

Contents

I.	Abbreviations and Definitions	2
II.	Applicable Regulations	2
III.	Introduction	3
IV.	Purpose	4
V.	Scope	4
VI.	Hazard Communication	4
VII.	Responsibilities	5
Α.	. Managers/Supervisors – Facilities, IT, etc	5
В.	. Building Environmental Services Manager/Supervisor	5
C.	Project Manager/Contract Initiator	5
D	Environmental Health and Safety	6
VIII	Required Training	6
IX.	Limits to Class I-II Work at NCCU	7
X.	Warning Signs	7
Α.	. Regulated Areas	7
В.	Products and Waste	8
C.	. Work Area Warning Signs	8
	1. TSI	9
	2. Surfacing material	9
XI.	Medical Surveillance	9
XII.	Exposure Assessment and Monitoring	9
XIII	Control Measures and Mitigations	10
Α.	. Engineering and Work Practice Controls	10
В.	Respiratory Protection	11
C.	Protective Clothing and Equipment	11

Approved: March 15, 2022 Approved by: K. Long-Witter

NORTH CAROLINA CENTRAL UNIVERSITY • 1801 FAYETTEVILLE STREET • DURHAM, NC 27707 EMAIL ehs@nccu.edu • TELEPHONE 919-530-7125

https://nccu.edu/administration/administration-and-finance/environmental-health-and-safety



XIV.	Recordkeeping	12
XV.	Complaints	12

I. Abbreviations and Definitions

ACM	Asbestos containing material
ACBM	Asbestos Containing Building Material
	ACM found in or on interior structural members or other parts of a building
OSHA	Occupational Safety and Health Administration
PACM	Presumed asbestos containing material
PEL	Permissible Exposure Limits

- Time-Weighted Average (TWA)—The employer shall ensure that no employee is exposed to an airborne concentration of asbestos in excess of 0.1 fiber/cubic centimeter of air (0.1 f/cc) as averaged over an 8-hour day.
- Excursion Limit (EL)—The employer shall ensure that no employee is exposed to an airborne concentration of asbestos in excess of 1.0 fiber per cubic centimeter of air (1 f/cc) as averaged over a sampling period of 30 minutes

Friable Also called "non-intact" and refers to an ACM that has been crumbled, pulverized or otherwise deteriorated so that the asbestos is no longer likely to be bound with its matrix.

TSI Thermal system insulation

Material applied to pipes, boilers, tanks, ducts, etc. to prevent heat loss, heat gain, or water condensation

II. Applicable Regulations

At NCCU, occupational exposure to asbestos may exist for employees whose jobs require them to potentially disturb or otherwise be exposed to ACM. This type of work is regulated under 29CFR 1910.1001, General Industry Standard.

Any work with ACM that would fall under 29 CFR 1926.1101 the Construction Standard is provided by contractors whom provide health and safety oversight and regulatory compliance for their construction

Approved: March 15, 2022 Approved by: K. Long-Witter

NORTH CAROLINA CENTRAL UNIVERSITY • 1801 FAYETTEVILLE STREET • DURHAM, NC 27707 EMAIL ehs@nccu.edu • TELEPHONE 919-530-7125

https://nccu.edu/administration/administration-and-finance/environmental-health-and-safety



sites.

The NC Asbestos Hazard Management Program (AHMP) is established under N.C. General Statute §130A-444 through 452 - Asbestos Hazard Management. NC Administrative Code is contained within 10A NCAC 41C .0601 - Asbestos Hazard Management Program

The AHMP Rules adopt the National Emission Standards for Hazardous Air Pollutants (NESHAP) relating to asbestos demolition and renovation by reference. These regulations may be found at 40 CFR Part 61, Subpart M - National Emission Standard for Asbestos (40 CFR 61-141-157).

The AHMP Rules adopt the Asbestos Hazard Emergency Response Act (AHERA) relating to the management of asbestos containing materials in schools. The AHERA regulation may be found at 40 CFR Part 763, Subpart E - Asbestos-Containing Materials in Schools.

The North Carolina Asbestos Hazard Management Program is administered by the Health Hazards Control Unit of the NC Department of Public Health.

The State of North Carolina State Construction Office also provides <u>Asbestos Abatement Guidelines and Policies</u> for state-owned properties.

III. Introduction

Asbestos is a widely used, mineral-based material that is resistant to heat and corrosive chemicals. Depending on the chemical composition, fibers may range in texture from coarse to silky. Asbestos fibers enter the body by inhalation of airborne particles or by ingestion and can become embedded in the tissues of the respiratory or digestive systems. Years of exposure to asbestos can cause numerous disabling or fatal diseases including: asbestosis, lung cancer; mesothelioma; and gastrointestinal cancer.

Asbestos-containing material (ACM) may be present in some older buildings on campus. According to the <u>U.S. Environmental Protection Agency</u>, ACM "that is in good condition and left undisturbed is unlikely to present a health risk." Managing asbestos in place and maintaining it in good repair is often the best approach.

The State Construction Office policy on asbestos-containing materials found in state owned buildings is as follows:

Approved: March 15, 2022 Approved by: K. Long-Witter

NORTH CAROLINA CENTRAL UNIVERSITY • 1801 FAYETTEVILLE STREET • DURHAM, NC 27707 EMAIL ehs@nccu.edu • TELEPHONE 919-530-7125

https://nccu.edu/administration/administration-and-finance/environmental-health-and-safety



If asbestos-containing material is in good condition and will not be disturbed during renovation, the material may be left in place and the owner will continue the upkeep and maintenance of the material. If asbestos-containing material is to be disturbed during renovation and/or demolition activities, then it shall be removed. The asbestos-containing material removal shall be designed and abated by accredited individuals.

ACM may be present in flooring, ceilings, walls, thermal system insulation on pipes and tanks, and other miscellaneous items. Manufacturers have used asbestos fibers in a wide range of goods, including roofing shingles, ceiling and floor tiles, paper and cement products, textiles, coatings, and friction products such as automobile clutch, brake, and transmission parts. Buildings constructed prior to 1981 are presumed to have ACM unless sampling and analysis indicates otherwise.

IV. Purpose

The purpose of the NCCU Asbestos Control Program is to 1) manage ACM in NCCU buildings to minimize personnel and environmental exposure, 2) ensure compliance during removal and disposal of ACM by contractors from the NCCU campus and 3) ensure document retention according to regulation.

V. Scope

The General Industry Standard covers employees whose jobs require them to potentially disturb or otherwise be exposed to ACM.

VI. Hazard Communication

Employees engaged in activities in public buildings with ACM may be exposed to asbestos fibers. General Industry Asbestos Standard 29 CFR 1910.1001 requires building owners and employers to communicate the following practices:

• In buildings built before 1980, treat thermal system insulation (TSI) and sprayed-on and troweled-on surfacing materials as asbestos-containing materials, unless properly analyzed and found not to contain more than 1 percent asbestos.

Approved: March 15, 2022 Approved by: K. Long-Witter

NORTH CAROLINA CENTRAL UNIVERSITY • 1801 FAYETTEVILLE STREET • DURHAM, NC 27707 EMAIL ehs@nccu.edu • TELEPHONE 919-530-7125

https://nccu.edu/administration/administration-and-finance/environmental-health-and-safety

- Treat asphalt and vinyl flooring materials installed no later than 1980 as asbestos-containing, unless properly analyzed and found to contain no more than 1 percent asbestos.
- Inform employers of employees performing housekeeping activities of the presence and location of asbestos containing materials and presumed asbestos-containing materials that may have contaminated the area.

In addition, building owners must keep records of the presence, location and quantity of asbestos-containing materials and presumed asbestos-containing materials present in buildings for the duration of ownership and transfer these records to a successive owner.

VII. Responsibilities

- A. Managers/Supervisors Facilities, IT, etc.
- Determine which direct reports are covered by the Standard and provide EHS with an updated list as personnel are added/removed.
- Ensure that new hires who are covered by this Standard complete the 2-hour Asbestos Awareness Course within 90 days of being hired and annually thereafter
 - B. Building Environmental Services Manager/Supervisor
- Recognize potential asbestos hazards and report hazards to EHS
- Provide ongoing training to employees on how to properly handle and report an emergency where building materials become damaged
 - Require employee to assume the material as ACM unless it is documented as a nonasbestos containing material or as one of the following non-suspect materials: glass, metals, kiln brick, cement, fiberglass, concrete, pressed wood, concrete masonry units (CMU unpainted), or rubber.
 - C. Project Manager/Contract Initiator
- Construction, demolition, and renovation projects shall include an asbestos inspection to assess the presence of ACM and the potential for disturbance during the work phase of the project.
- Initiate and route the <u>Asbestos Project Form</u> for all contracted work involving sampling/assessment, abatement, removal, encapsulation or any other asbestos work.

Approved: March 15, 2022 Approved by: K. Long-Witter

NORTH CAROLINA CENTRAL UNIVERSITY • 1801 FAYETTEVILLE STREET • DURHAM, NC 27707 EMAIL ehs@nccu.edu • TELEPHONE 919-530-7125

https://nccu.edu/administration/administration-and-finance/environmental-health-and-safety



D. Environmental Health and Safety

- Conduct Asbestos Awareness Training, both initial and refresher courses
- Facilitate inspections upon request to determine the presence of ACM prior to the disturbance of the materials.
- Annually review the Asbestos Control Program and incorporate any changes or additions to the program.
- Respond to all calls or complaints concerning asbestos containing materials. All complaints shall be
 documented in writing and the measures taken to correct the problem.

VIII. Required Training

Employers must provide an awareness training course for employees who conduct operations in facilities where asbestos-containing materials or presumed asbestos-containing materials are present. This training must be held annually and conducted so that all employees understand it.

This training is available on the **EHS website**.

All training materials must be available to the employees without cost and, upon request, to the commissioner of labor or designee.

Awareness Training

The NCCU two-hour Asbestos Awareness Training includes:

- Asbestos types and uses
- Heath effects from asbestos exposure
- Examples of materials located on campus
- Hazard communication training and signs / label requirements
- How to recognize friable asbestos
- Recognizing damage and deterioration of ACM
- Precautions to prevent or minimize personnel exposure
- Housekeeping requirements including floor care

All training records are maintained by Environmental Health and Safety.

Approved: March 15, 2022 Approved by: K. Long-Witter

NORTH CAROLINA CENTRAL UNIVERSITY • 1801 FAYETTEVILLE STREET • DURHAM, NC 27707 EMAIL ehs@nccu.edu • TELEPHONE 919-530-7125

https://nccu.edu/administration/administration-and-finance/environmental-health-and-safety



IX. Limits to Class I-II Work at NCCU

Work that involves the abatement or cleanup of ACM shall be performed by an outside, licensed asbestos abatement contractor through Facilities Operations.

If any asbestos removal or abatement services are to be performed, they will be done by a properly trained and licensed contractor and NOT by NCCU personnel. Contractors will provide their employees with all required medical surveillance and monitoring.

The Asbestos Project Form will be initiated by any person who contracts with a vendor for work involving sampling/assessment, abatement, removal, encapsulation or any other asbestos work.

X. Warning Signs

A. Regulated Areas

Whenever a situation arises in which airborne concentrations of asbestos exceed the PEL and/or EL, a regulated area must be established and set apart. Within the regulated area, only authorized personnel may enter, all persons entering must be supplied with and are required to use an appropriate respirator, no smoking, eating, drinking, chewing tobacco or gum, or applying cosmetics is permitted and warning signs must be prominently displayed at every approach to the regulated area. Where necessary, signs must bear pictures or graphics, or be written in appropriate language so that all employees understand them.



ASBESTOS CANCER AND DISEASE HAZARD **AUTHORIZED PERSONNEL ONLY** PROTECTIVE EQUIPMENT & CLOTHING REQUIRED TO ENTER

Approved: March 15, 2022 Approved by: K. Long-Witter

NORTH CAROLINA CENTRAL UNIVERSITY • 1801 FAYETTEVILLE STREET • DURHAM, NC 27707 EMAIL ehs@nccu.edu • TELEPHONE 919-530-7125

https://nccu.edu/administration/administration-and-finance/environmental-health-and-safety



B. Products and Waste

Warning labels must be affixed to all asbestos products (raw materials, mixtures, scrap) and to all containers of asbestos products, including waste containers, that may be in the workplace. The labels must comply with the requirements of 29 CFR 1910.1200(j) of OSHA's Hazard Communication Standard and must include the following information:



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

Labels or safety data sheets (SDSs) are not required where asbestos fibers have been modified by a bonding agent, coating, binder or other materials, if the manufacturer can demonstrate that during handling, storing, disposing, processing or transporting no airborne concentrations of fibers of asbestos in excess of PEL and/or EL will be released or if asbestos is present in a product in a concentration of less than 1 percent

C. Work Area Warning Signs

Signs must be posted at the entrance to mechanical rooms/areas in which employees reasonably can be expected to enter and which contain ACM and/or PACM. The signs are to include location, identification of material, and appropriate work practices to prevent disturbance. Signs are to be in comprehendible languages and state the following as warranted:

Approved: March 15, 2022 Approved by: K. Long-Witter

NORTH CAROLINA CENTRAL UNIVERSITY • 1801 FAYETTEVILLE STREET • DURHAM, NC 27707 EMAIL ehs@nccu.edu • TELEPHONE 919-530-7125

https://nccu.edu/administration/administration-and-finance/environmental-health-and-safety



1. TSI

WARNING!

Some of the pipe insulation and other thermal system insulation in this room contain asbestos

Avoid creating dust from any insulation

If disturbance of material is anticipated,

contact EHS at 919-530-7125 or ehs@nccu.edu prior to beginning work

2. Surfacing material

WARNING!

This ceiling surface contains asbestos
Avoid contact or disturbance of the surfacing material on this ceiling
If disturbance of material is anticipated,
contact EHS at 919-530-7125 or ehs@nccu.edu prior to beginning work

XI. Medical Surveillance

All employees who are or will be exposed to airborne concentrations of asbestos at or above the PEL and/or EL are enrolled in the medical surveillance program and provided an annual medical assessment at no cost to the employee at a reasonable time and place during work hours. This program includes a medical and work history with special emphasis directed to the pulmonary, cardiovascular, and gastrointestinal systems. Medical surveillance records are maintained by the medical provider contracted to provide the services. The employee must complete and submit the Respiratory Disease Standardized Questionnaire Parts 1 and 2 as set forth in 29 CFR 1910.1001 Appendix D of the standard for evaluation during their initial and annual medical assessment.

NCCU personnel who require the use of a respirator are enrolled in the <u>NCCU Respiratory Protection</u> <u>Program</u> which requires annual medical clearance and fit testing.

XII. Exposure Assessment and Monitoring

OSHA regulations require that each employer who has a workplace or work operation covered by the standard shall perform monitoring to determine accurately the airborne concentrations of asbestos to which employees may be exposed. These must be breathing zone air samples representative of 8-hour time-weighted average and 30-minute short-term exposures.

Approved: March 15, 2022 Approved by: K. Long-Witter

NORTH CAROLINA CENTRAL UNIVERSITY • 1801 FAYETTEVILLE STREET • DURHAM, NC 27707 EMAIL ehs@nccu.edu • TELEPHONE 919-530-7125

https://nccu.edu/administration/administration-and-finance/environmental-health-and-safety



XIII. Control Measures and Mitigations

Employees may contact ACM during routine cleaning or maintenance activities. Any suspect materials identified during the activity (excluding fiberglass, wood, metal, kiln brick, cement, concrete, pressed wood, concrete masonry unit (CMU), rubber or glass with no finished coatings) shall be treated as ACM until sampling data can be provided.

A. Engineering and Work Practice Controls

To the extent feasible, engineering and work practice controls must be used to reduce and maintain employee exposure at or below the PEL and/or EL. The standard, therefore, requires the employer to institute the following measures:

- Design, construct, install and maintain local exhaust ventilation and dust collection systems according to the American National Standard Fundamentals Governing the Design and Operation of Local Exhaust Systems, ANSI Z9.2-1979.
- Provide local exhaust ventilation system for all hand-operated and power-operated tools such as saws, scorers, abrasive wheels, and drills that would have the potential to release fibers of asbestos.
- Do not remove cement, mortar, coating, grout, plaster or similar materials containing asbestos from bags, cartons or other containers without wetting, enclosing or ventilating them.
- Do not drill holes or saw in ACM
- Floor buffers used for stripping floor wax from vinyl asbestos floor tiles must not operate above 300 RPM. Wet methods and low abrasion floor pads are also to be used. Periodic inspections of housekeeping personnel are conducted to ensure that these requirements are followed.
- Do not sand, grind, cut, or abrade ACM.
- Do not install partitions or dividers in such a way that they will damage the floor tile, ceiling tiles or plaster ceiling
- Do not install glued products such as rolled sheet flooring, carpeting, or any other product to asbestos floor tile
- Never use an ordinary vacuum to clean friable ACM debris.
- During the removal of intact floor tiles, avoid breakage to reduce the potential for the release of fibers.
- ACM waste must be disposed of in 6 mil polyethylene bags with the proper OSHA Danger labeling requirements and transported to a designated collection site on campus for pick up by EHS for disposal as hazardous waste.

Approved: March 15, 2022 Approved by: K. Long-Witter

NORTH CAROLINA CENTRAL UNIVERSITY • 1801 FAYETTEVILLE STREET • DURHAM, NC 27707 EMAIL ehs@nccu.edu • TELEPHONE 919-530-7125

https://nccu.edu/administration/administration-and-finance/environmental-health-and-safety



- In the event of an emergency where building materials become damaged, employees shall assume the material is ACM unless it is documented as a non-asbestos containing material or as one of the following **non-suspect materials**: glass, metals, kiln brick, cement, fiberglass, concrete, pressed wood, concrete masonry units (CMU unpainted), or rubber. The employees shall perform the following:
 - o Isolate the area
 - o If feasible, place a sign directly outside of the isolated area with similar terminology, "Danger-Asbestos Hazard, Do Not Enter"
 - o Do not perform any cleanup activities
 - o Call the Supervisor immediately
 - Report to EHS using the <u>NCCU Hazard and Incident Reporting Form</u> or by calling 919-530-7125.

B. Respiratory Protection

Where engineering and work practice controls have been instituted but are insufficient to reduce exposure to the required level, the employer must supplement them by using respiratory protection. Employees who require a respirator will be enrolled in the <u>NCCU Respiratory Protection Program</u>.

Respirators must be selected, provided and used in the following circumstances:

- While feasible engineering and work practice controls are being installed or implemented
- During activities where engineering and work practice controls are not feasible
- In work situations where feasible engineering and work practice controls are not yet sufficient to reduce exposure to or below the PEL and/or EL
- In emergencies

C. Protective Clothing and Equipment

For any employee exposed to airborne concentrations of asbestos that exceed the PEL and/or EL, the employer must provide at no cost to the employee, and require the use of, single use, disposable protective clothing, such as coveralls or similar full-body clothing, head coverings, gloves and foot coverings. In addition, wherever the possibility of eye irritation exists, face shields, vented goggles or other appropriate protective equipment must be provided and worn.

Asbestos-contaminated work clothing should be carefully and placed and stored in closed, labeled containers that prevent dispersion of the asbestos into the ambient environment. Protective clothing and

Approved: March 15, 2022 Approved by: K. Long-Witter

NORTH CAROLINA CENTRAL UNIVERSITY • 1801 FAYETTEVILLE STREET • DURHAM, NC 27707 EMAIL ehs@nccu.edu • TELEPHONE 919-530-7125

https://nccu.edu/administration/administration-and-finance/environmental-health-and-safety



equipment must be disposed of as hazardous waste.

XIV. Recordkeeping

The employer must retain:

- Accurate record of all exposure measurements taken to monitor employee exposure to asbestos for 30 years.
- Accurate record for each employee subject to medical surveillance for the duration of employment plus 30 years.
- All employee training records for one year beyond the last date of employment by the employee.
- Accurate records of objective data that exempt products made from or containing asbestos from handling or using for the duration of the employer's reliance upon the data.
- Records about the presence, location and quantity of asbestos-containing material and presumed asbestos-containing material in each building or facility for the duration of ownership and must be transferred to the successive owners.

All records must be made available to the commissioner of labor, affected employees, former employees and designated representatives in accordance with 29 CFR Part 1910.1020. If the employer ceases to do business and there is no successor to receive the records for the prescribed period, the employer must notify the director of NIOSH at least 90 days prior to the disposal of records.

XV. Complaints

Complaints relating to potential asbestos exposure filed by building occupants shall be reported to EHS using the NCCU Hazard and Incident Reporting Form. EHS will arrange for a contractor to inspect the work area and evaluate employee potential for exposure. If the assessment includes removal of material to determine if the material contains asbestos, air monitoring will be performed to ensure that personnel are not exposed to airborne asbestos. A written report of the investigation is maintained by EHS and results provided to the employee.

Examples of complaints include: ceiling material falling onto an employee's desk, questions about containment during an ACM removal project, damaged ACM debris on the floor; employees encounter potential ACM during the performance of their duties and have questions about their potential exposures.

Approved: March 15, 2022 Approved by: K. Long-Witter

NORTH CAROLINA CENTRAL UNIVERSITY • 1801 FAYETTEVILLE STREET • DURHAM, NC 27707 EMAIL ehs@nccu.edu • TELEPHONE 919-530-7125

https://nccu.edu/administration/administration-and-finance/environmental-health-and-safety