

CSU Channel Islands Asbestos Operations and Maintenance Program

1.0 Statement

It is the intent of California State University Channel Islands to provide employees and visitors with a safe and healthful environment. The primary objective of this program is to prevent exposure to airborne asbestos fibers. This will be accomplished by minimizing disturbance of asbestos containing materials, or by procedures to contain fibers when disturbance of these materials is planned. All work will be done in accordance with Occupational Safety and Health Administration (OSHA) standards and other regulatory guidelines. To ensure regulatory compliance and safety, in-house work that may disturb asbestos containing materials should comply with the provisions of this Operations and Maintenance Program.

2.0 Purpose/Scope

2.1 Purpose

This program is intended to prevent release of asbestos fibers; first, by minimizing disturbance or damage to asbestos containing materials (ACM) during normal operations, and second, by monitoring the condition of ACM.

2.2 Scope

This program is intended to address work conducted by CSU Channel Islands staff. This type of work will be small scale, short duration maintenance, repair and installation projects involving minor disturbance of asbestos containing materials. No more than one hundred (100) square feet of asbestos containing material may be disturbed in any single project. This plan is not applicable to work performed by Contractors or their Subcontractors; or to direct Certified Asbestos Contractors hired to perform work on campus.

3.0 Definitions

Asbestos Containing Material (ACM): Any material containing more than one percent asbestos.

Presumed asbestos-containing material (PACM): Thermal system insulation and surfacing material found in buildings constructed no later than 1980.

Friable asbestos: Any material that contains more than one percent asbestos and can be crumbled, pulverized or reduced to powder by hand pressure.

Competent Person: A person who is capable of identifying asbestos and other hazards in the workplace and has authorization to take prompt corrective action to mitigate hazards. This person also must be capable of selecting an appropriate control strategy for asbestos exposures.

Class I Asbestos Work: Activities involving the removal of TSI and surfacing ACM or PACM.

Class II Asbestos Work: Activities involving the removal of ACM which is not thermal system insulation or surfacing material, including but not limited to removal of ACM wallboard, floor tile, and sheeting, roofing and siding shingles, and construction mastics.

Class II Asbestos Work: Repairs and maintenance operations where ACM including TSI and surfacing ACM and PACM, is likely to be disturbed.

Class IV Asbestos Work: Maintenance and Custodial activities during which employees contact but do not disturb ACM or PACM, and activities to clean up dust, waste, and debris resulting from Class I, II and III activities.

Demolition: The wrecking or taking out of any load-supporting structural member and any related razing, removing, or stripping of asbestos material.

Disturbance: Activities that disrupt ACM or PACM, crumble or pulverize ACM or PACM or generate visible debris from AC. Includes cutting away small amounts of ACM and PACM (no greater than the amount that can fit into a standard glove bag or waste bag and no more than 60 inches.

Renovation: Modification of any existing structure, or portion of.

4.0 References

- 4.1 Asbestos in Buildings: Guidance for Service and Maintenance Personnel. U.S. Environmental Protection Agency, July, 1985.
- 4.2 Guidance for Controlling Asbestos Containing Materials in Buildings. U.S. Environmental Protection Agency, June, 1985.
- 4.3 Managing Asbestos in Place: A Building Owners Guide to Operations and Maintenance Programs for Asbestos Containing Materials. U.S. Environmental Protection Agency, July, 1990.
- 4.4 8 California Code of Regulations (CCR),8 Section 1529, Construction Safety Orders – Asbestos
- 4.5 Ventura County Air Pollution Control District, Rule 62.7 – Asbestos Demolition and Renovation
- 4.6 Health and Safety Code Section 25915 – Employee notification of presence of ACM

5.0 Administration and Responsibilities

5.1 Asbestos Program Manager

- Maintain adequate training to meet state and federal requirements
- Maintain the written Asbestos Operations and Maintenance Program.
- Periodically assess Program compliance.
- Distribute annual ACM in facilities notification (section 6.0 below).
- Maintain an inventory of ACM types and locations.
- Provide necessary consultation with Project Managers on projects where ACM and PACM will be disturbed.

5.2 Facilities Services Safety Coordinator

- Provide training to employees for their roles in managing ACM.
- Inform Custodial and Maintenance staff about the locations of ACM and caution them about disturbance or damage (i.e. awareness training).
- Maintain records as required by this program.

5.3 Competent Person

- Maintains adequate training to meet state and federal requirements.
- Capable of identifying existing and predictable hazards in the work place.
- Capable of selecting the appropriate control strategy to avoid asbestos exposure.
- Authorized to take corrective measures to eliminate these hazards.

- Inspect any renovation or demolition work to determine if ACM is present. The inspection will include a physical inspection as well as a review of any inventory information available. A Mechanical/Electrical/Plumbing (MEP) or other appropriate Facilities Services team member will assist the Competent person with analysis of as-built drawings for potential ACM locations.
- Perform exposure assessment and ensure appropriate procedures and safety practices will be followed before authorizing construction or maintenance work involving ACM.
- Provide authorization to proceed with construction activities that disturb ACM following completion of written exposure assessment.
- Supervise all work performed by CSU Channel Islands employees within a regulated area (8 CCR, Section 1529(e)).
- Perform periodic job site inspections to confirm workers are in compliance with the applicable requirements.
- Coordinate with Construction Project Managers to facilitate adequate notification to out-side Contractors.
- Periodically inspect all known ACM for deterioration and when appropriate take action to prevent release of asbestos fibers (section 7.0 below).

Appropriate procedures and safety practices include containment barriers around construction, the use of Tyvek coveralls and respirators by workers, and appropriate decontamination when ACM is disturbed. The Competent Person shall perform or supervise the set-up of containment areas, exposure monitoring, proper donning and use of respirators and protective clothing, proper use of engineering controls, establish proper decontamination procedures and confirm proper decontamination procedures are followed, and provide documentation and reporting as required.

5.5 Project Manager

- Provide Competent Person with scope of work prior to start of work.
- Include Competent Person in construction meetings and job walks.
- Involve Competent Person in communications with outside contractors hired to perform asbestos work at CSUCI.
- Only proceed with construction activities that disturb ACM following receipt of written authorization from Competent Person.
- Post information on ACM at job site.
- Notify Contractor working in areas known to contain ACM the presence, location and quantity of ACM or PACM.

5.6 CSU Channel Islands Employees

- Aware of the potential hazards and adverse health effects of asbestos.
- Review and understand the CSUCI Annual Notification of Lead and Asbestos in Buildings.
- Clear any work that may disturb ACM with the Competent Person before work begins.
- Avoid sanding or stripping floor tiles that contain asbestos or the mastic underneath.
- Stop work and providing proper notification to the Project Manager or Competent Person if PACM is discovered.
- Report any damage to ACM to their supervisor and the Competent Person.
- Attend all required training.

6.0 Notification

University employees, off-Campus contractors and lessees must be informed of the presence of ACM in facilities. Abatement notifications are the responsibility of abatement contractors. CSU Channel Islands staff will not disturb ACM in amounts that require other notifications.

7.0 Surveillance

The Competent Person should periodically inspect ACM for deterioration and when appropriate take action to prevent fiber release. Employees should be aware of and report deterioration of ACM to the Asbestos Program Manager or the Competent Person.

8.0 Controls

8.1 Lessees and Contractors

Lessees and contractors will be informed of the presence of ACM in facilities.

8.2 University operations and maintenance

1. Presumed ACM (PACM) will be treated as actual ACM and appropriate controls and work practices will be used when the material is disturbed.
2. In order to treat suspect ACM as non-asbestos material, the material must be demonstrated to be non-ACM through testing. Appropriate samples must be taken by the Competent Person or an appropriately certified asbestos contractor and analyzed by a certified laboratory.
3. Removal of ACM by properly trained CSU Channel Islands staff **will not exceed 100 square feet** in any single project (Ventura County Air Pollution Control District, Rule 62.7).
4. Disturbance of ACM will not exceed 60 inches (5 feet).
5. Any renovation must be cleared through the Competent Person to determine if ACM is present.

9.0 Work Practices

9.1 Employees who do planned disturbance of ACM will abide by the following work practices.

1. Attend and complete appropriate training for the work being performed in accordance with state and federal regulations.
2. Notify Competent Person prior to performing work in an area known to contain asbestos when there is potential to disturb the asbestos.
3. Obtain written prior approval for any work disturbing ACM from Competent Person.
4. Provide adequate engineering controls for the task.
5. Wear appropriate protective clothing and respiratory protection.
6. Use wet methods to minimize the chance of air borne fibers.
7. Control access to work area during disturbance of ACM.
8. Shut off ventilation to area during disturbance of ACM.
9. Perform adequate decontamination following completion of the work.
10. Package and dispose of waste properly.

9.2 Decontamination procedures

1. Decontamination procedures will be determined by the Competent Person based on the presence of asbestos contamination.
2. In the absence of a negative exposure assessment a separate area covered by a drop cloth will be used. HEPA vacuum cleaning and wetted wiping will be done on equipment, coveralls and anything to be removed from the area.
3. In the case of known asbestos contamination, air samples over the TWA, or other exceptional conditions the Competent Person will determine appropriate decontamination procedures.

9.3 General Precautions and Procedures

Asbestos can be found in many buildings as a component of building construction materials. Asbestos is a hazardous material which may cause adverse health effects. However, asbestos does not pose a threat to health unless the asbestos fibers become airborne.

Avoid touching asbestos-containing materials on walls, ceilings, pipes, or boilers. **DO NOT** drill holes, hang plants or other objects from walls or ceilings made of asbestos-containing materials. **DO NOT DISTURB** asbestos-containing materials when replacing light bulbs. **DO NOT DISTURB** damaged asbestos-containing materials or asbestos debris. If you find asbestos-containing materials that have been damaged, immediately do the following:

1. Stop any activities that will generate dust or spread debris.
2. Immediately contact the asbestos O&M program coordinator.
3. **DO NOT** attempt to handle or clean up damaged materials unless trained, licensed, or authorized to do so.
4. For more information, you can contact the following people:

Facilities Services Safety Coordinator – (805) 437-3369
Environmental Health and Safety (EH&S) (805) 437-3550

9.4 Response to discovery of damaged and friable ACM

To minimize exposures, it is crucial to immediately identify and respond to situations in which damaged asbestos is discovered. The following procedures will help minimize such exposures.

- Given the common presence of ACM in campus infrastructure a high level of vigilance is required to immediately identify previously unknown and damaged ACM. Employee training (including awareness training) should include this vigilance element. Vigilance is especially important in older buildings that have not been completely abated.
- Any employee who discovers damaged and friable ACM should immediately stop work.
- Do not attempt to handle or clean up damaged materials unless trained and authorized to do so.
- Immediately inform your supervisor, the Competent Person or EH&S.
- Immediately inform the Facilities Services Director of Operations.
- The Competent Person will secure the area in question and put up asbestos warning sign(s).
- If there has been an apparent exposure to airborne asbestos the exposed employee's supervisor should complete a Supervisor's Injury or Illness Report.
- The Supervisor's investigation should be executed with the help of the Competent Person and other relevant persons in an attempt to quantify the exposure based on objective information and knowledge, sampling, and other pertinent information. This investigation should be documented as part of the Supervisor's Injury or Illness Report.
- The Competent Person or FS management will provide an asbestos hazard notification to relevant shop supervisors (MEP Team) as soon as possible.

9.5 Entry into crawlspaces in unabated buildings

- Safety of work is supervised and regulated by the Competent Person.
- Notify Competent Person prior to entry of any ACM regulated crawl space.
- Prior to first entry into any uninvestigated space an initial exposure assessment must be completed.
- The Competent Person maintains records that include sampling results, and previous exposure assessments. All FS employees may have access to these records.
- It is based on objective information (including personal breathing zone air samples). This exposure assessment must be documented. A crawlspace under a non-abated building is very likely a regulated space and therefore entry will require O&M procedures and work practices as well as Personal Protective Equipment.
- Following entry proper decontamination – HEPA vacuuming of all clothing, equipment and containers on a drop-cloth may be adequate, but if the TWA might be exceeded, then the Competent Person will determine additional appropriate decontamination procedures.
- Personal sample results shall be provided to each employee monitored

10.0 Record Keeping

The University will maintain the following records for the time limits established by state and federal regulations:

- A written asbestos operations and maintenance program
- Training records, several types, both initial and refresher
- Records of exposure assessments, regulated areas, cleared (safe) areas
- Records of air monitoring, both personal air samples and area samples
- Records of periodic inspections of ACM
- Respiratory Protection Program records including annual medical evaluations, respirator fit testing and respirator training.

11.0 Worker Protection

11.1 Medical Evaluation

Medical evaluations will be performed to ensure that employees are medically fit to wear a respirator when they are required to do so under this program.

11.2 Respiratory Protection

Respiratory protection will be required when employees disturb ACM.

12.0 Training

12.1 Program Manager

EPA Contractor/Supervisor, (40 hours) and subsequent refresher training.

12.2 Program Coordinator (competent person)

EPA Contractor/Supervisor, (40 hours) and subsequent refresher training and EPA Building Inspector (3 day) and subsequent refresher training.

12.3 Workers who will disturb ACM

OSHA Asbestos O&M (16 hours) and subsequent refresher training; This training is for workers who will do planned disturbances of ACM during operations and maintenance.

12.4 Custodial, Maintenance and Mechanical/Electrical/Plumbing workers

"Awareness Level" training on the location of ACM, proper procedures for cleaning and maintenance and what actions to take if ACM is accidentally disturbed.

CSU Channel Islands Asbestos Operations and Maintenance Program Supplement on Regulated Areas 8CCR 1529 (e)

Regulated Area

A regulated area is an area established by the employer to demarcate areas where asbestos work is conducted and any adjoining area where debris and waste from such asbestos work accumulate or, a work area within which airborne concentrations of asbestos exceed, or there is a reasonable possibility they may exceed the PEL.

Requirements for Regulated Areas

Signs

Regulated areas must be demarcated to minimize the number of persons within the area and protect persons outside the area from exposure to asbestos.

Access

Access must be limited to authorized persons.

Respirators

Respiratory protection will be required inside regulated areas unless a negative exposure assessment has been conducted and documented.

Prohibited Activities

Eating, drinking, smoking, chewing tobacco or gum, and applying cosmetics are not allowed.

Competent Person Requirement

All work in regulated areas must be supervised by an asbestos "Competent Person."

CSU Channel Islands Asbestos Operations and Maintenance Program Supplement on Monitoring 8CCR 1529 (f)

Monitoring

Perform based on personal sampling from breathing zone for both 30-minute excursion and 8 hr TWA if feasible.

Initial Exposure Assessment

A "Competent Person" must conduct an exposure assessment before all O&M operations.

For this initial exposure assessment use monitoring, observations, and other information including previous monitoring to ascertain expected asbestos exposures.

This initial assessment will, if feasible, require personal air monitoring unless we have generated a negative exposure assessment from prior work as detailed below.

Negative Exposure Assessment

Obtain objective data that demonstrates that asbestos can not exceed PEL under conditions of work.
or

Monitoring within the last 12 months showing that exposure, with a high degree of certainty, is below PEL and excursion limit.
or

Initial exposure monitoring for PEL and excursion limit show, for entire job, asbestos will not exceed PEL or excursion limit during the entire job.

Periodic Monitoring

Generally, perform for all exposures that are expected to exceed the PEL, at intervals that are sufficient to document the validity of the initial exposure assessment.

Additional monitoring required if there is any change in the work process, personnel, control equipment or conditions that may create an exposure in excess of the PEL.

Periodic monitoring may be terminated if it is continued until sufficient data is collected to demonstrate statistically that that, with a high degree of certainty, there will be no exposures in excess of the PEL.

Notification

Employees will be notified of personal sampling results within 5 days of receipt of monitoring results.

CSU Channel Islands Asbestos Operations and Maintenance Program Supplement on Labeling (8CCR 1529 (k))

Communication of Hazards

Before beginning work in regulated areas containing or adjacent to areas containing ACM or PACM workers will be provided with the identification of the presence, location, and quantity of ACM or PACM and precautions to be taken to insure airborne asbestos is confined to the regulated area.

Regulated Areas

A regulated area is an area, established by the employer, where O&M work takes place, and adjoining areas where debris or waste accumulate, or where there is a reasonable possibility that asbestos levels will exceed the PEL. Regulated areas will be labeled with the following signs:

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

WEAR RESPIRATORY PROTECTION AND PROTECTIVE CLOTHING IN THIS AREA

Labels on Exposed ACM Materials and Waste Containers

When ACM containing materials are present, and exposed in a non-regulated area, and likely to release fibers in excess of the PEL if disturbed (e.g. pipe with air cell ACM insulation in an occupied area without asbestos warning signs on entry doors) labels will be affixed as follows:

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

This does not apply when asbestos fibers are bonded or bound such that reasonable handling, use or processing is unlikely to release asbestos fibers in excess of the PEL (e.g. floor tiles, mastic).

All signs should be available in both English and Spanish. The languages will be used as appropriate.

CSU Channel Islands Asbestos Operations and Maintenance Program Supplement on Training 8CCR 1529 (k)(9)(F)

Workers who do this work:

Maintenance and custodial activities when there will be contact with ACM but no disturbance of the material (e.g. buffing floor tiles that contain asbestos) and cleaning up asbestos containing waste in connection with abatement work performed by others.

Need this:

Asbestos awareness training; two-hour minimum; consistent with EPA requirements under 40 CFR763.92(a)(1).

Plus: Annual awareness refresher training

Workers who do this work:

Repair and maintenance activities when it is likely that asbestos containing materials will be disturbed (e.g. replacing windows with asbestos containing window putty, repairing plumbing that has asbestos insulation, working in a space where there is widespread visible asbestos contamination).

Need this:

Asbestos "Operations and Maintenance" training, including "hands on" training; sixteen-hour minimum; consistent with EPA requirements under 40 CFR763.92(a)(2).

Plus: Annual operations and maintenance refresher training (no minimum hours specified)

Supervisors or competent persons i.e.:

Person who is designated as the Competent Person as defined above who leads activities that may involve asbestos. They identify asbestos, do initial exposure assessment and are authorized to take prompt corrective action to mitigate hazards.

Need this:

Asbestos "Supervisor" or "Competent Person" training; forty-hours; consistent with EPA requirements under 40 CFR 763.

Plus: Annual supervisor or competent person refresher training

**CSU Channel Islands Asbestos Operations and Maintenance Program
Exposure assessment record CCR 1529 (f) (2)**

INITIAL EXPOSURE ASSESSMENT

A "Competent Person" must conduct an exposure assessment before all O&M operations. This initial assessment will require personal air monitoring (8 hour TWA or 30 min excursion) unless not feasible or we have generated a negative exposure assessment. Attach all available documentation to this assessment.

Building Name: _____ **Competent Person:** _____

Building and specific location(s): _____ **Date:** _____

Observations:

Any ACM or PACM present ? _____ Good condition? _____ Any potential for contamination from adjacent areas? _____ Other observations? _____

Other information:

Monitoring:

Personal air samples (8 hr TWA or 30 min excursion: current or previous) _____

Area samples (current or previous) _____

Is it possible that asbestos air concentrations will exceed the PEL?

What are expected exposures?

Is this a negative exposure assessment?

NEGATIVE EXPOSURE ASSESSMENT

Attach supporting data and records.

List or describe objective data that demonstrates that asbestos can not exceed PEL under conditions of work. This data can be that the ACM material itself is inherently incapable of releasing a significant amount of asbestos fibers under the work conditions or that the work activities can not create airborne asbestos in excess of the PEL.

Or

Monitoring within the last 12 months showing that exposure, with a high degree of certainty, is below PEL and excursion limit.

Or

Initial exposure monitoring for PEL and excursion limit show, for entire job, asbestos will not exceed PEL or excursion limit during the entire job.

Objective data include the following work conditions:

- Is ACM present?
- Is ACM in good condition and labeled?
- Is area sealed off from other areas that may be contaminated?
- Are those sealed off entry points properly labeled?

If an area is ACM free, or has ACM that is labeled and in good condition and is sealed off from potential contamination then that is sufficient for a negative exposure assessment. Then the area can become non-regulated and PPG and other safety procedures are not required.

If initial exposure assessment indicates the possibility of exposure to asbestos over the PEL (eg crawls in soil) then respiratory protection and tyveks will be required for entry, personal sampling will be required, and appropriate decontamination will be required.

If repeated personal samples indicate that there is little chance of exposure to asbestos over the PEL then personal sampling can be discontinued and decontamination can be done using a clean area and HEPA vacuum.

**CSU Channel Islands Asbestos Operations and Maintenance Program
Periodic ACM inspection form 8CCR 1529 (k)(8)**

Inspector Name _____ Date _____

Building Name or Number _____ Room _____

Specific location of ACM: _____

Accessible to public? (non-regulated) work area _____ yes _____ no

Type of ACM: _____

Friable? _____ Yes _____ No

Surfacing _____ Thermal System Insulation _____ Miscellaneous _____

Date Material Sampled _____ or _____ Assumed

Amount of Material: _____ Square Feet or _____ Linear Feet, _____ Inches Diameter

Is ACM labeled? _____ yes _____ no

ACM is in good condition? _____ yes _____ no

Is label or repair necessary? If so specify action required. _____

If damaged, provide the information below:

Extent or Spread of Damage in Homogeneous Area:

_____ Percent of Damage _____ Localized _____ Distributed

Type of Damage (Check as Many as appropriate.)

_____ a. Flaking

_____ b. Blistering

_____ c. Peeling

_____ d. Water Damage

_____ e. Crumbling

_____ f. Other

Known or Suspected Causes of Damage:

_____ a. Air Erosion

_____ b. Vandalism

_____ c. Vibration

_____ d. Water

_____ e. Maintenance or Custodial Activity

_____ f. Other