

# **O & M Plan**

## OPERATIONS AND MAINTENANCE PLAN

The Edmonson County Schools will implement an Operation, Maintenance and Repair (O&M) Program for each school building containing friable asbestos containing building material (ACBM) or material that is potentially friable as a result of activities in the building.

The O&M program consists of worker protection; cleaning, operations, and maintenance activities; and emergency response procedures. Record keeping of all activities involving asbestos containing materials has been included in this O&M program. The Edmonson County Schools will comply with all applicable OSHA and EPA regulatory requirements included as part of this O&M program

### I. Worker Protection:

Procedures to be followed to protect those who work with or around asbestos containing material.

#### A) Notification

The Edmonson County Schools shall provide all building occupants, custodial, and maintenance workers with the following information via notices, informational seminars or both.

- What asbestos is and how it is typically used
- Health effects associated with exposure
- What type(s) of ACBM are present in the facility
- The exact location(s) of these materials
- How individuals can avoid disturbing ACBM
- How to recognize and report damage

- How custodial and maintenance personnel should deal with these materials to prevent fiber release
- What will be done periodically and over the long run to protect the health and safety of building occupants
- Name and telephone number of the person(s) responsible for asbestos-related activities in the facility
- Ensure that short-term workers (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 or suspected and assumed ACBM

#### B) **Warning Labels**

The Edmonson County Schools shall attach a warning label directly to or immediately adjacent to any friable and non-friable ACBM and material suspected or assumed to be ACBM located at each school building.

Labels shall be: prominently displayed in readily visible locations; remain posted until the labeled ACBM is removed; printed in readily visible large size or bright color, lettering as follows:

**CAUTION: ASBESTOS. HAZARDOUS.  
DO NOT DISTURB WITHOUT PROPER  
TRAINING AND EQUIPMENT.**

## C) Training

1. The Edmonson County Schools shall ensure, prior to the implementation of O&M provisions of the management plan, that all:

- Members of its maintenance and custodial staff (custodians, electricians, heating/air conditioning engineers, plumbers, etc.) who work in a building which contains ACBM receive awareness training of at least 2 hours, whether or not they are required to work with ACBM.
- New employees will be trained as above within 60 days after commencement of their employment.

Two hour awareness shall include, but not be limited to:

- information regarding asbestos & its various uses & forms
- information on the health effects associated with asbestos exposure
- location of ACBM identified throughout each school building in which they work
- recognition of damage, deterioration, and delamination of ACBM,
- name and telephone number of the person designated to carry out general responsibilities and the availability and location of the management plan

2. The two hour awareness training does not qualify a maintenance or custodial staff to disturb ACBM material. The Edmonson County Schools shall ensure that all members of its maintenance and custodial staff who conduct any activities that will result in the disturbance of ACBM shall receive 2-hour awareness training **and 14 hours of additional O&M training.**

Fourteen hour additional training shall include, but not be limited to:

- Descriptions of the proper methods of handling ACBM
- Information on the use of respiratory protection as contained in the EPA/NIOSH Guide to Respiratory Protection for the Asbestos Abatement Industry, September 1986 (EPA560/OPTS-86-001), available from TSCA Assistance Office. (TS-799), Office of Toxic Substances, EPA, Room E-543, 401 M St., S.W., Washington, DC 20460 and other personal protection measures
- The provisions of the EPA and OSHA regulations concerning asbestos
- Hands-on training in the use of respiratory protection, other personal protection measures and good work practices

#### **D) Employee Protection Program**

Employees of the Edmonson County Schools who perform ACBM operation, maintenance, and repair activities and who are not covered by the OSHA asbestos construction standard or an asbestos worker approved by OSHA are covered and protected by EPA.

Any employee who is exposed to at least 0.1 f/cc of asbestos (8 hour time-weighted average), as measured with phase contrast microscopy (PCM), must be enrolled in a medical surveillance program. Likewise, any employee who works in an environment where fiber levels are 0.1 f/cc or higher (8 hour time weighted average) or who wears a negative pressure respirator as part of their job must be included in a respiratory protection program.

In the O&M program the use of negative pressure respirators will dictate involvement in the medical surveillance program. Although fiber levels may not be high enough to require a respiratory protection program, establishing such a program is recommended. (Note: A written copy of the respiratory program is on file at the Central Office.)

#### **E) Medical Surveillance Program**

The Edmonson County Schools shall implement a medical surveillance program for all employees with the 16 hour O & M training who work with ACBM. The medical surveillance program shall include, but is not limited to:

1. A medical examination for all employees including completion of a medical questionnaire, physical examination with emphasis on cardiovascular and gastrointestinal systems, and a pulmonary function test which shall include the forced vital capacity (FVC) and the forced expiratory volume (FEV). A chest x-ray is optional but highly recommended in order to establish baseline conditions for the employee.
2. A notice to the examining physician including:
  - a copy of the OSHA Asbestos Standard
  - a description of the employees duties as they are related to asbestos
  - the employee's actual or anticipated level of exposure
  - a description of any personal protective and respiratory equipment used or to be used
  - a complete medical profile of the employee

3. Maintaining medical records of the employees for at least 30 years following termination of employment. If the employer goes out of business without a successor, OSHA must be notified at least 90 days prior to termination of business and provide for transfer of records to the secretary of OSHA, if required.

4. Providing a copy of the physician's written statement to the employee within 30 days of receipt.

5. Following the examination, the physician must provide the employer with:

- a written opinion as to whether the employee has any detected medical conditions that would place the employee at increased risk of health impairment from exposure to asbestos
- any recommended limitations on the employee or on the use of personal protection equipment, such as respirators
- a statement that the employee has been informed by the physician of the results of the medical examination and of medical conditions that may result from asbestos exposure. The physician is not to reveal in the written opinion given to the employer any specific findings unrelated to asbestos exposure

## **II. Cleaning:**

Routine daily cleaning of areas known or assumed to contain friable asbestos require awareness of necessary procedures.

#### A. Routine Cleaning in Undamaged Areas

Where areas are undamaged and no asbestos contamination is present, personnel with two hour awareness training shall do the routine cleaning. If custodial personnel or other staff discover damaged friable ACBM, the initial clean-up must be deferred to the 16 hour O & M trained personnel.

#### B. Initial Cleaning in Areas With Damaged Friable ACBM

If friable asbestos-containing building material has been disturbed through air erosion, physical damage, water damage, etc., the Edmonson County Schools shall:

- provide 16 hour O & M trained custodial workers with high efficiency air purifying respirators, at a minimum, for cleaning the building
- train and properly equip custodial workers to conduct a thorough initial cleaning in the building as soon as the O&M program is in place and before the initiation of any response action
- inform custodial workers on how to use a combination of wet mopping/wiping and vacuuming to clean all surfaces within the building
- inform custodial workers that irregular surfaces, such as curtains, books, furniture, and carpeting should be cleaned using a HEPA equipped vacuum cleaner. Carpeting may also be cleaned using steam cleaners; however, care should be given to ensure that the liquid waste generated during steam cleaning is disposed of as asbestos contaminated waste
- inform custodial workers to clean walls, noncarpeted floors, light fixtures, equipment housing, the exterior of air handling ducts, and file cabinets with mops and/or dust cloths and rags that are wetted with amended water (Amended water is a mixture of water and non-sudsing surfactant)



- require periodic or routine cleaning of the building as needed depending on the extent of ACBM and level of contamination

### **III. Operation & Maintenance**

#### **A) Maintenance/Renovation/Repair Work Order System:**

The Edmonson County Schools shall:

- establish a work order system whereby all requests for maintenance/ renovation activities (i.e., work on phone systems, plumbing, and lighting) are given to the asbestos program manager prior to issuance of a work order to proceed
- the program manager shall check the buildings' asbestos records for information about the presence of ACBM where work is to be performed
- check the area in question to ensure records reflect actual conditions
- the program manager shall accept the work order if no asbestos is present
- if asbestos could possibly be disturbed, the program manager shall sign the work order and either assign properly trained maintenance/renovation workers to deal with the ACBM during the operation or establish an emergency response team to remove the asbestos
- the project manager shall defer the removal of ACBM in worst case situations on non-critical maintenance/ renovation work until abatement contractors are available

**B) Daily Activities and ACBM:**

1. The Edmonson County Schools shall inform maintenance and other employees in each building:

- not to drill holes in asbestos material
- not to hang plants or anything else from ceilings covered with asbestos materials
- not to pin or hang pictures on walls covered with asbestos materials
- not to sand asbestos floor tiles or backing materials
- not to damage asbestos material while moving furniture, etc.
- not to disturb asbestos material when replacing light bulbs, etc.; not to allow curtains, drapes or dividers to damage asbestos materials
- not to dust with a brush or dry sweep floors in areas that are likely to contain asbestos fibers. (USE DAMP CLOTH AND WET MOP FLOORS)
- not to use an ordinary vacuum to clean up asbestos debris (USE HEPA VACUUM)
- not to brush or sweep ceilings and walls covered with asbestos materials (AVOID TOUCHING ALTOGETHER)

2. The Edmonson County Schools shall instruct maintenance workers with 16 hour O & M training on how to remove ceiling tiles below damaged friable asbestos material. The following steps are required. The maintenance worker shall:

- wear an approved respirator

- place a 6 mil polyethylene plastic drop cloth beneath the tile, extending at least 10 feet beyond all ends of the work site
- remove tile carefully
- place tile(s) in a 6 mil plastic bag
- wipe drop cloth with a damp cloth and discard drop cloth and rag with tile(s)
- label disposal bag with a sign "**CAUTION - ASBESTOS WASTE**"
- dispose of asbestos wastes in an approved landfill
- 

3. Ordinarily it is the responsibility of a maintenance person to change filters in a HVAC system. The Edmonson County Schools shall instruct maintenance workers on how to change filters in an air ventilation system contaminated with asbestos. The following steps are required. The maintenance worker shall have 16 hour O & M training and shall:

- mist the filter with water
- remove the filter carefully
- dispose of filter properly

4. The Edmonson County Schools shall instruct maintenance personnel to:

- report all damage of ACBM material to the program manager
- obtain instructions on the manner in which damaged insulation is repaired

The 16 hour O & M trained person must:

- wear an approved respirator
- clear the area of other people
- use a drop cloth
- use a glove bag
- clean up carefully
- dispose of waste properly

5. The Edmonson County Schools shall inform maintenance personnel on how to dispose of asbestos wastes. Procedures are as follows. The 16 hour O & M trained maintenance person shall:

- place all dampened filters, cloths, mop heads and other asbestos wastes in double ply 6 mil plastic bags
- seal the bag with heavy duty tape
- label each bag with a sign: **"CAUTION: ASBESTOS WASTE"**
- dispose of the bags in an approved waste disposal site

6. The Edmonson County Schools shall inform maintenance and other personnel on assumed ACBM in each building. The following materials are highly suspect and should be handled as ACBM. They are: stage curtains; window shades; laboratory and kitchen hoods; oven gaskets; gloves; laboratory bench tops; Bunsen burner pads; boiler and kiln gaskets; fire blankets; fire doors; composition chalk boards; transite pipes and partitions; caulking; glazing; sparkling; stage lights; floor lights; spot lights; and HVAC and plumbing gaskets.

7. The Edmonson County Schools shall secure all access areas to pipe tunnels, crawl spaces, attics, and open areas above hallway ceilings, which contain asbestos. Access areas to these spaces require labeling with a sign "CAUTION. ASBESTOS. HAZARDOUS. DO NOT DISTURB WITHOUT PROPER TRAINING AND EQUIPMENT." Only appropriately trained and properly equipped workers are allowed in these areas.

**C) Special Work Practices for Maintenance Activities:**

The Edmonson County Schools shall instruct custodial workers:

In cases where contact with ACM is unlikely workers should use normal care and use proper cleaning methods.

In cases where contact with ACM is possible, the Edmonson County Schools shall instruct 16 hour O & M trained personnel to:

- get approval from program manager, (program manager may have to visit work site)
- schedule work after normal hours
- restrict entry to the area by persons other than those necessary to perform the O&M activity
- post signs to prevent entry into the area by unauthorized persons
- shut off or temporarily modify the air-handling system and use other sources of air movement
- use work practices or other controls to inhibit the spread of any released fibers
- clean all furniture, tools or other components in the immediate work area
- seal the asbestos debris and other cleaning materials in a leaktight container and dispose of properly

- have workers HEPA vacuum, respirators and protective clothing at work site, dispose of clothing as asbestos waste, and shower with respirators on and clean respirators while in the shower

In cases where contact with ACBM is intended or likely for a small scale (less than 3 square feet or 3 linear feet):

- Approval is needed from the program manager.
- Program manager shall schedule activities after normal school hours.
- Program manager shall post signs to prevent entry into the area by unauthorized persons.
- Program manager shall shut off or temporarily modify the air-handling system and use other sources of air movement.

Workers shall wear, at a minimum, half-face, negative air purifying respirators with HEPA filters or the appropriate respiratory equipment as required by OSHA and protective clothing, including a body suit, hood, boots, and gloves.

- Workers shall use work practices or other controls to inhibit the spread of any released fibers.
- Workers shall clean all furniture or other components in the immediate work area.
- Workers shall seal the asbestos debris and other cleaning materials in a leaktight container and dispose of properly.

In cases where contact with ACBM is intended or likely (for a large scale greater than 3 square feet or 3 linear feet of ACBM):

- The response action for any maintenance, renovation or remodeling disturbing friable ACBM (other than small-scale, short-duration activities), shall be designed by persons accredited to design response actions and conducted by persons accredited to conduct response actions.
- The response action should maintain compliance with all applicable OSHA and EPA regulatory requirements.

#### **IV. Emergency Response Procedures**

Emergency Response Procedures to be followed in the event of an accidental disturbance of ACBM resulting in fiber release.

The Edmonson County Schools shall implement response procedures which include but are not limited to:

**A) Minor Emergency Episodes** (less than 3 square feet or less than 3 linear feet) whereby,

- 16 hour O & M trained workers shall wear air-purifying respirators with HEPA filters, at a minimum.
- Workers shall thoroughly saturate the debris with amended water using a mister with a very fine spray.
- Workers shall collect asbestos debris using a HEPA vacuum cleaner and place in a labeled 6 mil plastic bag.
- Workers shall clean floors with damp cloths or a mop.
- Workers shall discard debris as asbestos waste.

- Workers shall vacuum their disposable suits before leaving the work site and shower with their respirator on and clean the respirator while in the shower.
- Workers shall repair damaged ACBM with asbestos-free material, sealed latex paint or an encapsulant.
- The response action for any maintenance activities disturbing friable ACBM (other than small-scale, short duration maintenance activities) shall be designed by persons accredited to design response actions and conducted by persons accredited to conduct response actions.
- The response action should maintain compliance with all applicable OSHA and EPA regulatory requirements.

**B) Major Emergency Episodes** (more than 3 square feet or more than 3 linear feet) whereby:

- Workers, whether they have 16 hour training or not, shall isolate the area and post signs to prevent unauthorized persons from entering the work area.
- Workers shall shut off or temporarily modify the air handling system to prevent the distribution of fibers from the work site to other areas of the building and, if possible, seal doors, windows and air registers with 6 mil plastic sheets and tape.
- After the above procedures are complete, contact a qualified asbestos abatement contractor with proof of valid license to perform asbestos abatement with the Commonwealth of Kentucky.

**C) Contractor Responsibilities**

- Workers shall build containment areas, negative pressure ventilation, and allow for decontamination facilities and air testing.



- Workers should wear adequate respirators and protective clothing, including body suit, hood, boots and gloves.
- Fallen debris shall be sprayed with amended water and placed in plastic bags for disposal.
- Walls, ceilings, pipes, boilers or other surfaces where ACBM was damaged or delaminated should be repaired temporarily.
- The air should be tested for asbestos fibers before the plastic barriers are removed and an area reoccupied.
- After the barriers have been taken down, a thorough cleaning of the entire building or a portion of it shall be considered.
- All equipment shall be appropriately cleaned and disposable material discarded as asbestos waste.
- The contractor shall maintain compliance with all OSHA & EPA regulatory requirements applicable.

## **V. Record Keeping and Future Activities:**

Records of future activities involving asbestos containing material shall be maintained by the Edmonson County Schools using the following guidelines:

### **A) Record Keeping**

1. All records shall be maintained at two locations: in the principal's office and in the Central Office. All AHERA required information regarding response actions for ACBM shall be retained for a minimum of 3 years and incorporated into the next reinspection.

2. Information should contain the following:

- For any response action or preventive measures taken for ACBM:  
a detailed description of the actions and information on sample collection, and analysis results, lab accreditation and methodology.
- For each person required to be trained:  
their name and job title, as well as, information on their training, locations, dates, and number of hours.
- For each periodic surveillance that is conducted:  
the name of each person performing the surveillance, the date of the surveillance, and any changes in the condition of the materials.
- For each reinspection:  
the name and accreditation information of the inspector, the date of the reinspection, and any changes noted in the condition of the material.
- For each required cleaning:  
the name of the person performing the cleaning, the date of the cleaning, the locations cleaned, and the methods used.
- For each small-scale and short-duration operation and maintenance activity:  
the name and signature of the person performing the activity, the activity start and completion dates, the precise locations, a description of the activity and any preventive measures taken, and if ACBM is removed, the name and location of storage or disposal site.

- For maintenance activities (other than small scale and short duration activities):  
the reason, name, and signature of the person performing the activity; their state of accreditation; and, if applicable, the accreditation number of each person doing the activity; the activity start and completion dates; the precise locations; a description of the activity and any preventive measures; and if ACBM is removed, the name and location of the storage or disposal site.
- For each fiber release episode:  
the date and location of the release, the method of repair, the preventive response actions taken, the name of each person performing the work, and if ACBM is removed, the name of the storage or disposal site.

3. Maintain on file all required AHERA record keeping documentation.

**B) Periodic ACBM Surveillance**

The Edmonson County Schools shall schedule a reassessment of ACBM in each building every 6 months by a person who will:

- visually inspect all areas that are identified in the management plan as ACBM or assumed ACBM
- record the date of surveillance, his or her name, and any changes in the condition of the materials
- submit to the program manager, a copy of such record for inclusion in the management plan

**C) Reinspection**

A reinspection of ACBM in each building shall be performed every 3 years by an accredited inspector who submits to the program manager a copy of the records of inspection for inclusion in the management plan.

**WORK ACTIVITY LOG**  
(Operations and Maintenance: Asbestos)

Building Location /Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

County: \_\_\_\_\_

Date (s) of Work Described: From \_\_\_\_\_ to \_\_\_\_\_

Describe the Location in the Building: \_\_\_\_\_  
\_\_\_\_\_

Describe Nature of Work: \_\_\_\_\_

Check most applicable:

1. ☐ Removal (glovebag)
2. ☐ Removal (other) \_\_\_\_\_
3. ☐ Repair or Patching
4. ☐ Clean-up
5. ☐ Other \_\_\_\_\_

Was air monitoring performed? ☐ Yes ☐ No

If yes, attach copies of results to this form.

Name of Supervisor for this project \_\_\_\_\_

Name (s) of person (s) participating in this project:

_____	_____
_____	_____
_____	_____

Personal protection used on this project:

Respirator Type \_\_\_\_\_

Disposable Clothing? ☐ Yes ☐ No

Was notification to government agency required? ☐ Yes ☐ No

If yes, attach copy to this form.

If work generated asbestos contaminated materials, where were they stored or disposed (date & location):

\_\_\_\_\_  
Any problems noted during work? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Name and signature of individual filling out this form:

Name \_\_\_\_\_ Signature \_\_\_\_\_

# OPERATIONS & MAINTENANCE DISPOSAL FORM

DATE OF DISPOSAL \_\_\_\_\_

PROJECT DESCRIPTION: \_\_\_\_\_

LOCATION IN BUILDING: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

PHONE: ( ) \_\_\_\_\_

CONTACT PERSON: \_\_\_\_\_

HAULER NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

PHONE: ( ) \_\_\_\_\_

## ACM WASTE INFORMATION:

DESCRIPTION OF ACM TO BE DISPOSED: \_\_\_\_\_

APPROXIMATE VOLUME OF MATERIAL DELIVERED(CU.FT.): \_\_\_\_\_

TYPE OF CONTAINER UTILIZED: \_\_\_\_\_

CONTAINERS LABELED? YES \_\_\_\_\_ NO \_\_\_\_\_

DESCRIPTION OF WORKER PROTECTION: \_\_\_\_\_

LANDFILL NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

PHONE: ( ) \_\_\_\_\_

LANDFILL OWNER's NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

PHONE: ( ) \_\_\_\_\_

LANDFILL OPERATOR's NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

PHONE: ( ) \_\_\_\_\_

I certify that the above information is true to the best of my knowledge and that the landfill has been approved for the disposal of asbestos. The delivered material will be covered with a minimum of 6 inches of non-asbestos material within 24 hours.

\_\_\_\_\_  
Signature of Asbestos Program Manager or  
Designated Assistant

Name: \_\_\_\_\_

Title: \_\_\_\_\_

\_\_\_\_\_  
Signature of Landfill Owner/Operator

Name: \_\_\_\_\_

Title: \_\_\_\_\_

## FIBER RELEASE EPISODE REPORT

1. Address, building, and room number(s) (or description of area) where episode occurred: \_\_\_\_\_

---

---

---

---

2. The release episode was reported by \_\_\_\_\_  
on \_\_\_\_\_ (date).

3. Describe the episode: \_\_\_\_\_

---

---

---

---

---

4. The asbestos-containing material was \_\_\_\_/ was not \_\_\_\_ cleaned up according to approved procedures. Describe the cleanup: \_\_\_\_\_

---

---

---

---

---

---

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

(Asbestos Program Manager)

## PERMIT APPLICATION FOR MAINTENANCE/RENOVATION WORK

1. Requested by \_\_\_\_\_
2. Exact location of area involved (including building number, room number, location within room, etc.) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
3. Description of work involved \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
4. Starting Date \_\_\_\_\_ Anticipated Completion Date \_\_\_\_\_
5. \*Approximate amount of asbestos-containing building material present (i.e., 3 linear feet of pipe insulation , 12 square feet of floor tile, etc.) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
6. \*Asbestos control methods to be used(i.e., glovebag, HEPA vacuum, wet methods, etc.) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
7. \*Protective equipment to be used(i.e., half-face dual HEPA cartridge respirator, coveralls, gloves, etc.) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
8. Name and telephone number / extension of supervisor \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\*Note: Items 5,6, & 7 may have to be filled out by the asbestos program manager.

### TO BE FILLED OUT BY ASBESTOS PROGRAM MANAGER

PERMIT: \_\_\_\_\_Accepted \_\_\_\_\_Rejected \_\_\_\_\_Accepted with the following conditions: \_\_\_\_\_  
\_\_\_\_\_

Signature \_\_\_\_\_ Print Name \_\_\_\_\_

Permit Number \_\_\_\_\_ Emergency contact \_\_\_\_\_