkAlone App located within the Office of Information Technology (OIT) Knowledge Base Articles [ND Safe – Using WorkAlone \(How-To\)](#) and [ND Safe – WorkAlone Responsibilities](#).
- 3.2.10 Utilize the WorkAlone App when working alone on High or Moderate Risk activities (Appendix B).
- 3.2.11 Designate an emergency contact that is a member of the Notre Dame community.
- 3.2.12 Report all working alone-related incidents immediately to their PI or supervisor. This includes, but is not limited to injuries; fires; hazardous material releases; or near misses.
- 3.2.13 Avoid, when possible, high risk activities (Appendix C).

3.3 Risk Management and Safety

- 3.3.1 Act as a resource to lab personnel regarding the risk assessment, risk level, PPE, and safe experimental practices.

- 3.3.2 Act as a resource for Safety Coordinators, PIs, Principal Lab Contacts (PLC), Managers, Supervisors, and Local Safety Committees (LSC) concerning the requirements of the Working Alone program.

4. RISK LEVELS

4.1 Low-Risk

- 4.1.1 Working alone activities where there are minimal hazards with respect to the activity and/or work environment.

4.2 Moderate Risk

- 4.2.1 Working alone activities where hazard(s) exist with the activity and/or the work environment, but the overall risk can be easily mitigated by implementing minor control measures.

4.3 High Risk

- 4.3.1 Working alone activities where there are considerable hazards with the activity and/or work environment, but the overall risk can be mitigated by implementing more intensive control measures (Appendix C).
- 4.3.2 There may be additional activities that pose an unacceptable risk where the risk cannot be easily mitigated by control measures and, as such, may be prohibited from being conducted alone. The PI makes these determinations.

4.4 Unacceptable Risk

- 4.4.1 Unacceptable risk activities include situations where there is a considerable hazard in the activity and/or the work environment, and where the risk is not minimized by adequate control measures. These may include, but are not limited to:
- Air, light, heat, mechanical shock (when struck, vibrated, or otherwise agitated) and/or water reactive materials as described by the SDS.
 - Confined space entry.
 - Live electrical work.
 - Working at a height over four (4) feet where a fall could occur.
 - Welding operations.
 - Machines and power tools that can cause critical injury (lathes, table saws, chain saws, band saws, etc.)
 - Tasks requiring more than one person.



5. TRAINING

- 5.1 All personnel working alone on High or Moderate Risk activities should review the Working Alone Procedure and WorkAlone App.
- 5.2 The training on Working Alone and the WorkAlone App is located within the Office of Information Technology (OIT) Knowledge Base Articles [ND Safe – Using WorkAlone \(How-To\)](#) and [ND Safe – WorkAlone Responsibilities](#). These documents along with the Working Alone procedure should be reviewed annually.

6. PROGRAM REVIEW / AUDIT

- 6.1 This program will be reviewed by RMS every 3 years.
- 6.2 Review date will be updated within the procedure upon review.

7. REVISION TABLE

History	Effective Date

APPENDIX A

Assign a risk rating to the activity. You can utilize the [Laboratory Risk Assessment Tool \(LabRAT\)](#) to assist in determining the risk rating.

		Severity of Consequences – Personnel Safety			
		No injuries	Minor Injury	Significant Injury	Life threatening
Likelihood of Incident Occurrence	Very Likely	Low	High *	Unacceptable **	Unacceptable **
	Likely	Low	Moderate	High *	Unacceptable **
	Possible	Low	Moderate	High *	High *
	Rare	Low	Low	Moderate	High *

Risk Rating:

The Risk Rating is subjective. The primary goal is for researchers to think about risk, and differentiate unacceptable and high-level risk steps from those with a lower level risk. This will help drive additional consultation and control measures where needed.

**High and Moderate Risk activities conducted alone should be done while using the WorkAlone App.*

***Unacceptable risk activities should be reevaluated after additional controls are put in place to determine whether they can be done alone.*

APPENDIX B

ND Safe provides a feature called WorkAlone, which allows the user to identify that they are working alone at a specific location on campus.

Once a session is started, it will prompt the user to "check in" at regular intervals to indicate they are safe. If a user fails to check in for any reason, the system will make a phone call to an emergency contact. If the emergency contact fails to respond to the phone call it will escalate to the dispatch center, resulting in a response from Notre Dame Police and Fire Departments.

WorkAlone Options

WorkAlone has four options a user can select: 'Non-Lab WorkAlone', Lab WorkAlone "Low Risk", 'Moderate Risk', and 'High Risk' which are defined below. Each option will ask a series of questions prior to clicking 'Register' to start a WorkAlone session.

Non-Lab: allows a user to identify they are working alone in any main campus location that is not a laboratory with the following questions:

- A personal emergency contact (someone who can check in with you while you are working alone) and their cell phone number
- A room and building or location they are working in
- The purpose of working alone (e.g. studying in the library, maintenance tasks, building services functions)
- The frequency they will check-in to identify that they are still safe
- The duration they will be working alone

Low Risk: allows a user to identify that they are working in a lab environment performing tasks defined as low risk. Selecting this option in the app forces the user back to the non-lab work alone option with the questions above.

Moderate Risk: allows a user to identify that they are working in a lab environment performing tasks defined as a moderate risk with the following questions:

- A personal emergency contact and their cell phone number
- A room and building in which they are working
- The material classification with which they are working
- The frequency they will check-in to identify if they are still safe
- The duration they will be working alone

High Risk: allows a user to identify they are working in a lab environment performing tasks defined as high risk with the following questions:

- A personal emergency contact and their cell phone number
- The room and building they are working in
- The material classification with which they are working



- The frequency they will check-in to identify if they are still safe (max 30 minutes)
- The duration they will be working alone

User Responsibilities

- Complete training prior to using WorkAlone by reviewing the OIT Knowledge Base Articles [ND Safe – Using WorkAlone \(How-To\)](#) and [ND Safe – WorkAlone Responsibilities](#).
- Consult with your PI for further information on what is defined as a Moderate or High Risk activity.
- When in doubt, and working in a lab, choose the 'High Risk' option.

Emergency Contact Responsibilities

- Complete training prior to using WorkAlone by reviewing the OIT Knowledge Base Articles [ND Safe – Using WorkAlone \(How-To\)](#) and [ND Safe – WorkAlone Responsibilities](#).
- Add 'ND Dispatch' with the phone number 574-631-5555 as a Contact on your phone or make sure to have this number memorized or handy to call in case there's an emergency.
- Be sure to 'press 1' (calls the user) or 'press 2' (calls ND Dispatch) as appropriate if you receive a call, otherwise the system will assume you're not responding and escalate a call to ND Dispatch.
- Be familiar with the location of the lab that the user is working in (e.g. room number and building).

PI Responsibilities

- Ensure student working alone understands risks associated with tasks being performed.
- Is available for emergencies occurring in their respective labs.
- Assists with identifying moderate and high risk tasks.

Additional WorkAlone Tips and Resources

- Make sure you're logged into ND Safe with your Notre Dame NetID credentials.
- Add 'ND Dispatch' with the phone number 574-631-5555 as a Contact on your phone to prevent unknown or blocked calls.
- Add your emergency contact as a Contact on your phone to prevent blocked calls.
- Enable WIFI calling if your device supports this feature.
- Ensure notifications in both ND Safe and your phone are enabled.
- If you use a Do Not Disturb feature on your phone, add the 'ND Dispatch' and your emergency contact to your Favorites or exceptions so you don't miss calls.
- Closing the app (force quitting) is not advised, as you will lose quick access to the 'Emergency Call', 'Check-in' and 'Cancel' buttons.
- Be sure to cancel your session when you are done working alone to avoid requests to check in.
- Do not reply to text messages with STOP or CANCEL commands to text messages as you may no longer receive these critical notices.



- If your emergency contact does not have a cell phone, you can use their landline phone, but they will only receive phone calls.
- Messaging and Data rates may apply for SMS (text) messages.
- Repeated failure to respond to check in prompts may result in loss of WorkAlone privileges.

APPENDIX C

High Risk activities may include but are not limited to:

- Use of highly toxic chemicals. For a complete list of toxic chemicals, review the [Environmental Protection Agency Toxic Release Inventory](#).
- Use of pyrophoric chemicals
- Use of highly reactive chemicals
- Use of explosive salts and chemicals
- Transferring large quantities (> 1L of class 1A, > 2L of class 1B and 1C, and > 4L of class 2 and 3) of flammable solvents
- Chemical reactions involving high pressures (> 100 psi) and/or temperatures (>350 °C) 1.3.7 large-scale (> 500 mL volume) reactions, non-routine reactions, reactions without precedent in the literature, or reactions not previously performed by the researcher
- Scaling up existing reactions from < 1g of reactant(s), < 25 mL solvent to 1-15 g of reactant(s), 25 – 500 mL solvent
- Use of radioisotopes of high specific activity; any actinide
- Use of high-energy (Class IV) ultraviolet, visible and infrared lasers
- Use of laboratory equipment that could pose a risk of entanglement, amputation or other serious bodily harm.
- Manipulations performed under high vacuum
- Heavy cryogen use in small areas
- Handling of pathogens
- Use of pressurized equipment (>100 psi)
- Use of Risk Group 3 biological agents
- Use of Risk Group 2 biological agents
- Use of high magnetic fields (dangerous for those with pacemakers)