AHERA Asbestos Management Plan Update

District Office
88834 Territorial Road
Elmira, Oregon 97437

Prepared for:

Fern Ridge School District #28J

March 2023
Project No.: 52743.000

3500 CHAD DRIVE, SUITE 100, EUGENE, OR 97408 ▪ 541.686.8684 MAIN ▪ 866.727.0140 FAX ▪ PBSUSA.COM

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TAB 1

General Data

DISTRICT DATA

School District:	Fern Ridge School District 28J
District Type:	Public
District Address	88834 Territorial Road Elmira, Oregon 97437
District Phone	541.935.2253

SITE DATA

Site Name:	District Office
Site Address:	88834 Territorial Road Elmira, Oregon 97437
No. of Students:	NA
No. of Staff:	18
No. of Custodial:	0.5

KEY DISTRICT PERSONNEL

The following individuals have ongoing responsibilities in developing and maintaining the District's Asbestos Program. Their general responsibilities relative to asbestos activities are also listed.

Superintendent

Gary Carpenter
88834 Territorial Road
Elmira, Oregon 97437
541.935.2253

The Superintendent has overall responsibility for ensuring compliance to the School District's policies and the successful operation of its programs. This responsibility extends to overall responsibility for the District's activities relative to asbestos-containing materials. The Superintendent should approve the appointment of the LEA Designate.

LEA Designate

James Storey
88834 Territorial Road
Elmira, Oregon 97437
541.935.2253

The Local Education Agency (LEA) Designate is required by the Final Rules to ensure the District's continuing compliance with the AHERA requirements. The LEA Designate's specific requirements are described in Section 763.84 of the Final Rules. The LEA Designate must ensure that all records are maintained, satisfactory training provided, notifications sent, and Management Plans are available in compliance with the Final Rules.

ACCREDITED INSPECTOR/MANAGEMENT PLANNER

The following accredited Management Planner and Inspector performed inspection and assessments of suspected asbestos-containing building materials at this school district facility. The following Management Planner(s) has recommended appropriate response actions for friable, non-friable, known, or assumed building materials where indicated. All of the above-listed tasks have been performed in accordance with 40 CFR, Part 763, Subpart E.

Jeff Heeren
Management Planner/Inspector
PBS Engineering and Environmental Inc.
3500 Chad Drive, Suite 100
Eugene, Oregon 97408
Accreditation: IMR-22-4941A

Digitally signed by Jeff Heeren
Date: 2023.04.12 16:20:14 -07'00'

Signature Date

LABORATORY ACCREDITATION

This asbestos management plan update is based on sample results from a Pre-Renovation Hazardous Building Materials Survey completed by PBS Engineering and Environmental Inc. in September 2014. The following laboratory was utilized for analysis of bulk samples for asbestos content using Polarized Light Microscopy (PLM) with dispersion staining technique. Refer to the survey report for copies of laboratory reports, and analyst signatures in accordance with Section 763.93. As indication that the laboratory meets the applicable requirements of Section 763.87, the laboratory's EPA accreditation number is listed below. All work was performed in accordance with procedures described in 40 CFR, Part 763, Subpart E.

LabCor Portland, Inc.
4321 S Corbett Avenue, Suite A
Portland, Oregon 97239
503.224.5055
NVLAP Lab Code: 200741-0

THIS IS TO CERTIFY THAT

MASON KAZER

HAS SUCCESSFULLY COMPLETED THE TRAINING COURSE

for

ONLINE AHERA ASBESTOS INSPECTOR REFRESHER

In accordance with TSCA Title II, Part 763, Subpart E, Appendix C of 40 CFR

Course Date: 03/02/2022

Course Location: Online

Certificate: IRO-22-0099C

For verification of the authenticity of this certificate contact:
PBS Engineering and Environmental Inc.

CCB #SRA0615 4-Hr Training

4-Hour Online AHERA Inspector Refresher Training; AHERA is the Asbestos Hazard Emergency Response Act enacting Title II of Toxic Substance Control Act (TSCA)

Expiration Date: 03/02/2023

Andy Fridley, Instructor

THIS IS TO CERTIFY THAT

JEFF HEEREN

HAS SUCCESSFULLY COMPLETED THE TRAINING COURSE

for

ASBESTOS INSPECTOR / MANAGEMENT PLANNER REFRESHER

In accordance with TSCA Title II, Part 763, Subpart E, Appendix C of 40 CFR

Course Date: 03/23/2022

Course Location: Online,

Certificate: IMR-22-4941A

CCB #SRA0615 4-Hr Training

AHERA is the Asbestos Hazard Emergency Response Act enacting Title II of Toxic Substance Control Act (TSCA)

Expiration Date: 03/23/2023

For verification of the authenticity of this certificate contact:
PBS Engineering and Environmental Inc.
4412 S Corbett Avenue
Portland, OR 97239
503.248.1939

Andy Fridley, Instructor

TAB 2

LEA Designate Documentation

The school must designate and train a person to ensure compliance with the requirements of Section 763.84 of the AHERA final rules. The responsibilities of the LEA designate are listed below and are taken directly from the federal register.

LEA Designate

James Storey
88834 Territorial Road
Elmira, Oregon 97437
541.935.2253

LEA Designate Training

Course Name: Asbestos Class III Operations & Maintenance
Refresher Course Training Date: TBD
Total Course Hours: 16

Course Description:
For anyone who performs small-scale maintenance or repair activities that may impact asbestos-containing materials (ACM). This course provides hands-on training, so workers can safely perform routine maintenance duties on or around ACM. Examples of Class III asbestos work include repairing or replacing broken pipes or valves that have asbestos wrapping, replacing damaged floor or ceiling tiles, drilling into asbestos wallboard, work on light fixtures, replacing roofing tiles, repairing window glaze or putty and other general building maintenance. This course fulfills the requirements of AHERA, Chapter 40, Part 763 and Federal OSHA 29, CFR, 1926.1101.

LEA Designate Responsibilities

1. Ensure that the activities of any persons who perform inspections, reinspections, and periodic surveillance, develop and update management plans, and develop and implement response actions, including operations and maintenance, are carried out in accordance with Subpart E of the Final Rules.

2. Ensure that all custodial and maintenance employees are properly trained as required in Subpart E of the Final Rules and all other applicable Federal and/or State regulations (e.g., the Occupational Safety and Health Administration Asbestos Standard for Construction, the EPA Worker Protection Rule, or applicable State regulations).

3. Ensure that workers and building occupants, or their legal guardians are informed at least once each school year about inspections, response actions, and post-response action activities, including periodic reinspection and surveillance activities that are planned or in progress.

4. Ensure that all short-term workers (e.g., telephone repair workers, utility workers, or exterminators) who may come in contact with asbestos in a school are provided information regarding the locations of ACBM and suspected ACBM.

5. Ensure that all warning labels are posted in accordance with Section 763.95.

6. Ensure that all management plans are available for inspection and notification of such availability has been provided as specified in the management plan under Section 763.93(g).

7. Consider whether any conflict of interest may arise from the interrelationship among accredited personnel and whether that should influence the selection of accredited personnel to perform activities under the Final Rules.

TAB 3

School Buildings

AHERA GENERAL DATA SHEET

Oregon Department of Education
255 Capitol Street NE
Salem, OR 97310

Office of School District Services

District Office	Fern Ridge School District 28J	Lane
Name of School Building	**LEA (Center)**	**County**
88834 Territorial Road	Elmira	97437
Address	**City**	**Zip Code**
541-935-2253	James Storey	541.935.2253
Building Telephone Number	**District's Asbestos Program Manager**	**Telephone Number**

CONSTRUCTION DATA

Year of Construction: 1911

Addition Dates: NA

Construction Type: Steel ____ Wood X Concrete ____ Masonry ____

Roof Framing: Steel ____ Wood X Concrete ____

Heating System: Steam ____ Hot Water ____ Forced Air X

Electric Baseboard ____ Heat Pump ____

Renovation: Yes ____ No ____ Year(s) Unknown

USE AND OCCUPANCY

Primary Use: Education

No. of School Occupants: Staff: 18 Students: NA Maint. /Custodial Staff: 0.5

INSPECTOR AND MANAGEMENT PLANNER

Name: Jeff Heeren (Management Planner)
Business: PBS Engineering and Environmental Inc.
Certification: IMR-22-4941A Exp. Date: 3/23/2023

Name: Mason Kazer (Inspector)
Business: PBS Engineering and Environmental Inc.
Certification: IRO-22-0099C Exp. Date: 3/2/2023
Course Provider: PBS Engineering and Environmental Inc.

SUMMARY DATA SHEET

Facility Name and Address: District Office – 88834 Territorial Road, Elmira, OR 97437

Preparer Name and Phone No.: Jeff Heeren 541.686.8684 Date: 1/2023

AHERA DAMAGE CATEGORY	SURFACING	THERMAL SYSTEM INSULATION			MISC.
		LINEAR FT	SQ. FT.	H. F.	
1. Damaged or Significantly Damaged TSI		2.5	-	-	
2. Damaged Friable Surfacing	-				
3. Significantly Damaged Friable SURFACING	-				
4. Damaged or Significantly Damaged Friable MISC					-
5. ACBM with Potential for Damage	-	-	-	-	-
6. ACBM with Potential for Significant Damage	-	-	-	-	-

7. Any Remaining Friable or Suspect Friable ACBM	-	-	-	-	-
Total Friable ACBM	-	2.5 LF	-	-	-

8. ACBM – Nonfriable or Suspect Nonfriable*					Refer to Inspection Data
Total ALL ACBM					Refer to Inspection Data

This site was investigated for asbestos-containing building materials (ACBM) by PBS Engineering and Environmental Inc. The list indicates the presence of friable and non-friable ACBM within the building. Known ACBM means that materials were sampled and tested positive (asbestos-containing). Suspect ACBM means that materials were located and not sampled, but based on the experience of the inspector the materials were assumed to contain asbestos.

Known Friable ACBM?	Known Non-Friable ACBM?	Suspect Friable ACBM?	Suspect Non-Friable ACBM
Yes	Yes	No	No

SCHOOL DISTRICT RESPONSIBILITIES

The chart below indicates the District's responsibilities to enact the major activities outlined in the management plan and AHERA regulations. The responsibilities are based on the known or suspected presence of friable and non-friable ACBM.

	Survey Findings		
Activity	Known or Suspect Friable ACBM	Known or Suspect Non-Friable ACBM	No Asbestos Containing Material
LEA Designate Training	X	X	-
Custodial / Maintenance Training	X	*	-

Initial Cleaning	-	-	-
Inspection Report & Management Plan on File and Available	X	X	-
O & M Program	X	*	-
Periodic Surveillance and Reinspections	X	X	-
Annual Notification	X	X	-

Legend:

- X Must enact
- \- Not required
- * Recommended, but not required

TAB 4

Building Inspections

BUILDING INSPECTION BACKGROUND

A pre-renovation asbestos survey of the site was conducted by PBS Engineering & Environmental Inc. in September 2014 in accordance with Occupational Safety and Health Administration (OSHA) requirements under CFR 1910.1001 and Lane Regional Air Protection Agency (LRAPA) Title 43. Results of that inspection are provided as a portion of this Asbestos Management Plan (AMP) for the site. As part of the survey, PBS conducted an inspection and sampling of suspect ACBM. All inspection activities were conducted by EPA AHERA-accredited Inspectors, and all analysis of asbestos bulk samples was completed by NVLAP-accredited laboratories.

INFORMATION AND ASSESSMENTS

Based on PBS' review of all inspection data, the following information is provided in this report:

1. Types, general locations, and general condition of confirmed and suspect friable and non-friable ACBM in the buildings.
2. Categorization of ACBM into appropriate AHERA assessment categories as required under 40 CFR § 763.88.
3. A list of abatement options, including prioritization, for managing ACBM (Management Plan Tab 5).
4. Cost estimates for the various abatement options of Immediate Health Concerns, High Concerns, and most Moderate Concerns (Management Plan Tab 5).

The assessments discussed in this report are based on the potential for future damage, disturbance, air erosion factors, friability, proximity to air currents, and present condition of ACBM as outlined and recommended in 40 CFR § 763.88. The following assessment categories have been established: Immediate Health Concern, High Concern, Moderate Concern, and Low Concern. The material assessments are based on a physical inspection of each material conducted in December 2022.

Note: This AMP Update report is intended to satisfy the Three Year Reinspection requirement in 40 CFR § 763.85.

SUMMARY OF ASBESTOS-CONTAINING MATERIALS

The following materials tested positive, or, based on the experience of PBS field personnel, were not tested and should be considered asbestos-containing. Materials with mixed results are considered positive. Materials not sampled may contain asbestos and should be tested to verify asbestos content prior to impact through demolition, renovation, etc.

SF – Square Feet, LF – Linear Feet, EA – Each

Material	Location	Approximate Quantity
Floor Tile /Mastic	Throughout (primarily concealed under carpet)	6,400 SF
Duct Felt Tape	Basement – Electrical Equipment Storage Room	2.5 LF

Known or suspected asbestos-containing building materials are listed below in order of hazard priority. The priorities are established by the Accredited Inspector(s) and Accredited Management Planner(s), and are based on the assessments. A material may be listed more than once if its location varies and if the assessment criteria also dramatically changes.

1. MATERIAL Duct Felt Tape
   LOCATION Basement - Electrical Equipment Storage Room
   CATEGORY Moderate Concern
   TSI - Damaged or significantly damaged ACBM

2. MATERIAL Vinyl Floor Tile/Mastic
   LOCATION Throughout (concealed under carpet)
   CATEGORY Low Concern
   Miscellaneous Non-friable ACBM or Assumed ACBM

PRIORITY NO. 1

HOMOGENEOUS AREA	Duct Felt Tape	
FUNCTIONAL SPACE	Basement - Electrical Equipment Storage Room	
QUANTITY	2.5 LF	

DESCRIPTION

A paper product manufactured using a pressed felting process. It is usually 1"-3" wide and used to seal metal seams on mechanical ductwork.

ADDITIONAL SAMPLES TAKEN: None

ASSESSMENT	AHERA CLASSIFICATION	TSI - Damaged or significantly damaged ACBM
	CONCERN CATEGORY	Moderate Concern
CURRENT DAMAGE	Moderate	Remnant tape on stored duct elbow
UNDAMAGED AREA	Fair	
FRIABILITY	High to Moderate	
ACCESSIBILITY	Low	
DAMAGE POTENTIAL	Moderate to Low	
DAMAGE TYPE	Impact	
DAMAGE CAUSE	Maintenance	

DISCUSSION

AHERA Classification - Damaged or significantly damaged thermal system insulation ACM.

RESPONSE ACTIONS

Preventative Measures Prior to Abatement

Do not disturb material without proper training and protection.

Recommended Abatement Action

Remove using controlled non-isolated conditions: wet methods, HEPA vacuum, and proper worker protection.

Other Options

None suggested

MATERIAL Vinyl Floor Tile/Mastic

FUNCTIONAL SPACE Throughout (concealed under carpet)

DESCRIPTION

Manufactured floor tiles typically 9 inches by 9 inches or 12 inches by 12 inches, composed of a dense vinyl matrix that often contains asbestos and is adhered to the substrate with a mastic that often contains asbestos.

SAMPLE RESULTS POSITIVE

ASSESSMENT Low Concern

Vinyl floor tile and mastic are suspected to contain asbestos. Drilling, grinding, sanding, etc. will create friability. At a minimum, establish an operations and maintenance program. Prior to disturbing the tile, a qualified inspector should take samples that include both the tile and mastic, which adheres the tile to the floor substrate. Remove using full isolation if the tile and/or mastic is asbestos-containing (positive). Other methods may be acceptable; contact the local air pollution authority and worker protection division. Carpeting and reflooring is permitted if existing material remains undisturbed. Polarized light microscopy (PLM) analysis is not considered conclusive for this material due to the potential presence of many small fibers that are invisible under PLM magnification. All negative sample results of vinyl floor tile should be verified through scanning or transmission electron microscopy (SEM or TEM).

Photo 1. Asbestos-Containing Duct Felt Tape – Basement Electrical Equipment Storage

TAB 5

Response Actions

MATERIAL SUMMARY

Known or suspected friable ACBM are listed below in order of hazard priority. The priorities are established by the Accredited Inspector and Accredited Management Planner and are based on the material assessments. The assessments can be found under Tab 4 of this Management Plan. The material may be listed more than once if its location varies and if the assessment criterium also significantly changes.

Material	*Location*	*Category*	*Preventive Measure*	*Interim Cost*
Duct Felt Tape	Basement – Electrical Equipment Storage	Damaged or significantly damaged TSI	Restrict access to duct section and apply label	$ 0

Total Cost for Preventive Measures $0

Costs of Preventive Measures are estimates that assume that the School will either utilize their own trained personnel or retain a qualified abatement contractor. Consequently, associated costs such as air monitoring, contractor mobilization, and engineering fees cannot be estimated and are not included.

ABATEMENT SUMMARY

Based on the previous material assessments, logical abatement projects of specific areas have been defined and prioritized by the Accredited Management Planner. Abatement costs have been determined for materials determined to be an Immediate Health Concern, High Concern, or Moderate Concern. The District may have other criteria that influence the order, scope, and priority of abatement projects. This summary is intended as a guide and is not a mandate.

Material	***Location***	***Abatement Cost***
Duct Felt Tape	Basement – Electrical Equipment Storage	$250

Total Cost for Abatement of above-listed Materials: $250

TAB 6

Statement of Review

Pursuant to section 763.84 and section 763.93 of the EPA AHERA regulations, each management plan must contain a true and correct statement, signed by the LEA designated person that certifies that the general LEA responsibilities have been met. This form is provided to assist you in complying with this portion of the AHERA regulations.

LEA Name:	Fern Ridge School District 28J
LEA Address:	88834 Territorial Road, Elmira, Oregon 97437
Designated Person Name:	James Storey
Designated Person Address:	88834 Territorial Road, Elmira, Oregon 97437
Designated Person Phone:	541.935.2253

ASSURANCES

1. The activities of any persons who perform inspections, reinspections, and periodic surveillance, develop and update management plans, and develop and implement response actions, including operations and maintenance, are carried out in accordance with Part 763.

2. All custodial and maintenance employees are properly trained as required in Part 763 and all other applicable Federal and/or State regulations (e.g., the Occupational Safety and Health Administration Asbestos Standard for Construction, the EPA Worker Protection Rule, or applicable State regulations).

3. All workers and building occupants, or their legal guardians, are informed at least once each school year about inspections, response actions, post-response action activities, and periodic surveillance and reinspection activities that are planned or in progress.

4. All short-term workers (e.g., telephone repair workers, utility workers, or exterminators) who may come in contact with asbestos in a school are provided information regarding the locations of ACBM and suspected ACBM assumed to be ACM.

5. All warning labels are posted in accordance with Section 763.95.

6. All management plans are available for inspection and notification of such availability has been provided as specified in the management plan under Section 763.93(g).

7. The undersigned person designated by the LEA pursuant to Section 763.84(g)(1) has received adequate training as stipulated in Section 763.84(g)(2).

8. The LEA has and will consider whether any conflict of interest may arise from the interrelationship among accredited personnel and whether that should influence the selection of accredited personnel to perform activities under Part 763.

_____ _____

LEA designated person signature Date

TAB 7

Operations and Maintenance

OPERATIONS AND MAINTENANCE OVERVIEW

SCOPE: Implement an Operations and Maintenance Program to maintain the condition of asbestos-containing materials.

TRAINING: Class 1 Minimum: 32-hour training for individuals who work with asbestos-containing building materials (ACBM) in amounts greater than 3 square feet (SF) or 3 linear feet (LF).

Class 2 Minimum: 8-hour generic material training for individuals who work with flooring, roofing, siding, cement asbestos board panels, and ceiling tiles.

Class 3 Minimum: 16-hour training for individuals engaged in maintenance and repairs. 4-hour single generic material training for individuals who work with gaskets, fire doors, laboratory hoods, etc.

Class 4 Minimum: 2-hour training for individuals engaged in custodial cleaning.

RECORDKEEPING FORMS: Keep records of all activities.

An Operations and Maintenance (O & M) Program is required by the AHERA regulations for all school buildings with friable ACBM. It is also considered by PBS to be a necessity for any school building with only non-friable ACBM because of the eventual need for repairs and routine or emergency maintenance.

The O & M Program is a set of specific procedures and practices applied to building cleaning, maintenance, renovation, and general operation to maintain the building as free of asbestos contamination as possible. The O & M Program draws heavily on information generated during the inspection process, and should remain in effect until all friable and non-friable ACBMs are removed from the facility. A description of an O & M Program is found in the AHERA Federal Register. 40 CFR Part 763, Appendix B should be read completely.

Properly enacted, this program will document the building owner's prudence in dealing with asbestos in the building. There are three primary objectives of the O & M Program:

1. Clean up and repair existing ACBM
2. Minimize future fiber release by controlling access to ACBM
3. Maintain ACBM until it is eventually removed

Since by law all ACM must be removed from buildings before demolition, the O & M Program is not a permanent solution, nor is it a means by which full-scale asbestos abatement is accomplished. Rather, material is removed only as necessary for maintaining building systems. As an example,

asbestos-containing insulation may be removed around a leaking steam valve to gain access for repairing the valve as part of an O & M Program. Removing material is allowed and anticipated as an integral part of the O & M Program, but the motivation to remove material must develop from a specific maintenance need. Large abatement projects that require extensive planning and technical expertise are beyond the scope of the O & M Program.

COMPONENTS

Maintaining asbestos in place may be the only affordable option for many school districts. It is a multi-faceted program and involves many parts of this management plan. The major components are as follows:

- Periodic surveillance
- Specific maintenance and cleaning practices
- Medical surveillance
- Training employees and workers
- Notification and labeling
- Recordkeeping

Creating and enacting the O & M program is central to the management plan. Information to accomplish this task is found in this section and also through training courses for the LEA Designate and maintenance workers.

The heart of any asbestos program is the inspection and the inspection documentation. Understand the inspection report and the location of ACBMs.

An O & M Program for asbestos materials will highly impact the school's maintenance activities and will involve the cooperation of all maintenance staff members. Once mastered, the procedures will become routine and the additional burden of asbestos-containing materials will become an accepted practice.

POLICIES

One of the most complicated areas of the AHERA rules is understanding what activities you can or should perform with your own trained staff, short of having everyone trained as a full-scale worker. Consideration should be given to further training beyond the minimum requirement as one way to assure competency when conducting activities that impact asbestos. The district should set policies that clarify the confusion between State and Federal laws and to reflect the uniqueness of their operation and facilities. Policies should be set with input from many sources such as the School Board, legal representative, parents, teachers, and outside consultants.

Following are general policies established by the District:

1. All maintenance activities shall be by inner school permit system. The LEA Designate shall sign off that asbestos-containing materials are being properly treated for each remodeling or maintenance project.

2. It is the general policy of the District that all asbestos related work shall be performed by outside contractors.

3. The District has appointed an Asbestos Program Manager to oversee all asbestos-containing building materials operations and activities.

4. Maintenance and custodial staff that come in contact with asbestos-containing building materials will be provided with a minimum of 2 hours of asbestos awareness training in accordance with AHERA and OSHA regulations. Training records should be placed in the Recordkeeping section of the management plan.

5. All removal of ACM greater than 3 SF or 3 LF shall be performed by an outside contractor with their accredited personnel regardless of the quantity of material removed.

6. Any fiber release episode shall be immediately reported to the Asbestos Program Manager. The area shall be isolated and demarcated. Outside contractors will be contacted to clean-up and repair asbestos-containing materials.

7. Air monitoring and inspection tasks will be performed by a third-party air monitoring technician.

8. Perform an annual workplace review of asbestos programs to evaluate safe working conditions, training, labeling and updates to asbestos-containing building material actions.

9. Perform a visual surveillance every six months of friable and non-friable asbestos-containing building material with a potential for damage.

Fern Ridge School District Asbestos Management Plan Policy Chart

ACTIVITY	***IN-HOUSE***	***OUTSIDE CONTRACTOR OR CONSULTANT***	***SHARED BY IN-HOUSE & OUTSIDE***
Special Cleaning in Proximity of Friable ACM	X		
O & M Activities			X
Material Disturbance Less Than 3 SF or 3 LF		X	
Material Disturbance Greater Than 3 SF or 3 LF		X	

ACTIVITY	***IN-HOUSE***	***OUTSIDE CONTRACTOR OR CONSULTANT***	***SHARED BY IN-HOUSE & OUTSIDE***
Training Provider		X	
Project Design and Specifications		X	
Air Monitoring		X	
Abatement Project Management		x	

PERMIT SYSTEM

Minimizing inadvertent disruption of ACBM during maintenance and renovation operations is often one of the most difficult tasks faced by the LEA Designate appointed Asbestos Program Manager. Initiating a permit system, where all work orders or requests are funneled through the Asbestos Program Manager is a simple yet effective way of controlling disruption of ACM during these activities. The EPA "Green Book" is an excellent source of information on permit systems. The NIBS "Guidance Manual, Asbestos Operations & Maintenance Work" presents a detailed comprehensive model permit system.

In the permit system, all requests for maintenance/renovation activities (other than emergency responses) are given to the Asbestos Program Manager prior to the issuance of a work order to proceed. He or she then checks the building's management plan for information about the presence of ACBM where work is to be performed. The manager should also physically inspect the area in question to ensure asbestos records reflect actual conditions.

If no asbestos is present, the work order is issued and the planned actions can proceed. If asbestos is present, the Asbestos Program Manager will contract with an outside contractor to perform abatement activities needed to complete the work. An example permit is included in this section.

For all jobs where potential contact and disturbance of ACM exists, the Asbestos Program Manager or a designated supervisor qualified by training and experience should visit the work site when the work begins to ensure that the job is being performed properly. In worst-case situations (e.g., large amounts of ACM or contamination), noncritical maintenance/renovation work should be deferred until the ACM in the area can be abated by an abatement contractor.

RESPIRATOR PROGRAM

The District has established a Respirator Program if personnel, who are trained, are to remove, encapsulate, or repair asbestos-containing materials, are required to enter contaminated areas, or are otherwise required to wear a respirator as part of their work. The minimum recommended level

of training for maintenance personnel involves a two-day course of hands-on education. The details of Respirator Programs are discussed in depth during that training, but should at least include:

1. **Policy Statement.** A written statement of management policy, including assignment of individual responsibility, accountability, and authority for required activities of the respiratory protection program.

2. **Standard Procedures.** Written standard operating procedures governing the selection and use of respirators. Respirator selection (from NIOSH/MSHA-approved and certified models) is based on the hazards to which the worker is exposed.

3. **Medical Exam.** Medical examination of workers to determine whether or not they may be assigned an activity where respiratory protection is required.

4. **Proper Use and Training.** User training in the proper use and limitations of respirators and evaluation of the skill and knowledge obtained by the worker through training.

5. **Fit Test.** Respirator fit testing. The fit testing should be performed by an industrial hygienist. Testing is done prior to wearing a respirator and at least every six months thereafter.

6. **Cleaning.** Regular cleaning and disinfecting of respirators.

7. **Inspection.** Routine inspection of respirators during cleaning, and at least once a month and after each use for those respirators designated for emergency use.

8. **Storage.** Storage of respirators in convenient, clean and sanitary locations.

9. **Air Monitoring.** Surveillance of work area conditions and degree of employee exposure through air monitoring. OSHA regulations require that documentation is available that assures that the respirator in use is adequate protection.

10. **Program Evaluation.** Regular inspection and evaluation of the continued effectiveness of the respirator program.

The Respirator Program involves medical testing of personnel who must wear respirators, respirator selection, respirator fit-testing and proper care and maintenance of the respirator. The Respirator Program must be written and records kept. If the Owner's program requires that a Respirator Program be established, the Asbestos Program Manager must be responsible for implementation and adherence to the established procedures.

FIBER RELEASE EPISODES

SCOPE: Response to accidental disturbance of friable ACBM
Minor Fiber Release: Less than 3 SF or 3 LF
Major Fiber Release: 3 SF or 3 LF or more

TRAINING: Minor Fiber Release: 16-hour O & M Training
Major Fiber Release: Accredited Project Designer and Accredited Abatement Worker

FORMS: Form A

An accidental disturbance of asbestos material resulting in asbestos fibers being released into the air is considered a Fiber Release Episode. If less than 3 square feet or 3 linear feet are dislodged, it is considered a minor fiber release. If greater than 3 square feet or 3 linear feet is dislodged, it is a major fiber release. Follow the guidelines below as appropriate:

MINOR FIBER RELEASE EPISODE

1. **16-Hour Training.** Personnel with a minimum of a 16-hour O & M training course can perform clean-up.

2. **Restrict Area.** Immediately restrict access to the area to only those persons necessary to enact clean-up. Shut off air handling equipment if necessary to prevent fiber dispersal to other areas of the building. Other sources of air movement such as open windows, openings under closed doors, etc. must be considered and dealt with accordingly.

3. **Wet Material.** The material or debris should be thoroughly wetted and disposed of in labeled and sealed 6 mil plastic bags.

4. **Clean Area.** Prior to cleaning the horizontal surfaces such as floors, etc., lightly mist the air with amended water. Begin at the high point of the room and end low to the floor. This is to trap airborne asbestos fibers. Allow time for mist to settle. Using a HEPA vacuum and/or wet methods clean the affected area. The area cleaned should extend at least three feet in all directions from locations of obvious debris. Dispose of rags, water, etc. properly.

5. **Repair.** Repair damaged areas with asbestos-free materials. Use the method described in the technical sections.

Note: Determine if episode can recur and institute preventative measures. Consultations with other people within or outside the school may be appropriate. Air monitoring while cleaning up and afterwards may be desired.

MAJOR FIBER RELEASE EPISODE

1. **Restrict Area.** The school maintenance staff should immediately restrict access and post warning signs to the area. So as not to exacerbate the situation, trained personnel should enter area only as absolutely necessary. Shut off air handling system or modify to prevent asbestos fibers from spreading. Other sources of air movement such as open windows, openings under closed doors, etc. must be considered and dealt with accordingly.

2. Design the response action using accredited Project Designer.

3. Accredited full scale abatement personnel must be used to perform clean-up.

4. Review nearby materials for inclusion and compare various response actions.

5. Execute the response action with proper management and air monitoring.

Notify the local air pollution control and other authorities as necessary. If building occupants are involved and they come in contact with ACMs, stay calm, do not brush material from clothing and avoid trampling material. HEPA vacuum and wet wipe clothing and skin. Treat physical injuries requiring immediate first aid before decontamination of individuals and clothing.

FIBER RELEASE OR O & M ACTIVITY?

Much confusion may exist as to the difference between a Fiber Release Episode and an O & M activity. It is a key issue in that only 3 square feet or linear feet of material may be removed by 16-hour trained maintenance personnel during a fiber release episode, but no such clearly defined limit exists for an O & M activity. The difference is the motivation for the action taken and the material's condition prior to the activity.

A Fiber Release Episode is accidental damage to friable asbestos material. The damage results in asbestos fibers being released into the air. Some examples would be students causing damage to a textured ceiling material or school personnel damaging a boiler jacket while moving equipment in the boiler room. The response to these situations would be as described for Fiber Release Episodes.

Removal of ACBM as an O & M activity is motivated by the need to safely maintain a mechanical system or other building component. Examples would be a leaking steam valve insulated with asbestos material, or moving asbestos-containing ceiling tiles to gain access to the ceiling space to alter the air handling system. The removal is a precursor to another activity and the material being removed is likely in good condition and thereby not releasing vast quantities of asbestos fibers.

Materials that are excessively damaged and releasing fibers must be encountered using the procedures described as a Fiber Release Episode. Materials that are in generally good condition, but must be removed for the purposes of maintaining the building, are addressed as O & M activities.

GENERAL GUIDELINES

When trained personnel are required to remove, encapsulate or repair asbestos-containing material in the course of their regular maintenance activities, the following general guidelines should be followed. The procedures represent a general, prudent standard and may be modified by management policy. These guidelines are for planned or emergency disturbance of ACM resulting from maintenance needs. Prior to the O & M activity, it is assumed that the material is in relatively good condition and does not meet the criteria of a Fiber Release Episode. A Fiber Release Episode is the accidental damage which causes an immediate release of asbestos fibers into the air. Fiber Release response is discussed in the previous section. Additional O & M guidelines for the specific materials found in the building are presented in the technical sections that follow.

1. **Restrict Access.** Restrict entry into the area to only those necessary to perform the maintenance project. All personnel in the area must be protected as described in the technical sections. Access may be restricted through physical means or by scheduling.

2. **Post Signs.** Signs must be posted at all reasonable points of entry into the affected work area to prevent entry by unauthorized persons.

3. **Shut Off Air Handlers.** The building's air handling system must be shut off or modified to prevent air movement which could carry fibers outside of the affected work area. Other sources of air movement such as open windows, openings under closed doors, portable fans, etc., must be considered and dealt with accordingly.

4. **Air Monitoring.** Determine if historical air monitoring exists for the planned activity and if clearance air sample results are necessary. OSHA requires sufficient personal air monitoring results to verify that the correct respirator has been selected.

5. **Use Proper Work Practices.** See the technical sections for the appropriate procedures. Trained personnel must use good work practices such as wet methods, HEPA vacuums, HEPA exhaust fans, mini-enclosures, glove bags, prompt clean-up and disposal, etc. to inhibit the spread of released fibers.

6. **Clean Area.** After the necessary disturbance of the ACM, the fixtures, components and surfaces in the immediate and affected area should be HEPA-vacuumed or wet-cleaned.

7. **Dispose of Debris.** Asbestos debris, used glove bags, contaminated rags, etc. must be placed in sealed, leak tight containers or 6-mil plastic bags. The bags and containers must be properly labeled. Dispose of at an approved landfill with appropriate disposal manifest.

PROTECTION LEVELS

The following methods of personnel protection are referenced in the technical sections. Only trained personnel with proper medical approval and fit-test can wear respirators. All respirators must be approved by NIOSH/MSHA (National Institute for Occupational Safety and Health; Mine Safety and Health Administration) and be equipped with HEPA filter disposable cartridges (magenta/purple color code). It is assumed that adequate oxygen supply is present in the work area as none of the respirators listed supply additional air to the wearer. The HEPA cartridges filter minute dust particles and are not effective for filtering organic vapors, paint mists, etc.

LEVEL	***RESPIRATOR***	***PROTECTIVE CLOTHING***
ONE	Half-face negative pressure	Disposable gloves
TWO	Half-face negative pressure	Disposable gloves Single layer disposable coveralls
THREE	Half-face negative pressure	Disposable gloves Double layer disposable coveralls
FOUR	Full-face powered air-purifying	Disposable gloves Double layer disposable coveralls

PERSONAL DECONTAMINATION PROCESS

After completion of the maintenance activity, the worker must properly decontaminate. The process is generally the same for all Protection Levels. The worker should follow the steps below as appropriate to the level of protection.

1. **HEPA Vacuum Outer Coverall.** HEPA vacuum outer layer of disposable coveralls. Carefully remove, turning coveralls inside-out.

2. **HEPA Vacuum Inner Coverall.** HEPA vacuum inner layer of disposable coveralls. Carefully remove, turning coveralls inside-out.

3. **Remove Gloves.** Carefully remove gloves, turning gloves inside out.

4. **Dispose of Coveralls and Gloves.** Dispose of coveralls, gloves and other contaminated items in 6-mil plastic bags that are leak tight. Place in a second properly labeled 6-mil plastic bag.

5. **Wash.** Wash hands, face and other exposed skin. This is good hygiene practice, and wastewater should not be asbestos-contaminated if the worker was involved in routine procedure with a low fiber level. If high fiber levels are expected, contain and filter the water prior to disposal in sanitary sewer system.

6. **Respirator.** Remove respirator and clean. Detach cartridges and dispose.

COMMON MATERIALS AND DEFINITIONS

1. **AHERA:** Asbestos Hazard Emergency Response Act. 40 CFR Part 763. Federal regulation requiring public elementary and secondary schools to develop and implement an asbestos management plan (O & M program).

2. **Amended Water:** Clean potable water containing a surfactant additive. The surfactant additive shall be 50 percent polyoxyethylene ether and 50 percent polyethylene ester, or equivalent, and shall be mixed with water at a concentration of one ounce surfactant to 5 gallons of water, or as recommended by the manufacturer in the case of an equivalent.

3. **ACM:** Asbestos containing material. Any material containing more than 1 percent asbestos.

4. **Asbestos:** Includes chrysotile, amosite, crocidolite, tremolite asbestos, anthophyllite asbestos, actinolite asbestos, and any of these minerals that has been chemically treated and/or altered.

5. **Disposal Containers:** Disposal containers shall be suitable to receive and retain any asbestos containing or contaminated materials until disposal at an approved site. The containers shall be labeled in accordance with OSHA and EPA regulations. Containers must be both air and watertight, and have hard top, bottom and sides such as steel or fiberboard.

6. **Encapsulants:** Encapsulants shall be of the bridging or penetrating variety and shall be listed as "satisfactory" by the EPA. Penetrating Encapsulant: No. 207 Special Sealer #33775 27A as manufactured by Makus-Cincinnatus, Inc.; "Asbestop 30B-2" as manufactured by Asbesco Corp.; "Cable Coating 22-P" as manufactured by American Coatings Corp., or approved. Bridging Encapsulant: Decadex Firecheck, manufacturer's standard color "Magnolia", as manufactured by Pentagon Plastics, Inc.; "Cable Coating 2-B", manufacturer's standard color gray, as manufactured by American Coatings Corp.; or approved.

7. **Glove Bag:** A manufactured device consisting of a transparent impervious plastic bag-like enclosure with a seamless bottom and inward projecting glove-like appendages through which material and tools may be handled, an internal tool pouch, provisions for fastening and sealing at the top and sides, and a receptacle in the bottom to hold asbestos waste. The glove bag is affixed around asbestos-containing material to be removed and contains all fibers released during the process. Glove bags are used to remove insulation from small sections of pipe and fittings. Glove bags shall not exceed 60 inches x 60 inches and are not installed on pipe insulation when temperatures exceed 150 degrees.

8. **HEPA Filter:** A High Efficiency Particulate Air (absolute) filter capable of trapping and retaining 99.97 percent of asbestos fibers greater than 0.3 microns in length.

9. **HEPA Vacuum Equipment:** High Efficiency Particulate Air (absolute) filtered vacuuming equipment with a filter system capable of collecting and retaining asbestos fibers. Filters should be of 99.97 percent efficiency for retaining fibers of 0.3 microns in length or larger.

10. **HEPA Fan Unit:** An air-purifying fan which draws air through a HEPA filter.

11. **Mini-Enclosure:** A small temporary enclosure of 6 mil plastic sheeting constructed around a work area to contain airborne asbestos fibers. The enclosure shall accommodate no more than two persons and shall conform to the configuration of the space. The enclosure shall be placed under negative pressure using a HEPA vacuum. Prior to use the enclosure shall be inspected for leaks and smoke tested. Prior to reuse the enclosure shall be cleaned with amended water and HEPA vacuumed. Attached to the mini enclosure is a three-foot by three-foot equipment room with impermeable plastic bottom, top and sides to be used for decontamination purposes.

12. **Plastic Bags:** Plastic bags shall be 6-mil polyethylene printed with warning labels per OSHA and EPA regulations.

13. **Rewettable Lagging Cloth:** Twelve ounce glass fabric lagging cloth saturated with dried lagging adhesive. "Dip Lap" as manufactured by Claremont Co. or equivalent.

14. **Tack Coat:** A coat of penetrating encapsulant applied to all surfaces from which asbestos-containing materials have been removed.

15. **Warning Labels and Signs:** Warning labels and signs shall be posted as required by OSHA and EPA regulations.

16. **Wet Cleaning:** The process of eliminating asbestos from building surfaces and objects by using cloths, mops, or other cleaning tools which have been dampened with amended water.

DISPOSAL

The Operations and Maintenance Program will intermittently generate small quantities of asbestos debris and contaminated waste. It may not be feasible to transport waste directly to an approved landfill at the time the waste is generated. Consequently, each school should establish an area to safely store disposal bags prior to transport to the landfill.

The area should be securely locked, inaccessible to students, teachers and non-maintenance personnel, and directly open to the outside if possible. Used disposal bags must be double-bagged, kept sealed and should be stored in a labeled steel or fiberboard drum. Once a bag is sealed, it should not be reopened. This allows reuse of the drum container, if the outer bag of the double-bagged waste remains undamaged. If the bags are damaged, the drum container must also be

disposed of as contaminated waste unless it can be effectively cleaned. The landfill dump receipt and other records should be kept as part of the recordkeeping process and a summary of those activities kept in all of the management plans.

Contaminated water must either be double-bagged as asbestos waste or passed through a HEPA water filtration device. If cleansed through a filtration device, the water may be disposed of through the building's plumbing system.

MATERIAL HANDLING TECHNICAL SECTIONS

The following documents are technical sections for handling of some of the asbestos-containing materials found at this site:

- Special Cleaning Procedures
- Asbestos Debris
- Floor Tile

SPECIAL CLEANING PROCEDURES

General Discussion

A. In areas containing friable asbestos material such as sprayed-on ceiling texture or fireproofing, microscopic asbestos fibers can be released from the material and become airborne. Most of the fibers will eventually settle onto floors, furniture, tops of light fixtures, etc. The activities of the building occupants can cause the fibers to become airborne once again. The cycle of fibers being released, settling, and becoming re-entrained can perpetuate indefinitely unless steps are taken. Special cleaning procedures are designed to remove the settled asbestos fibers.

B. The Initial Cleaning, if recommended in the Survey Report, should be scheduled within a few months during a period of non-occupancy. Additional periodic cleanings should be considered if the material is highly friable or is specifically noted in the Survey Report or discussions with the environmental consultant. Areas with High Concern exposed surfacing materials should be cleaned, at a minimum, every six months. The asbestos program manager should establish a written policy which can be used to determine when cleaning activities require a restricted area.

Repair

A. Not applicable

Special Cleaning Process

A. Protection level: One

B. Maximum Quantity Per Project: No Limit

C. Procedure:

1. HEPA Vacuum Protrusions and Fixtures. Window sills, door heads, tops of bulletin or chalk boards, suspended light fixtures, exit signs, and other surfaces that collect settled dust should be HEPA-vacuumed.

2. Wet Clean Protrusions and Fixtures. Wet-wipe areas that were previously HEPA vacuumed. In lieu of first cleaning with a HEPA vacuum, the surfaces may be wet-wiped twice.

3. Clean Floors. HEPA-vacuum or steam-clean carpets. Other floors such as vinyl floor tiles and sheet vinyl should be wet-mopped.

4. Disposal. Place all rags, contaminated water, vacuum bags and mop-heads in 6-mil plastic bag or leak tight container. Thoroughly clean non-disposable tools. Wet-wipe or HEPA vacuum the outside of bag and place in a second properly labeled 6-mil plastic bag or leak tight container. Transport all waste material to a landfill with an appropriate waste disposal manifest or to a secure, temporary holding area.

5. Filters and Water. Check with HEPA vacuum manufacturer as to the replacement schedule of filter stages. In lieu of double bagging, water may be filtered through water-purifying equipment and disposed of through the building's plumbing system. The water-purifying system shall be capable of removing all fibers longer than 1 micron such as "AQUA HOG" by Control Resource Systems, Inc. or similar.

Routine Cleaning Process

A. Protection level: None

B. Procedure:

1. Routine. After the special cleaning, daily, weekly and other routine cleaning may use normal procedures. Custodial staff should be alerted to the location of the friable asbestos-containing material and be advised not to impact the material in any manner.

2. Alert. If custodial staff notices any signs of the asbestos-containing materials flaking or dislodging, they should not work in the area and should immediately notify the Asbestos Program Manager.

END OF SECTION
SPECIAL CLEANING PROCEDURES

ASBESTOS DEBRIS

General Discussion

A. Review the Asbestos Survey Report to determine the preventative measure recommendation for the debris. If the preventative measure is "restrict access," refer to the sections Accessing Restricted Areas and Removal of Large Amounts of Debris below. If the preventative measure is "clean up the debris," refer to the section Small Scale Short Duration Projects.

B. Areas of a building identified in the Survey Report as containing extensive quantities of asbestos debris should be restricted so that access is limited to trained personnel. These restricted areas are generally crawlspaces, attics, ceiling plenums, and pipe tunnels. The cost to remove the material may be prohibitive, which necessitates establishing a procedure to enter the area when required. Access to these areas should only be when absolutely necessary. Evaluate to determine if debris may be disturbed during required maintenance in the area. If so, remove debris as a full-scale asbestos removal project.

C. Restricted areas may also be defined as confined spaces. Additional requirements may be necessary while accessing such areas. Refer to management policy statements for specific information.

Repair

A. Not applicable

Accessing Restricted Area

A. Protection level: Four

B. Consider installing an equipment room at the entrance of the restricted area to reduce contamination potential, as outlined in the section Accessing Restricted Area: Equipment Room.

C. Procedure:

1. Mobilization. Place all decontamination equipment such as HEPA vacuum, water, rags, disposal bags, etc. at the entrance/exit point of the restricted area.

2. Restrict Access. The entrance to the restricted area should have been posted with warning signs. Additionally, barriers and/or signs should be placed in appropriate hallways, etc., to limit access by other personnel to the adjacent area. Only trained and protected personnel should be in the area.

3. Entry. Place plastic ground cloth at entrance. Carefully enter area and avoid disturbing debris if at all possible. Do not exit restricted area without decontaminating.

4. Decontamination Prior to Exit. When exiting remove the outer layer of protective coverall while in the restricted area but at the point of immediate exit. Turn the coverall inside out while removing. Carry the coverall out of the area and immediately place it in a 6-mil disposal bag or leak tight container. As an option, the worker can leave the protective coverall in the contaminated area and then exit.

5. Clean Exit Area. Pickup plastic ground cloth and place in 6-mil disposal bag or leak tight container. HEPA vacuum work clothes. Wet-clean and HEPA-vacuum the area at the exit point.

Accessing Restricted Area Equipment Room

A. Protection level: Four

B. Consider installing permanent equipment room at access points to restricted areas such as pipe tunnels and crawlspaces.

C. Procedure: Equipment Room

1. Construct Equipment Room. Construct an equipment room and attached air lock using 6-mil plastic (floor, walls, ceiling) on a wood-framed or plastic pipe structure. Construct an equipment room of a size that is large enough to accommodate equipment, waste bags with adequate room for decontamination. Construct an airlock chamber between equipment room and restricted area. Seal the airlock to a non-asbestos surface. The "airlock" serves as entry/exit to the work area. The equipment room provides additional security in the event of increased fiber release.

2. Entry. Carefully enter area and avoid disturbing debris if at all possible. Conduct work. Do not exit without decontaminating.

3. Decontamination in Area. Remove outer disposable coverall in the restricted area. Place all waste, outer layers of contaminated clothing, rags, disposable tools, etc. into a 6-mil plastic bag or leak tight container. Thoroughly clean non-disposable tools. Wet-wipe or HEPA vacuum outside of all waste bags and place inside the equipment room.

4. Decontamination in Equipment Room. Proceed to equipment room and place bagged waste in second 6-mil, properly labeled bag or leak tight container. Wet-clean surfaces inside of mini-enclosure. Remove inner layer of disposable coverall

and double-bag for disposal. HEPA vacuum work clothing.

5. Disposal. Remove all waste materials to a landfill with appropriate disposal manifest, or to a secure, temporary holding area.

Small Scale Short Duration Project

A. Protection Level: Two

B. Maximum Quantity per Project: 3 linear feet or 3 square feet.

C. Procedure:

1. Wet Material. Mist the debris with an amended water sprayer until it is thoroughly saturated.

2. Clean Debris. Carefully place debris into a 6-mil plastic bag. If feasible, wet-wipe and/or HEPA-vacuum horizontal surfaces at least 3 feet in all directions from the debris. Apply a mist of spray encapsulant to the area if it is not a finished surface.

3. Decontamination/Disposal. Place all disposable tools, rags, and outer layer of protective clothing, etc., in a 6-mil plastic bag or leak tight container. Seal bag and wet-wipe/HEPA vacuum outside of bag. Place bag into equipment room, if used, or pass it through the entrance to the restricted area. Remove inner layer of disposable coverall and double-bag for disposal. HEPA vacuum work clothing. Transport to a landfill with an appropriate waste disposal manifest, or to a secure, temporary holding area.

Removal of Large Amounts of Debris

A. Not allowed. Extensive debris must be removed as a full-scale abatement project and is outside the scope of the O & M program.

END OF SECTION
ASBESTOS DEBRIS

VINYL FLOOR TILE

General Discussion

A. Vinyl Floor Tile or Vinyl Asbestos Tile (VAT) flooring material is often left in place because of budgetary concerns and due to the material's non-friable condition. The objective is to safely maintain the tiles while also maintaining their appearance.

B. Fibers can be released when maintaining VAT floors and using abrasive floor pads; therefore, low-speed machines and low-abrasive floor pads should be used only as indicated in this section. The fiber levels should not exceed the OSHA Permissible Exposure Limit (0.1 f/cc 8 hour TWA)

C. Use low speed (lower than 300 rpm) machines and wet methods when stripping finishes

D. Burnishing or dry buffing of floors should be done only where there is sufficient finish to prevent the pad from coming into contact with the flooring material.

E. An alternative to maintaining VAT floors is installing new non-asbestos resilient flooring or carpet on top of the existing VAT. When installing a new material, do not utilize techniques that sand, cut or drill into the existing VAT. Do not use abrasive floor pads.

F. Removal of VAT requires an assessment of the condition of the tiles. The tiles must be intact and remain intact during the removal process. Incidental breakage of floor tile during removal or disturbance does not mean that the VAT is no longer intact. Whether broken or not VAT tile is intact if it is not crumbled, pulverized, or deteriorated to the point that the ACM is no longer bound by its matrix. The work practices described in this section are intended to keep the tile intact during removal or repair.

Repair

A. Protection Level: Four

B. Procedure: Manual spot removal of a damaged tile during maintenance may be required. Limit this procedure to damaged tile.

1. HEPA Vacuum. HEPA vacuum the entire floor with metal floor attachment.

2. Pry Method**.** Detach each floor tile with stiff beaded scraper. If tile will not release use a hammer to strike scrapper to cause the tile to release. A heat gun may be used to soften the adhesive and facilitate removal.

3. Heat Method. Without prying up floor tiles apply heat to the tiles (heat gun, infrared machine) and remove tiles with scraper. Wetting may be omitted when using a heat source.

4. Tile Disposal. Place tile(s) in a 6-mil plastic disposal bag or other closed leak tight container.

5. Adhesive Removal. Wet and scrap away the residual adhesive with stiff beaded scraper. Solvent-based or citrus based mastic removal solutions may be used to help dissolve the remaining adhesive when water is not effective removing the adhesive. Follow manufacturer's recommendations and Material Safety Data Sheet (MSDS).

6. Place the wet adhesive residues in a 6-mil plastic disposal bag or closed leak tight container.

7. HEPA Vacuum. HEPA vacuum the area from which the adhesive has been removed with metal floor attachment. After the removal area has dried repeat HEPA vacuuming with metal floor attachment, including adjacent areas.

8. Cleanup and Disposal. Clean outside of bags and place in second 6-mil plastic bag that bears proper label or leak tight container, and transport to temporary holding area or landfill. HEPA vacuum work clothing.

C. Procedure: Maintenance may require drilling through a floor tile to anchor equipment, etc. Utilize the following steps:

1. Foam. Create dam to contain shaving cream or similar type foam. A dam may be created from a spray can cap or by cutting a length of PVC pipe. Apply shaving cream or similar type foam to area where hole is to be drilled.

2. Drill. Drill hole in center of foam. High-speed or hole saw bits may create excessive foam splatter and additional containment of foam may be needed.

3. HEPA Vacuum. Remove the foam with a HEPA vacuum, and then wet-clean the area. Thoroughly clean non-disposable tools such as drill bits.

4. Clean-up and Disposal. Place contaminated rags, disposable tools, etc. in 6-mil plastic bag. Clean dam if it will be re-used. Clean outside of bag, place in

second 6-mil plastic bag that bears proper label, and transport to temporary holding area or landfill. HEPA vacuum work clothing.

Class 3 Alternative Maintenance Procedures

A. Vinyl floor tiles do not generally require removal as a necessary process for maintaining a building. Although the material is non-friable, removal can cause elevated fiber levels. The owner should develop a policy for various removal methods which may be used for the removal VAT for O & M Program. Building owners should develop a written program in consultation with a qualified industrial hygiene firm employing appropriate removal techniques, e.g., infrared removal machines, heat guns, and dry ice.

Cleaning Process

A. Protection Level: None required

B. Maximum Quantity per Project: No limit unless modified by management policy. Verify with policy statement.

C. Procedure:

1. Chemical Strip. Chemical-strip floors, rinse and apply an acrylic polymer or similar finish. Follow manufacturer's recommendations and material safety data sheet (MSDS).

2. Apply Sealer. Apply a permanent sealer over the tile and maintain the floor without power stripping. Apply numerous coats following manufacturer's recommendations and MSDS. The floor must be in good condition prior to using this method and not have any high spots. The use of any abrasive, high- or low-speed buffing may release asbestos fibers and is not recommended.

3. Periodic Cleaning. After application of permanent sealer, periodic maintenance should be directed towards the sealer layer only. If buffing or stripping is necessary, use low speed buffers only, do not impact tile, and use Protection Level: One.

END OF SECTION
VINYL FLOOR TILE

TAB 8

Recordkeeping

Use this section to maintain all completed forms

These forms include:

Forms A and A1
Forms B and B1
Form C
Maintenance Work Authorization Form
Notification Letters

TAB 9

Form Masters

ASBESTOS ACTIVITY RECORD
FORM A.

☐ ACBM RESPONSE ACTION
☐ ACBM PREVENTATIVE MEASURE
☐ CLEANING
☐ O&M ACTIVITY

OWNER: _____
BUILDING: _____
LOCATION: _____
DATE: _____ to _____
(start) (stop)

FIBER RELEASE EPISODE:

DESCRIPTION OF MEASURE OR ACTION: _____

REASON WHY SELECTED: _____

CONTRACTOR (if used):_____ **IDENTIFICATION NO**.: _____

ADDRESS: _____ **CITY**: _____ **STATE**: _____ **ZIP**: _____

WORKERS USED:

NAME	TRAINING	IDENTIFICATION NO.

DISPOSAL OR STORAGE SITE:

NAME: _____

ADDRESS: _____ **CITY**: _____ **STATE**: _____ **ZIP**:_____

AIR SAMPLING DATA:

DATES:_____

COLLECTION DATE(S):_____

DESCRIPTION OF LOCATIONS OF SAMPLES:
_____
_____
_____

COMPANY/PERSON COLLECTING SAMPLES:

NAME:_____

SIGNATURE:_____

PROJECT DESIGNER:

NAME: _____

IDENTIFICATION NO.: _____

ANALYSIS DATE(S): _____

LABORATORY ANALYZING SAMPLES:_____
_____
ADDRESS:_____
CITY: _____ **STATE**: _____ **ZIP**: _____

METHOD OF ANALYSIS:_____

PERSON(S) ANALYZING SAMPLES:

NAME: _____

SIGNATURE(S): _____

_____

This signature certifies that this testing lab is enrolled in AIHA PAT program for PCM or is accredited by NVLAP for TEM.

ASBESTOS ACTIVITY COMPLETION RECORD
FORM A1

☐ ACM ABATEMENT PROJECT

☐ ACM PREVENTATIVE MEASURE

☐ O&M ACTIVITY

EMERGENCY RESPONSE:
SMALL or LARGE

OWNER: _____

BUILDING: _____

LOCATION: _____

DATE: _____
(start) (stop)

DESCRIPTION OF ACTION:

_____

_____

WORK AREA:

_____

_____

LOCATION OF REMAINING ACM/PACM:

_____

_____

TYPE OF ACM/PACM REMAINING:

_____

_____

QUANTITY OF ACM/PACM REMAINING:

_____

_____

NAME: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

SIGNATURE: _____

PERIODIC SURVEILLANCE
FORM B

Periodically asbestos-containing materials (ACM) should be observed to document any changes in conditions. Walk through the building to observe current conditions. Be sure to note both friability and damage for every material by checking the appropriate category. This form is to be kept in the periodic surveillance section and should be used anytime you notice a change in ACM conditions or accessibility.

DO NOT TOUCH ASBESTOS-CONTAINING MATERIAL WITHOUT PROPER TRAINING

Facility Name: _____

Building: _____

Date of Observation: _____

MATERIAL	LOCATION	DAMAGED?	FRIABLE?	COMMENTS
		Yes No	Yes No	
		Yes No	Yes No	
		Yes No	Yes No	
		Yes No	Yes No	
		Yes No	Yes No	
		Yes No	Yes No	
		Yes No	Yes No	
		Yes No	Yes No	
		Yes No	Yes No	
		Yes No	Yes No	

Non-friable Materials: _____

_____

_____

_____

Remarks: _____

_____

_____

By: _____ Title: _____

NEWLY DISCOVERED ACM
FORM B1

Occasionally previously unknown ACM or PACM is discovered during routine maintenance or removal projects. These materials are to be reported to the Asbestos Program Manager within 24 hours of discovery. Complete all sections of this form and be sure to identify the type of material, the location and the quantity (your best estimate). This form is to be kept in the periodic surveillance section and should be used anytime you or contractor discovers new ACM/PACM.

DO NOT TOUCH ASBESTOS-CONTAINING MATERIAL WITHOUT PROPER TRAINING

Facility Name: _____

Building: _____

Date of Observation: _____

MATERIAL	LOCATION	QUANTITY
1.		
2.		
3.		
4.		
5.		

DESCRIPTION OF CONDITION:

Remarks: _____

_____

_____

_____

By: _____ Title: _____

TRAINING RECORD
FORM C

☐ CLASS 4
2-HOUR AWARENESS

FACILITY NAME: _____

FIRM NAME: _____

☐ CLASS 3
16-HOUR WORKER (O & M)

☐ CLASS 1 & 2 FULL-SCALE WORKER

☐ OTHER _____

Trainee's Name: _____

Address: _____

City, State, Zip: _____

Job Title: _____

Training Course: _____

Training Course Location: _____

Training Course Provider: _____

Training Course Description: _____

_____

Course Length: _____

Instructor: _____

Date taken: _____

Accreditation Number (if applicable): _____

Expiration Date of Accreditation (if applicable): _____

Comments: _____

_____

_____

MAINTENANCE PERMIT REQUEST
JOB REQUEST FORM FOR MAINTENANCE WORK

Name: _____ Date: _____

Telephone No.: _____ Job Request No.: _____

Requested Starting Date: _____ Anticipated Finish Date: _____

Address, building, and room number(s) (or description of area) where work is to be performed:

_____

_____

Description of work:

_____

_____

Description of any asbestos-containing material that might be affected, if known (include location and type):

_____

_____

Name and telephone number of requestor:

_____

Name and telephone number of supervisor:

_____

Submit this application to:

_____

(The Asbestos Program Manager)

NOTE: An application must be submitted for all maintenance work whether or not asbestos-containing material might be affected. An authorization must then be received before any work can proceed.

☐ Granted (Job Request No._____)
☐ With conditions*
☐ Denied

*Conditions: _____

_____

_____

MAINTENANCE PERMIT AUTHORIZATION
MAINTENANCE WORK AUTHORIZATION FORM

AUTHORIZATION

Authorization is given to proceed with the following maintenance work:

_____

_____

_____

PRESENCE OF ASBESTOS-CONTAINING MATERIALS

☐ Asbestos-containing materials are not present in the vicinity of the maintenance work.

☐ ACM is present, but its disturbance is not anticipated; however, if conditions change, the Asbestos Program Manager will re-evaluate the work request prior to proceeding.

☐ ACM is present, and may be disturbed.

WORK PRACTICES IF ASBESTOS-CONTAINING MATERIALS ARE PRESENT

The following work practices shall be employed to avoid or minimize disturbing asbestos:

_____

_____

_____

PERSONAL PROTECTION IF ASBESTOS-CONTAINING MATERIALS ARE PRESENT

The following equipment/clothes shall be used/worn during the work to protect workers:

_____

_____

_____

(manuals on personal protection can be referenced)

SPECIAL PRACTICES AND/OR EQUIPMENT REQUIRED:

_____

_____

Signed: _____ Date: _____

(Asbestos Program Manager)

NOTIFICATION LETTER 1
CONTRACTORS / PROSPECTIVE CONTRACTORS or VENDORS

Dear Mr./Ms. _____:

Federal regulations require building owners to notify prospective contractors who may perform work, and contractors who perform work in Medford School District facilities, that asbestos-containing materials are present in the building. We are required to convey the type, location and quantity found in your building. A compiled list of the asbestos-containing materials are found in the following document.

TYPE	LOCATION	QUANTITY

Before engaging in construction, repair or maintenance activities you are required to determine if asbestos is present in the materials which will be disturbed. You are to consult the building Asbestos Management Plan (AMP) for guidance regarding the required asbestos construction, repair and maintenance work practices. Any asbestos contamination, which results from failure to follow procedures in the AMP, will be the responsibility of the contractor to resolve. It is your responsibility to ensure that your employees and any subcontractors you employ are notified about the conditions, procedures and requirements for working with asbestos-containing materials in this building including proper training.

Your cooperation is essential for the success of this program. Questions or concerns you may have regarding asbestos-containing materials should be directed to _____, Program Manager at_____.

Sincerely,

Optional Acknowledgment

Please return a signed copy of this letter to acknowledge your understanding of the asbestos control program in this building and your intent to comply with this program.

Name:_____ Date: _____

Signature:_____ Title: _____

Company:_____