



Department of Public Safety
Division of Environmental Health and Safety

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EH&S Policy and Procedure

Topic: **Dust, Odor, Chemical Vapor Control**

Effective Date: **11-8-99**

Reference Number: **ASB102599**

Written By: **Michael Yanker**

Distribution: **Campus**

Approved By:

POLICY STATEMENT:

It is the policy of the Division of Environmental Health and Safety that any process that either disturbs indoor or outdoor building materials (e.g., demolition, renovation, drywall work, sanding, grinding, cutting, roofing etc.) *or* creates chemical fumes or vapors (e.g., painting, application of adhesives etc.), shall be performed so as to minimize the generation of dust, odors or chemical vapors.

PURPOSE:

The purpose of these procedures is to minimize health exposures to hazardous dusts/chemical vapors and to minimize indoor air quality concerns resulting from maintenance, construction or other activities. Dusts, such as silica, asbestos, lead, fiberglass and other, 'general nuisance,' dusts may have an adverse effect on the quality of the environment and the health of students, faculty, staff, and the general public. These procedures also seek to minimize indoor air quality 'nuisance' concerns associated with strong odors or chemical vapors and to protect sensitive equipment such as lasers, computers, and other analytical devices that can be affected by fine particles.

PROCEDURES:

Responsible Party:

Project Manager

Task:

Contact Environmental Health and Safety *at least 72 hours prior* to any activity that will:

- disturb building materials, whether they be located inside or outside of buildings

and/or

- generate dusts, odors or chemical vapors.
- Oversee compliance of Maintenance and Construction personnel with these procedures.

Environmental Health & Safety

- Inspect the work area
- identify hazards as they relate to scope of work provided by project manager, building user, etc.
- prepare a written "Environmental Site Assessment" (see addenda) that describes precautions and/or corrective actions that may be required.
- assist in determining PPE requirements and availability.

Maintenance and Construction

- Use least toxic/odorous building materials whenever possible.
- Maintain Material Safety Data Sheets (MSDS) for all materials in use.
- Obtain and wear proper PPE. Environmental Health and Safety can assist in determining PPE requirements and availability.
- Contact Facilities Management, or responsible department, for all necessary permits, e.g. hot-work, confined space, isolation designs, HVAC modifications, and control operations.
- Isolate work areas from other adjoining spaces with plastic or hardened barriers.
- Set up engineering controls, e.g. fans and exhaust units, to control generated dusts, odors and vapors and prevent re-entrainment.

- Implement appropriate dust, odor and vapor control work practices such as wet methods, use of HEPA vacuums and other measures that contain irritants as close as possible to the point of generation.
- Contact Environmental Health and Safety for additional recommendations and alternative dust, odor and vapor control practices.

Campus Community

- All air quality complaints and/or concerns should be directed to Environmental Health and Safety.

Environmental Health and Safety

- Will respond to complaints, with follow up, as needed, to ensure that these procedures are being implemented.

Maintenance and Construction

- Will ensure that adjoining areas are kept clean from all demolition and renovation activities and that upon completion, the work area is returned to a clean and operable condition.

DEFINITIONS:

Asbestos:	Asbestiform varieties of chrysotile, amosite, crocidolite, anthophyllite, tremolite, and actinolite. These may be present in surfacing material, e.g. drywall texture or joint compound and acoustical material, thermal system insulation or other miscellaneous material that is found in or on interior structural members or other parts of a building such as floor tiles and ceiling tiles.
Contractor:	Any company, and their employees, hired to perform work for the University. This includes any subcontractors that may be hired to perform work under the direct supervision of a General Contractor.
Demolition:	The wrecking or taking out of any existing building material from a facility together with any related handling operations, or the complete removal of a building from its original state.
HEPA:	High Efficiency Particulate Air: type of filter for vacuums and filtration systems that are capable of trapping and retaining at least 99.97 percent of all monodispersed particles 0.3 microns in diameter or larger.
HVAC:	Heating, ventilation, and air conditioning systems that serve a facility or room.
Lead:	Lead-based paint may be present in any private or commercial building constructed prior to 1978. It can be located on both exterior and interior painted surfaces.
Maintenance:	Performing routine work on building systems, structures, equipment by University work forces, contractors, or the combination of the two.

PPE:	Personal Protective Equipment includes, but is not limited to, respiratory protection, eye and ear protection, hard hats, and can include disposable coveralls for workers. Proper PPE is a requirement per State, Local, and Federal agencies.
Project Manager:	The principle representative for the University for a specific construction or renovation project(s).
Renovation:	Altering in any way, one or more facility components. Examples of renovation work include, but are not limited to replacement or repair of mechanical systems, ceilings, walls, floors, or other building system components such as conduit, running of cables or installation of fixed furniture components.
Silica:	A group of minerals found in rocks and geological formations that make up several building materials, e.g. concrete, mortars, plasters, filter media, to name a few. Crystalline silica is regulated under the Hazard Communication Standard of the Occupational Safety and Health Administration.
Surfactant:	A chemical wetting agent added to water to improve water penetration and dust control.

ADDENDA:

Environmental Health and Safety: Environmental Site Assessment Form



University of Colorado at Boulder
ENVIRONMENTAL HEALTH AND SAFETY
CB 375, (303) 492-6025, Fax (303) 492-2854

ENVIRONMENTAL SITE ASSESSMENT FORM

Building & Location CAMP_	Job Description Sample of Inspection Report	Work Order / Project Number 000000
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Follow-up required for: HAZARDOUS MATERIALS LASER OR X-RAY LEAD MATERIALS ENVIRONMENTAL COMPLIANCE RADIOACTIVE MATERIALS ASBESTOS MATERIALS	Suspect Building Components, Materials, and Site Conditions: This area will list those materials that individuals will need to be aware of.
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Samples / Results:
Lists results of asbestos, lead, and other laboratory analysis that may have or needs to be conducted.

REQUIRED ACTION:
Describes corrective actions such as removal of hazardous materials where applicable, other precautions that may need to take place, and additional inspection requirements. This area will also describe specific persons to contact when applicable.

EH&S Inspector:	Date Inspected:
EH&S Manager:	Date Reviewed:

This report is provided based upon current conditions, regulations and policies at the time of inspection. This report is valid for 90 days. I understand that the materials noted above contain asbestos and/or involve other hazardous materials. I also understand that any work involving these materials must be coordinated with the appropriate Environmental Health and Safety program manager. Any changes in the original scope of the work must be re-inspected. It is understood that no new materials containing asbestos will be used for any part of the construction of this project. Contractor is responsible for providing this information to all their employees and subcontractors.

University Representative /	Phone Number:
Contractor Name:	Phone Number:
Contractor Representative: (signature)	Date Signed: