

Coal Utilization Laboratory Emergency Evacuation Plan Penn State University

University Park Building 0022001

First and Second Floors

April 28, 2022

EMS EI CUL EVACUATION PROCEDURES

Objectives

There are five objectives to be met during an evacuation of CUL. They are:

- 1) Clear the 1st and 2nd floors of all personnel.
- 2) Identify missing EMS EI personnel.
- 3) Secure the two floors from reentry.
- 4) Transfer information to EMS EI Safety Officer and First Responders.
- 5) Transfer door monitor duties to First Responders.

To accomplish this quickly, CUL will be divided into to four areas. They are:

- 1) The east half of the bridge, east stairwell, 1st floor loading dock, and main entrance.
- 2) The west half of the bridge and west stairwell.
- 3) The New High Bay and Barrel Storage.
- 4) Coal Preparation, mechanical room, and telecom room.

EMS EI CUL personnel shall be assigned one area to clear and secure.

Areas of Refuge

The area of refuge on the first floor is the area outside of C104 CUL (The New High Bay). If necessary, retreat to the stairwell on the 2^{nd} floor of AAB. If there are no alarms sounding in AAB, use the elevator to egress through the 3^{rd} floor main entrance. The areas of refuge on the 2^{nd} floor are the areas at the tops of the stairwells. DO NOT use the elevator for egress.

General Procedures

If the fire alarm goes off, or you are ordered to evacuate CUL, follow these general procedures:

- 1) Evacuate your office leaving the lights on and the door closed and unlocked.
- 2) Someone say aloud, "Grab your keys, coat, and cash".
- 3) Take note of anything unusual during your egress (e.g., smoke, smells, sounds, etc.).
- 4) Sweep your area.

- 5) Assemble across Bigler Ave. at the Day Care Center near the playground.
- 6) Determine if anyone is missing.
- 7) Share what you observed with everybody.
- 8) Fill out the checklists and make notes on observations.
- 9) Report this information to the first responders.
- 10) Communicate this information to the monitor stationed in 201 AAB (Old High Bay) as soon as practical.
- 11) If the weather is inclement, those without further duties report to the atrium in the main entrance to Research East and await further instructions.
- 12) Communicate to the first responders that the monitor in 201AAB needs to be relieved.
- 13) Do not return to CUL until given by either the EMS EI Safety Officer, EHS personnel, or first responders.

CUL Personnel Specific Procedures

If, for any reason the following personnel cannot fulfill their duties, (e.g., they are across campus, out sick, etc.), all CUL personnel should be prepared to carry out another person's duties. Communicate to the others what tasks you will be performing. **DO NOT PERFORM THESE DUTIES IF BY DOING SO YOU PUT YOURSELF AT RISK!**

Christy English: Put on the red vest and grab the evacuation binder in C211. Sweep the bridge from C207 east. Egress down the east stairwell. Sweep the loading dock and close the door to APB. Egress to the mustering point. Report if someone needs rescued. Ensure no one reenters through the main entrance. Fill out your portion of the checklist.

Heather Harpster: Sweep west from the center of the bridge to the west. Put on the red vest in the copier room and grab the evacuation binder. Egress down the west stairwell checking the very bottom of the stairwell. Egress to the mustering point. Make sure no one reenters through the door by the trucks. Report if someone needs rescued. Fill out your portion of the checklist.

Kelly Rhoades: Put on your yellow vest. Egress down the west stairwell. Sweep the New High Bay including C104, C104A, B, and C, and the mezzanine. Exit through the door nearest Barrel Storage. Got to the mustering point.

Bruce Miller: Put on your yellow vest. Egress down the west stairwell. Sweep all of Coal Prep, the mechanical room, and the telecommunications room. Fill out your portion of the checklist, which is located on the bulletin board outside of the New High Bay. Give the checklist to Ashley Comly. Take position in the Old High Bay ensuring no one enters CUL from AAB. Wait to be relieved. Emergency egress is through 202 AAB and then through either stairwell to the outside.

Ashley Comly, egress down the west stairwell and wait for Bruce Miller's checklist. Take the checklist to the mustering point. Report if anyone needs rescued.

Jennifer Mathews: Back up for other personnel.

Ronnie Wasco: Act as liaison between EMS EI personnel and first responders.

CUL Office Personnel:

| Building | Room # | Last Name | First Name | Affiliation |
|----------|--------|-----------|------------|------------------|
| CUL | 203 | Rhoades | Kelly | Staff |
| CUL | 204 | Harpster | Heather | Staff |
| CUL | 205 | Mathews | Jennifer | Staff |
| CUL | 210 | Song | Chunshan | Director |
| CUL | 211A | McCarthy | Paige | Staff |
| CUL | 211B | Emigh | Steph | Staff |
| CUL | 213 | Miller | Bruce | Senior Scientist |

CUL Principal Investigators

| Building | Room # | Last Name | First Name | Affiliation |
|----------|--------|-----------|------------|-------------|
| CUL | 101 | Wasco | Ronnie | |
| CUL | 101A | Wasco | Ronnie | |
| CUL | 101B | Wasco | Ronnie | |
| CUL | 101C | Kapryn | Zuleima | |
| CUL | 101D | Pisupati | Sarma | |
| CUL | 101E | Wasco | Ronnie | |
| CUL | 104 | Wasco | Ronnie | |
| CUL | 104A | Rezaee | Mohammad | |
| CUL | 104B | Eser | Semih | |
| CUL | 104C | OPP | | |
| CUL | 105 | Wasco | Ronnie | |

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Introduction

Penn State University's Emergency Evacuation Plan has been designed to assist facility personnel in the creation of a system for protection of life and property in the event of a fire, explosion, spill or other emergency requiring building evacuation. This plan is designed as a template for customization and may be used by work units who are required by regulations to have such a plan. It is recommended that all university buildings that are normally occupied have an Emergency Evacuation Plan. **Note that the bracketed bold parts of the plan need to be customized.**

Implementation Guidelines and Instructions

In coordination with the unit Safety Officer, the Budget Executives and Budget Administrators shall designate a Building/Department Emergency Coordinator and Alternate Building/Department Emergency Coordinator for the facility.

The Building/Department Emergency Coordinator, in coordination with the unit safety officer shall:

- Customize the text and appendices of the plan to your facility.
- Be responsible for plan custody, storage and annual review and update.
- Ensure that training is provided for all building occupants.

The alternate Building/Department Emergency Coordinator must be prepared to assume all the duties of the Building/Department Emergency Coordinator in the event he/she in unavailable.

The specific instructions below are provided to assist in the completion of the following sections of this plan. (Sections of this plan that are self-explanatory are not listed below.)

EHS will provide training in overall plan development. Contact Steve Triebold at 814-865-6391 or via e-mail at sgt4@psu.edu, if you have any questions concerning the plan or would like assistance.

Section I - Building and Personnel Information

- For the building name, include the University-assigned name, and the common use name, if different.
- List all department(s) included in this building and plan.
- Designate Safety Monitors for specific work areas in the facility. Consideration on the appropriate number of safety monitors shall be based on employee numbers and area configuration. As an example, separate Safety Monitors may be appropriate for each floor of a building.
- Include the name of the work unit safety officer(s), and alternate(s). Refer to the following URL for a list of Safety Officers.

http://www.ehs.psu.edu/help/univ_safety_council.cfm

- Refer to instructions for Appendix II on how to select the Designated Meeting Site(s) and the Area(s) of Refuge.
- Specify location(s) where this Plan will be maintained for access to employees. This may include physical locations as well as electronic sites.

Section VI – Alerting or Signaling Building Occupants in Case of Fire or Other Emergency

• The type of evacuation alarm used within your facility may vary. You will need to identify the type(s) used, as examples, bells, horns, strobes, or voice. Contact your Facilities Coordinator or EHS (814-865-6391) for help in determining the type of alarm.

Section VIII – Disabled Occupants

- Review University Safety Policy SY02 to determine participation in the program for individuals requiring assistance during an evacuation.
- Complete the Listing of Individuals Requiring Evacuation Assistance in Appendix I.

Section IX – Critical Operations Shutdown

- Review your operations to determine which critical operating systems may require continuing attention or shutdown during an evacuation or other emergency condition. Certain equipment and processes must be shut down in stages or over time. Examples of this might be laboratory experiments, processes, or equipment that if left unattended would create an additional hazard (such as fryers), etc. In addition, certain equipment or facilities (such as safes) may need to be secured prior to evacuating. Develop a procedure to ensure that requisite actions are taken during an emergency to prevent additional hazards/worsening conditions or to maintain proper security. Ensure that you have designated personnel to address these issues, provided them with the procedure, and trained them in its use.
- Complete the Critical Operations Shut Down Procedures and Personnel Assigned Tese Responsibilities in Appendix I.

Section X: Accountability Procedures for Emergency Evacuation

Provide a listing of employees assigned to the work unit or building implementing
this plan, included in Appendix I. This listing is used to account for employees
evacuating the building and should be divided by each Safety Monitor's area of
coverage.

Appendix II – Building Evacuation Floor Plan

To prepare a Building Evacuation Floor Plan:

• Obtain a floor plan of your building from the Building Facility Coordinator to use as a base plan.

- Add to the floor plan:
 - o Primary and secondary routes of exit
 - Identify the two closest exits to the work area
 - Clearly mark these routes
 - Designated Meeting Site(s)
 - This should be a safe location outside of your building that is away from building exits, entrances, and parking and loading areas.
 - Exit locations
 - o Fire alarm pull station locations
 - o Areas of Refuge for Disabled Occupants
 - These are areas within the building for use in assisting with the evacuation of disabled occupants and visitors. These areas should be located close to an exit stairway, have windows and a phone.
 - Portable fire extinguisher locations
- Copies of the Evacuation Floor Plans should be posted within the building at:
 - o Every Floor
 - o Lobbies
 - o Elevator lobbies
 - o Corridors and other locations where exits are not readily visible.

A sample building evacuation floor plan is attached.

The Pennsylvania State University Emergency Evacuation Plan

Section I: Building and Personnel Information

Building Name: Coal Utilization Laboratory

Department Name(s): EMS Energy Institute

| Position | Name | Area of Responsibility | Phone Office/Cell | Office Address |
|---|----------------|---------------------------|----------------------|----------------------------------|
| Building/Department Emergency Coordinator | Ronnie Wasco | EMS EI | 863-5384 | 218 APB |
| Alternate Building/Department Emergency Coordinator | Kelly Rhoades | EMS EI | 863-5984 | C203 CUL |
| Unit Safety Officer | Frank Driscoll | EMS | 867-2499 | 512B Barron Innovation Hub |
| Unit Alternate Safety Officer | Diane Ault | EMS | 865-7659 | 510 Barron Innovation Hub |
| Safety Monitors | Paige McCarthy | First Floor | 863-1333 | C211A CUL |
| | Steph Emigh | Second Floor | 863-0989 | C211 CUL |
| | | | | |

Designated Meeting Site(s) for Building are: Across Bigler at Day Care Center playground. If inclement weather, proceed to Research East Building Entry Foyer, Plaza Level.

Designated Areas of Refuge for the Building are 2nd floor Eastern Stairwell, 2nd floor Western Stairwell; 1st Floor F101 Foyer.

Copies of this Evacuation Plan are kept in the following locations Desk, C211 CUL, West Desk C201 CUL.

| | April 28, 2022 | |
|----------------------------|----------------|--|
| Signature of Plan Preparer | Date Prepared | |

Section II: Emergency Phone Numbers

EMERGENCY (Police-Fire-Ambulance) 911

University Police 814-863-1111

University Health Services 814-865-6556

Environmental Health and Safety (814) 865-6391

Physical Plant Work Reception Center 814-865-4731

Section III: Purpose and Objectives

Potential emergencies such as fire, explosion, spill, chemical releases and all other emergencies may require employees to evacuate the building. An Emergency Evacuation Plan and adequate occupant familiarity with a building minimize threats to life and property. This Emergency Evacuation Plan is intended to communicate the policies and procedures for employees to follow in an emergency situation. This written plan should be made available, upon request, to employees and their designated representatives by the Building/Department Emergency Coordinator or the Unit Safety Officer for the building.

Section IV: General Guidelines

The following guidelines apply to this Emergency Evacuation Plan:

- Stairwells are the primary means for evacuation. Elevators are to be used only when authorized by a fire or police officer.
- No employee is permitted to re-enter the building until advised by the Fire Department, PSU Police or EHS Representative.
- This Emergency Evacuation Plan will be coordinated with efforts in multiple-use buildings. Mutually beneficial agreements can be reached regarding Designated Meeting Sites and shelter in the event of inclement weather.

Section V: Responsibilities of Building/Department Emergency Coordinator and Safety Monitors

The Building/Department Emergency Coordinator is responsible for:

- 1. In conjunction with the unit Safety Officer, designating Safety Monitors and alternate Safety Monitors for specific work areas in the facility.
- 2. Overseeing the development, communication, implementation, and maintenance of the Emergency Evacuation Plan.
- 3. Ensuring that floor plans and route evacuation maps are posted.
- 4. Ensuring the training of building occupants, Safety Monitors, and Critical Operations Personnel, and notifying all personnel of changes to the plan.

- 5. Maintaining up to date lists of building occupants for each Safety Monitor's area of coverage, Critical Operations Personnel, Listing of Individuals requiring Evacuation Assistance and any other personnel with assigned duties under this plan. Lists are included in Appendix I.
- 6. In the event of a fire or other emergency, relaying applicable information to emergency personnel, occupants, and Safety Monitors.

The Safety Monitors are responsible for:

- 1. Familiarizing personnel with emergency procedures.
- 2. Acting as liaison between management and their work area.
- 3. Knowing where their Designated Meeting Site is and for communicating this information to occupants.
- 4. Ensuring that disabled persons and visitors are assisted in evacuating the building or moved to a predetermined staging area (Area of Refuge).
- 5. Performing responsibilities to ensure that all persons are accounted for during an evacuation as identified in Section X.
- 6. Evaluating and reporting problems to the Building/Department Emergency Coordinator after an emergency event.
- 7. Posting the "Building Evacuation Floor Plan" (Appendix II) in their work areas, communicating plan to occupants, and updating the plan annually.

Section VI: Alerting or Signaling Building Occupants in Case of Fire or Other Emergency

- 1. In case of a fire, employees should actuate the nearest fire alarm pull station and/or make a telephone call to 911. The locations of the fire alarm pull stations are noted on the Building Evacuation Floor Plans in Appendix II. The [designate the type of audible alarm in use] ____ Horns ____ alarm alerts building occupants of the need for evacuation and sends a signal to the PSU Police Dispatch Center that there is an alarm condition in the building.
- 2. It may be necessary to activate additional fire alarm pull stations, or verbally announce the alarm, if people are still in the building and the alarm has stopped sounding, or if the alarm does not sound. This should be done while exiting the building.
- 3. Persons discovering a **fire**, **smoky condition**, **or explosion** should pull the nearest fire alarm pull station. Any pertinent fire or rescue information should be conveyed to 911. All emergency telephone numbers are listed at the beginning of this Emergency Evacuation Plan.
- 4. To report all emergencies, employees should call 911. State you name, your location, and the nature of the call. Speak slowly and clearly. Wait for the dispatcher to hang up first. On occasion the dispatcher may need additional information or may provide you with additional instructions. Make this call from a safe location.

Section VII: Evacuation Procedures for Building Occupants

- 1. When the fire alarm sounds, occupants should ensure that nearby personnel are aware of the emergency, quickly shutdown operating equipment (e.g., compressed gas cylinders), close doors (DO NOT LOCK) and exit the building using the established evacuation routes.
- 2. Occupants shall assist visitors, students and others who are not familiar with the plan to safely evacuate.
- 3. If you have been identified as having responsibility for Critical Operations Shutdown, refer to Section IX.
- 4. All occupants should proceed to their Designated Meeting Site and await further instructions from their Safety Monitor.
- 5. All personnel should know where primary and alternate exits are located, and be familiar with the various evacuation routes available. Floor plans with escape routes, alternate escape routes, exit locations and Designated Meeting Sites are located in Appendix II and are posted in the building.
- 6. Building occupants must NOT use elevators as an escape route in the event of a fire.

Notes and Precautions:

- Portable fire extinguishers can be used for small fires. However, an immediate readiness to evacuate is essential.
- Never enter a room that is smoke filled.
- Before opening doors check to ensure it is not hot to the touch. If hot do not open. If warm open slowly to check room / hallway conditions.

Section VIII: Disabled Occupants

Employees requiring assistance upon exiting are listed in Appendix I however there may be disabled visitors in the building that also require assistance. The Safety Monitor must identify individuals needing assistance, attempt to locate individuals to assist in the evacuation or in relocating to the Area of Refuge, and notify the emergency response personnel of the person's location. Transporting of disabled individuals up or down stairwells should be avoided until emergency response personnel have arrived. Unless imminent life-threatening conditions exist in the immediate area occupied by a non-ambulatory or disabled person, relocation of the individual should be limited to a safe area on the same floor, in close proximity to an evacuation stairwell. Within the room there should be provided a flashlight, towel for hanging out window or bright colored marker to mark windows that cannot be opened.

Penn State University Safety Policy SY02 "Handicapped Identification Decals for Individuals Requesting Assistance" is a voluntary procedure to provide visual

identification of an employees work area for emergency responders and to provide PSU Police with information for prompt evacuation assistance.

Section IX: Critical Operations Shutdown

Critical Operation Shutdown: Critical operations, including equipment that must be shut off and persons designated to complete these actions are identified in Appendix I. Procedures for rapid shutdown should be predetermined for life safety and loss control purposes, as well as ensuring complete evacuations in a timely manner. Individuals should never jeopardize their own health and safety to complete the Critical Operations Shutdown.

Section X: Accountability Procedures for Emergency Evacuation

Once each evacuated group of employees has reached their Designated Meeting Site, each Safety Monitor shall:

- 1. Take head count of his or her group using the building occupant list for those employees in their area of coverage
- 2. Assume the role of department contact to answer questions
- 3. Instruct personnel to remain in area until further notice
- 4. Report status to Building/Department Emergency Coordinator or Incident Commander including persons who are located in the Area of Refuge or have remained behind for Critical Operations Shutdown.

Section XI: Rescue and Medical Duties

The Fire Department and University Police will conduct all rescue and medical duties and/or will coordinate with Emergency Medical Services.

Section XII: Training and Communications

The Building/Department Emergency Coordinator is responsible to ensure that all personnel are trained in safe evacuation procedures. Refresher training is required whenever the employee's responsibilities or designated actions under the plan change, and whenever the plan itself is changed.

The training shall include:

- The plan's purpose,
- Preferred means of reporting fires and other emergencies,
- The type of building alarm system,

- Emergency evacuation procedures and route assignments, including procedures for those unable to evacuate themselves,
- Procedures to be followed by employees who remain to control Critical Operations Shutdown before they evacuate,
- Procedures to account for all employees after emergency evacuation has been completed, and
- Who performs rescue and medical duties?
- The training shall include use of the floor plans and evacuation routes given in Appendix II of the Emergency Evacuation Plan.

Training on the Emergency Evacuation Plan can be performed during events such as work unit new employee orientation, employee briefings, discussions at faculty/staff meetings, internal work unit newsletters and emails, etc.

It is suggested that drills be conducted annually. EHS is available to assist with tools for training building occupants in the Emergency Evacuation Plan as well as evacuation drills.

Work units may also choose to provide Evacuation Quick Reference Cards for employees. These cards provide essential information on emergency contacts and designated meeting sites. A sample card is provided in Appendix III and can be customized as needed.

Appendix I

1. Critical Operations Shut Down Procedures and Personnel Assigned These Responsibilities

No critical shut down needs for CUL.

2. Work Unit Employee Lists

Provide the following information for each Safety Monitor:

• 2nd floor CUL, Cristy English, Rooms C201 through C221 CUL. Station: From location available, Line-of-sight to door G107 CUL.

1st floor CUL, Bruce Miller, C101 and C104, prevent entry into CUL from AAB. Station: Line-of-sight from 201 AAB to F101 CUL.

Door Z101: Heather Harpster, Line-of-sight from mustering point to Z101 to prevent reentry to CUL.

Office personnel:

| Building | Room # | Last Name | First Name | Affiliation |
|----------|--------|-----------|------------|------------------|
| CUL | 203 | Rhoades | Kelly | Staff |
| CUL | 204 | Harpster | Heather | Staff |
| CUL | 205 | Mathews | Jennifer | Staff |
| CUL | 210 | | | Director |
| CUL | 211A | McCarthy | Paige | Staff |
| CUL | 211B | Emigh | Steph | Staff |
| CUL | 213 | Miller | Bruce | Senior Scientist |

3. Listing of Individuals Requiring Evacuation Assistance

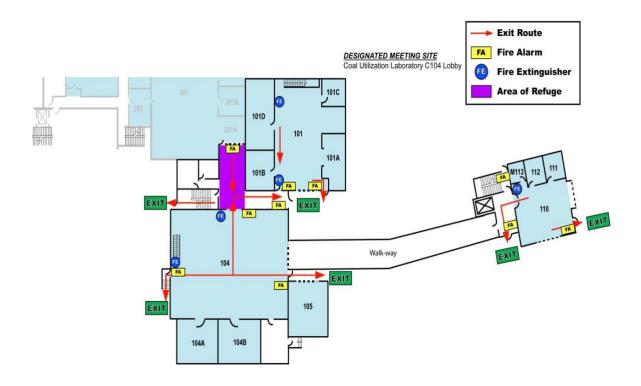
Provide the following information:

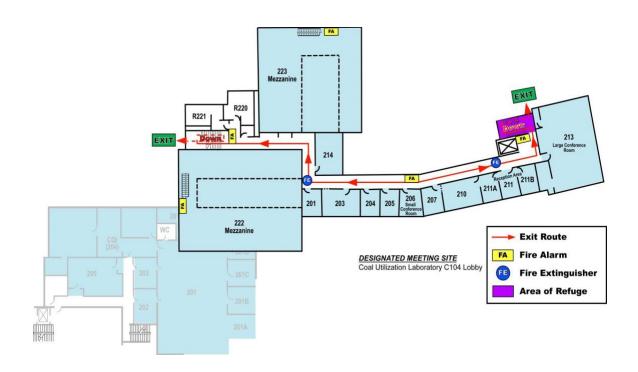
- Name
- Work Area
- Special Needs/Concerns

None

Appendix II

Building Evacuation Floor Plan





Appendix III

Evacuation Quick Reference Card

Emergency Contacts:

911 (Police- Fire –Ambulance) University Police: 863-1111

Environmental Health and Safety: 865-6391 OPP Work Reception Center: 865-4731

Evacuation Contacts:

Bldg / Dept Emergency Coordinator:

Ronnie Wasco

Safety Monitors: Kelly Rhoades

Work Unit Name

Evacuation Quick Reference

- Quickly exit in a calm manner.
- Close doors **Do Not** lock
- Assist visitors to evacuate
- **Do Not** use elevators
- Report to designated meeting site
- **Do Not** reenter the building until advised by emergency personnel or safety monitor

<u>Building Name</u> designated meeting site: Across Bigler Ave. at the Day Care Center playground.