#### 1. PURPOSE

The purpose of this program is to establish procedures to manage the demolition and removal of asbestos containing material at University of Louisville facilities in order to protect employees, students, visitors, contractors and the environment.

It is designed to comply with the requirements of OSHA 29 CFR 1910.1001 Asbestos Standard, OSHA 29 CFR 1926.1101, EPA 40 CFR 61.145 Standard for Demolition and Renovation, and the Jefferson County Air Pollution Control District Asbestos Program.

### 2. SCOPE

This program and procedure applies to University of Louisville employees, students, contractors, sub-contractors, their employees, and all visitors while on U of L owned property and/or worksites.

Asbestos is present in several building at the University. Normal airborne concentrations are below the TWA PEL. As a result, monitoring may be required only for demolition and renovation activities. Not all asbestos containing materials are labeled.

Prior to beginning and renovation, remodeling or demolition project involving a University owned building an Asbestos Survey and testing must be completed following APCD Requirements.

### 3. **DEFINITIONS**

ACM - Asbestos Containing Material.

APCD - Air Pollution Control District.

**DEHS** – Department of Environmental Health and Safety.

**Demolition** – The wrecking or taking out of any load-supporting structural member of a facility together with any related handling operations or the intentional burning of a facility.

**Emergency** - (NESHAP defined ) a demolition/renovation operation that was not planned but results from a sudden, unexpected event that, if not immediately attended to, presents a safety or public health hazard, is necessary to protect equipment from damage, or is necessary to avoid imposing an unreasonable financial burden.

HAP - Hazardous Air Pollutant.

**NESHAP** - National Emission Standard for Hazardous Air Pollutants.

**PACM** – Presumed asbestos containing material.

**PEL** - Permissible Exposure Limits.

**PPE** – Personal protective equipment.

**Renovation** – Altering a facility or one or more facility components in any way, including stripping or removal of Regulated Asbestos Containing Material from a facility component. Operations in which load-supporting structural members are wrecked or taken out are demolitions.

**TWA** – Time Weighted Average.

#### 4. RESPONSIBILITIES

### The DEHS department will:

- Administration of the Asbestos Management Program
- Periodically review and update program as needed
- Assist in the selection of a blanket permit oversight contractor to manage annual permits
- Provide oversight to verify program compliance
- Schedule quarterly meetings with Physical Plant and blanket permit oversight contractor
- Complete annual waste profile with Waste Management
- Proved assistance as needed

### The Physical Plant department will:

- Manage all abatement projects
- Follow permit and program requirements
- Inform the Oversight Contractor the quantity, location and types of asbestos removed by Physical Plant (Certified Operations and Maintenance personnel) by the fifth of the following month
- Schedule and complete asbestos abatement as required by APCD Regulations
- Schedule training for department employees
- Maintain employee certifications
- Ensure only trained employee conduct abatement projects
- Use qualified contractors as needed
- Identify and label ACM/PACM
- Notify DEHS with concerns or program modifications
- Maintain all compliance documentation

### U of L employees and students will:

- Notify Physical Plant whenever there are any demolition or renovation projects
- How does this apply to UPDC, HSC, Athletics and Foundation Buildings
- Notify DEHS when there are any concerns.
- Not disturb any labeled ACM.

### The Blanket Permit Oversight Contractor will:

- Maintain blanket permits (Appendix A)
- Maintain amount of asbestos removed under each permit
- Submit twenty four (24) hour notifications to APCD
- Submit monthly Blanket Reports to the APCD by the 15<sup>th</sup> of each month
- Ensure waste profile has been submitted to Waste Management Inc.

#### Contractors that remove asbestos will:

- Be a licensed contractor for removal of ACM/PACM in the state of Kentucky
- Follow all applicable Federal, State and Local Requirements (APCD)
- Follow the University of Louisville program
- Maintain insurance required by the University

#### 5. PROCEDURE

### **Demolition/Renovation Procedure**

Prior to beginning renovation, remodeling or demolition involving a University owned building an Asbestos Survey must be completed following APCD Requirements to verify that ACM or PACM will not be disturbed. The survey will be completed and documented by an accredited Asbestos Inspector certified in the state of Kentucky. Appendix B Table 3, contains a list of all U of L approved providers for asbestos related services.

If the abatement project exceed the permit limit or does not fall under one of the current Permits, then an Asbestos Demolition and Renovation Form (APCD Form 272) must be submitted to the APCD ten (10) working days before starting asbestos removal or other work that would disturb ACM/PACM.

### **Emergency Removal Procedure**

In the event of an emergency removal that is greater than 160 SF, Physical Plant will ensure that the contractor conducting the removal will complete and submit an Emergency Notification the "next business day" to the APCD. The emergency must meet the definition of and emergency.

The written justification will be written on University letterhead. The justification must include:

- Date and hour of emergency
- Description of sudden and unexpected event
- Explanation stating how event causes:
  - Endangers public health and safety
  - Damage to equipment, or
  - Unreasonable financial burden.

Justification will be submitted to APCD:

- ASAP, but
- No later than one working day after emergency.

### **Removal Methods**

Removal methods will follow regulatory requirements.

#### **Personal Protective Equipment**

Personal protective equipment will be worn as required depending on the type of work to be performed. PPE could include respiratory protection, hand, head, full body clothing/coveralls and eye/face protection. University employees that wear respiratory protection will be enrolled in the Respiration Protection program. Contaminated clothing will be collected and properly disposed of.

### **Medical Surveillance**

Medical surveillance may be required for covered employees. This could include annual physicals, pulmonary function test and chest x-ray. This would be completed by a physician.

### **Monitoring**

Area and personal monitoring will be conducted as required by regulations.

Area clearance sampling will be required for all abatements containing friable asbestos.

Employee personal monitoring will be conducted as required by regulations. Employees will be notified of results within 15 working days after the receipt of results.

### **Communication of Hazards**

### Warning signs will:

- Be posted at the entrance to mechanical rooms/areas in which employees reasonably can be expected to enter and which contain ACM/PACM.
- Be posted that identify the material which is present, its location, and appropriate work practices which to be followed to ensure that ACM and/or PACM will not be disturbed.
- Have the following legend:

DANGER
ASBESTOS
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS
AUTHORIZED PERSONNEL ONLY

### Warning labels shall:

- Be affixed to all raw materials, mixtures, scrap, waste, debris, and other products containing asbestos fibers, or to their containers.
- Identify previously installed ACM/PACM.
- Be affixed or posted so that employees will be notified of what materials contain ACM/PACM.
- Be located where they will clearly be noticed by employees who are likely to be exposed, such as at the entrance to mechanical room/areas.
- Signs may be posted in lieu of labels so long as they contain the information required for labeling.
- Be placed on bags or containers of protective clothing and equipment, scrap, waste, and debris containing asbestos fibers.
- Include the following information:

DANGER
CONTAINS ASBESTOS FIBERS
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS
DO NOT BREATHE DUST
AVOID CREATING DUST

### Recordkeeping

Copies of all surveys, permits and waste disposal documents will maintained by Physical Plant.

DEHS will maintain all archived asbestos related documentation.

### Program Review

A quarterly oversight review will be conducted. The review will include Physical Plant, Permit Oversight Contractor and DEHS. The review will include the following:

- Monthly reports (Submitted by permit oversight contractor to APDC)
- Completed jobs (by Physical Plant)
- Training and certification status
- Permit renewal status

### 6. TRAINING

Training will be provided to each employee that could exposed to airborne concentrations of asbestos at or above the PEL and/or excursion limit in accordance with the requirements of this section. Training will meet regulatory requirements.

Training will be to the level required by their exposure, task or responsibility. It will be provided initially and annually thereafter. Table 1, Training Level by Task, shows the training level required by task performed.

**Table 1: Training Level by Task** 

Table 1: Italining Level by Task							
Task	Training Level	Initial	Annual	State Certification			
Collect sample for testing	Asbestos Inspector	3 days	4 hrs.	Yes			
Conduct inspections	Asbestos Inspector	3 days	4 hrs.	Yes			
Supervise operations	Asbestos Contractor/Supervisor	5 days	8 hrs.	Yes			
Maintenance or repair activities of less than one glove bag, 1 waste bag or 5 sq. ft.	Asbestos Operation & Maintenance	2 days	4 hrs.	N/A			
Work around or possible exposure to ACM/PACM	Asbestos Awareness	2 hrs	2 hrs	No			

State certification is required for all levels of training except Asbestos Awareness. Once training has been completed, a certificate of completion will be sent by Physical Plant to the Commonwealth of Kentucky Department of Environmental Protection Division of Air Quality for licensing. A copy of all University employees holding licenses will be submitted to DEHS.

Custodial operations and others in Physical Plant that have the potential for exposure in an areas containing ACM or PACM will receive Awareness Training initially and annually. Awareness training will contain the following training:

- health effects of asbestos
- locations of ACM and PACM in the building/facility
- recognition of ACM and PACM damage and deterioration
- requirements in this standard relating to housekeeping
- proper response to fiber release episodes

Contractors will be informed of the possible presence of ACM/PACM within University buildings.

### 7. DOCUMENTATION

It is the Physical Plant's responsibility to maintain all documentation as required by regulations. The selected Blanket Permit Contractor will maintain the permits and monthly reports and any other documentation required under their contract. Copies of the permits and monthly reports will be sent to Physical Plant and DEHS. Files may be kept electronically provided that are backed up prior to the destruction of the written document.

The following documents are required for compliance with this program and on file with Physical Plant:

- 1. Written program (Most recent)
- 2. Monitoring records (Indefinite)
- 3. Employee monitoring/exposure records (Duration of employment plus 30 years)
- 4. Employee notification of monitoring results (Duration of employment plus 30 years)
- 5. Completed Blanket Monthly Reports (Indefinite)
- 6. Completed Demolition Release Forms (When applicable)(Indefinite)
- 7. Asbestos Removal Permits (Indefinite)
- 8. Emergency Renovation letters (Indefinite)
- 9. Training records (Five years)
- 10. Copies of waste profile with Waste Management Inc. (Most recent)
- 11. Copies of State Certifications (University of Louisville employees only; Most recent)
- 12. Copy of current State Facility Certificate (Most recent)

### 8. REFERENCES

### 29 CFR 1910.1001 Asbestos

https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1001

### 40 CFR 61.145 Standard for Demolition and Renovation.

https://www.ecfr.gov/cgi-bin/text-

idx?SID=6aa9e367e9590acc11db5186faa1ed55&mc=true&node=se40.10.61 1145&rgn=div8

### **Kentucky Department for Environmental Protection**

http://air.ky.gov/Pages/AsbestosInformation.aspx

### **Kentucky State Licensing Information**

http://air.ky.gov/SiteCollectionDocuments/General Asbestos Licensing Information.pdf

### **APCD Asbestos Program**

https://louisvilleky.gov/government/air-pollution-control-district/asbestos-program

#### **APCD Permit Fees**

https://louisvilleky.gov/file/20180604-fee-table-fy2019pdf

#### **APCD Asbestos Abatement Documents**

https://louisvilleky.gov/sites/default/files/air pollution control district/documents/regulations/5 13fv 1.pdf

### **Asbestos Permit Application Forms**

https://louisvilleky.gov/government/air-pollution-control-district/apcd-permit-application-forms#aAsbestos

### Form 272 - Asbestos Notification Form

APCD asbestos demolition and renovation notification form (to be filed at least 10 working days before starting the removal or disturbance of asbestos-containing material)

https://louisvilleky.gov/sites/default/files/air\_pollution\_control\_district/documents/forms/permit/form-272-asbestos-notification-20160321.doc

### Form 272E - Blanket Permit Monthly Report Form

APCD blanket permit monthly reporting form (to be submitted to the District no later than the 15th day of the following month)

https://louisvilleky.gov/sites/default/files/air pollution control district/documents/forms/permit/form-272e-blanket-reporting-20160321.doc

### **Demolition Release Form**

APCD demolition release/notification form, to be submitted after removal of all asbestos containing material under an APCD permit or submission of proof that no such material is present.

https://louisvilleky.gov/sites/default/files/air pollution\_control\_district/documents/forms/permit/dem\_olition-release-form-20160321.doc

### 9. APPENDICES

### Appendix A – List of University of Louisville Asbestos Removal Permits

DEHS will maintain annual permits for the removal of asbestos and current totals of asbestos removed under each permit. Current permits are on file with the DEHS department. Table 2 is a list of all asbestos abatement permits that are maintained by the University. A new permit must be obtained when the removal limit for the approved permit has been exceeded.

**Table 2: List of University of Louisville Asbestos Removal Permits** 

Location	Туре	Removal Limits	Туре	Material	Method
Belknap	Friable	1,500 sq. ft.	Friable	Pipe Insulation	Glovebag
Belknap	Non-friable	3,000 sq. Ft.	Category 1 or 2	Flooring &	Wet
				Mastic	
Health Science	Friable	1,500 sq. ft.	Friable	Pipe Insulation	Glovebag
Center					
Health Science	Non-friable	3,000 sq. Ft.	Category 1 or 2	Flooring &	Wet
Center				Mastic	
Shelby	Non-friable	3,000 sq. Ft.	Category 1 or 2	Flooring &	Wet
				Mastic	

# **Appendix B - Approved Contractors**

Companies listed in Table 3 below are approved by the University to provide asbestos related services for the University.

**Table 3: Approved Contractors** 

Service	Vendor	Contact	Phone
Abatement	NEC (National Environmental	Neil Stamp	502-553-3850
	Contracting, Inc.)	Bryan Daub	502-550-0702
		Jimmy Branson	502-299-7836
		Office	502-261-0800
Abatement	ROMAC	Joe Webster	502-361-7333
			502-550-5092
Air Clearances	Environmental Concerns	Pete Gibson	502-458-4499
			502-593-3046
Air Clearances	Environmental Health Management	Doug Peters	502-541-4697
			502-454-8530
Courier Services	Errands Express		502-327-8933
Laboratory	McCall and Spero		502-244-7135
Surveys	Environmental Concerns	Pete Gibson	502-458-4499
			502-593-3046
Surveys	Environmental Health Management	Doug Peters	502-541-4697
			502-454-8530
Training	Environmental Training Concepts Inc.	Steve Swift	502-640-2951