

APPENDIX G

AC Removal Forms



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

One Winter Street Boston, MA 02108 • 617-292-5500

Charles D. Baker
Governor

Karyn E. Polito
Lieutenant Governor

Matthew A. Beaton
Secretary

Martin Suuberg
Commissioner

ASBESTOS CEMENT PIPE GUIDANCE DOCUMENT AND CONDITIONAL ENFORCEMENT DISCRETION

June 2011, amended May 22, 2015

Prepared by the Bureau of Air and Waste

Contents

I. Background.....	3
II. Purpose.....	3
III. Conditional Enforcement Discretion	4
IV. Guidance Provisions	5
a. Pre-Demolition/Renovation Survey	5
b. Notification	6
c. Licensing and Training	7
d. Handling Practices	7
e. Packaging, Labeling, Disposal and Record Retention	8
f. Visual Inspection Requirement	9
Frequently Asked Questions About Asbestos Cement Pipe Removal.....	11
Template A: Pre-Demolition/Renovation Survey Documentation	22
Template B: Post-Abatement Visual Inspection Documentation	23

I. Background

The Massachusetts Department of Environmental Protection's (MassDEP's) asbestos regulation (310 CMR 7.15) protects public health and the environment by establishing safe handling practices for demolishing or renovating buildings and structures to prevent the release of asbestos fibers from asbestos-containing materials (ACM). MassDEP's regulations require notification as well as specific removal, handling, and disposal requirements for all ACM. These work practices include removing ACM prior to demolition or renovation activities, wetting the ACM before it is removed to prevent the release of asbestos dust, fully containing the work area (e.g., with plastic sheeting) and drawing air out of the containment through an air filtration unit equipped with a HEPA filter capable of capturing asbestos fibers, sealing the wetted Asbestos-Containing Waste Material (ACWM) in leak-tight containers with asbestos labeling, and properly disposing of the waste in a landfill permitted to accept ACM or ACWM.

Common materials that may contain asbestos include thermal insulation on boilers, ducts and pipes; vinyl floor tiles; ceiling tiles; various mastics (i.e. glues); and asbestos cement products, including asbestos cement pipes. Some of these materials are "friable" material that, when dry, can be crumbled, shattered, pulverized or reduced to powder by hand pressure (e.g., thermal system insulation) and some are "non-friable" material, that when dry, cannot be crumbled, shattered, pulverized or reduced to powder by hand pressure (e.g., vinyl floor tiles and asbestos cement pipes that are in good condition and have not deteriorated). MassDEP regulates non-friable ACM because, if these materials have deteriorated, are significantly damaged, and/or are mishandled, asbestos fibers may be released to the ambient air.

Asbestos cement pipes often are found in underground utility conduits and municipal water, sewer and drainage systems. Asbestos cement pipes buried below ground are considered non-friable if they are in good condition. It should be noted that active asbestos cement pipe that is exposed and is not intended to be replaced or removed and is not disturbed by repair or replacement activities may remain in place and be backfilled.

II. Purpose

This guidance document explains how to safely remove, repair and dispose of asbestos cement pipes that exist in underground operating system networks owned by public and private utilities (e.g. water, sewer, electricity and gas). Its main purpose is to prevent the release of asbestos fibers into ambient air and to protect public health, safety, and the environment while removing, repairing and disposing of asbestos cement pipes. This guidance has been developed in recognition of the unique aspects of projects involving repair and replacement of underground asbestos-cement pipe that make certain specific requirements of 310 CMR 7.15 infeasible and/or impractical: emergency repairs need to be facilitated to protect public health and safety and to allow trenches to be closed as quickly as possible, it is usually infeasible to have an asbestos inspector prepare a

complete written survey report before starting to repair or replace asbestos-cement pipe or pipe segments (particularly for emergency repairs), and some standard asbestos work practices (e.g., full containment and air cleaning) cannot be practically implemented in trenches. In order to qualify for the Conditional Enforcement Discretion that is described in Section III below, the Owner and Operator (including contractors) must follow all the provisions of this document.

This guidance document summarizes the requirements of the MassDEP Asbestos Regulation (310 CMR 7.15) that apply to removal, repair, replacement or other work on underground asbestos cement pipe or suspected asbestos cement pipe material, and also provides guidance on how MassDEP intends to exercise enforcement discretion where the specific asbestos abatement activities described herein are implemented.

This document does not constitute “final agency action,” and is not “regulation” as that term is used in M.G.L. c.30A. It may not be relied upon to create rights, duties, obligations or defenses, implied or otherwise, enforceable by any party in any administrative proceeding with the Commonwealth. In addition, this guidance does not exempt anyone from complying with any other applicable local, state or federal law, including but not limited to: the United States Environmental Protection Agency (EPA) Asbestos National Emission Standards for Hazardous Air Pollutants (Asbestos NESHAP) regulation at 40 CFR part 61; the applicable United States Occupational Safety & Health Act (OSHA) standards at 29 CFR 1910 & 1926; and the Massachusetts Department of Labor Standards (DLS) regulation at 453 CMR 6.00.

III. Conditional Enforcement Discretion

A person who conducts the removal and associated abatement of asbestos cement pipe in accordance with the provisions of this guidance would not be subject to enforcement by MassDEP for violation of the following requirements of 310 CMR 7.15:

- The use of a DLS-certified asbestos inspector to prepare a written survey report that documents the types, amounts, condition and location of all ACM present in a utility conduit that will be subject to demolition or removal of cement pipe as required by 310 CMR 7.15(4);
- Establishment of full containment in accordance with “Work Area Preparation Requirements” 310 CMR 7.15 (7)(c);
- Implementation of air cleaning in accordance with “Work Area Ventilation System” requirements 310 CMR 7.15 (7)(e); and
- The use of a DLS-certified asbestos project monitor to perform a post-abatement visual inspection in accordance with 310 CMR 7.15(8).

IV. Guidance Provisions

a. Pre-Demolition/Renovation Survey

MassDEP's asbestos regulation establishes that owners and operators (including contractors) are responsible for determining whether cement pipe in a particular utility conduit that will be subject to demolition or renovation contains asbestos. The federal NESHAP regulation requires owners and operators to conduct a "thorough inspection" to determine the location of asbestos containing materials before starting demolition or renovation.¹

If owners and operators follow this guidance, it will not be necessary to have a DLS-certified asbestos inspector prepare a written survey report for underground asbestos-cement pipe projects as required by 310 CMR 7.15(4). However, owners and operators (including utilities conducting pipe repair or replacement), must conduct a "thorough inspection" to determine the location of any asbestos-containing pipe, insulation or other materials. Owners and operators of underground cement pipes may satisfy this requirement with:

- As-built plans or other documents identifying the content of particular cement pipes or pipe segments and any other material in the conduit that may be affected by a removal or repair project, provided that the documentation has been updated to reflect any repairs or alterations; or
- Other measures that demonstrate that a "thorough inspection" has been completed to identify asbestos cement pipe that will be affected by a removal or repair project. These measures can include visual identification through field observations of the pipe to be worked on (e.g., the manufacturer's brand-label markings indicating transite material or the source of the pipe); or sampling and analysis of cement pipe material at a laboratory certified by DLS.

Note: For projects that rely on a visual identification in the field, a "qualified" person must be present to observe the pipe when it is exposed and document in writing what features were used to identify the type of pipe to be removed/repaired/replaced. If relying on someone other than a DLS-certified asbestos inspector, a person is deemed "qualified" by having completed a DLS-approved training course specific to asbestos cement pipe worker safety (e.g., the "8 hour OSHA Class II Asbestos Training: Asbestos Cement Pipe (ACP) Worker Safety" course developed jointly by the Massachusetts Water Works Association (MWWA) and the Utility Contractors of New England

¹ The EPA Asbestos NESHAP regulation requires that the owner or operator shall, "...prior to the commencement of the demolition or renovation, thoroughly inspect the affected facility or part of the facility where the demolition or renovation operation will occur for the presence of asbestos..." 40 CFR part 61.145(a)

(UCANE), or another course similar in length and content that has been reviewed and approved in writing by DLS).

In addition, the owner or operator may presume that a pipe or pipe segment contains asbestos and manage any repairs or removals in accordance with this guidance and the other applicable requirements of 310 CMR 7.15.

The owner/operator of the utility system at which the asbestos cement pipe was removed, repaired or replaced must keep documentation of the pre-demolition/renovation survey, signed and dated by the person who conducted the inspection, for a minimum of two (2) years in the project file. The documentation must indicate what information was relied upon to determine whether the pipe contained asbestos. (See Attachment A for a Pre-Demolition/Renovation Survey Documentation template.)

b. Notification

A notification must be submitted to MassDEP for each asbestos-cement pipe project on an Asbestos Notification Form ANF-001/BWP AQ-04 in accordance with 310 CMR 7.15(6). The notification must be submitted at least ten (10) working days before starting asbestos cement pipe removal. The ANF-001/BWP AQ-04 and answers to frequently asked questions about filing notifications are available on MassDEP's web site at: <http://www.mass.gov/eea/agencies/massdep/service/approvals/bwp-aq-04-anf-001.html> . The easiest way to file an asbestos notification is to file it online via MassDEP's online filing system, eDEP: <https://edep.dep.mass.gov/>.

The ten-working day waiting period can be waived by obtaining an emergency waiver of this waiting period from MassDEP. Emergency waivers allow work to be performed right away. These waivers, which can be obtained by calling the MassDEP Regional Office that covers the town in which the work will be conducted, must be approved by MassDEP before the work starts. The MassDEP staff person who approves an emergency waiver will provide a project-specific waiver number that must be noted on the notification form. (See response to question number 27 in the "Frequently Asked Questions" section of this guidance document for appropriate MassDEP regional telephone numbers).

A notification fee, currently \$100.00, is required when filing an ANF-001/BWP AQ-04. However, asbestos abatements at property owned by cities, towns, counties, districts of the Commonwealth, municipal housing authorities, federally recognized Indian tribe housing authorities, state agencies, the Massachusetts Bay Transportation Authority, and owners of owner-occupied residential properties with four or fewer units are exempt from this fee.

Owners and operators who are planning to remove or repair several pipe segments over a specific period of time may apply to MassDEP for approval of a “blanket notification”, which would cover the entire project for a time period not to exceed one (1) year. While individual ANF-001/BW AQ-04 forms would still need to be submitted for each segment of the work, the blanket approval would eliminate the ten working day advance notification requirement for the individual filings. Information regarding asbestos blanket notifications may be found under the heading “BWP AQ 05 - Application for Asbestos Blanket - Form and Guidance” at the following link:

<http://www.mass.gov/eea/agencies/massdep/service/approvals/bwp-aq-05.html>.

An application fee of \$200 is required for each application for a blanket notification approval.

c. Licensing and Training

DLS’s regulation (453 CMR 6.00) establishes requirements for the use of contractors and other asbestos specialists who are licensed or certified by that Department. Please call DLS for all licensing and training questions. Contact information can be found in the response to Question 28 in the attached Frequently Asked Questions.

In lieu of hiring a DLS-licensed asbestos contractor, an owner or operator conducting asbestos abatement activity on underground asbestos cement piping may hire contractors or other entities who have completed the “8 hour OSHA Class II Asbestos Training: Asbestos Cement Pipe (ACP) Worker Safety” course developed jointly by the MWWA and UCANE, or a course similar in length and content reviewed and approved in writing by DLS, provided that the owner, operator and contractor comply with the provisions and procedures described in this guidance document.

d. Handling Practices

When repairing, removing or replacing asbestos cement pipe, it is important to handle the pipe in a manner that will minimize the risk of making it friable or releasing asbestos dust into the environment. Start by exposing the asbestos cement pipe with minimal disturbance. Excavate no closer than 6 inches of the pipe. Carefully uncover the remainder of the soil surrounding the pipe by hand or with a shovel. An assessment should then be made to determine if the pipe is damaged, cracked or broken.

- i. Not Damaged Asbestos Cement Pipe (intact and not deteriorated):
 1. Place 6 mil (0.006 inch) thick polyethylene (“poly”) sheeting under the asbestos cement pipe to prevent soil contamination.
 2. Adequately wet the asbestos cement pipe with amended water using surfactant or liquid soap before and during removal to avoid creating airborne dust.

3. Separate the asbestos cement pipe at the nearest coupling (bell or compression fitting).
 4. Slide the pipe apart at the joints (no saw cutting) or use other methods that do not cause the pipe to break, become friable or otherwise create the potential to release asbestos fibers.
 5. Wrap the wet asbestos cement pipe in two layers of 6 mil polyethylene sheeting, seal with duct tape and label in accordance with all applicable regulatory requirements. This can be done in the trench or adjacent to the trench.
 6. If the trench is filled with water, the placement of polyethylene sheeting is not required.
 7. Refer to Section “IV.e.” of this guidance document for packaging, labeling, disposal, and record retention requirements.
- ii. Damaged Asbestos Cement Pipe (deteriorated or not intact) or when cutting or mechanical breakage (e.g., with saws, snap or blade cutting, and/or tapping) is necessary:
1. Place 6 mil (0.006 inch) thick polyethylene (“poly”) sheeting under the asbestos cement pipe to prevent soil contamination.
 2. Adequately wet asbestos cement pipe with amended water where cutting or breaking will occur.
 3. Saw cutting of asbestos cement pipe shall only be conducted with a HEPA-shrouded vacuum attachment or wet cutting equipment, unless it is conducted within a small enclosure that isolates the area in which the saw cutting is being conducted to prevent the release of asbestos fibers to ambient air, .
 4. Wrap wet asbestos cement pipe in two layers of 6 mil polyethylene sheeting, seal with duct tape and label. This can be done either in the trench or adjacent to the trench.
 5. Manage wrapped asbestos cement pipe, polyethylene sheeting and any other material contaminated with visible asbestos debris as ACWM in accordance with 310 CMR 7.15 and 310 CMR 19.061.
 6. Refer to Section “IV.e.” of this guidance document for packaging, labeling, disposal, and record retention requirements.

e. Packaging, Labeling, Disposal and Record Retention

All ACWM must be packaged, labeled, transported, stored and disposed of in accordance with requirements specified at 310 CMR 7.15(15): Asbestos-containing Waste Material Packaging Requirements, 310 CMR 7.15(16): Asbestos-containing Waste Material Transport Requirements, 310 CMR 7.15 (17): Asbestos-containing Waste Material Storage and Disposal Requirements, 310 CMR 7.15(18): Waste Shipment Records and Reports, and 310 CMR 19.061: Special Waste, including but not limited to the following:

- i. Place properly wrapped and labeled ACWM pipe as well as all other containerized ACWM and debris in a roll-off container(s), or covered

trucks, trailers or vans that are lined with 2 layers of 6 mil polyethylene sheeting.

1. The container shall be an enclosed and sealed leak-tight container having proper labels and U.S. Department of Transportation placards as required.
 2. If open-top roll-off containers are used, they must be properly sealed, labeled and secured inside a locked fenced area when they are not being loaded to prevent access by unauthorized personnel, and covered to prevent water accumulation.
- ii. Package, transport and dispose of ACWM in accordance with local, state, and federal regulations.
 - iii. Complete waste shipment records must be retained for 2 years by the owner/operator of the facility that generated the ACWM.
 - iv. Dispose of ACWM at a landfill permitted to accept ACWM.

Please note: “Bulk Loading”² of ACWM is not permitted without written approval from MassDEP - via approval of a Non-Traditional Asbestos Abatement Work Practice Application. (See BWP AQ-36 “Application for Non-Traditional Asbestos Abatement Work Practice Approval” <http://www.mass.gov/eea/agencies/massdep/service/approvals/bwp-aq-36.html> for information about how to apply for this permit.) Loading operations involving waste generated from asbestos cement pipe removal that is handled, packaged, labeled, containerized and stored/disposed of in accordance with Sections IV.d. and IV.e. of this guidance are not considered bulk loading and do not require a Non-Traditional Asbestos Abatement Work Practice Approval.

f. Visual Inspection Requirement

310 CMR 7.15(8) requires that, upon the conclusion of each asbestos abatement activity, the owner/operator shall ensure that a visual inspection is performed by a DLS-certified asbestos project monitor. The DLS-certified asbestos project monitor must inspect all surfaces within the work area for visible debris and if any is found, the contractor must re-clean the work areas until there is no visible debris.

When asbestos cement pipe removal is performed using the methods specified in this guidance document, the final visual inspection may be performed by a person who is “qualified” to perform this inspection by having completed a DLS-approved training course specific to asbestos cement pipe worker safety (e.g., the “8 hour OSHA Class II Asbestos Training: Asbestos Cement Pipe (ACP) Worker Safety” course), or another course similar in length and content

² “Bulk Loading” means the placement of unconfined ACWM in a vehicle or container, such as a roll-off, dumpster or truck *in lieu* of packaging the ACMW in individual leak tight containers.[310 CMR 7.15(1) Definitions

that has been reviewed and approved in writing by DLS), in lieu of an asbestos project monitor, provided that the following conditions have been met:

- i. The qualified person is physically present to conduct the final visual inspection of the work area prior to backfilling the trench;
- ii. The qualified person documents in writing that there was no visible debris remaining in the excavation trench, in soil excavated from the trench, in the surrounding area adjacent to the trench after the removal of the asbestos cement pipe, and on any tools used during the removal/repair/replacement activities; and
- iii. All ACWM has been removed for proper storage/disposal; and
- iv. The qualified person signs and dates the documentation of the final inspection as evidence that the inspection was performed and that the condition of no remaining visible debris was met.

The owner/operator of the utility system at which the asbestos cement pipe was repaired, removed or replaced must keep the documentation of the post-abatement visual inspection, signed and dated by the person who conducted the inspection, for a minimum of two (2) years in the project file. (See Attachment B for an example of a Post-Abatement Visual Inspection template.)

Frequently Asked Questions About Asbestos Cement Pipe Removal

1. What is Asbestos? Is it hazardous to your health?

Asbestos is a naturally occurring fibrous mineral consisting of any one of a number of silicates. Asbestos has been and is still used in a variety of products because of its physical properties, which make it resistant to heat, fire, and many caustic chemicals. Asbestos has been used extensively as fireproofing, an insulating agent, and for decorative purposes, among many other uses.

The physical properties that give asbestos its resistance to heat and decay are linked with several adverse human effects. Asbestos tends to break into a dust of microscopic fibers. Because of their size and shape, these tiny fibers can remain suspended in the air for long periods of time and can easily penetrate bodily tissue when inhaled or ingested. Because of their durability, these fibers can remain in the body for many years.

Asbestos is known to cause asbestosis and various forms of cancer. **Asbestosis** is a chronic disease of the lungs that makes breathing progressively more difficult, and can lead to death. Cancer can result from breathing asbestos fibers and **lung cancer** is the most frequent. **Mesothelioma**, an incurable cancer of the chest and abdominal membranes, almost never occurs without exposure to asbestos. Asbestos-related diseases have a long latency period and may not show up until 10 to 40 years after exposure. Each exposure increases the likelihood of developing an asbestos-related disease.

2. How do I know whether cement pipes contain asbestos?

Cement pipes used for public drinking water, waste water, roof drains or underground conduits may contain asbestos and should be handled in accordance with MassDEP's asbestos regulation (310 CMR 7.15) and this guidance document unless the owner's documentation or testing has shown that they do not contain asbestos or a DLS-certified asbestos inspector has determined that they do not contain asbestos. It is the obligation of anyone removing or repairing materials that contain asbestos to handle them in accordance with applicable laws and regulations. Ignorance or avoidance of this responsibility does not remove this obligation.

Up-to-date as-built plans that accurately identify the material that pipes or pipe segments are made of can be relied on to satisfy this requirement. Another acceptable method for determining whether a pipe or pipe segment contains asbestos is through visual identification in the field at the time of excavation, when the pipe material is readily identifiable by observing the manufacturer's brand-label (e.g. Johns-Manville Transite) or other markings on the pipe (e.g., indicating its source). This

identification must be done by a person who is “qualified” to perform this visual identification is present to observe the pipe when it is exposed and documents in writing what features were used to identify the type of pipe to be removed/repaired. In lieu of a DLS-certified asbestos inspector, a person is deemed “qualified” to conduct a visual inspection to identify the presence of asbestos containing cement pipe by having completed a DLS-approved training course specific to asbestos cement pipe worker safety (e.g. the “8 hour OSHA Class II Asbestos Training: Asbestos Cement Pipe (ACP) Worker Safety” course) or another course similar in length and content that has been reviewed and approved in writing by DLS). If up-to-date as-built plans are not available and a definitive visual identification cannot be made, the owner/operator can either presume the cement pipe contains asbestos and handle it in accordance with this guidance, or have it sampled and analyzed by a DLS certified laboratory.

Material that contains 1% or more asbestos as determined by a laboratory using EPA-approved analytical methods is regulated by MassDEP as an ACM. You can hire an asbestos consultant or laboratory to collect a sample and have it analyzed. You also may collect the sample yourself and bring it to a certified laboratory for analysis. (Note that you may need to take several samples over the length of the pipe to ensure that you obtain representative samples and did not only test a repaired section that has been replaced with a newer, non-asbestos material.) Before collecting samples, consult with the laboratory on how to safely collect the sample and how large the sample needs to be. DLS licenses and certifies asbestos testing laboratories and other types of asbestos professionals. Visit DLS’s website at <http://www.mass.gov/lwd/labor-standards/asbestos-program/license-lists/> or call DLS at 617-626-6960 for a list of certified asbestos laboratories.

3. Does MassDEP have to be notified prior to beginning an asbestos cement pipe removal or repair project?

Yes, the owner/operator of a facility containing asbestos cement pipes must notify MassDEP ten working days before removing or repairing asbestos cement pipes. Notification is required no matter who is doing the removal/repair or how much asbestos cement pipe is being removed or repaired. Please note that notification is required for repairs of asbestos cement pipe using tools that are considered “non-destructive” or “fail-safe” such as metal compression patches, wet tapping, etc. (See response to Question number 4 below for how to satisfy the notification requirement in the case of an emergency situation.)

4. We have an emergency and the pipe(s) need to be repaired immediately. Can we make the necessary repairs prior to submitting notification to MassDEP?

Yes, if MassDEP grants you an “emergency waiver.” Work can be performed right away by calling the appropriate regional MassDEP office and obtaining an emergency waiver of the ten (10) working day waiting period (see response to

question number 27 for the telephone numbers for the asbestos program in each MassDEP regional office).

If the emergency occurs after business hours or on a weekend, leave a detailed message including your contact information on voice mail for the MassDEP asbestos inspector's voice mail and proceed with the repairs as detailed in this document. You should then follow up with MassDEP on the following business day. You will still be required to submit an asbestos notification form ANF-001/BWP AQ-04 within 24 hours of the removal.

In addition, you can conduct the work without the required ten working day notification period if you have a MassDEP approved asbestos blanket notification. Information regarding asbestos blanket notifications may be found under the heading "BWP AQ 05 - Application for Asbestos Blanket - Form and Guidance" at the following link: <http://www.mass.gov/eea/agencies/massdep/service/approvals/bwp-aq-05.html>.

5. Is there a notification form I should use?

Notification for asbestos cement pipe removal must be made by completing and submitting to MassDEP the MassDEP-approved Asbestos Notification Form ANF-001 (also known as BWP AQ-04). The Asbestos Notification Form is available on MassDEP's web site at <http://www.mass.gov/eea/agencies/massdep/service/approvals/bwp-aq-04-anf-001.html>. The easiest way to file an asbestos notification is to file it online via MassDEP's website. See question number 10 below.

6. When must the notification be submitted?

The regulations require that the notification must be submitted at least ten working days in advance of the start of the asbestos cement pipe removal project. "Working days" do not include Saturdays, Sundays, or any day that MassDEP offices are closed for business, such as legal holidays.

7. When does the ten working day waiting period begin and end?

If you file electronically through eDEP, your 10 working day waiting period will start when you submit your form, and you will receive an automatic notification that the submittal was received.

If you file a paper notification form, your 10 working day waiting period starts on the day on which the submittal was postmarked or the day on which it was hand-delivered to MassDEP (by you or by a delivery service).

Please note that you must start work on the “start date” and end on the “end date” you indicate on the ANF-001. If you change the start date, you must revise your notification prior to the original start date indicated and allow for a full ten-day waiting period prior to the revised start date. If you need to start work sooner than ten days before the revised start date, call the MassDEP regional office to request an emergency waiver of the ten-day waiting period. (See MassDEP contact information found at FAQ no. 27.) If you start and end work on the dates indicated in the original notification, but work intermittently within that period, that does not require a revision - simply notify the MassDEP regional office which days will not be performing work.

8. Will I be notified when I can begin the work?

No. Unless MassDEP contacts you with a statement of deficiencies about your notification, you can begin work on the "project start date" you specified on the Asbestos Notification Form ANF-001. When completing the ANF-001, be sure that the "project start date" falls after the 10 working day waiting period.

MassDEP recommends that you keep a copy of the completed ANF-001 that you file online or, if you file a paper copy, a copy that shows the number on the notification decal sticker you attached to the notification form prior to submitting the form to MassDEP.

9. Is a fee required for filing an asbestos notification?

The notification fee required by MassDEP regulations (310 CMR 4.00: Timely Action Schedule and Fee Provisions) for asbestos removal is \$100 per notification. A notification revision requires re-filing the notification and payment of a \$35 fee.

Please note: owners of owner-occupied residential properties with four or fewer units, cities, towns, counties, districts of the Commonwealth, municipal housing authorities, federally recognized Indian tribe housing authorities, state agencies and the MBTA are not subject to the asbestos notification fee. However, state agencies are subject to fees greater than \$100 (e.g., the \$200 Blanket Notification Approval application fee).

10. How do I submit the ANF-001 to the MassDEP?

There are two ways to submit an Asbestos Notification Form ANF-001:

Electronic Filing: File the ANF-001 online via MassDEP’s website. If you have not already done so, register online with eDEP Online Filing: <http://www.mass.gov/dep/service/compliance>. Select “New User” and complete the required steps. It should take no more than five minutes to complete the registration process, and you can begin online filing of your notifications right away. Filing through eDEP will ensure that your submitted form is complete, and you will receive an automatic message indicating that your notification has been accepted.

May 22, 2015 Update

Paper Filing: When the ANF-001 is completely filled out, and the appropriate decal is affixed to the form (see below), use regular, certified or U.S. Postal Service Express mail, or a private mail or overnight service, to send the form to:

MassDEP
P.O. Box 4062
Boston, MA 02211

Forms are picked up from this P.O. Box every working day.

Please note: If you file a paper form, please be aware that MassDEP will return it if it is found to be incomplete, and your notification will not be valid until a completed form is re-submitted.

When filing online via eDEP, you will pay the fee online using a credit card. Notifications for jobs by an entity that is exempt from the fee may also be filed online.

Paper filers can pay the fee in two ways: 1) by purchasing a notification fee decal from MassDEP and affixing the decal to the Asbestos Notification Form ANF-001 before submitting it, or 2) by sending a check with their notification form to the P.O. Box above.

For paper notifications that are exempt from the fee, an EXEMPT decal must be obtained from MassDEP and affixed to the notification form, or you must ensure that Question 3 in Section A asking if the project is fee-exempt is answered as "Yes."

Fee decals may only be purchased in person at the reception area on the second floor of MassDEP's office at One Winter Street, Boston. For fee-exempt asbestos abatement jobs, EXEMPT notification decals may be picked up (free of charge) at the reception area of MassDEP's office at One Winter Street, Boston or at any MassDEP regional office. (Note: the "Regional Office Lookup by City/Town" tool can be accessed at the following URL:
<http://www.mass.gov/eea/agencies/massdep/about/contacts/>).

For decals requiring a payment, payment must be in the form of a check or money order made payable to "Commonwealth of Massachusetts." Cash and credit cards cannot be accepted.

Each notification decal contains a unique number that indicates that the fee has been paid.

11. Do I need to notify other government agencies in addition to the MassDEP?

You may be required to notify the local Building Department, Fire Department, or Board of Health in the city or town where the asbestos is being removed. Always contact local officials to ask what notification or permits are required. Submittal of a complete ANF-001 to MassDEP satisfies **state** (both MassDEP and MA DLS) and **federal** notification requirements (e.g., EPA Asbestos NESHAP) for projects that will remove or disturb asbestos-containing material.

12. Do I need to hire an asbestos contractor to repair and/or remove asbestos cement pipe?

DLS's regulation (453 CMR 6.00) establishes requirements for the use of contractors and other asbestos specialists who are licensed or certified by DLS. Please call DLS for all licensing and training questions. Contact information can be found in the response to Question 28 in the attached Frequently Asked Questions.

In lieu of hiring a DLS-licensed asbestos contractor, an owner or operator conducting asbestos abatement activity on underground asbestos cement piping may hire Contractors or other entities who have completed the "8 hour OSHA Class II Asbestos Training: Asbestos Cement Pipe (ACP) Worker Safety" course or a course similar in length and content reviewed and approved in writing by DLS, provided that the owner, operator and contractor comply with the provisions and procedures that are described in this guidance document.

13. Can I crush the asbestos cement pipe in the trench and place new pipe over it?

No, crushing an asbestos cement pipe and leaving it in the trench is prohibited under 310 CMR 7.15. Further, the EPA has determined that backfilling and burial of the crushed asbestos cement pipe would cause these locations to be considered active disposal sites and therefore subject to the "Standard for Active Waste Disposal Sites" (40 CFR 61.154).

14. Can I "ream" or "pipe burst" new water supply pipe through existing asbestos cement pipe?

No, this is not allowed because reaming or pipe bursting through an existing asbestos cement pipe would cause the existing asbestos cement pipe to become crushed and "friable" (see response to question number 13 above).

15. What if the trench is filled with water which prevents the placement of polyethylene sheeting below the asbestos cement pipe (as required in Section IV.d. – Handling Practices)?

If the trench is filled with water, the placement of polyethylene sheeting is not required, as stated in Section IV.d – Handling Practices. However, any visible debris must be managed in accordance with the requirements of Section IV.e. – Packaging, Labeling, Disposal and Record Retention and IV.f. – Visual Inspection Requirement.

16. What should I do with the water in the trench?

For work on the intact asbestos cement pipe(s), first try to pump the water out to a storm drain prior to any work. If there is substantial damage to the asbestos cement pipe and there are numerous pieces immersed in standing water, then the contaminated water should be pumped out and filtered through a 5 micron filter before the water is discharged.

17. Am I required to remove asbestos cement pipe that will not be disturbed by repair or replacement activities?

MassDEP only requires the removal of asbestos cement pipe that is exposed and will be disturbed during repair or replacement activities.

When a section of asbestos cement pipe is being repaired or replaced, the remaining portions of that pipeline are not required to be removed, provided that they are not exposed by excavation activity.

Additionally, if a section of asbestos cement pipe that is being actively used (e.g., a utility conduit) is exposed by excavation but will not be impacted by the repair or replacement work, it may be left in place and backfilled.

18. Where can I obtain the packaging and labeling materials?

The MassDEP-required asbestos warning labels and asbestos waste bags may be obtained from industrial supply houses, insulation supply houses, or may be purchased directly from licensed asbestos contractors. Polyethylene sheeting and duct tape are widely available from hardware, home supply and other stores.

19. Can I store waste asbestos cement pipe?

Asbestos cement pipe waste material that has been properly wetted, sealed and labeled can be temporarily stored for up to thirty (30) days at a secured location on property owned or controlled by the owner or operator of the utility system or at the place of business of the company/contractor removing asbestos-cement pipe from its site of origin. The storage location must be secured (e.g., storage in a locked fenced-

in area) and maintained in accordance with all federal, state and local requirements. Contact local officials to determine if temporary storage of asbestos cement pipes is allowed in your municipality.

20. Can I store unused “virgin” asbestos cement pipe?

Unused (i.e. “virgin”) asbestos cement pipe that is still suitable for use is not considered an ACWM, and is therefore not subject to the ACWM storage limitations. Measures should be taken to ensure that stored virgin asbestos cement pipe does not become deteriorated by constant exposure to the elements. If virgin asbestos cement pipe deteriorates so that it is no longer suitable for use, then it would be considered ACWM and subject to all the applicable packaging, labeling, storage and disposal requirements at 310 CMR 7.15(15) – (18).

21. Can I dispose of the asbestos cement pipes with my other solid waste?

No. The asbestos cement pipes must be managed as a “Special Waste” (requiring proper packaging, labeling, and disposal) and in Massachusetts may only be disposed of at a facility that is permitted to accept ACWM under 310 CMR 19.061 (“Special Waste” regulation).

22. How can I find a place to dispose of the asbestos cement pipes?

The best option is to hire a waste hauler or asbestos contractor to transport the asbestos cement pipes to a disposal facility. Many waste haulers and asbestos contractors are familiar with various disposal facilities and frequently transport wastes to facilities permitted to accept ACWM.

You also can contact a landfill directly and arrange to transport the waste to the landfill yourself. ACWM can only be disposed at a solid waste landfill permitted to accept “Special Waste”, which in Massachusetts must be operated in accordance with regulatory requirements specified at 310 CMR 19.061, or in another state, in accordance with the relevant “Special Waste” permit requirements. You should contact the facility in advance of transporting ACWM for disposal.

ACWM may not be sent to an incinerator or to a construction and demolition (C&D) debris processing facility in Massachusetts. Likewise, no Massachusetts transfer stations are permitted to accept ACWM.

23. How do I find an asbestos waste hauler?

Asbestos waste haulers may be located by using any available internet search engine or by looking this topic up in the Yellow Pages. Try entering/looking under topics such as "rubbish," “waste” or "asbestos." Any firm hauling ACWM must be

registered with the Federal Highway Administration's Motor Carrier Division. Call the nearest regional MassDEP office for additional help.

24. Can I transport the waste asbestos cement pipes myself?

Waste asbestos cement pipe that has been packaged and labeled in accordance with Section IV.e. – Packaging, Labeling, Disposal and Record Retention, may be transported in a covered truck, trailer or van to a secured, temporary storage location at property owned or controlled by the pipe owner or operator or at the place of business of the company/contractor that removed the asbestos-cement pipe from the excavation, as outlined in question 19. If a van is used, the waste asbestos cement pipe should be transported in a compartment separate from the driver or passenger seats. A pickup truck bed should be covered with an impermeable tarpaulin cover and secured so that it does not allow the accumulation of rain water. The waste containers should not be loaded above the side rails in any truck or trailer.

25. Is there any paperwork required for transporting the waste asbestos cement pipes?

Yes. 310 CMR 7.15(18): Waste Shipment Records and Reports requires that an asbestos Waste Shipment Record (WSR) document each shipment of ACWM. Waste hauling companies and/or asbestos removal companies can supply WSR forms. (A template for the WSR form is available on the MassDEP website at: <http://www.mass.gov/eea/agencies/massdep/air/programs/asbestos.html>) The WSR must be signed by each company or person involved with removal, transportation and disposal of the ACWM, including the facility owner or “generator” of the asbestos. The asbestos removal contractor may sign on behalf of the owner.

Pursuant to 310 CMR 7.15(18), if a completed copy of the WSR, signed by the disposal facility to acknowledge receipt of the waste shipment, is not received back by the generator within 35 days of the initial shipment, the generator must contact the transporter or disposal facility to determine the status of the waste shipment. This section of the regulation also requires a generator to notify the MassDEP regional office in writing if the generator does not receive a signed copy of the WSR from the disposal facility within 45 days of the date of shipment. The generator, the transporter, and the disposal facility must each retain a copy of the WSR signed by all the parties for at least two years. You do not need to send a completed copy of the WSR to any regulatory agency, but MassDEP may request a copy of the WSR from any of the parties in the event of an inspection.

Additionally, transportation of asbestos (which is designated as a hazardous material for transportation) is regulated by the U.S. Department of Transportation (US DOT), which has established requirements for shipping documents, packaging, labeling, and vehicle placarding (49 CFR 173.1090): asbestos must be loaded, handled and unloaded in a manner that will minimize occupational exposure to airborne asbestos fibers released during transit. US DOT also requires that transporters carry

identification papers for all quantities of asbestos greater than 1 pound. The Massachusetts state police enforce this requirement.

26. Does MassDEP have a document containing general information about asbestos?

Yes. The “Asbestos Information and Resource Guide” is available on MassDEP’s website at <http://www.mass.gov/eea/agencies/massdep/air/programs/asbestos.html> under the heading “General Information.” The guide includes contact information for various government agencies responsible for asbestos, a list of regulations governing asbestos, and general information about asbestos and asbestos removal.

27. How do I contact MassDEP for more information?

For more information on asbestos or other environmental issues, please visit MassDEP’s website at www.mass.gov/dep/about/contacts.htm or contact the following MassDEP officials:

Boston:

For information about asbestos policy/regulation:

Mike Elliott – Asbestos Program Coordinator

Telephone: 617-292-5575 or e-mail: michael.elliott@state.ma.us

For information about filing asbestos notifications and fees:

Caroline McFadden – Asbestos Program Data Manager

Telephone: 617-292-5766 or email: caroline.mcfadden@state.ma.us

Central Region

Gregg Levins

Telephone: 508-767-2768 or e-mail: gregory.levins@state.ma.us

Northeast Region

John Macauley

Telephone: 978-694-3262 or e-mail: john.macauley@state.ma.us

Southeast Region

Cynthia Baran

Telephone: 508-946-2887 or e-mail: cynthia.baran@state.ma.us

Emergency Waiver Hotline: 508-946-2882

Western Region

Marc Simpson

Telephone: 413-755-2115 or e-mail: marc.simpson@state.ma.us

May 22, 2015 Update

28. How do I contact Massachusetts DLS?

For more information on Massachusetts DLS asbestos training, certification and/or licensing requirements, please contact:

Massachusetts Department of Labor Standards/Asbestos Program

Charles Hurley Building

19 Staniford Street, 2nd Floor

Boston, MA 02114

Telephone: 617-626-6960 Fax: 617-626-6965 Web Site: www.mass.gov/dols

Template A: Pre-Demolition/Renovation Survey Documentation

1. Project Location:

(Street address, GPS coordinates or other location identification)

City/Town: _____, MA

2. Pre-Demolition/Renovation Survey

Survey Date: _____

MassDEP's asbestos regulation requires owners and operators (including contractors) to determine whether cement pipe in the utility conduit that will be disturbed contains asbestos. Please identify the information that was used to determine whether the pipe at this location contains asbestos by checking all applicable boxes:

Accurate, up-to-date as-built plans or other utility network documents. Specify title and revision date of the as-built drawing or other documentation:

Visual identification/ field observations of exposed pipe. Specify manufacturer's brand-label marking (e.g. "Johns-Manville Transite") or other features used to identify composition/source of pipe:

I was physically present at the location described above and personally observed the pipe or pipe segment when it was exposed and before it was removed, replaced and/or repaired.

Presumed that pipe contained asbestos.

Collected representative samples that were analyzed at a certified laboratory.

Identify Laboratory and DLS certification number: _____

Date samples were collected: _____ Date of lab report: _____

Result of the analysis (% asbestos): _____

Does the pipe (or pipe segment) that will be disturbed contain asbestos? Yes No

If "Yes", what is the MassDEP Asbestos Notification Number (ANF-001 Form)? _____

3. Qualifications. Please check the applicable box:

I have successfully completed the "8 hour OSHA Class II Asbestos Training: Asbestos Cement Pipe (ACP) Worker Safety" course approved by the Massachusetts Department of Labor Standards (DLS), or a course similar in length and content reviewed and approved in writing by DLS; or

I am a DLS-certified Asbestos Inspector.

Name (please print): _____

Title/Company: _____

Signature: _____ Date: _____

Template B: Post-Abatement Visual Inspection Documentation

1. Project Location/Identification:

(Street address, GPS coordinates or other location identification)

City/Town: _____ MA

MassDEP Asbestos Notification Number (ANF-001 Form): _____

2. Post-Abatement Visual Inspection

Date of Visual Inspection: _____

When any repair/removal of an asbestos cement pipe or pipe segment is complete, a visual inspection must be done before the trench is backfilled to confirm that ALL of the following conditions have been met. Please check each condition below to document that the visual inspection confirmed:

- No visible debris was present in trench.
- No visible debris was present outside of the trench (e.g. in excavated soils and the immediately surrounding area).
- No visible contamination was seen on tools.
- All Asbestos Containing Waste Material has been removed from the area for proper disposal.
- I was physically present at the location described above and personally conducted this inspection while the pipe or pipe segment was exposed and before the trench was backfilled.

3. **Qualifications.** Please check the applicable box:

- I have successfully completed the "8 hour OSHA Class II Asbestos Training: Asbestos Cement Pipe (ACP) Worker Safety" approved by the Massachusetts Department of Labor Standards (DLS), or a course similar in length and content reviewed and approved in writing by DLS; or
- I am a DLS-certified Asbestos Project Monitor.

Name (please print): _____

Signature: _____

Title/Company: _____

Date: _____

SAMPLE WASTE SHIPMENT RECORD

Generator	1. Work site name and mailing address		Owner's name	Owner's telephone no.
	2. Operator's name and address			Operator's telephone no.
	3. Waste disposal site (WDS) name, mailing address, and physical site location			WDS phone no.
	4. Name, and address of responsible agency			
	5. Description of materials		6. Containers No. Type	7. Total quantity m ³ (yd ³)
	8. Special handling instructions and additional information			
	9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.			
	Printed/typed name & title		Signature	Month Day Year
	10. Transporter 1 (Acknowledgment of receipt of materials)			
Transporter	Printed/typed name & title		Signature	Month Day Year
	Address and telephone no.			
	11. Transporter 2 (Acknowledgment of receipt of materials)			
	Printed/typed name & title		Signature	Month Day Year
Address and telephone no.				
Disposal Site	12. Discrepancy indication space			
	13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.			
	Printed/typed name & title		Signature	Month Day Year

(Continued)

Figure 4. Waste Shipment Record

INSTRUCTIONS

Waste Generator Section (Items 1-9)

1. Enter the name of the facility at which asbestos waste is generated and the address where the facility is located. In the appropriate spaces, also enter the name of the owner of the facility and the owner's phone number.
2. If a demolition or renovation, enter the name and address of the company and authorized agent responsible for performing the asbestos removal. In the appropriate spaces, also enter the phone number of the operator.
3. Enter the name, address, and physical site location of the waste disposal site (WDS) that will be receiving the asbestos materials. In the appropriate spaces, also enter the phone number of the WDS. Enter "on-site" if the waste will be disposed of on the generator's property.
4. Provide the name and address of the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program.
5. Indicate the types of asbestos waste materials generated. If from a demolition or renovation, indicate the amount of asbestos that is
 - Friable asbestos material
 - Nonfriable asbestos material
6. Enter the number of containers used to transport the asbestos materials listed in item 5. Also enter one of the following container codes used in transporting each type of asbestos material (specify any other type of container used if not listed below):
 - DM - Metal drums, barrels
 - DP - Plastic drums, barrels
 - BA - 6 mil plastic bags or wrapping
7. Enter the quantities of each type of asbestos material removed in units of cubic meters (cubic yards).
8. Use this space to indicate special transportation, treatment, storage or disposal or Bill of Lading information. If an alternate waste disposal site is designated, note it here. Emergency response telephone numbers or similar information may be included here.
9. The authorized agent of the waste generator must read and then sign and date this certification. The date is the date of receipt by transporter.

NOTE: The waste generator must retain a copy of this form.

(continued)

Figure 4. Waste Shipment Record

Transporter Section (Items 10 & 11)

10. & 11. Enter name, address, and telephone number of each transporter used, if applicable. Print or type the full name and title of person accepting responsibility and acknowledging receipt of materials as listed on this waste shipment record for transport. Enter date of receipt and signature.

NOTE: The transporter must retain a copy of this form.

Disposal Site Section (Items 12 & 13)

12. The authorized representative of the WDS must note in this space any discrepancy between waste described on this manifest and waste actually received as well as any improperly enclosed or contained waste. Any rejected materials should be listed and destination of those materials provided. A site that converts asbestos-containing waste material to nonasbestos material is considered a WDS.
13. The signature (by hand) of the authorized WDS agent indicates acceptance and agreement with statements on this manifest except as noted in item 12. The date is the date of signature and receipt of shipment.

NOTE: The WDS must retain a completed copy of this form. The WDS must also send a completed copy to the operator listed in item 2.

Figure 4. Waste Shipment Record



Commonwealth of Massachusetts Asbestos Notification Form ANF-001

Asbestos Project Number _____

Project Revision

Project Cancellation

A. Asbestos Abatement Description

Important:

When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



Instructions:

1. All sections of this form must be completed in order to comply with MassDEP notification requirements of 310 CMR 7.15 and Department of Labor and Standards (DLS) notification requirements of 453 CMR 6.12

2. Submit Original Form to:
Commonwealth of Massachusetts
P.O. Box 4062
Boston, MA 02211

1. Facility Location:

Name of Facility

Street Address

City/Town

State

Zip Code

Telephone

Facility Contact Person Name

Facility Contact Person Title

Worksite Location:

Building Name, Wing, Floor, Room, etc.

2. Is the facility occupied? Yes No

3. Is this a fee-exempt notification (city, town, district, municipal housing authority, state facility or owner-occupied residential of four units or less?) Yes No

4. Blanket Permit Project Approval, if applicable:

Approval ID #

5. Non-Traditional Asbestos Abatement Work Practice Approval, if applicable:

Approval ID #

6. Asbestos Contractor:

Name

Address

City/Town

State

Zip Code

Telephone

DLS License #

Contract Type: Written Verbal

7.

Name of Contractor's On-Site Supervisor/Foreman

DLS Certification #

8.

Name of Project Monitor

DLS Certification #

9.

Name of Asbestos Analytical Lab

DLS Certification #

10

Project Start Date (MM/DD/YYYY)

End Date (MM/DD/YYYY)

Work Hours - Monday Through Friday

Work Hours - Saturday & Sunday

11. What type of project is this?

Demolition Renovation Repair Other - Please Specify: _____

12. Abatement procedures (check all that apply):

Glove Bag Encapsulation Enclosure Disposal Only Cleanup Full Containment

Other - Please Specify: _____

13. Job is being conducted: Indoors Outdoors



Commonwealth of Massachusetts Asbestos Notification Form ANF-001

A. Asbestos Abatement Description (continued)

14. Total amount of each type of Asbestos Containing Materials (ACM) to be removed, enclosed, or encapsulated:

Linear Feet (Lin. Ft.)		Square Feet (Sq. Ft.)
Boiler, Breaching, Duct, Tank Surface Coatings	/	Transite Pipe
Lin. Ft. Sq. Ft.		/
Pipe Insulation	/	Transite Shingles
Lin. Ft. Sq. Ft.		/
Spray-On Fireproofing	/	Transite Panels
Lin. Ft. Sq. Ft.		/
Cloths, Woven Fabrics	/	Other - Please Specify:
Lin. Ft. Sq. Ft.		
Insulating Cement	/	
Lin. Ft. Sq. Ft.		/
		Lin. Ft. Sq. Ft.

15. Describe the decontamination system(s) to be used:

16. Describe the containerization/disposal methods to comply with 310 CMR 7.15 and 453 CMR 6.14(2)(g):

17. For Emergency Asbestos Operations, the MassDEP and DLS officials who evaluated the emergency:

Name of MassDEP Official	Title of MassDEP Official
Date of Authorization (MM/DD/YYYY)	Waiver #
Name of DLS Official	Title of DLS Official
Date of Authorization (MM/DD/YYYY)	Waiver #

18. Do prevailing wage rates (per M.G.L. c. 149, § 26, 27 or 27A-F) apply to this project? Yes No

Continue to Next Page ►



Commonwealth of Massachusetts Asbestos Notification Form ANF-001

B. Facility Description

1. Current or prior use of facility: _____
2. Is the facility owner-occupied residential with 4 units or less? Yes No
3.

Facility Owner Name	Address		
City/Town	State	Zip Code	Telephone
4.

Name of Facility Owner's On-Site Manager	Address		
City/Town	State	Zip Code	Telephone
5.

Name of General Contractor	Address		
City/Town	State	Zip Code	Telephone
Contractor's Worker's Compensation Insurer	Policy #	Expiration Date (MM/DD/YYYY)	
6. What is the size of this facility?

	Square Feet	# of Floors
--	-------------	-------------

C. Asbestos Transportation & Disposal

Note:

Temporary storage of Asbestos containing waste material is only allowed at the place of business of a DLS licensed Asbestos contractor or a transfer station that is permitted by MassDEP and operated in compliance with Solid Waste Regulations 310 CMR 19.000

1. Transporter of asbestos-containing waste material from site of generation:

Directly to Landfill or To Temporary Storage Location/Transfer Station

Name of Transporter	Address		
City/Town	State	Zip Code	Telephone
2. If a temporary storage location/transfer station is used, list name of transporter of asbestos-containing waste material from temporary storage location/transfer station to final disposal site:

Name of Transporter	Address		
City/Town	State	Zip Code	Telephone
3. Name and address of temporary storage location/transfer station for the asbestos containing waste material:

Temporary Storage Location Name	Address		
City/Town	State	Zip Code	Telephone



Commonwealth of Massachusetts Asbestos Notification Form ANF-001

C. Asbestos Transportation & Disposal (continued)

4. Name and location of final disposal site (asbestos landfill):

_____		_____	
Final Disposal Site Name		Final Disposal Site Owner Name	
_____		_____	
Address		City/Town	
_____	_____	_____	_____
State	State	Zip Code	Telephone

D. Certification

Note:
Contractor must sign this form for DLS notification purposes

"I certify that I have personally examined the foregoing and am familiar with the information contained in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including possible fines and imprisonment. The undersigned hereby states that I have read the Commonwealth of Massachusetts regulations governing asbestos abatement (453 CMR 6.00 promulgated by the Department of Labor Standards and 310 CMR 7.15 promulgated by the Department of Environmental Protection), and that I am aware that this permit application or notification shall not be deemed valid unless payment of the applicable fee is made."

Name		

Authorized Signature		

Date (MM/DD/YYYY)		

Position/Title		

Representing		

Address		
_____	_____	_____
City/Town	State	ZIP Code
_____	_____	
Telephone	Email Address	

453 CMR 6.00: THE REMOVAL, CONTAINMENT OR ENCAPSULATION OF ASBESTOS

Section

- 6.01: Authority, Purpose and Scope
- 6.02: Definitions
- 6.03: General Requirements
- 6.04: Administrative License and Certification Actions/Denial, Revocation, Suspension or Refusal to Renew a License or Certificate
- 6.05: Licensure of Asbestos Contractors
- 6.06: Certification of Asbestos Workers and Asbestos Supervisors
- 6.07: Certification of Consultants
- 6.08: Certification and Other Requirements for Asbestos Analytical Services
- 6.09: Certification and Other Requirements for Training Providers
- 6.10: Training Requirements
- 6.11: Recordkeeping
- 6.12: Notification of Asbestos Projects
- 6.13: Work Practices and other Requirements for Small-Scale Asbestos Projects, Asbestos-Associated Projects, and Work Operation Involving Non-Friable ACBM
- 6.14: Work Practices and Other Requirements for Asbestos Response Actions
- 6.15: Worker Protection Requirements
- 6.16: Cease and Desist Orders
- 6.17: Responsibility for Compliance; Penalties
- 6.18: Severability
- 6.19: The Removal, Containment or Encapsulation of Asbestos Appendix I
- 6.20: The Removal, Containment or Encapsulation of Asbestos Appendix II

6.01: Authority, Purpose and Scope

(1) Authority. 453 CMR 6.00 is promulgated in accordance with and under the authority of M.G.L. c. 149, ' ' 6 through 6F.

(2) Purpose. 453 CMR 6.00 shall establish and/or constitute:

- (a) Requirements necessary to protect the health and safety of the general public and persons engaged in, or associated with, the removal, enclosure, encapsulation or disturbance of asbestos or asbestos-containing material and to prevent occupational diseases.
- (b) Standards of competency for persons or entities engaged in or performing removal, enclosure or encapsulation of asbestos or asbestos-containing material.
- (c) Minimum standards to be used by insurers in the inspection of risk, measurement of hazards and the determination of adequate and reasonable rates of insurance as prescribed by the provisions of M.G.L. c. 152, ' ' 65J.
- (d) Standards for the licensure of persons, firms, corporations or other entities who or which enter into, engage in or work at the business of removal, enclosure or encapsulation of asbestos or asbestos-containing material, and for the certification of asbestos workers, supervisors, consultants, providers of asbestos analytical services, and others performing asbestos work.
- (e) Standards for the certification of entities engaged in the business of training others, where such training is a condition of licensure or certification.

(3) Scope. 453 CMR 6.00 applies to all work, including construction, demolition, alteration, repair and maintenance involving any facility or location, where such work involves the use, handling or disposal of asbestos, asbestos-containing material or asbestos-contaminated waste. 453 CMR 6.00 also applies to asbestos training, consultation and/or analytical services, including but not limited to: asbestos inspection and hazard assessment services, the preparation of asbestos project designs, asbestos project oversight and/or monitoring, asbestos training required by 453 CMR 6.00 and asbestos analysis performed in connection with any of the above services.

(4) Exceptions. The Director of the Department of Labor and Workforce Development may grant exceptions to 453 CMR 6.00 in those instances where it is clearly evident that existing conditions prevent compliance, or where compliance will create an undue hardship, but only in circumstances in which granting the exception will maintain the protection of the health and

safety of workers and the general public. Requests for exceptions to 453 CMR 6.00, which shall be submitted in writing to the Director, shall specify those provisions of 453 CMR 6.00 for which exceptions are sought, the reasons for requesting the exceptions and any proposed alternatives to requirements of 453 CMR 6.00. Exceptions granted by the Director shall remain in force until rescinded in writing or until a certain date set at the time that the exception is granted.

(5) Alternative Methods. The Director shall have the authority to allow the use of newly developed techniques, methods, or equipment that provide a level of protection for workers and the general public which equals or exceeds that specified by 453 CMR 6.00.

(6) Right of Entry. Pursuant to M.G.L. c. 149, ' ' 10 and 17, the Director or the Director's authorized representative shall have the right of entry to any work site, place of employment or other location for the purpose of conducting investigations or inspections.

(7) Regulations Incorporated. The following rules and regulations of the United States Environmental Protection Agency are hereby incorporated by reference:

(a) Asbestos-Containing Materials in Schools Rule; 40 CFR Part 763, Subpart E, effective October 30, 1987; and

(b) Asbestos-Containing Materials in Schools Rule; 40 CFR Part 763, Appendix C to Subpart E, Asbestos Model Accreditation Plan, effective April 4, 1994.

6.02: Definitions

For the purpose of 453 CMR 6.00, the following definitions shall apply:

AHERA - The Asbestos Hazard Emergency Response Act, 15 U.S.C. 2646 *et seq.*, and the regulations promulgated thereunder, including 40 CFR Part 763.

Amended Water - Water to which a wetting agent has been added.

Asbestos - The asbestiform varieties of chrysotile, crocidolite, cummingtonite-grunerite (amosite), anthophyllite, actinolite and tremolite.

Asbestos Abatement - Any activity which has as its principal purpose the removal, enclosure or encapsulation of asbestos or asbestos-containing material, including, but not limited to activity in connection with the renovation, repair or demolition of a facility and the replacement of furnaces or boilers that are covered or coated with asbestos-containing material.

Asbestos Analytical Services - Services which include, but are not limited to the counting or enumeration of asbestos fibers in the air (air monitoring analysis) and the identification and quantification of asbestos in materials (bulk sample analysis) in connection with any asbestos hazard assessment, building inventory, exposure measurement, abatement project or associated project.

Asbestos-Associated Project - A work operation involving the disturbance of three or fewer linear feet of asbestos surfacing located on pipes, ducts or wires or three or fewer square feet of asbestos surfacing located on structures or components other than pipes, ducts or wires and which does not have as its principal purpose the removal, enclosure or encapsulation of asbestos or asbestos-containing material. Such activity shall include but not be limited to general building maintenance, electrical and low voltage wiring, plumbing, carpentry, masonry, HVAC and heating service.

Asbestos-Associated Project Worker - Any person who has successfully completed the training specified at 453 CMR 6.10(4)(h).

6.02: continued

Asbestos Consultants - Persons who perform design, oversight or assessment functions in asbestos abatement or asbestos hazard control, including asbestos inspectors, management planners, project designers and project monitors, as defined herein.

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

Asbestos Contractor - Any person, firm, corporation or other entity who or which has a valid license issued by the Commonwealth for the purpose of entering into or engaging in asbestos work.

Asbestos Inspector - A person who identifies, assesses the condition of, or collects pre-abatement samples of asbestos-containing materials.

Asbestos Laboratory Supervisor - A person so designated pursuant to 453 CMR 6.08(4)(a), who is jointly responsible, along with other responsible persons of a certified asbestos analytical service, if any, for the adherence to the applicable analytical protocols, the maintenance of proper quality control procedures and the accuracy of the analytical results.

Asbestos Management Planner - A person who uses data gathered by asbestos inspectors to assess asbestos hazards, determine appropriate response actions and develop implementation plans.

Asbestos Project Designer - A person who determines how asbestos abatement work should be conducted by preparing plans, designs, procedures, work scope or other substantive direction or criteria.

Asbestos Project Monitor - A person who:

- (a) Collects air and bulk samples and performs visual inspections for the purpose of determining asbestos project completion;
- (b) Collects environmental asbestos air samples for the purpose of assessing present or future potential for exposure to airborne asbestos; or
- (c) Functions as the on-site representative of the facility owner or other persons by overseeing the activities of the asbestos contractor.

Asbestos Response Action - Any work operation involving the disturbance of more than three linear feet of friable asbestos on or in pipes, ducts or wires or more than three square feet of friable asbestos on or in structures or components other than pipes, ducts or wires.

Asbestos Supervisor - An individual or agent of an asbestos abatement entity having managerial or supervisory authority over asbestos workers or a foreperson with responsibility for the completion of asbestos response actions or portions thereof.

Asbestos Training Provider - Any entity which has been duly certified pursuant to 453 CMR 6.09 to provide asbestos training required by 453 CMR 6.10(1).

Asbestos Work - The business of removal, enclosure or encapsulation of asbestos or asbestos-containing material in any facility.

Asbestos Worker - A person not acting as a supervisor who performs asbestos work as an employee, or who performs such work under the direction and control of another, with or without compensation.

Category I Non-Friable Asbestos-Containing Building Material - Asbestos-containing packings, gaskets, resilient floor coverings, and asphalt roofing products containing more than 1% asbestos as determined using the method specified in Appendix A, subpart F, 40 CFR Part 763, section 1, Polarized Light Microscopy.

Category II Non-Friable Asbestos-Containing Building Material - Any material excluding Category I non-friable ACM containing more than 1% asbestos as determined using the method specified in Appendix A, subpart F, 40 CFR Part 763, section 1, Polarized Light Microscopy that when dry cannot be crumbled, pulverized or reduced to powder by hand pressure.

Cease and Desist Order - An order issued by the Director closing any work site where the Director determines that violations of a work place standard concerning the protection of the

occupational health and safety of workers and the general public or of any standard or requirement of licensure exist.

Certification - The issuance of a certificate pursuant to 453 CMR 6.00 authorizing an individual or entity to engage in activities pertaining to asbestos work.

Clearance Air Monitoring - Air monitoring conducted by a certified asbestos project monitor at the conclusion of an asbestos project which is used in combination with visual inspection to assess adequacy of cleanup and project completion.

Containment - As used in M.G.L. c. 149, ' 6B and 453 CMR 6.00, the word "containment" shall mean "enclosure", as defined herein.

Demolition - The wrecking or removal of any facility or portion thereof together with any related debris-handling operations.

Department - The Massachusetts Department of Labor and Workforce Development, Division of Occupational Safety.

Director - The Director of the Massachusetts Department of Labor and Workforce Development or his/her designee.

Emergency Project - Any asbestos project necessary to protect or preserve life or property from imminent harm, damage or deterioration, as determined by the Director.

Encapsulation - The application of a coating or liquid sealant to asbestos-containing material to reduce the tendency of the material to release fibers.

Enclosure - The covering or wrapping of friable asbestos-containing material in, under or behind air-tight barriers.

Entity - Any partnership, firm, association, corporation, sole proprietorship or any other business concern, state or local government agency or institution or political subdivisions or authorities thereof, or any religious, social or union organization, whether operated for profit or otherwise.

EPA - The United States Environmental Protection Agency.

Facility - Any private or public building or structure including but not limited to those used for institutional, residential (including single family homes), commercial or industrial purposes and vessels while ashore or in drydock.

Friable Asbestos-Containing Material (Friable ACM) - Any material containing more than one per cent asbestos, which when dry, may be crumbled, pulverized or reduced to powder by hand pressure. The term includes non-friable asbestos-containing material after such previously non-friable material becomes damaged to the extent that when dry it may be crumbled, pulverized or reduced to powder by hand pressure. The characteristic of friability shall apply to the asbestos material and is not influenced or affected by coverings, coatings or other means of separating asbestos materials by hand.

Glove Bag - A manufactured plastic bag-type of enclosure with built-in gloves, which is placed with an air-tight seal around an asbestos covering and which permits asbestos material contained by the bag to be removed without releasing asbestos fibers into the atmosphere.

HEPA Filtration - High efficiency particulate air filtration capable of filtering 0.3 micron particles with 99.97% efficiency.

Inspection - Any activity undertaken in a facility or location subject to the requirements of these regulations for the purpose of determining the presence, location and/or condition of friable or non-friable asbestos-containing material or suspected asbestos-containing material, whether by visual or physical examination, or by the collection of samples of such material. This term includes recordkeeping in connection with such asbestos inspection activities and reinspections

of friable and non-friable known or assumed asbestos-containing material which has been previously identified, but does not include the following:

- (a) Periodic surveillance of the type described in 40 CFR Part 763.92(b) solely for the purpose of recording or reporting a change in the condition of known or assumed asbestos-containing material;
- (b) Inspections performed by employees or agents of federal, state or local government solely for the purpose of determining compliance with applicable statutes; or
- (c) Visual inspections of the type described in 40 CFR Part 763.90(i) solely for the purpose of determining completion of asbestos response actions.

Management Plans - Plans, including operations and maintenance plans, which detail specific response actions appropriate for the abatement of immediate and long term asbestos hazards.

Major Fiber Release Episode - Any uncontrolled or unintentional disturbance of asbestos-containing material which produces visible debris and which:

- (a) involves the falling or dislodging of:
 - 1. more than three linear feet of friable asbestos-containing material on or in pipes, ducts or wires; or
 - 2. more than three square feet of friable asbestos-containing material on or in structures or components other than pipes, ducts or wires; or
- (b) produces an amount of friable asbestos-containing material greater than that which can be contained by a single three-foot glove bag of conventional manufacture.

Minor Fiber Release Episode - Any uncontrolled or unintentional disturbance of asbestos-containing material which produces visible debris and which:

- (a) involves the falling or dislodging of:
 - 1. three or fewer linear feet of friable asbestos-containing material on or in pipes, ducts or wires; or
 - 2. three or fewer square feet of friable asbestos-containing material on or in structures or components other than pipes, ducts or wires; and
- (b) produces an amount of friable asbestos-containing material which can be contained by a single three-foot glove bag of conventional manufacture.

NIOSH - The National Institute of Occupational Safety and Health.

NIST - The National Institute of Standards and Technology.

Non-Friable Asbestos-Containing Building Materials (Non-Friable ACBM) - Materials used in the construction of facilities or structures which contain asbestos bound by a matrix which cannot, when dry, be crumbled, pulverized, or reduced to powder by hand pressure. The class of non-friable asbestos-containing building materials typically includes, but is not limited to: asbestos cement pipe, sheathing siding and shingles; vinyl asbestos building materials, such as floor tiles; and asphaltic asbestos building materials, including asphaltic asbestos shingles and felts.

Operations and Maintenance (O&M) Plan - A program of work practices designed to maintain asbestos-containing material in intact condition, ensure cleanup of asbestos fibers previously released, prevent further release by minimizing disturbance or damage to asbestos-containing material, and provide for long term surveillance of the facility with regard to renovation, maintenance, cleaning and general operations.

OSHA - The Occupational Safety and Health Administration of the United States Department of Labor.

Personal Exposure Monitoring - Air samples collected from the breathing zone of a person performing asbestos work which are analyzed according to standard protocols for the purpose of determining that person's level of exposure to airborne asbestos fibers.

Private Residence - Any facility used exclusively for residential purposes containing three or fewer living units.

Public Facility - Any facility or location to which the general public has access, including, but not limited to schools, office buildings, museums, airports, hospitals, stores and churches.

Renovation - Altering one or more components of a facility in any way.

Repair - The sealing, patching, enclosing or encapsulating of damaged asbestos-containing materials to prevent fiber release.

Responsible Person(s) - Person(s) having management control over the entity or employer. In the case of a corporation, the responsible person(s) shall be officers of the corporation and any other managing agent of such corporation. In the case of a sole proprietorship or a partnership, the responsible person(s) shall be the owners or partners and any other managing agent of such sole proprietorship or partnership.

Sampling - The process of obtaining representative portions of materials suspected of containing asbestos, including the taking of bulk portions of materials for analysis to determine composition, and the collection of air for the purposes of measuring asbestos content.

Small-Scale Asbestos Project - Any work operation involving the disturbance of:

- (a) three or fewer linear feet of friable asbestos on or in pipes, ducts or wires or
- (b) three or fewer square feet of friable asbestos on or in structures or components other than pipes, ducts or wires.

State - Commonwealth of Massachusetts.

TEM - Transmission electron microscopy.

Visible Debris - Any visually detectable particulate residue, such as dust, dirt or other extraneous material which may or may not contain asbestos.

Work Area - The area or location where asbestos abatement or asbestos-associated work is being performed, or such other areas of a facility which the Director determines may be hazardous to the health and safety of workers and the general public as a result of such asbestos work.

Work Practices - The minimum standards, procedures or actions taken or used for removal, enclosure or encapsulation of asbestos, or for renovation, demolition, maintenance or repair of facilities containing asbestos. This term also includes the minimum standards, procedures or actions taken or used by persons engaged in inspection, analysis, risk assessment or other activities relating to asbestos work.

6.03: General Requirements

(1) Administrative License and Certification Actions. As set forth at 453 CMR 6.04, the Director may deny, suspend, revoke or refuse to renew a license or certificate issued pursuant to 453 CMR 6.05 through 6.09 or take other administrative actions against a license or certificate holder for sufficient cause.

(2) General Requirement for Licensure of Asbestos Contractors. No person, firm, corporation or other entity shall enter into, engage in or work at the business of Asbestos Abatement unless such person, firm, corporation or other entity has been duly licensed in accordance with 453 CMR 6.05. For purposes of 453 CMR 6.00, the phrase "engage in . . . the business of Asbestos Abatement" includes, but is not limited to, advertising Asbestos Abatement services, and/or submitting bids for projects where the majority of the contract-value is represented by Asbestos Work.

(3) Requirement for Certification of Asbestos Workers and Asbestos Supervisors. All persons who perform the functions of Asbestos Workers and Asbestos Supervisors at worksites where Asbestos Response Actions are carried out shall be certified pursuant to the applicable sections of 453 CMR 6.06.

(4) Requirement for Certification of Asbestos Consultants. Persons who provide or work at the business of providing asbestos consultation services, including asbestos inspection, hazard

assessment, management planning, project designing and project monitoring services, shall be duly certified in the appropriate consultative discipline pursuant to 453 CMR 6.07 prior to engaging in such work. For the purpose of 453 CMR 6.00, the phrase *work at the business of providing asbestos consultation services* includes, but is not limited to advertising asbestos consultation services and submitting bids for work where the majority of the contract value of the project involves asbestos consultation work.

(5) Requirement for Certification of Providers of Asbestos Analytical Services. Persons who provide or work at the business of providing Asbestos Analytical Services shall be duly certified pursuant to 453 CMR 6.08 prior to engaging in such work and shall otherwise comply with the requirements of that section. For the purpose of 453 CMR 6.00, the phrase *work at the business of providing Asbestos Analytical Services* includes, but is not limited to, advertising Asbestos Analytical Services and submitting bids for work where the majority of the contract value of the project involves asbestos analysis work. Certified Asbestos Analytical Services shall be authorized to advertise and provide only those services for which separate approval is granted, as set forth at 453 CMR 6.08(1)(a) through (d).

(6) Requirement for Certification of Asbestos Training Providers. Persons who provide or work at the business of providing asbestos training required by 453 CMR 6.00 shall be duly certified pursuant to 453 CMR 6.09 prior to engaging in such work, and otherwise comply with the requirements of 453 CMR 6.09. For the purpose of 453 CMR 6.00, the phrase *work at the business of providing asbestos training* includes, but is not limited to advertising asbestos training services and submitting bids for work where the majority of the contract value of the project involves asbestos training.

(7) Requirement for Asbestos Training. All persons requiring asbestos training as a prerequisite for licensure or certification pursuant to 453 CMR 6.05, 6.06 or 6.07 or participation in Small-Scale Asbestos Projects shall be trained pursuant to 453 CMR 6.10.

(8) Recordkeeping Requirements. All Asbestos Training Providers, Asbestos Analytical Services, Asbestos Consultants, Asbestos Contractors, and Employers of Asbestos-Associated Project Workers shall maintain records as specified at 453 CMR 6.11.

(9) Notification Requirements. All persons or entities who carry out Asbestos Response Actions shall comply with the notification requirements of 453 CMR 6.12.

(10) Requirements for the Conduct of Small-Scale Asbestos Projects and Projects Involving Non-Friable ACBM.

(a) Small-Scale Asbestos Projects and Asbestos-Associated Projects. Persons, firms, corporations or other entities who carry out Small-Scale Asbestos Projects or Asbestos-Associated Projects and the owner of the facility where such work is conducted shall ensure that the requirements of 453 CMR 6.13(1) for such work are met.

(b) Projects Involving the Removal or Disturbance of Non-friable ACBM. Persons, firms, corporations or other entities who carry out projects involving the removal or disturbance of non-friable ACBM and the owner of the facility where such work is conducted shall ensure that the requirements of 453 CMR 6.13(2) for such work are met.

(11) Requirements for the Conduct of Asbestos Response Actions. Persons or entities in charge of carrying out an Asbestos Response Action and the owner of the facility where such Asbestos Response Action is carried out shall ensure compliance with the requirements of 453 CMR 6.14.

(12) Worker Protection. The requirements of the OSHA Asbestos Standard 29 CFR Part 1926.1101, including paragraphs (f), (h), (i) and (m), and other applicable OSHA standards shall apply to the personal protection and medical monitoring of employees other than employees of the Commonwealth or any of its political subdivisions who perform Asbestos Work, and in addition, in accordance with 453 CMR 6.11(3)(a), Asbestos Contractors shall maintain as records the results of all personal exposure monitoring, respirator fit testing and medical examinations required by 29 CFR Part 1926 and other applicable OSHA standards as a condition of licensure. The personal protection and medical monitoring of employees of the Commonwealth and its political subdivisions and other persons exempted from coverage by OSHA standards shall be in accordance with the provisions of 453 CMR 6.15. Responsibility

for compliance with such worker protection requirements shall rest with the employer and the Responsible Person(s) designated thereby.

(13) Requirements for the Use of Personnel. The following shall apply to the use of personnel for Asbestos Work:

(a) Persons engaged in Asbestos Work shall only perform or be assigned to perform those tasks authorized by 453 CMR 6.00. Performance of unauthorized tasks or functions shall be cause for revocation or suspension of certificates or the Asbestos Contractor License.

(b) Persons must be at least 18 years of age to perform any Asbestos Work or to receive certification in any asbestos-related discipline pursuant to 453 CMR 6.00.

(14) Presentation of Certificates. All persons engaged in Asbestos Work for which certification is required by 453 CMR 6.00 shall keep their certification identification cards at the job site and shall present them to the Director or the Director's representative upon request.

(15) Effective Dates. 453 CMR 6.00 shall be effective June 26, 1998, except as noted at 453 CMR 6.03(15)(a) and (b).

(a) The specific initial and refresher training course requirements for certification of Asbestos Project Monitors, as set forth at 453 CMR 6.10(4)(g) shall be effective 180 days after June 26, 1998. In the interim, the initial and refresher training courses specified for Asbestos Supervisors at 453 CMR 6.10(4)(c) may be used to satisfy the applicable training requirements for certification of Asbestos Project Monitors pursuant to 453 CMR 6.07.

(b) The requirements of 453 CMR 6.08(4)(e)4. shall be effective 365 days after June 26, 1998.

6.04: Administrative License and Certification Actions/Denial, Revocation, Suspension or Refusal to Renew a License or Certificate

(1) General Administrative Proceedings. The Director may deny, revoke, suspend or refuse to renew a license or certificate issued pursuant to 453 CMR 6.00 upon finding of sufficient cause. License or certificate applicants or holders shall be advised by the Director in writing of the proposed denial, revocation, suspension or refusal to renew and the reasons therefore. Said parties shall have the right to appeal the Director's determination through an administrative hearing in accordance with the provisions of M.G.L. c. 30A and 801 CMR 1.00 by submitting a written request for such hearing within 14 calendar days of receiving notice of such administrative action.

(2) Sufficient Cause. The following shall be sufficient cause for the Director's denial, revocation, suspension or refusal to renew a license or certificate issued pursuant to 453 CMR 6.00:

(a) False statements in the application.

(b) Omission or falsification of documentation or information required to be submitted to the Director pursuant to any provisions of 453 CMR 6.00.

(c) Failure to comply with the applicable provisions of M.G.L. c. 149 or 111F, 453 CMR 6.00, M.G.L. c. 111, ' ' 189A through 199B, or rules or orders issued thereunder.

(d) Failure to comply with laws, rules and regulations relating to occupational or public safety and health.

(e) Failure to maintain records required by 453 CMR 6.11 or make them available to the Director upon request.

(f) In the case of certified Asbestos Training Providers, or applicants for certified Asbestos Training Provider status, the following shall also constitute sufficient cause:

1. Failure to demonstrate the ability to provide the training courses for which the applicant seeks to be certified in compliance with the requirements of 453 CMR 6.09;

2. Failure to provide or maintain the standards of training required by 453 CMR 6.09(3);
or

3. Failure to provide minimum instruction required by 453 CMR 6.10.

(g) In the case of certified Asbestos Consultants or applicants for certification in one or more of the consultant categories listed at 453 CMR 6.07(1)(a) through (d), the following shall also constitute sufficient cause:

1. Gross technical errors or errors of judgment.

2. Failure to properly execute authorized consultative activities.

(h) In the case of certified providers of Asbestos Analytical Services, or applicants for

certification as providers of Asbestos Analytical Services, the following shall also constitute sufficient cause:

1. Failure to maintain successful participation in required proficiency testing programs.
 2. Gross technical errors or errors of judgment relating to activities covered by the certification.
 3. Loss of professional accreditation or license, where such is a required qualification.
- (i) Any other cause affecting the responsibility of the license or certificate holder which the Director determines to be of such serious and compelling nature as to warrant denial, suspension, revocation or refusal to renew.

(3) Probation. The Director may place the license or certificate holder on probation for sufficient cause for a period of three months or longer.

(4) Suspension Prior to Hearing. The Director may summarily suspend a license or certificate on an emergency basis, if, in his/her determination, the actions of the license or certificate holder show willful disregard for the health, safety or welfare of the public or workers. If a license or certificate is summarily suspended, the affected party may appeal the summary action in accordance with 453 CMR 6.04(1). If an appeal is filed, the matter shall be set down for hearing at the earliest possible time. At such hearing the Director must establish that the summary action is factually supported and that there is a substantial likelihood of sustaining the suspension in a full evidentiary hearing. The summary action shall continue against the affected party unless the hearing officer determines that the Director did not meet his/her burden under the standard specified herein. Summary suspensions may be issued in conjunction with license or certificate revocations or refusals to renew.

6.05: Licensure of Asbestos Contractors

(1) Application for Licensure. Applicants for licensure as Asbestos Contractors shall submit the following to the Director:

- (a) A completed application form with attachments as prescribed by the Director, which shall, at a minimum, include the following:
1. A list of all names, acronyms or other identifiers by which the applicant does or has done business, the address(es) and telephone number(s) of the business.
 2. A list of the states in which the applicant holds a current license, certification, accreditation, or other approval for Asbestos Work.
 3. A list of the names and addresses of all Asbestos Abatement firms or entities in which the Responsible Persons of the applicant have or have had a financial interest or management responsibility.
 4. Corporate Articles of Organization and a Certificate of Good Standing issued by the Massachusetts Secretary of State or a DBA (doing business as) certificate for the asbestos contracting firm of the applicant issued by the city or town where the business is located.
 5. A certified and notarized statement by a Responsible Person of the applicant that the applicant has paid all tax obligations current and due to the Commonwealth as of the date of application.
 6. Evidence that Asbestos Work to be performed by the applicant is covered under a current workers' compensation policy or self-insurance program acceptable to the Commonwealth.
 7. A list of all occupational safety and health-related citations or notices of violation, including notices of noncompliance, notices of responsibility, notices of intent to assess an administrative penalty, orders, consent orders and court judgements, received by the Responsible Persons of the applicant in the two years prior to the date of application, and the issuing agency or department and final disposition of such citation or notice.
 8. A statement made under the penalties of perjury by a Responsible Person of the applicant that all employees to be engaged in Asbestos Work are certified, or will be certified prior to any work being performed by them, pursuant to the requirements of 453 CMR 6.00.
 9. A list of the names and addresses of all Responsible Persons and managers of the applicant who have primary responsibility for, and control over, Asbestos Work of the applicant.
 10. A written respirator program evidencing compliance with 29 CFR Part 1910.134.
 11. Written procedures for complying with OSHA or EPA personal monitoring

requirements.

12. A written description of a medical monitoring program evidencing compliance with 453 CMR 6.15(4) or 29 CFR 1926.1101, as applicable.

(b) Asbestos training certificates or legible copies thereof, indicating that a Responsible Person or manager of the applicant listed pursuant to 453 CMR 6.05(1)(a)9. has successfully completed the applicable initial and refresher training requirements for Asbestos Supervisors specified by 453 CMR 6.10(2), 6.10(4)(c) and/or 453 CMR 6.10(5).

(c) Such other information as the Director may reasonably require.

(d) A money order or certified bank check payable to the Commonwealth of Massachusetts in the amount of the entire annual fee of \$2,000, or any other amount established for such license pursuant to M.G.L. c. 7, ' 3B. If the Director denies, revokes, suspends or refuses to renew the License for reasons specified in 453 CMR 6.04, the fee payment is not refundable.

(2) Renewal of an Asbestos Contractor License. An Asbestos Contractor license is valid for a period of one year. The Director may renew an Asbestos Contractor license upon written application for renewal by the license holder. Renewal applications should be submitted to the Department of Labor and Workforce Development no later than 30 calendar days before the expiration of the current license. The submission of a renewal application later than 30 days before the expiration of the current license may result in renewal after the expiration of the current license. Said application for renewal shall include submission of the items referenced at 453 CMR 6.05(1)(a) through (d), including a current certificate of training indicating that a Responsible Person or manager of the applicant listed pursuant to 453 CMR 6.05(1)(a)9. has successfully completed the refresher training requirements for Asbestos Supervisors specified by 453 CMR 6.10(5).

6.06: Certification of Asbestos Workers and Asbestos Supervisors

(1) Application for Certification as an Asbestos Worker. Applicants for certification as Asbestos Workers shall appear in person at one of the Division of Occupational Safety offices listed in 453 CMR 6.19: *Appendix I*, and submit the following:

(a) A completed application form with attachments as prescribed by the Director.

(b) Asbestos training certificates, or legible copies thereof, indicating that the applicant has successfully completed the applicable initial and refresher training requirements specified by 453 CMR 6.10(2), 6.10(4)(b), and/or 453 CMR 6.10(5).

(c) A list of all occupational safety and health-related citations or notices of violation, including notices of noncompliance, notices of responsibility, notices of intent to assess an administrative penalty, orders, consent orders and court judgements, received by the applicant in the two years prior to the date of application, and the issuing agency or department and final disposition of such citation or notice.

(d) Such other information as the Director may reasonably require.

(e) A money order or certified bank check payable to the Commonwealth of Massachusetts in the amount of the entire annual fee of \$25.00, or any other amount established for such certificate pursuant to M.G.L. c. 7, ' 3B. If the Director denies, revokes, suspends or refuses to renew a certificate for reasons specified in 453 CMR 6.04, the fee payment is not refundable.

(2) Renewal of an Asbestos Worker Certificate. An Asbestos Worker certificate is valid for a period of one year. The Director may renew an Asbestos Worker certificate, provided the current certificate holder appears in person at one of the Division of Occupational Safety offices listed in 453 CMR 6.19: *Appendix I*, and makes written application for renewal. Application for renewal should be made no later than seven calendar days before the expiration of the current certificate. The submission of a renewal application later than seven days before the expiration of the current certificate may result in renewal after the expiration of the current certificate. Said application for renewal shall include submission of the items referenced at 453 CMR 6.06(1)(a) through (e), including a current certificate of refresher training specified by 453 CMR 6.10(5).

(3) Application for Certification as an Asbestos Supervisor. Applicants for certification as Asbestos Supervisors shall appear in person at one of the Division of Occupational Safety offices listed in 453 CMR 6.19: *Appendix I*, and submit the following:

(a) A completed application form with attachments as prescribed by the Director.

(b) Asbestos training certificates or legible copies thereof, indicating that the applicant has

successfully completed the applicable initial and refresher training requirements specified by 453 CMR 6.10(2), 6.10(4)(c), and/or 453 CMR 6.10(5).

(c) A list of all occupational safety and health-related citations or notices of violation, including notices of noncompliance, notices of responsibility, notices of intent to assess an administrative penalty, orders, consent orders and court judgments, received by the applicant in the two years prior to the date of application, and the issuing agency or department and final disposition of such citation or notice.

(d) Such other information as the Director may reasonably require.

(e) A money order or certified bank check payable to the Commonwealth of Massachusetts in the amount of the entire annual fee of \$100.00, or any other amount established for such certificate pursuant to M.G.L. c. 7, § 3B. If the Director denies, revokes, suspends or refuses to renew a certificate for reasons specified in 453 CMR 6.04, the fee payment is not refundable.

(4) Renewal of an Asbestos Supervisor Certificate. An Asbestos Supervisor certificate is valid for a period of one year. The Director may renew an Asbestos Supervisor certificate, provided the current certificate holder appears in person at one of the Division of Occupational Safety offices listed in 453 CMR 6.19: *Appendix I*, and makes written application for renewal. Application for renewal should be made no later than seven calendar days before the expiration of the current certificate. The submission of a renewal application later than seven days before the expiration of the current certificate may result in renewal after the expiration of the current certificate. Said application for renewal shall include submission of the items referenced at 453 CMR 6.06(3)(a) through (e), including a current certificate of refresher training specified by 453 CMR 6.10(5).

6.07: Certification of Asbestos Consultants

(1) Scope of Certifications. Persons performing the asbestos consulting functions listed in 453 CMR 6.07(1)(a) through (d) shall be certified in the appropriate discipline prior to engaging in such work. Persons performing the work of more than one Asbestos Consultant discipline shall be separately certified, except that a person who is certified as an Asbestos Management Planner may perform the functions of an Asbestos Inspector without being separately certified.

(a) Asbestos Inspector. Certification as an Asbestos Inspector authorizes the consultant to review building records, perform visual inspections, collect samples, prepare written inventories and conduct other forms of investigation necessary to determine and document the presence and condition of known or suspect ACM in facilities. Certified Asbestos Inspectors shall apply current concepts and state-of-the-art knowledge to evaluate the conditions and accessibility of ACM and shall otherwise conduct their activities according to procedures described in current EPA guidance documents or applicable federal laws or rules and regulations.

(b) Asbestos Management Planner. Certification as an Asbestos Management Planner authorizes the consultant to utilize information developed from facility inspections to assess potential hazards of ACM, to develop O&M plans, and to select and recommend asbestos hazard control and abatement actions.

(c) Asbestos Project Designer. Certification as an Asbestos Project Designer authorizes the consultant to design Asbestos Response Actions through preparation of job specifications, bidding documents, architectural drawings and schematic representations of material locations. Except as mandated by AHERA for Asbestos Response Actions conducted in school facilities, the preparation of asbestos project designs is not required by 453 CMR 6.00. Where asbestos project designs are prepared, such preparation shall only be performed by persons certified as Asbestos Project Designers pursuant to 453 CMR 6.07.

(d) Asbestos Project Monitor. Certification as an Asbestos Project Monitor authorizes the consultant to function as the on-site representative of the facility owner or other persons, interpret project specifications or asbestos management plans and monitor and evaluate contractor or employee compliance with applicable rules, regulations, or specifications, including collection of the air samples at asbestos project sites. Certification as an Asbestos Project Monitor or in any other Asbestos Consultant discipline is not required for persons collecting only (asbestos) personal air monitoring samples.

(2) Qualifications for Certification. Asbestos Consultants shall possess the applicable prerequisites for certification listed at 453 CMR 6.07(2)(a) through (d).

- (a) Asbestos Inspectors. Applicants shall have successfully completed the training requirements set forth at 453 CMR 6.10(4)(d) and shall have, at a minimum:
1. A high school diploma and a minimum of six months experience in an occupation comparable to that of asbestos inspection or two months field experience under the direct supervision of a certified Asbestos Inspector or Management Planner; or
 2. A combination of education and experience equivalent to that set forth in 453 CMR 6.07(2)(a)1., as determined by the Director.
- (b) Asbestos Management Planners. Applicants shall have successfully completed the training requirements set forth at 453 CMR 6.10(4)(e) and shall have, at a minimum:
1. a. An associate degree or certificate in project planning, management, environmental sciences, engineering, construction, architecture, industrial hygiene, occupational health, or a related scientific field; and
b. Six months experience in the asbestos abatement field, including experience in asbestos management; or
 2. A combination of education and experience equivalent to that set forth in 453 CMR 6.07(2)(b)1., as determined by the Director.
- (c) Asbestos Project Designers. Applicants shall have successfully completed the training requirements set forth at 453 CMR 6.10(4)(f) and shall have, at a minimum:
1. A bachelor's degree in industrial hygiene, occupational health, or environmental, biological or physical science;
 2. Current status as a registered architect or engineer with a minimum of 12 months experience in asbestos abatement fields; or
 3. A combination of education and experience equivalent to that set forth in 453 CMR 6.07(2)(c)1. and 2., as determined by the Director.
- (d) Asbestos Project Monitors. Applicants shall have successfully completed the training requirements set forth at 453 CMR 6.10(4)(g) and shall have, at a minimum:
1. Two years of college credit or an associate or technical degree or equivalent; and
 - a. six months employment experience in the asbestos abatement field or
 - b. two months field experience under the direct supervision of a certified Asbestos Project Monitor; or
 2. A combination of education and experience equivalent to that set forth in 453 CMR 6.07(2)(d)1. as determined by the Director.
- (3) Application for Certification as an Asbestos Consultant. Applicants for certification in one or more of the consultant disciplines shall appear in person at one of the Division of Occupational Safety offices listed in 453 CMR 6.19: *Appendix I*, and submit the following:
- (a) A completed application form with attachments, as prescribed by the Director.
 - (b) Asbestos training certificates, or legible copies thereof, indicating that the applicant has successfully completed the applicable initial and refresher training requirements for the Asbestos Consultant discipline for which certification is sought, as set forth in 453 CMR 6.10(2), 6.10(4)(d) through (g) and/or 453 CMR 6.10(5).
 - (c) Documentation demonstrating fulfillment of the qualifications listed at 453 CMR 6.07(2)(a) through (d).
 - (d) A list of all occupational safety and health-related citations or notices of violation, including notices of noncompliance, notices of responsibility, notices of intent to assess an administrative penalty, orders, consent orders and court judgements, received by the applicant in the two years prior to the date of application, and the issuing agency or department and final disposition of such citation or notice.
 - (e) Such other information as the Director may reasonably require.
 - (f) A money order or certified bank check payable to the Commonwealth of Massachusetts in the amount of the entire annual fee of \$300.00, or any other amount established for such certificate pursuant to M.G.L. c. 7, § 3B. A person applying for certification as an Asbestos Inspector and as an Asbestos Management Planner at the same time need pay only one \$300.00 fee. If the Director denies, revokes, suspends or refuses to renew a certificate for reasons specified in 453 CMR 6.04, the fee payment is not refundable.
- (4) Renewal of an Asbestos Consultant Certificate. An Asbestos Consultant certificate is valid for a period of one year. The Director may renew an Asbestos Consultant certificate, provided the current certificate holder appears in person at one of the Division of Occupational Safety offices listed in 453 CMR 6.19: *Appendix I*, and makes written application for renewal. Application for renewal should be made no later than seven calendar days before the expiration

of the current certificate. The submission of a renewal application later than seven days before the expiration of the current certificate may result in renewal after the expiration of the current certificate. Said application for renewal shall include submission of the items referenced at 453 CMR 6.07(3)(a) through (f), including a current certificate of refresher training in the discipline for which certification is sought, as specified at 453 CMR 6.10(5).

(5) Delivery of Services. Because of the highly diversified, technical nature of asbestos consulting, comprehensive requirements for the conduct of the work are not set forth in 453 CMR 6.00. Asbestos Consultants shall perform the functions authorized at 453 CMR 6.07(1)(a) through (d), as applicable, in accordance with the requirements of 453 CMR 6.00, applicable EPA asbestos standards and protocols, including 40 CFR Part 763, Subpart E, other applicable federal standards and in accordance with professional standards generally recognized as Astate-of-the-art@ by the asbestos consulting industry and asbestos professional associations, and in accordance with current practices taught by Certified Training Providers.

6.08: Certification and Other Requirements for Asbestos Analytical Services

(1) Scope of Services. Applicants for certification as providers of Asbestos Analytical Services shall receive separate approval to provide the services listed at 453 CMR 6.08(1)(a) through (d).

(a) Class A Certificate holders shall be authorized to use polarized light microscopy (PLM) for the analysis of bulk asbestos samples originating in all facilities and locations subject to the requirements of 453 CMR 6.00, including school buildings and other facilities subject to the requirements of AHERA.

(b) Class B Certificate holders shall be authorized to use polarized light microscopy (PLM) for the analysis of bulk asbestos samples originating in all facilities and locations subject to the requirements of 453 CMR 6.00, except school buildings and other facilities subject to the requirements of AHERA.

(c) Class C Certificate holders shall be authorized to use phase contrast microscopy (PCM) for the analysis of air samples originating in all facilities and locations subject to the requirements of 453 CMR 6.00, including school buildings and other facilities subject to the requirements of AHERA.

(d) Class D Certificate holders shall be authorized to use transmission electron microscopy (TEM) for the analysis of air and bulk asbestos samples originating in all facilities and locations subject to the requirements of 453 CMR 6.00, including school buildings and other facilities subject to the requirements of AHERA.

(2) Application for Certification as a Provider of Asbestos Analytical Services. Applicants for certification as providers of Asbestos Analytical Services shall submit the following to the Director:

(a) A completed application form with attachments as prescribed by the Director, which shall, at a minimum, include the following:

1. A list of all names, acronyms or other identifiers by which the applicant does or has done business, and the address(es) and telephone number(s) of the business.
2. The type(s) of approval/certification listed at 453 CMR 6.08(1)(a) through (d) for which the applicant is applying.
3. Corporate Articles of Organization and a Certificate of Good Standing issued by the Massachusetts Secretary of State or a DBA (doing business as) certificate for the Asbestos Analytical Service of the applicant issued by the city or town where the business is located.
4. A certified and notarized statement by a Responsible Person of the applicant that the applicant has paid all tax obligations current and due to the Commonwealth as of the date of application.
5. Evidence that the Asbestos Analytical Services to be performed by the applicant are covered under a current workers' compensation policy or self-insurance program acceptable to the Commonwealth.
6. A list of all occupational safety and health-related citations or notices of violation, including notices of noncompliance, notices of responsibility, notices of intent to assess an administrative penalty, orders, consent orders and court judgements, received by the Responsible Persons of the applicant in the two years prior to the date of application, and the issuing agency or department and final disposition of such citation or notice.
7. A list of the names and addresses of all persons designated as Asbestos Laboratory

Supervisors of the Asbestos Analytical Service pursuant to 453 CMR 6.08(4)(a).

(b) A copy of the laboratory standard operating procedures manual for asbestos analysis used by the applicant, which shall minimally include:

1. A listing of all Responsible Persons and employees of the applicant who will be performing asbestos analysis.
2. Legible copies of certificates of training or other training records for all persons listed at 453 CMR 6.08(2)(b)1., indicating that each such person has fulfilled the applicable asbestos analytical training required by 453 CMR 6.08(4)(d).
3. Copies of all applicable analytical protocols and procedures referenced at 453 CMR 6.08(4)(f).
4. An inventory of the analytical equipment used by the applicant, with a description of associated equipment calibration and maintenance procedures and schedules.
5. A description of chain of custody procedures, including handling, storage and disposal procedures for asbestos samples.
6. A description of the quality control procedures and programs utilized by the applicant.

(c) Results indicating proficiency in the two most recent rounds of the applicable quality control program(s) required by 453 CMR 6.08(4)(e). Documentation shall be in the form of legible copies of official correspondence or certificates from the provider of the applicable quality control program. Applicants from within the Commonwealth seeking certification as Class B or Class C Asbestos Analytical Services may submit the single most recent quality control round result, but their receipt of certification and approval pursuant to 453 CMR 6.08(2) may be contingent upon the results of a laboratory inspection at the discretion of the Director.

(d) A money order or certified bank check payable to the Commonwealth of Massachusetts in the amount of the entire annual fee of \$350.00, or any other amount established for such certificate pursuant to M.G.L. c. 7, ' 3B. If the Director denies, revokes, suspends or refuses to renew a certificate for reasons specified in 453 CMR 6.04, the fee payment is not refundable.

(e) Such other information as the Director may reasonably require.

(3) Renewal of an Asbestos Analytical Service Certificate. A certificate as a provider of Asbestos Analytical Services is valid for a period of one year. The Director may renew an Asbestos Analytical Service certificate upon written application for renewal by the certificate holder. Renewal applications should be submitted to the Department of Labor and Workforce Development no later than 30 calendar days before the expiration of the current certificate. The submission of a renewal application later than 30 days before the expiration of the current certificate may result in renewal after the expiration of the current certificate. Said application for renewal shall include submission of the items referenced at 453 CMR 6.08(2)(a) through (e). The Director may waive the requirement for resubmission of the information specified at 453 CMR 6.08(2)(b) where there has been no substantive change in the information submitted with a previous application, and the applicant attests to such.

(4) Operating Requirements for Asbestos Analytical Services. Because of the highly diversified, technical nature of asbestos analysis, comprehensive requirements for the conduct of the work are not set forth in 453 CMR 6.00. Certified providers of Asbestos Analytical Services shall conduct asbestos analytical work in accordance with officially recognized methodologies and generally accepted industrial hygiene laboratory practices. Providers of Asbestos Analytical Services shall minimally adhere to the following operating requirements, as a condition of certification:

(a) Designation of Asbestos Laboratory Supervisor. Applicants for certification as providers of Asbestos Analytical Services shall designate a qualified Asbestos Laboratory Supervisor, who shall be jointly responsible with other Responsible Persons of the certified Asbestos Analytical Service, if any, for the adherence to the applicable analytical protocols, the maintenance of proper quality control procedures and the accuracy of the analytical results.

(b) Use of Personnel. The Asbestos Laboratory Supervisor and the Responsible Persons of the certified Asbestos Analytical Service shall ensure that no person shall perform, or be directed to perform, any asbestos analysis in the direct business interest of an Asbestos Analytical Service unless that person is a Responsible Person or an employee of said Asbestos Analytical Service.

(c) Possession of Adequate Equipment and Supplies. Asbestos Analytical Services shall possess all equipment and supplies necessary to perform the services offered. Equipment shall be calibrated and maintained as specified by the analytical protocols used or generally accepted industrial hygiene practices.

(d) Training. All employees and Responsible Persons of an Asbestos Analytical Service who perform any asbestos analysis shall have successfully completed appropriate training, as specified at 453 CMR 6.08(4)(d)1. through 3.:

1. Training Requirements for Class A and Class B Certificates. All employees and Responsible Persons of Class A and Class B Asbestos Analytical Services shall have successfully completed an approved course of training in the techniques and procedures for identification of asbestos in bulk samples (*e.g.* McCrone Research Institute Asbestos Bulk Analysis course, or an equivalent course acceptable to the Director).

2. Training Requirements for Class C Certificates. All employees and Responsible Persons of Class C Asbestos Analytical Services shall have successfully completed the NIOSH #582 Course, "Sampling and Evaluating Airborne Asbestos" or an equivalent course acceptable to the Director.

3. Training Requirements for Class D Certificates. All employees and Responsible Persons of Class D Asbestos Analytical Services shall have successfully completed an approved course of training in the techniques and procedures for identification of asbestos in air samples using TEM (*e.g.* McCrone Research Institute Asbestos Analysis by Transmission Electronic Microscopy course), or an equivalent course acceptable to the Director.

(e) Required Participation in Quality Control Testing Programs. All certified Asbestos Analytical Services shall participate and maintain proficiency or accreditation in official quality control testing programs, as specified at 453 CMR 6.08(4)(e)1. through 5.:

1. Certified Class A Asbestos Analytical Services shall maintain accredited status in the National Voluntary Laboratory Accreditation Program of the NIST.

2. Certified Class B Asbestos Analytical Services shall:

a. Maintain accredited status in the National Voluntary Laboratory Accreditation Program of the NIST or

b. Maintain proficiency in the Bulk Asbestos Quality Assurance Program of the American Industrial Hygiene Association or in an equivalent quality assurance program acceptable to the Director.

3. Certified Class C Asbestos Analytical Services shall:

a. Participate and maintain proficiency in the Proficiency Analytical Testing (PAT) Program of the American Industrial Hygiene Association or

b. Ensure that all analysts performing such testing for said analytical service are listed in the Asbestos Analysts Registry (AAR) of the American Industrial Hygiene Association and maintain proficiency in the Asbestos Analysis Testing (AAT) Program of the American Industrial Hygiene Association.

4. (Effective June 26, 1999) Additionally, the Asbestos Laboratory Supervisor and Responsible Persons of certified Class C Asbestos Analytical Services shall ensure that all analysts who perform field analysis of asbestos air samples using phase contrast microscopy are listed in the Asbestos Analysts Registry (AAR) of the American Industrial Hygiene Association and maintain proficiency in the Asbestos Analysis Testing (AAT) Program of the American Industrial Hygiene Association.

5. Certified Class D Asbestos Analytical Services shall maintain accredited status in "Airborne Asbestos Fiber Analysis" in the National Voluntary Laboratory Accreditation Program (NVLAP) of the NIST.

(f) Required Use of Official Analytical Protocols. In performing asbestos analysis, certified Asbestos Analytical Services shall use official protocols, as set forth at 453 CMR 6.08(4)(f)1. through 3.:

1. Certified Class A and Class B Asbestos Analytical Services shall use the "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" found at Appendix A to Subpart F of 40 CFR Part 763 or the "Method for the Determination of Asbestos in Bulk Building Materials" (EPA/600/R-93/116) for the analysis of bulk asbestos samples by polarizing light microscopy.

2. Certified Class C Asbestos Analytical Services shall use the NIOSH Method 7400 for the determination of asbestos in clearance air monitoring samples and air samples collected to assess environmental asbestos exposures. Analytical services may use either the NIOSH Method 7400 or the OSHA Reference Method (29 CFR Part 1910.1001,

Appendix A, 51 FR No. 119, 22739, June 20, 1986) for the analysis of personal air monitoring samples.

3. Certified Class D Asbestos Analytical Services shall use the "Interim Transmission Electron Microscopy Methods - Mandatory and Nonmandatory - and Mandatory Section to Determine Completion of Response Actions," referenced at 40 CFR Part 763, Appendix A, for airborne asbestos analysis by TEM.

(g) Asbestos Analytical Services shall maintain records, as provided by 453 CMR 6.11(4).

6.09: Certification and Other Requirements for Training Providers

(1) Application for Certification as an Asbestos Training Provider. Applicants for certification as an Asbestos Training Provider shall submit the following to the Director:

(a) A completed application form with attachments as prescribed by the Director, which shall, at a minimum, include the following:

1. A list of all names, acronyms or other identifiers under which the applicant intends to conduct training and the address(es) and telephone number(s) of the business.
2. A list of those training course(s) set forth in 453 CMR 6.10 which the applicant intends to offer.
3. Corporate Articles of Organization and a Certificate of Good Standing issued by the Massachusetts Secretary of State or a DBA (doing business as) certificate for the Asbestos Training Provider issued by the city or town where the business is located.
4. A certified and notarized statement by a Responsible Person of the applicant that the applicant has paid all tax obligations current and due to the Commonwealth as of the date of application.
5. Evidence that asbestos training services to be performed by the applicant are covered under a current workers' compensation policy or self-insurance program acceptable to the Commonwealth.
6. A list of all occupational safety and health-related citations or notices of violation, including notices of noncompliance, notices of responsibility, notices of intent to assess an administrative penalty, orders, consent orders and court judgements, received by the Responsible Persons of the applicant in the two years prior to the date of application, and the issuing agency or department and final disposition of such citation or notice.
7. A sample agenda for each training course which the applicant intends to offer, which shows topics covered and the amount of time to be given to each topic.
8. A copy of the training manual and all printed material to be distributed in each course.
9. A description of the teaching methods to be employed, including audio-visual aids.
10. A description of the hands-on training to be provided (where required), including facilities, training methods, numbers of students to be accommodated, and ratio of students to instructors.
11. A description of the equipment that will be used in both classroom lectures and in hands-on training.
12. A list of the names and qualifications of the persons who will provide the training in each course, including their education, training, and experience.
13. An example of the written examination to be given in each course.
14. A list of the tuition or other fees required.
15. A copy of the certificate of completion to be given to participants.
16. A list of all states and federal agencies which have certified, accredited or given other forms of approval to the applicant to provide asbestos training, including the name, address and telephone number of the person, department, or agency giving such approval, and copies of all such written approvals received.
17. A statement made under the penalties of perjury by a Responsible Person of the applicant that the applicant will comply with the applicable requirements of 453 CMR 6.00.

(b) Such other information as the Director may reasonably require.

(c) A money order or certified bank check payable to the Commonwealth of Massachusetts in the amount of the entire annual fee of \$850.00, or any other amount established for such certificate pursuant to M.G.L. c. 7, ' 3B. If the Director denies, revokes, suspends or refuses to renew a certificate for reasons specified in 453 CMR 6.04, the fee payment is not refundable.

(2) Renewal of an Asbestos Training Provider Certificate. A certificate as an Asbestos Training Provider is valid for a period of one year. The Director may renew an Asbestos Training Provider certificate upon written application for renewal by the certificate holder. Renewal applications should be submitted to the Department of Labor and Workforce Development no later than 30 calendar days before the expiration of the current certificate. The submission of a renewal application later than 30 days before the expiration of the current certificate may result in renewal after the expiration of the current certificate. Said application for renewal shall include submission of the items referenced at 453 CMR 6.09(1)(a) through (c). The Director may waive the requirement for resubmission of information specified at 453 CMR 6.09(1)(a) where there has been no substantive change in the information submitted with a previous application, and the applicant attests to such.

(3) Requirements for Certified Training Providers. Certified Asbestos Training Providers shall perform the following as a condition of certified status:

- (a) Notify the Director, in writing, at least ten days prior to the commencement of any asbestos training course for which certification is required by 453 CMR 6.00, with the course title, location and anticipated start and end dates of said course.
- (b) Notify the Director, in writing, of any changes in the course content, training methods, facilities, *etc.*, which would alter the course of instruction from that originally submitted for certification. (Minor changes in agenda, such as guest speakers, if otherwise qualified, and course schedule, are excepted.)
- (c) Issue serially-numbered certificates to all students who successfully complete asbestos training courses. The numbered certificates shall include the name of the student and the course completed, the dates of the course and the examination, and a statement that the student passed any examination required. The certificate shall include an expiration date that is one year from the date on which the student successfully completed the course.
- (d) Maintain the training records required by 453 CMR 6.11(2).
- (e) Utilize and distribute information or training materials furnished by the Department.
- (f) Provide written course materials, oral instruction and written examinations only in language in which each student is fluent.
- (g) Provide to the Director within 30 calendar days after the conclusion of each initial and refresher training course, the title of the course, the date(s) on which the course was provided and the name, address, and Social Security number of each student who successfully completed the course.
- (h) Subsequent to reasonable notice, permit up to two representatives of the Director to attend each course and to take the written examination without cost to the Department.
- (i) Allow auditing inspections of approved training courses by the Director or his or her representative. Applicants from outside the Commonwealth shall, at the Department's option, bear the costs to the Department for one course audit per year for each course for which approval is granted pursuant to 453 CMR 6.09. Said costs shall include two-way travel and food and lodging expenses for one individual for the entire length of each course.

6.10: Training Requirements

(1) Persons Requiring Training. All persons seeking certification as Asbestos Supervisors, Asbestos Workers, Asbestos Inspectors, Asbestos Management Planners, Asbestos Project Designers and/or Asbestos Project Monitors shall have successfully completed the applicable initial and refresher training for the discipline in which they wish to be certified, as set forth at 453 CMR 6.10(2), 6.10(4)(a) through (g) and/or 453 CMR 6.10(5). All Asbestos-Associated Project Workers shall have successfully completed the applicable initial training as set forth in 453 CMR 6.10(4)(h). Only asbestos training which has been provided by a certified Asbestos Training Provider or which meets the reciprocity requirements of 453 CMR 6.10(2) shall be allowable for the purposes of 453 CMR 6.10.

(2) Allowance for Prior Training Courses.

- (a) Any person who has successfully completed the applicable initial and refresher training for certification as an Asbestos Worker, Asbestos Supervisor, Asbestos Inspector, Asbestos Management Planner, Asbestos Project Designer or Asbestos Project Monitor prior to the effective date of 453 CMR 6.00 shall not be required to take another initial training course to fulfill his or her training requirements for certification in that discipline pursuant to 453 CMR 6.00, provided that said training was:
 1. Supplied by an EPA-approved provider of asbestos training;

2. Approved by a state asbestos licensing and/or accreditation program with applicable asbestos training requirements no less stringent than those set forth in Appendix C to Subpart E of 40 CFR Part 763; or
 3. Approved by the Director; and provided that said course was substantially equivalent in length and content to the applicable asbestos training course specified at 453 CMR 6.10(4).
- (b) Any person who had successfully completed Asbestos-Associated Project Worker training required by 453 CMR 6.10(4)(h) and 453 CMR 6.13(1)(a) prior to June 26, 1998, shall not be required to take another training course to fulfill his or her training requirements for participation in Asbestos-Associated Project Work or Small-Scale Asbestos Projects, provided that said training course meets one of the criteria set forth at 453 CMR 6.10(2)(a)1. through 3.. The refresher training requirements of the OSHA Asbestos Standard 29 CFR Part 1926.1101 shall also apply to the the training of Asbestos-Associated Project Workers.
- (c) Where an initial or refresher training certificate has expired, the holder shall have a grace period of one year from the date of expiration of said training certificate in which to take another refresher training course in the same discipline in lieu of re-taking the applicable initial course of training.

(3) Determination of Course Equivalency. The Director shall determine whether courses and examinations are equivalent to the training and examination requirements of 453 CMR 6.00.

(4) Training Curriculum. Training courses required for licensure or certification pursuant to 453 CMR 6.05 through 6.07 or work on an Asbestos-Associated Project or a Small-Scale Asbestos Project shall be conducted by training providers certified pursuant to 453 CMR 6.09, except as provided in 453 CMR 6.10(2) and at a minimum, meet the following criteria of duration, subject matter and examination:

(a) General.

1. Courses of instruction required by 453 CMR 6.10(1) and (4) shall be specific for each of the disciplines as set forth in 453 CMR 6.10(1). The topics or subjects of instruction which a person must receive to meet the training requirements must be presented through a combination of lectures, demonstrations, and field trips or hands-on practice, as appropriate.
2. Courses requiring hands-on training must be presented in an environment suitable to permit participants to have actual experience performing tasks associated with asbestos abatement. Demonstrations not involving individual participant participation shall not substitute for hands-on training. Hands-on training sessions shall maintain a student-to-instructor ratio of not greater than 10:1. The Division of Occupational Safety recommends that lecture sections of asbestos training courses have a student to instructor ratio no higher than 25:1.
3. For purposes of 453 CMR 6.00, one training day shall consist of eight-hours of actual classroom instruction, hands-on training and field trips, or combinations thereof, including lunch and breaks.
4. Asbestos-Associated Project Worker training may be given on non-consecutive days, provided that the entire course of instruction is given within a two-week period. Asbestos training for the asbestos disciplines requiring certification pursuant to 453 CMR 6.00 shall be given on consecutive days, except as authorized by the Director in writing.
5. The Director reserves the right to administer a proficiency examination to any person applying for certification pursuant to 453 CMR 6.00.

(b) Asbestos Workers. Persons seeking certification as Asbestos Workers shall successfully complete an approved four-day training course specified below or the course required under 453 CMR 6.10(4)(c). The training course shall include lectures, demonstrations, at least 14 hours of hands-on training, including respirator fit testing, course review, and a written examination consisting of 50 multiple choice questions. Successful completion of the course shall be demonstrated by achieving a score of at least 70% on the examination. The course shall adequately address the requirements of 453 CMR 6.00 applicable to Asbestos Workers and the topics specified for Asbestos Workers in Appendix C to subpart E of 40 CFR Part 763, as set forth in 59 FR 5236-5260, February 3, 1994, which are listed in 453 CMR 6.20: *Appendix II*.

(c) Asbestos Supervisors. Persons seeking certification as Asbestos Supervisors shall successfully complete an approved five-day training course as specified below. The training course shall include lectures, demonstrations, at least fourteen hours of hands-on training,

respirator fit testing, course review, and a written examination consisting of 100 multiple choice questions. Successful completion of the course shall be demonstrated by achieving a score of at least 70% on the examination. The course shall adequately address the requirements of 453 CMR 6.00 applicable to Asbestos Supervisors and the topics specified for Contractors/Supervisors in Appendix C to subpart E of 40 CFR Part 763, as set forth in 59 FR 5236-5260, February 3, 1994, which are listed in 453 CMR 6.20: *Appendix II*.

(d) Asbestos Inspectors. Persons seeking certification as Asbestos Inspectors shall successfully complete an approved three-day training course as specified below. The training course shall include lectures, demonstrations, at least four hours of hands-on training, including respirator fit testing, course review and a written examination consisting of 50 multiple choice questions. Successful completion of the course shall be demonstrated by achieving a score of at least 70% on the examination. The course shall adequately address the requirements of 453 CMR 6.00 applicable to Asbestos Inspectors and the topics specified for Asbestos Inspectors in Appendix C to subpart E of 40 CFR Part 763, as set forth in 59 FR 5236-5260, February 3, 1994, which are listed in 453 CMR 6.20: *Appendix II*.

(e) Asbestos Management Planners. Persons seeking certification as Asbestos Management Planners shall successfully complete the training program as described in 453 CMR 6.10(4)(d), plus an approved two-day management training course as specified below. The Asbestos Management Planner course shall include lectures, demonstrations, course review and a written examination consisting of 50 multiple choice questions. Successful completion of the course shall be demonstrated by achieving a score of at least 70% on the examination. The course shall adequately address requirements of 453 CMR 6.00 applicable to Asbestos Management Planners and the topics specified for Management Planners in Appendix C to subpart E of 40 CFR Part 763, as set forth in 59 FR 5236-5260, February 3, 1994, which are listed in 453 CMR 6.20: *Appendix II*.

(f) Asbestos Project Designers. Persons seeking certification as Asbestos Project Designers shall successfully complete an approved three-day training course. The training course shall include lectures, demonstrations, a field trip, course review, and a written examination consisting of 100 multiple choice questions. Successful completion of the course shall be demonstrated by achieving a score of at least 70% on the examination. The course shall adequately address the requirements of 453 CMR 6.00 applicable to Asbestos Project Designers and the topics specified for Project Designers in Appendix C to subpart E of 40 CFR Part 763, as set forth in 59 FR 5236-5260, February 3, 1994, which are listed in 453 CMR 6.20: *Appendix II*.

(g) Asbestos Project Monitor. Persons seeking certification as Asbestos Project Monitors shall successfully complete an approved five-day training course. The training course shall include lectures, demonstrations, at least six hours of hands-on training, a course review and a written examination consisting of 100 multiple choice questions. Successful completion of the course shall be demonstrated by achieving a score of at least 70% on the examination. The course shall adequately address the requirements of 453 CMR 6.00 applicable to Asbestos Project Monitors and the topics specified for Project Monitors in Appendix C to subpart E of 40 CFR Part 763, as set forth in 59 FR 5236-5260, February 3, 1994, which are listed in 453 CMR 6.20: *Appendix II*.

(h) Asbestos-Associated Project Workers. Persons seeking designation as Asbestos-Associated Project Workers shall successfully complete an approved two-day training course. The training course for Asbestos-Associated Project Workers shall include lectures, demonstrations, and a minimum of four hours of hands-on training. An examination is not required. The course shall adequately address the following subjects:

1. Background information on asbestos.
2. Potential health effects related to asbestos exposure.
3. Recognition of damage, deterioration and delamination of asbestos material.
4. Employee personal protective equipment.
5. Personal hygiene.
6. Proper methods of handling asbestos material.
7. Relevant federal, state and local regulatory requirements.
8. Hands-on training.

(5) Refresher Training. Annual refresher training is required for Asbestos Workers, Asbestos Supervisors and all Asbestos Consultant disciplines as a condition of maintaining certification. Annual refresher training is recommended but not required for Asbestos-Associated Project Workers. Satisfactory completion of such training shall be a condition of certification renewal

and evidence of satisfactory completion shall be included in the annual renewal application. Training providers shall determine successful completion of a refresher course by conducting a written examination consisting of 25 questions at the conclusion of the course. A score of 70% or higher shall be considered passing.

(a) Refresher training for all disciplines except Asbestos Inspectors shall be of one-day duration. Refresher training for Asbestos Inspectors shall be 2 day in length. Asbestos Management Planners shall attend the Asbestos Inspector refresher course plus an additional 2 day on management planning.

(b) The refresher curriculum for all disciplines shall include a review of changes in applicable state and federal laws, regulations, policies and guidelines; developments or changes in state-of-the-art procedures and equipment; and the key areas of initial training specific to each discipline.

6.11: Recordkeeping

(1) Maintenance, Submission and Retention of Records. Certified Training Providers, Asbestos Contractors, Asbestos Analytical Services, Asbestos Consultants and employers of Asbestos Associated Project Workers shall maintain the records as indicated at 453 CMR 6.11(2) through (6) and make said records available to the Director upon request. Entities whose principal place of business is outside of the Commonwealth of Massachusetts shall provide photocopies of such records or documents within ten business days of receipt of a written request from the Director. Records and documents required to be kept by 453 CMR 6.11 shall be retained for a period of 30 years from the date of project or activity completion, except that records required to be kept by 453 CMR 6.11(2) shall be kept for a period of at least 15 years. Entities or persons ceasing to do business, or relocating the principal place of business shall so notify the Director in writing within 30 days of such event. The Director, on receipt of such notification may instruct that the records be surrendered to the Department, or may specify a repository for such records. The entity or person shall comply with the Director's instructions within 60 days.

(2) Certified Training Providers. Certified Training Providers shall maintain the following records:

(a) Copies of all written materials required to be submitted with the application for certification and course approval by 453 6.09(1).

(b) Copies of all pre-course notifications required to be filed by 453 CMR 6.09(3)(a) with applicable course agendas.

(c) Copies of all post-course notifications required by 453 CMR 6.09(3)(g), including the name, address, telephone number, Social Security Identification Number and final examination score of each person who completed each course.

(d) A copy of the certificate of completion of each student passing the course.

(e) The name, business address and telephone number of the person(s) who proctored the examinations.

(3) Asbestos Contractors.

(a) Central Location. The following records and documents shall be maintained by Asbestos Contractors at the principal place of business:

1. Copies of all written materials required to be submitted for Asbestos Contractor licensure pursuant to 453 CMR 6.05.

2. Name, address, telephone number and dates of employment or affiliation of every Asbestos Worker and Supervisor employed by or included within the corporate structure of the Asbestos Contractor.

3. Copies of all asbestos training certificates required by 453 CMR 6.10 and all Asbestos Worker and Supervisor/Foreperson certifications issued by the Department pursuant to 453 CMR 6.06 for every Asbestos Worker and Supervisor/ Foreperson employed by or included within the business structure of the Asbestos Contractor.

4. Copies of all notifications made by the Asbestos Contractor pursuant to 453 CMR 6.12.

5. Receipts and documentation of disposal of asbestos waste, showing dates, locations and amounts of asbestos waste disposed, including the identification of the source of the asbestos waste and the transporter (company name or driver name, if an employee of the contractor).

6. Copies of all asbestos analysis and exposure monitoring reports in the possession of

the Asbestos Contractor relating to past or present Asbestos Work, including clearance air monitoring reports required by 453 CMR 6.14(5)(b).

7. Copies of all contracts awarded for Asbestos Work.

8. All records and documents required by 29 CFR 1910.134 and 1926.1101 and any other applicable federal, state or local law, regulation or ordinance.

9. Copies of all records required to be maintained on-site by 453 CMR 6.11(3)(b).

(b) On-site. The following records and documents shall be maintained by the Asbestos Contractor at the Asbestos Project worksite for the duration of the project:

1. A current copy of 453 CMR 6.00.

2. A copy of all contract, project design or technical specifications governing the project in the possession of the Asbestos Contractor.

3. A listing of each of the contractors, sub-contractors and consultants on the project.

4. A listing of every employee or person within the business structure of the contractor at the worksite and a legible copy of the Massachusetts certification card of each Asbestos Worker and each Asbestos Supervisor on site.

5. A daily sign-in/out log which includes the printed and signed name and the Massachusetts Asbestos Certification Number (where applicable) of each person who enters the Asbestos Work Area, with the times of entry and exiting.

6. Records of all on-site air monitoring pertaining to the project in the possession of the Asbestos Contractor.

7. A written respirator program which conforms to requirements of 29 CFR 1910.134(b).

(4) Certified Analytical Services. Certified Asbestos Analytical Services shall maintain the following records:

(a) Copies of all documents required for certification pursuant to 453 CMR 6.08, including quality control results.

(b) Records of all analyses performed, including the identity of the sender, the laboratory identification number, the date collected, the location from which the sample was collected and the analytical results.

(c) Persons who perform on-site phase contrast analysis of clearance air monitoring samples and are required to be listed in the Asbestos Analyst Registry(AAR) of the American Industrial Hygiene Association by 453 CMR 6.08(4)(e)4. shall keep photocopies of such listing at each such work site.

(5) Certified Asbestos Consultants. Certified Asbestos Consultants shall maintain all documentation pertaining to inspections, assessments, management plans, project designs sampling, project monitoring, or other asbestos consultation performed by them within the scope of each consultant discipline set forth at 453 CMR 6.07. Said records shall include an identification of the client, the dates and locations of service and the results or conclusions. Logs for completed projects shall be maintained at the consultant's principal place of business. Logs for current projects shall be kept at the asbestos project worksite.

(6) Employers of Asbestos-Associated Project Workers. Employers of Asbestos-Associated Project Workers shall maintain at the place of employment copies of each worker's Associated-Project Worker training certificate issued by a certified Asbestos Training Provider and any and all documents required to be kept by 29 CFR Part 1926.1101.

6.12: Notification of Asbestos Projects

An Asbestos Contractor or operator of an Asbestos Response Action shall notify the Director before engaging in any Asbestos Response Action which involves more than three linear feet of asbestos on or in pipes, ducts or wires or more than three square feet of asbestos on or in structures or components other than pipes, ducts or wires. Notification shall be on forms jointly prescribed by the Director and the Department of Environmental Protection. Notification shall be postmarked, hand-delivered or Faxed at least ten days before the project start date, or, in the case of an Emergency Project, within one working day after the project start date. Fulfillment of the notification requirements of 453 CMR 6.12 shall not relieve the Asbestos Contractor, operator of the project or facility owner of the responsibility for making written notification as may be required by any other municipality, agency of the Commonwealth, or any agency of the federal government.

6.13: Work Practices and other Requirements for Small-Scale Asbestos Projects, Asbestos-Associated Projects and Work Operations Involving Non-Friable ACM

(1) Requirements for Small-Scale Asbestos Projects and Asbestos-Associated Projects.

(a) Exemption from Licensing and Certification Requirements; Requirements for Training. Persons or entities who carry out Small-Scale Asbestos Projects need not be licensed as Asbestos Contractors or certified as Asbestos Workers or Asbestos Supervisors, provided that all persons participating in the work have received the Asbestos Associated Project Worker training specified by 453 CMR 6.10(4)(h), the Asbestos Worker training specified at 453 CMR 6.10(4)(c) or the Asbestos Supervisor training specified at 453 CMR 6.10(4)(c) and provided that the work is conducted in accordance with the applicable provisions of 453 CMR 6.13.

(b) Personal Protection. All employees who perform Small-Scale Asbestos Projects shall be provided with personal protection in accordance with the requirements of 453 CMR 6.03(12).

(c) Work Practice Requirements. Persons or entities carrying out, or having supervisory authority over, Small-Scale Asbestos Projects or Asbestos-Associated Projects shall ensure that the work practice requirements of 453 CMR 6.13(1)(c) are met.

1. All persons not directly involved in the work shall be excluded from the Work Area. Physical barriers shall be used as necessary to limit access to the Work Area for the duration of the project.

2. Dust-tight barriers shall be constructed to insure that asbestos fibers released during work activities are contained within the Work Area. Glove bags and prefabricated mini-enclosures are permitted in place of constructed barriers.

3. Before any ACM is disturbed it shall be wet with Amended Water, and it shall be kept wet throughout the work operation until properly containerized.

4. Any friable ACM exposed as a result of the work operation shall be suitably enclosed or encapsulated as specified by 453 CMR 6.14(4)(d)4. or 6.14(4)(d)5.

5. HEPA vacuuming or wet cleaning shall be used to decontaminate the Work Area and any equipment used in the work operation until all surfaces are free of visible debris.

6. Asbestos-containing waste shall be containerized, transported, and disposed as specified at 453 CMR 6.14(4)(d)2. and 6.14(4)(h).

(d) Clearance Inspections. All surfaces within the Work Area shall be visually inspected for dust, debris and other particulate residue by the owner of the facility or by persons who have been trained pursuant to 453 CMR 6.10(4)(b), (c), (g) or (h). The Work Area shall be repeatedly cleaned by the Contractor or other entity carrying out the work operation until the no visible debris criterion is achieved.

(2) Requirements for Asbestos Projects Involving Non-Friable ACM.

(a) Applicability of Standards.

1. The requirements of 453 CMR 6.13(1) for Small-Scale Asbestos Projects shall apply to work operations which involve the sanding, grinding, cutting (by sawing), chipping or abrading of three or fewer linear feet of Category I or Category II non-friable ACM, where the material covers, or is contained within, pipes, ducts or wires, or three or fewer square feet of Category I or Category II non-friable ACM, where the material covers, or is contained within, structures other than pipes, ducts or wires.

2. The requirements of 453 CMR 6.14 for Asbestos Response Actions shall apply to work operations which involve the sanding, grinding, cutting (by sawing), chipping or abrading of greater than three linear feet of Category I or Category II non-friable ACM, where the material covers, or is contained within, pipes, ducts or wires, or greater than three square feet of Category I or Category II non-friable ACM, where the material covers, or is contained within, structures other than pipes, ducts or wires.

3. The requirements of 453 CMR 6.13(1) for Small-Scale Asbestos Projects shall apply to work operations which involve the breaking, shearing, or slicing of three or fewer linear/square feet of Category II non-friable ACM, where the work operation results in the production of asbestos dust or the material becoming friable.

4. The requirements of 453 CMR 6.14 for Asbestos Response Actions shall apply to work operations which involve the breaking, shearing, or slicing of greater than three linear/square feet of Category II non-friable ACM, where the work operation results in the production of asbestos dust or the material becoming friable.

5. Work operations which involve the breaking, shearing, or slicing of Category I or Category II non-friable ACBM shall not be subject to the requirements of 453 CMR 6.00, where such work does not result in the production of asbestos dust or the material becoming friable.

(b) Disposal Requirements. Asbestos debris shall be disposed in accordance with 310 CMR 7.00 and 19.00 and the EPA National Emission Standard for Asbestos (NESHAP) as contained in 40 CFR Part 61, Subpart M and other applicable state and federal standards.

6.14: Work Practices and Other Requirements for Asbestos Response Actions

(1) Required Use of Licensed Asbestos Contractors. Except as allowed by 453 CMR 6.14(1)(a), only Asbestos Contractors licensed pursuant to 453 CMR 6.03(2) and 6.05 shall carry out Asbestos Response Actions.

(a) Exception to Licensing Requirement for Entities Conducting Response Actions in their Own Facilities. Persons, firms, corporations or other entities who carry out Asbestos Response Actions at their own property or usual place of business or employment using their own regular employees or Responsible Persons need not be licensed as Asbestos Contractors, provided that the requirements of 453 CMR 6.14(2) and (3) are met, and the work is otherwise conducted in accordance with the applicable requirements of 453 CMR 6.00.

(2) Requirement for On-Site Supervisor. The Responsible Persons of the licensed Asbestos Contractor or other entity carrying out an Asbestos Response Action shall ensure that a certified Asbestos Supervisor who is an employee or Responsible Person of said Asbestos Contractor or entity is present at the worksite and in control of the work at all times when work is in progress.

(3) Requirement for Use of Certified Asbestos Workers. The Responsible Persons of the licensed Asbestos Contractor or other entity carrying out an Asbestos Response Action shall ensure that all persons who perform the functions of Asbestos Workers in the Work Area are Responsible Persons or employees of said Asbestos Contractor or entity and that said persons are certified pursuant to 453 CMR 6.03(3).

(4) Required Work Practices. Asbestos Contractors, Asbestos Supervisors and others carrying out, or having supervisory authority over, Asbestos Response Actions shall ensure that the work practice requirements of 453 CMR 6.14(4) are met.

(a) Work Area Preparation.

1. Exclusion of Persons from the Work Area. All persons not directly involved in the work operation shall be excluded from the Work Area.

2. Sign In/Out Log. The Asbestos Contractor or other entity carrying out an Asbestos Response Action shall ensure that each person entering or leaving the Work Area individually completes the appropriate entries in the sign-in/out log referenced at 453 CMR 6.11(3)(b)5., including printed name, signature, Massachusetts Certification Number, where applicable, and the time of each entry or exiting.

3. Posting of Warning Signs. Warning signs meeting the specifications set forth in 29 CFR Part 1926.1101 (k)(6)(i) shall be posted at all approaches to the Work Area. Signs shall be posted a sufficient distance from the Work Area to permit a person to read the sign(s) and take precautionary measures to avoid exposure to asbestos.

4. Shutdown of HVAC Systems. The facility heating, ventilation and air-conditioning (HVAC) systems of the Work Area shall be shut down, locked out and isolated.

5. Removal of Moveable Objects. All moveable objects shall be removed from the Work Area. Items to be reused which may have been previously contaminated with asbestos shall be decontaminated by HEPA vacuuming and/or wet cleaning prior to their being removed from the Work Area. All other contaminated items which are not to be reused shall be disposed as asbestos waste.

6. Covering of Non-Moveable Objects. All non-moveable or fixed objects remaining within the Work Area shall be wrapped or covered with six mil thick (minimum) plastic sheeting. Plastic sheet coverings shall be completely sealed with duct tape or equivalent.

7. Isolation of Work Area. The Work Area shall be isolated by sealing all openings, including but not limited to, windows, doors, ventilation openings, drains, grilles, and grates with six mil thick (minimum) plastic sheeting and duct tape or the equivalent. For Asbestos Response Actions performed in Public Facilities, large openings such as open doorways, elevator doors, and passageways shall be first sealed with solid construction,

such as plywood over studding, which shall constitute the outermost boundary of the asbestos Work Area. All cracks, seams and openings in such solid construction shall be caulked or otherwise sealed, so as to prevent the movement of asbestos fibers out of the Work Area.

8. Covering of Floor and Wall Surfaces. Except as allowed by 453 CMR 6.14(4)(a)7.a. through c., floor and wall surfaces shall be covered with plastic sheeting. All seams and joints shall be sealed with duct tape or equivalent. Floor covering shall consist of at least two layers of six mil plastic sheeting, with the edges up-turned to cover at least the bottom 12 inches of the adjoining wall(s). Wall covering shall consist of a minimum of two layers of four mil plastic sheeting. Wall covering shall extend from ceiling to floor and overlap the up-turned floor coverings without protruding onto the floor. Duct tape shall be used to seal the seams in the plastic sheeting at the wall-to-floor joints.

a. Exception to Covering Requirement Where Surfaces Are Impervious. Compliance with 453 CMR 6.14(4)(a)7. is optional where floors and walls are covered by ceramic tile or other impervious materials that are free from holes, drains, cracks, fissures or other openings and which may be thoroughly decontaminated by washing at the conclusion of the work, provided that such action does not result in the passage of asbestos fibers from the Work Area.

b. Exception to Covering Requirement For Abatement Surfaces. Compliance with 453 CMR 6.14(4)(a)7. is not required for those floor and wall surfaces from which asbestos coverings are removed.

c. Exception to Wall Surface Covering Requirement Where Glovebags are Used. Covering of wall surfaces is optional for Asbestos Response Actions where Glovebags are used as the sole means of removal or repair. Where Glovebags are used, the floor of the Work Area shall be covered with a minimum of one layer of six mil-thick plastic sheeting.

8. GFCI Protection. All sources of electric power for the Work Area shall be ground fault circuit interrupter (GFCI) protected.

(b) Use of Decontamination Facilities.

1. Requirement for Use. Except as allowed by 453 CMR 6.14(4)(b)2., Asbestos Contractors and others carrying out Asbestos Response Actions shall supply and ensure the use of a three-compartment decontamination facility, as prescribed by 29 CFR Part 1926.1101(j)(1). Except as may be required during emergencies which endanger life or health, the decontamination facility shall be the sole means through which the isolated work space is accessed while work is in progress.

2. Exception to Decontamination System Requirement for Work Less Than 25 Linear/Ten Square Feet. A change room may be used in lieu of the three-compartment decontamination facility specified by 453 CMR 6.14(4)(b)1. on projects which involve the disturbance of less than 25 linear feet of asbestos on or in pipes, ducts or wires, or less than ten square feet of asbestos on or in structures or components other than pipes, ducts or wires. Where a change room is used it shall be constructed and operated in accordance with OSHA Asbestos Regulations 29 CFR Part 1926.1101(j)(2).

3. Warm Water Required. Warm water shall be supplied to the showers of the decontamination facility required by 453 CMR 6.14(4)(b)1.

4. Decontamination of Personnel Required. No employees shall leave the Work Area without first decontaminating their persons by showering, wet washing or HEPA vacuuming to remove all asbestos debris.

5. Location of Decontamination Facilities. Where feasible, decontamination facilities shall be contiguous with the Work Area. Where such location is not feasible, a remote decontamination facility shall be sited as closely as possible to the Work Area. Persons using such a remotely-sited decontamination facility shall remove visible debris from their persons by HEPA vacuuming prior to donning clean disposable coveralls while still in the Work Area, and then proceed directly to the remote decontamination system to shower and change clothes.

6. Equipment Decontamination. No equipment, supplies, or materials (except properly containerized waste material) shall be removed from an asbestos Work Area unless such equipment, supplies or materials have been thoroughly cleaned free of asbestos debris. Where decontamination is not feasible, such materials shall be wrapped in a minimum of two layers of six mil polyethylene sheeting with all joints, seams and overlaps sealed with tape or containerized in a metal, plastic or fiber drum with a locking lid. Said wrapped equipment, supplies or materials shall be labeled as being asbestos-

contaminated prior to removal from the Work Area. HEPA vacuums shall be emptied of contents prior to removal from the Work Area. Air filtration devices shall have used pre-filters removed and replaced with fresh filters prior to removal from the Work Area. Used HEPA filters and prefilters shall be disposed of as asbestos waste.

(c) Requirement For Work Area Ventilation System. Except as allowed by 453 CMR 6.14(4)(c)1. and 2., a HEPA-filtered Work Area ventilation system shall be used to maintain a reduced atmospheric pressure of at least -0.02 column inches of water pressure differential within the contained Work Area. The system shall be in operation at all times from the commencement of the asbestos project until the requirements of 453 CMR 6.14(5)(b) have been met. The ventilation equipment utilized shall be of sufficient capacity to provide a minimum of four air changes per hour. Ventilation units shall be operated in accordance with Appendix J of EPA Guidance Document EPA 560/5-85-024)and 29 CFR Part 1926.1101(g)(5)(i). Make-up air entering the Work Area shall pass through the decontamination system whenever possible. Exhaust air shall be HEPA-filtered before being discharged outside of the Work Area. Exhaust air tubes or ducts associated with the Work Area ventilation system shall be free of leaks. In all cases where feasible exhaust air shall be discharged to the outside of the building. If access to the outside is not available, exhaust air shall be discharged to an area within the building, but in no case shall exhaust air be discharged into occupied areas of the building or into areas of the building which contain exposed or damaged asbestos. When exhaust air is discharged to the interior of a building, the outflow shall be sampled and analyzed at least once per day per machine using sampling and analysis methods prescribed by the NIOSH Analytical Method 7400 referenced at 40 CFR Part 763, Appendix A. If at any time fiber levels in the exhausted air exceed 0.01 fibers/cc the work operation shall stop immediately, and the corresponding ventilation unit(s) shall be shut off and repaired or replaced before the Asbestos Response Action is resumed.

1. Exception to Work Area Ventilation System Requirement for Work Less than 25 Linear/Ten Square Feet. Compliance with 453 CMR 6.14(4)(c) is optional for Asbestos Response Actions which involve the removal, encapsulation or enclosure of 25 or fewer linear feet of asbestos on or in pipes, ducts or wires or ten or fewer square feet of asbestos on or in structures or components other than pipes, ducts or wires.

2. Exception to Work Area Ventilation System Requirement where Glovebags are Used. Compliance with 453 CMR 6.14(4)(c) is optional for Asbestos Response Actions where Glovebags are used as the sole means of removal or repair.

(d) Work Procedures.

1. Wetting of Asbestos. Prior to removal, ACM shall be thoroughly wetted with Amended Water. Water shall not be applied in amounts that will cause run-off or leakage of the water from the Work Area. Once removed, ACM shall be kept wet until containerized pursuant to 453 CMR 6.14(4)(d)2.

2. Containerization of Asbestos. Removed ACM and asbestos-contaminated debris within the Work Area shall be promptly cleaned up and containerized. Containerized ACM shall be removed from the Work Area at least once each working shift. Waste not containing components with sharp edges shall be containerized in double-thickness plastic bags (six mil minimum thickness each bag) or in metal, plastic or fiber drums with locking lids. ACM with sharp-edged components shall be contained in metal, plastic or fiber drums with locking lids. Large components removed intact shall be wrapped in a minimum of two layers of six mil polyethylene sheeting with all joints and seams sealed with duct tape, and labeled as ACM prior to removal from the contained Work Area.

3. Material Deposition. ACM shall not be dropped or thrown from heights greater than 15 feet. Materials that must be lowered from greater than 15 feet must be transported through a dust-tight chute, or containerized prior to lowering to the ground or floor.

4. Enclosure. Where friable ACM is enclosed during an Asbestos Response Action, the following provisions shall also apply:

a. Enclosures over pipes, ducts, tanks, boilers or other objects shall be labeled as containing ACM and identified on building records.

b. Enclosure systems shall be constructed to be dust tight.

5. Encapsulation. Where friable ACM is encapsulated during an Asbestos Response Action, encapsulant shall not be applied to severely damaged or deteriorating ACM.

6. Demolition. The notification provisions 453 CMR 6.12 and the provisions of 453 CMR 6.14 shall apply to any planned demolition of any facility containing ACM. Such

work must also be performed in conformance with Massachusetts Department of Environmental Protection regulations, 310 CMR 7.00, 18.00 and 19.00 and the requirements of the EPA National Emission Standard for Asbestos (NESHAP), as contained in 40 CFR Part 61, Subpart M.

7. Enclosure or Encapsulation of Exposed ACM. Any friable ACM that has been exposed as a result of an Asbestos Response Action shall be suitably enclosed or encapsulated in accordance with 453 CMR 6.14(4)(d)4. and/or 6.14(4)(d)5.

(e) Specific Work Practice Requirements for Glove Bag Operations. Asbestos Contractors and others having supervisory authority over Asbestos Response Actions involving glove bag use shall ensure that the following work practice requirements are met:

1. Glove bags shall be installed so as to form an airtight covering over the structure to which they are applied. Any friable ACM in the immediate area of glove bag attachment shall be wrapped and sealed in two layers of six mil plastic sheeting or otherwise rendered intact prior to glovebag installation. All openings in the glove bag shall be sealed against leakage with duct tape or equivalent material.

2. ACM shall be wet with Amended Water prior to its removal and maintained in a wet condition inside the glove bag.

3. Any ACM that has been exposed as result of the glove bag operation shall be suitably encapsulated or enclosed so as to prevent the leakage of asbestos fibers prior to the removal of the glove bag.

4. All surfaces from which ACM has been removed inside the glove bag and the upper portions of the glove bag itself shall be cleaned free of visible debris prior to removal of the glovebag.

5. Debris shall be isolated in the bottom of the glove bag by twisting the bag so as to form a closure in the middle. This closure shall then be taped around with duct tape or equivalent material. Air in the glove bag shall be exhausted with a HEPA vacuum cleaner prior to its removal.

6. Following removal from the structure the glove bag and its contents shall be containerized in accordance with 453 CMR 6.14(4)(d)2. and disposed of in accordance with 453 CMR 6.14(4)(h).

(f) Clean-up. Following an Asbestos Response Action, the Asbestos Contractor or entity performing the work shall decontaminate all contaminated surfaces within the Work Area using HEPA vacuuming and/or wet cleaning techniques. All equipment and materials used and all surfaces from which ACM has been removed shall be decontaminated. An inch of soil shall be removed from dirt floors and disposed of as asbestos waste. All cleanup materials shall be disposed of as asbestos waste. Clean-up shall be to the level of no visible debris.

(g) Clearance Monitoring. Following the cleanup required by 453 CMR 6.14(4)(f), the facility owner, Asbestos Contractor or entity conducting the Asbestos Response Action, and/or the Asbestos Project Monitor employed to oversee the work operation shall ensure that the clearance monitoring requirements of 453 CMR 6.14(5) are met. Until these conditions are achieved all Work Area barriers shall remain in place, Work Area ventilation systems (if required) will remain in operation, respirators and other personal protective equipment shall be worn and all other work practice controls, as required by 453 CMR 6.14(4) shall remain in effect.

(h) Disposal Requirements.

1. Waste. Any ACM removed from a facility must be handled and disposed of as an asbestos waste in conformance with EPA NESHAPS Regulations at 40 CFR Part 61 and Massachusetts Department of Environmental Protection (DEP) Regulations 310 CMR 7.00, 18.00 and 19.00.

2. Transport. Only asbestos waste which has been properly containerized pursuant to 453 CMR 6.14(4)(d)2. shall be transported from the point of generation. Transport shall be in covered vehicles or locked containers. Transportation of asbestos waste shall be in conformance with EPA NESHAP Regulations at 40 CFR Part 61 and applicable standards of the US Department of Transportation, OSHA and the Massachusetts Department of Environmental Protection.

(5) Clearance Monitoring Procedures. The clearance monitoring procedures specified by 453 CMR 6.14(5)(a) and (b) shall be performed only by a certified Asbestos Project Monitor who is not an employee or Responsible Person of the Asbestos Contractor or entity which conducted the work. The Asbestos Contractor shall not subcontract with an Asbestos Project Monitor to

perform the visual inspection required by 453 CMR 6.14(5)(a) or the clearance air monitoring required by 453 CMR 6.14(5)(b) for an Asbestos Response Action conducted in a facility subject to the requirements of AHERA.

(a) Visual Inspections. A certified Asbestos Project Monitor shall inspect all surfaces within the Work Area for dust, debris and other particulate residue. Should any Visible Debris be found in the Work Area, it shall be repeatedly cleaned by the Asbestos Contractor or entity performing the work in accordance with 453 CMR 6.14(4)(f) until the no visible debris criterion is achieved. Where clearance air monitoring is required by 453 CMR 6.14(5)(b), the achievement of the no visible debris criterion shall precede the collection of clearance air monitoring samples.

(b) Clearance Air Monitoring. The clearance air monitoring requirements of 453 CMR 6.14(5)(b) shall be met for all Asbestos Response Actions except those conducted in facilities not subject to the requirements of AHERA where the Glove Bag is used as the sole means of removal or repair.

1. Clearance Air Monitoring Requirements for Larger Asbestos Response Actions Conducted in School Facilities Subject to AHERA. For Asbestos Response Actions conducted in school facilities subject to AHERA which involve the removal, encapsulation or enclosure of greater than 160 square feet or 260 linear feet of friable ACM, clearance air monitoring samples shall be collected and analyzed by transmission electron microscopy(TEM) as prescribed by Appendix A to Subpart E of 40 CFR part 763.

a. In addition to adhering to the above, the certified Asbestos Project Monitor shall use a rotameter or other appropriate flow measuring device, the calibration of which is traceable to a primary standard, to measure the air flow in the sampling train immediately prior to and immediately following the collection of the clearance air monitoring samples.

b. Air samples shall be collected using the aggressive sampling methods described in Appendix A of 40 CFR Part 763, Subpart E.

c. The analysis of all clearance air monitoring samples collected pursuant to the requirements of 453 CMR 6.14(5)(b)1. shall be analyzed by Asbestos Analytical Services certified and approved pursuant to 453 CMR 6.08.

d. Where clearance air monitoring samples are collected and analyzed pursuant to the requirements of 453 CMR 6.14(5)(b)1. an Asbestos Response Action shall be considered complete when the average concentration of asbestos in five air samples collected within the work area and analyzed by the TEM protocol described in Appendix A of 40 CFR Part 763, Subpart E, is not statistically different, as determined through application of the Z-test calculation found in that Appendix A, from the average asbestos concentration of five air samples collected at the same time outside the work area and analyzed in the same manner, and the average asbestos concentration of the three field blanks described in the same Appendix A of Subpart E, of 70 structures per square millimeter.

e. An action may also be considered complete if the volume of air drawn for each of the five samples collected within the work area is equal to or greater than 1,199 L of air for a 25 mm filter or equal to or greater than 2,799 L of air for a 37 mm filter, and the average concentration of asbestos as analyzed by the TEM method in Appendix A of 40 CFR Part 763, Subpart E, for the five air samples does not equal the filter background level of 70 structures per square millimeter.

f. Should the work area fail the clearance air testing requirements of 453 CMR 6.14(5)(b)1.d. or e., as applicable, it shall be repeatedly cleaned by the Asbestos Contractor or other entity performing the work as prescribed by 453 CMR 6.14(4)(f) until the requirements of 453 CMR 6.14(5)(b)1.d. or e. are met.

2. Clearance Air Monitoring Requirements for Smaller Asbestos Response Actions Conducted in School Facilities and Asbestos Response Actions of All Sizes Conducted in Non-School Facilities. For Asbestos Response Actions conducted in school facilities subject to AHERA which involve the removal, encapsulation or enclosure of 160 square feet (or less) or 260 linear feet (or less) of ACM, and for all Asbestos Response Actions conducted in all non-school facilities, clearance monitoring samples shall be collected and analyzed using either: (1) the transmission electron microscopy (TEM) method prescribed by 453 CMR 6.14(5)(b)1. or (2) the phase contrast microscopy method, NIOSH Analytical Method 7400. Where the TEM method of analysis is elected, the

sampling, analysis, and clearance level requirements shall be as prescribed at 453 CMR 6.14(5)(b)1. and Appendix A to Subpart E of 40 CFR Part 763. Where the phase contrast microscopy method, NIOSH Method 7400, is used, clearance air monitoring samples shall be collected and analyzed as prescribed by the NIOSH 7400 Method and 453 CMR 6.14(5)(b)2.a. through d.

- a. In addition to adhering to the above, the certified Asbestos Project Monitor shall use a rotameter or other appropriate flow measuring device, the calibration of which is traceable to a primary standard, to measure the air flow in the sampling train immediately prior to and immediately following the collection of the clearance air monitoring samples.
- b. Air samples shall be collected using the aggressive sampling methods described in Appendix A of 40 CFR Part 763, Subpart E.
- c. For facilities subject to the requirements of AHERA at least five samples, or one sample per room, whichever is greater, shall be collected and analyzed. For non-AHERA facilities at least one sample for each 500 linear/1000 square feet of asbestos or portion thereof, or one sample per room, whichever is greater, shall be collected and analyzed. The collection and analysis of all samples shall be in accordance with the NIOSH 7400 Method.
- d. Where clearance air monitoring samples are collected and analyzed using phase contrast microscopy pursuant to this subsection, an Asbestos Response Action shall be considered complete when the concentration of asbestos in each of the air samples collected inside the contained work space is less than or equal to 0.010 fibers per cubic centimeter of air.
- e. Should the work area fail the clearance air testing requirements of this subsection, it shall be repeatedly cleaned by the Asbestos Contractor or other entity performing the work as prescribed by 453 CMR 6.14(4)(f) until the requirements of 453 CMR 6.14(5)(b)2.d. are met.
- f. All analyses of clearance air monitoring samples by phase contrast microscopy pursuant to 453 CMR 6.14(5)(b)2. shall be performed by an Asbestos Analytical Service certified and approved pursuant to 453 CMR 6.08(1)(c).

6.15: Worker Protection Requirements

- (1) Personal Exposure Monitoring. The employer shall conduct personal exposure monitoring on all employees involved in asbestos projects in accordance with OSHA Asbestos Regulations at 29 CFR Part 1926.1101 or EPA Asbestos Regulations at 40 CFR Part 763, Subpart G, as applicable.
- (2) Respiratory Protection.
 - (a) The employer shall provide respiratory protection as specified at 29 CFR Part 1926.1101(h).
 - (b) Where respirators are used, a supply of charged replacement batteries, HEPA filters and flow test meters shall be available in the clean room for use with powered air-purifying respirators.
 - (c) Person(s) performing glove bag work and cleanup of Minor Fiber Release Episodes shall wear a half mask dual-cartridge HEPA-filtered respirator as the minimum level of respiratory protection.
 - (d) When negative air pressure respirators are used they shall be properly fit tested in accordance with OSHA Asbestos Regulations 29 CFR Part 1926.1101 using protocols detailed in Appendix C of that document.
- (3) Protective Clothing and Equipment.
 - (a) The employer shall provide all employees involved in asbestos projects with full body disposable clothing, including head, body, and foot coverings consisting of material impenetrable by asbestos fibers, and equipment as required by OSHA Asbestos Regulations at 29 CFR Part 1926.1101 or EPA Asbestos Regulations at 40 CFR, Part 763, Subpart G, as applicable.
 - (b) Non-skid footwear shall be provided to employees where slipping hazards exist. Disposable protective clothing shall be adequately sealed to the footwear to prevent contamination.
 - (c) Employees shall be provided with eye protection, gloves and hard hats, as required.

(4) Medical Monitoring. The employer shall provide employees engaged in asbestos projects with the medical monitoring specified by OSHA Asbestos Regulations at 29 CFR Part 1926.1101(m). Physical examinations shall be given by a board eligible/certified occupational health physician or by a licensed physician with known expertise in occupational health. Persons other than licensed physicians who administer the pulmonary function testing shall have completed a training course in spirometry sponsored by an appropriate academic or professional institution. Roentgenograms shall be interpreted and classified only by a B-reader.

6.16: Cease and Desist Orders

(1) General. The Director, upon determination that there is a violation of any work place standard which compromises the protection of the general public or the occupational health and safety of workers, or of any standard or requirement for licensure, may order any worksite to be closed by way of the issuance of a cease and desist order enforceable in the appropriate courts of the Commonwealth. For purposes of such cease and desist orders, the worksite may include the area where asbestos-related work is being performed and other areas of the facility which the Director determines may be hazardous to the health and safety of workers and the general public as a result of such asbestos work.

(2) Form and Content of Order. Cease and Desist Orders shall be in writing and shall, at a minimum, contain the following:

- (a) A description of the premises or work area to which the order applies;
- (b) Violations serving as the basis for issuing the order; and
- (c) Any conditions that must be met or remedial action to be taken before the order can be lifted.

(3) Issuance of Cease and Desist Orders. A cease and desist order shall be effective immediately upon delivery in hand or by certified mail to any Responsible Person or agent of the contractor or entity performing the work. A copy of the order shall also be delivered in hand or by certified mail to the facility owner or his or her agent. A party objecting to such order must comply with such order but may make a written request for a hearing pursuant to M.G.L. c. 30A within ten days following service of the order.

(4) Posting of the Work Site. At the time the cease and desist order becomes effective, the Director shall cause the work site to be conspicuously posted, such posting to contain the content of the cease and desist order and any other information the Director determines necessary to secure the work site and to adequately warn of hazards. Notices shall remain posted until the order is lifted.

(5) Access to Closed Work Site. Access to the work site closed by a cease and desist order shall be restricted to persons authorized by the Director.

6.17: Responsibility For Compliance; Penalties

(1) Any person, firm, corporation, or other entity performing work subject to the requirements of 453 CMR 6.00, including, without limitation, Asbestos Contractors, Asbestos Workers, and Asbestos Supervisors, shall be responsible for compliance with the provisions thereof.

(2) Any person, firm, corporation, or other entity who or which violates the provisions of 453 CMR 6.00 shall be subject to the administrative sanctions specified herein and any civil penalty allowed by the laws of the Commonwealth, and, pursuant to M.G.L. c.149, ' 6F, may be punished by a fine of not less than \$500 and not more than \$1500 for each offense.

6.18: Severability

If any provision of 453 CMR 6.00 shall be held inconsistent with the laws of the Commonwealth, or held unconstitutional, either on its face, or as applied, the inconsistency or unconstitutionality shall not affect the remaining provisions.

6.19: The Removal, Containment or Encapsulation of Asbestos Appendix I

THE COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF LABOR & WORKFORCE DEVELOPMENT
DIVISION OF OCCUPATIONAL SAFETY
MAIN AND DISTRICT OFFICES

BOSTON OFFICE
100 CAMBRIDGE ST., 11TH FLR
BOSTON, MA 02202
TEL: (617) 727-7047
TEL: (617) 727-3452
FAX: (617) 727-7568

HAVERHILL OFFICE
4 SUMMER STREET
HAVERHILL, MA 01830
TEL: (978) 372-9797
FAX: (978) 372-9998

NEW BEDFORD OFFICE
181 HILLMAN STREET
BLDG. 2, 2ND. FLOOR
NEW BEDFORD, MA 02740
TEL: (508) 984-7718
FAX: (508) 984 -3562

PITTSFIELD OFFICE
333 EAST STREET
PITTSFIELD, MA 01201
TEL: (413) 448-8746
FAX: (413) 784-1163

SPRINGFIELD OFFICE
165 LIBERTY STREET
SPRINGFIELD, MA 01102
TEL: (413) 747-7192
FAX: (413) 784-1144

WEST NEWTON OFFICE
1001 WATERTOWN STREET
WEST NEWTON, MA 02165
TEL: (617) 969-7177
FAX: (617) 727-4581

Note: Licensing days and times for all of the Division=s Offices may be obtained by calling 1-800-425-0004, within Massachusetts, or 1-617-727-7047.

6.20: The Removal, Containment or Encapsulation of Asbestos Appendix II

453 CMR 6.20: *Appendix II* describes the course content for asbestos training as set forth at 40 CFR Part 763, Appendix C to Subpart E - Asbestos Model Accreditation Plan.

1. Workers.

...The training course shall adequately address the following topics:

- (a) Physical characteristics of asbestos. Identification of asbestos, aerodynamic characteristics, typical uses, and physical appearance, and a summary of abatement control options.
- (b) Potential health effects related to asbestos exposure. The nature of asbestos-related diseases; routes of exposure; dose-response relationships and the lack of a safe exposure level; the synergistic effect between cigarette smoking and asbestos exposure; the latency periods for asbestos-related diseases; a discussion of the relationship of asbestos exposure to asbestosis, lung cancer, mesothelioma, and cancer of other organs.
- (c) Employee personal protective equipment. Classes and characteristics of respirator types; limitations of respirators; proper selection, inspection; donning, use, maintenance, and storage procedures for respirators; methods for field testing of the face piece-to-face seal (positive and negative-pressure fit checks); qualitative and quantitative fit testing procedures; variability between field and laboratory protection factors that alter respiratory fit (*e.g.*, facial hair); the components of a proper respiratory protection program; selection and use of personal protective clothing; use, storage, and handling of non-disposable clothing; and regulations covering personal protective equipment.
- (d) State-of-the-art work practices. Proper work practices for asbestos abatement activities, including descriptions of proper construction; maintenance of barriers and decontamination enclosure systems; positioning of warning signs; lock-out of electrical and ventilation systems; proper working techniques for minimizing fiber release; use of wet methods; use of negative pressure exhaust ventilation equipment; use of high-efficiency particulate air (HEPA) vacuums; proper clean-up and disposal procedures; work practices for removal, encapsulation, enclosure, and repair of ACM; emergency procedures for sudden releases; potential exposure situations; transport and disposal procedures; and recommended and prohibited work practices.
- (e) Personal hygiene. Entry and exit procedures for the work area; use of showers; avoidance of eating, drinking, smoking, and chewing (gum or tobacco) in the work area; and potential exposures, such as family exposure.
- (f) Additional safety hazards. Hazards encountered during abatement activities and how to deal with them, including electrical hazards, heat stress, air contaminants other than asbestos, fire and explosion hazards, scaffold and ladder hazards, slips, trips, and falls, and confined spaces.
- (g) Medical monitoring. OSHA and EPA Worker Protection Rule requirements for physical examinations, including a pulmonary function test, chest X-rays, and a medical history for each employee.
- (h) Air monitoring. Procedures to determine airborne concentrations of asbestos fibers, focusing on how personal air sampling is performed and the reasons for it.
- (i) Relevant Federal, State and local regulatory requirements, procedures, and standards. With particular attention directed at relevant EPA, OSHA, and State regulations concerning asbestos abatement workers.
- (j) Establishment of respiratory protection programs.
- (k) Course review. A review of key aspects of the training course.

2. Contractor/Supervisors.

...The contractor/supervisor training course shall adequately address the following topics:

- (a) The physical characteristics of asbestos and asbestos-containing materials. Identification of asbestos, aerodynamic characteristics, typical uses, physical appearance, a review of hazard assessment considerations, and a summary of abatement control options.
- (b) Potential health effects related to asbestos exposure. The nature of asbestos-related diseases; routes of exposure; dose-response relationships and the lack of a safe exposure level; synergism between cigarette smoking and asbestos exposure; and latency period for diseases.

6.20: continued

(c) Employee personal protective equipment. Classes and characteristics of respirator types; limitations of respirators; proper selection, inspection, donning, use, maintenance, and storage procedures for respirators; methods for field testing of the face piece-to-face seal (positive and negative-pressure fit checks); qualitative and quantitative fit testing procedures; variability between field and laboratory protection factors that alter respiratory fit (*e.g.*, facial hair); the components of a proper respiratory protection program; selection and use of personal protective clothing; and use, storage, and handling of non-disposable clothing; and regulations covering personal protective equipment.

(d) State-of-the-art work practices. Proper work practices for asbestos abatement activities, including descriptions of proper construction and maintenance of barriers and decontamination enclosure systems; positioning of warning signs; lock-out of electrical and ventilation systems; proper working techniques for minimizing fiber release; use of wet methods; use of negative pressure exhaust ventilation equipment; use of HEPA vacuums; and proper clean-up and disposal procedures. Work practices for removal, encapsulation, enclosures, and repair of ACM; emergency procedures for unplanned releases; potential exposure situations; transport and disposal procedures; and recommended and prohibited work practices. New abatement-related techniques and methodologies may be discussed.

(e) Personal hygiene. Entry and exit procedures for the work area; use of showers; and avoidance of eating, drinking, smoking, and chewing (gum or tobacco) in the work area. Potential exposures, such as family exposure, shall also be included.

(f) Additional safety hazards. Hazards encountered during abatement activities and how to deal with them, including electrical hazards, heat stress, air contaminants other than asbestos, fire and explosion hazards, scaffold and ladder hazards, slips, trips and falls, and confined spaces.

(g) Medical monitoring. OSHA and EPA Worker Protection Rule requirements for physical examinations, including a pulmonary function test, chest X-rays and a medical history for each employee.

(h) Air monitoring. Procedures to determine airborne concentrations of asbestos fibers, including descriptions of aggressive air sampling, sampling equipment and methods, reasons for air monitoring, types of samples and interpretation of results. EPA recommends that transmission electron microscopy (TEM) be used for analysis of final air clearance samples, and that sample analysis be performed by laboratories accredited by the National Institute of Standards and Technology (NIST) National Voluntary Laboratory Accreditation Program (NVLAP).

(i) Relevant Federal, State, and local regulatory requirements, procedures, and standards, including:

1. Requirements of TSCA Title II.
2. National Emissions Standards for Hazardous Air Pollutants (40 CFR part 61), Subparts A (General Provisions) and M (National Emission Standard for Asbestos).
3. OSHA standards for permissible exposure to airborne concentrations of asbestos fibers and respiratory protection (29 CFR 1910.134).
4. OSHA Asbestos Construction Standard (29 CFR 1926.58).
5. EPA Worker Protection Rule, (40 CFR part 763, Subpart G).

(j) Respiratory Protection Programs and Medical Monitoring Programs.

(k) Insurance and liability issues. Contractor issues; worker's compensation coverage and exclusions; third-party liabilities and defenses; insurance coverage and exclusions.

(l) Recordkeeping for asbestos abatement projects. Records required by Federal, State, and local regulations; records recommended for legal and insurance purposes.

(m) Supervisory techniques for asbestos abatement activities. Supervisory practices to enforce and reinforce the required work practices and discourage unsafe work practices.

(n) Contract specifications. Discussions of key elements that are included in contract specifications.

(o) Course review. A review of the key aspects of the training course.

3. **Inspector.**

...The inspector training course shall adequately address the following topics:

(a) Background information on asbestos. Identification of asbestos, and examples and discussion of the uses and locations of asbestos in buildings; physical appearance of asbestos.

6.20: continued

- (b) Potential health effects related to asbestos exposure. The nature of asbestos-related diseases; routes of exposure; dose-response relationships and the lack of a safe exposure level; the synergistic effect between cigarette smoking and asbestos exposure; the latency periods for asbestos-related diseases; a discussion of the relationship of asbestos exposure to asbestosis, lung cancer, mesothelioma, and cancer of other organs.
- (c) Functions/qualifications and role of inspectors. Discussions of prior experience and qualifications for inspectors and management planners; discussions of the functions of an accredited inspector as compared to those of an accredited management planner; discussion of inspection process including inventory of ACM and physical assessment.
- (d) Legal liabilities and defenses. Responsibilities of the inspector and management planner; a discussion of comprehensive general liability policies, claims-made and occurrence policies, environmental and pollution liability policy clauses; state liability insurance requirements; bonding and the relationship of insurance availability to bond availability.
- (e) Understanding building systems. The interrelationship between building systems, including: an overview of common building physical plan layout; heat, ventilation and air conditioning (HVAC) system types, physical organization, and where asbestos is found on HVAC components; building mechanical systems, their types and organization, and where to look for asbestos on such systems; inspecting electrical systems, including appropriate safety precautions; reading blueprints and as-built drawings.
- (f) Public/employee/building occupant relations. Notifying employee organizations about the inspection; signs to warn building occupants; tact in dealing with occupants and the press; scheduling of inspections to minimize disruptions; and education of building occupants about actions being taken.
- (g) Pre-inspection planning and review of previous inspection records. Scheduling the inspection and obtaining access; building record review; identification of probable homogeneous areas from blueprints or as-built drawings; consultation with maintenance or building personnel; review of previous inspection, sampling and abatement records of a building; the role of the inspector in exclusions for previously performed inspections.
- (h) Inspecting for friable and non-friable ACM and assessing the condition of friable ACM. Procedures to follow in conducting visual inspections for friable and non-friable ACM; types of building materials that may contain asbestos; touching materials to determine friability; open return air plenums and their importance in HVAC systems; assessing damage, significant damage, potential damage, and potential significant damage; amount of suspected ACM, both in total quantity and as a percentage of the total area; type of damage; accessibility; material's potential for disturbance; known or suspected causes of damage or significant damage; and deterioration as assessment factors.
- (i) Bulk Sampling/documentation of asbestos. Detailed discussion of the "Simplified Sampling Scheme for Friable Surfacing Materials (EPA 560/5-85-030a October 1985)"; techniques to ensure sampling in a randomly distributed manner for other than friable surfacing materials; sampling of non-friable materials; techniques for bulk sampling; inspector's sampling and repair equipment; patching or repair of damage from sampling; discussion of polarized light microscopy; choosing an accredited laboratory to analyze bulk samples; quality control and quality assurance procedures. EPA's recommendation that all bulk samples collected from school or public and commercial buildings be analyzed by a laboratory accredited under the NVLAP administered by NIST.
- (j) Inspector respiratory protection and personal protective equipment. Classes and characteristics of respirator types; limitations of respirators; proper selection, inspection, donning, use, maintenance, and storage procedures for respirators; methods for field testing of the face piece-to-face seal (positive and negative-pressure fit checks); qualitative and quantitative fit testing procedures; variability between field and laboratory protection factors that alter respiratory fit (*e.g.*, facial hair); the components of a proper respiratory protection program; selection and use of personal protective clothing; use, storage, and handling of non-disposable clothing.

6.20: continued

(k) Recordkeeping and writing the inspection report. Labeling of samples and keying sample identification to sampling location; recommendations on sample labeling; detailing of ACM inventory; photographs of selected sampling areas and examples of ACM condition; information required for inclusion in the management plan required for school buildings under TSCA Title II, section 203 (i)(1). EPA recommends that States develop and require the use of standardized forms for recording the results of inspections in schools or public or commercial buildings, and that the use of these forms be incorporated into the curriculum of training be conducted for accreditation.

(l) Regulatory review. The following topics should be covered: National Emission Standards for Hazardous Air Pollutants (NESHAP; 40 CFR part 61, Subparts A and M); EPA Worker Protection Rule (40 CFR part 763, Subpart G); OSHA Asbestos Construction Standard (29 CFR Part 1926.58); OSHA respirator requirements (29 CFR Part 1910.134); the Friable Asbestos in Schools rule (40 CFR Part 763, Subpart F); applicable State and local regulations, and differences between Federal and State requirements where they apply, and the effects, if any, on public and non-public schools or commercial public buildings.

(m) Field trip. This includes a field exercise, including a walk-through inspection; on-site discussion about information gathering and the determination of sampling locations; on-site practice in physical assessment; classroom discussion of field exercise.

(n) Course Review. A review of key aspects of the training course.

4. **Management Planner.**

...The management planner training course shall adequately address the following topics:

(a) Course overview. The role and responsibilities of the management planner; operations and maintenance programs; setting work priorities; protection of building occupants.

(b) Evaluation/interpretation of survey results. Review of TSCA Title II requirements for inspection and management plans for school buildings as given in section 203(i)(1) of TSCA Title II; interpretation of field data and laboratory results; comparison of field inspector's data sheet with laboratory results and site survey.

(c) Hazard assessment. Amplification of the difference between physical assessment and hazard assessment; the role of the management planner in hazard assessment; explanation of significant damage, damage, potential damage, and potential significant damage; use of a description (or decision tree) code for assessment of ACM; assessment of friable ACM; relationship of accessibility, vibration sources, use of adjoining space, and air plenums and other factors to hazard assessment.

(d) Legal Implications. Liability; insurance issues specific to planners; liabilities associated with interim control measures, in-house maintenance, repair, and removal; use of results from previously performed inspections.

(e) Evaluation and selection of control options. Overview of encapsulation, enclosure, interim operations and maintenance, and removal; advantages and disadvantages of each method; response actions described via a decision tree or other appropriate method; work practices for each response action; staging and prioritizing of work in both vacant and occupied buildings; the need for containment barriers and decontamination in response actions.

(f) Role of other professionals. Use of industrial hygienists, engineers, and architects in developing technical specifications for response actions; any requirements that may exist for architect sign-off of plans; team approach to design of high-quality job specifications.

(g) Developing an operations and maintenance (O&M) plan. Purpose of the plan; discussion of applicable EPA guidance documents; what actions should be taken by custodial staff; proper cleaning procedures; steam cleaning and HEPA vacuuming; reducing disturbance of ACM; scheduling O&M for off-hours; rescheduling or canceling renovations in areas with ACM; boiler room maintenance; disposal of ACM; in-house procedures for ACM-bridging and penetrating encapsulant; pipe fittings; metal sleeves; polyvinyl chloride (PVC), canvas, and wet wraps; muslin with straps; fiber mesh cloth; mineral wool, and insulating cement; discussion of employee protection programs and staff training; case study in developing an O&M plan (development, implementation process, and problems that have been experienced).

6.20: continued

(h) Regulatory review. Focussing on the OSHA Asbestos Construction Standard found at 29 CFR 1926.58; the National Emission Standard for Hazardous Air Pollutants (NESHAP) found at 40 CFR part 61 Subparts A (General Provisions) and M (National Emission Standard for Asbestos); EPA Worker Protection Rule found at 40 CFR part 763, Subpart G; TSCA Title II; applicable State regulations.

(i) Recordkeeping for the management planner. Use of field inspector's data sheet along with laboratory results; on-going recordkeeping as a means to track asbestos disturbance; procedures for recordkeeping. EPA recommends that States require the use of standardized forms for purposes of management plans and incorporate the use of such forms into the initial training course for management planners.

(j) Assembling and submitting the management plan. Plan requirements in TSCA Title II section 203(I)(1); the management plan as a planning tool.

(k) Financing abatement actions. Economic analysis and cost estimates; development of cost estimates; present costs of abatement versus future operations and maintenance costs; Asbestos School Hazard Abatement Act grants and loans.

(l) Course review. A review of key aspects of the training course.

5. Project Designer.

...The abatement project designer training course shall adequately address the following topics:

(a) Background information on asbestos. Identification of asbestos; examples and discussion of the uses and locations of asbestos in buildings; physical appearance of asbestos.

(b) Potential health effects related to asbestos exposure. Nature of asbestos-related diseases; routes of exposure; dose-response relationships and the lack of a safe exposure level; the synergistic effect between cigarette smoking and asbestos exposure; the latency period for asbestos-related diseases; a discussion of the relationship between asbestos exposure and asbestosis, lung cancer, mesothelioma, and cancers of other organs.

(c) Overview of abatement construction projects. Abatement as a portion of a renovation project; OSHA requirements for notification of other contractors on a multi-employer site (29 CFR 1926.58).

(d) Safety system design specifications. Design, construction, and maintenance of containment barriers and decontamination enclosure systems; positioning of warning signs; electrical and ventilation system lock-out; proper working techniques for minimizing fiber release; entry and exit procedures for the work area; use of wet methods; proper techniques for initial cleaning; use of negative- pressure exhaust ventilation equipment; use of HEPA vacuums; proper clean-up and disposal of asbestos; work practices as they apply to encapsulation, enclosure, and repair; use of glove bags and a demonstration of glove bag use.

(e) Field Trip. A visit to an abatement site or other suitable building site, including on-site discussions of abatement design and building walk-through inspection. Include discussion of rationale for the concept of functional spaces during the walk-through.

(f) Employee personal protective equipment. Classes and characteristics of respirator types; limitations of respirators; proper selection, inspection; donning, use, maintenance, and storage procedures for respirators; methods for field testing of the face piece-to-face seal (positive and negative-pressure fit checks); qualitative and quantitative fit testing procedures; variability between field and laboratory protection factors that alter respiratory fit (*e.g.*, facial hair); the components of a proper respiratory protection program; selection and use of personal protective clothing; use, storage, and handling of non-disposable clothing.

(g) Additional safety hazards. Hazards encountered during abatement activities and how to deal with them, including electrical hazards, heat stress, air contaminants other than asbestos, fire, and explosion hazards.

(h) Fiber aerodynamics and control. Aerodynamic characteristics of asbestos fibers; importance of proper containment barriers; settling time for asbestos fibers; wet methods in abatement; aggressive air monitoring following abatement; aggressive air movement and negative-pressure exhaust ventilation as a clean-up method.

(i) Designing abatement solutions. Discussions of removal, enclosure, and encapsulation methods; asbestos waste disposal.

6.20: continued

- (j) Final clearance process. Discussion of the need for a written sampling rationale for aggressive final air clearance; requirements of a complete visual inspection; and the relationship of the visual inspection to final air clearance. EPA recommends the use of TEM for analysis of final air clearance samples. These samples should be analyzed by laboratories accredited under the NIST NVLAP.
- (k) Budgeting/cost estimating. Development of cost estimates; present costs of abatement versus future operation and maintenance costs; setting priorities for abatement jobs to reduce cost.
- (l) Writing abatement specifications. Preparation of and need for a written project design; means and methods specifications versus performance specifications; design of abatement in occupied buildings; modification of guide specifications for a particular building; worker and building occupant health/medical considerations; replacement of ACM with non- asbestos substitutes.
- (m) Preparing abatement drawings. Significance and need for drawings; use of as-built drawings as base drawings; use of inspection photographs and on-site reports; methods of preparing abatement drawings; diagramming containment barriers; relationship of drawings to design specifications; particular problems related to abatement drawings.
- (n) Contract preparation and administration.
- (o) Legal/liabilities/defenses. Insurance considerations; bonding; hold-harmless clauses; use of abatement contractor's liability insurance; claims made versus occurrence policies.
- (p) Replacement. Replacement of asbestos with asbestos-free substitutes.
- (q) Role of other consultants. Development of technical specification sections by industrial hygienists or engineers; the multi-disciplinary team approach to abatement design.
- (r) Occupied buildings. Special design procedures required in occupied buildings; education of occupants; extra monitoring recommendations; staging of work to minimize occupant exposure; scheduling of renovation to minimize exposure.
- (s) Relevant Federal, State and local regulatory requirements, procedures and standards, including, but not limited to:
 1. Requirements of TSCA Title II.
 2. National Emission Standards for Hazardous Air Pollutants, (40 CFR part 61) subparts A (General Provisions) and M (National Emission Standard for Asbestos).
 3. OSHA Respirator Standard found at 29 CFR 1910.134.
 4. EPA Worker Protection Rule found at 40 CFR part 763, subpart G.
 5. OSHA Asbestos Construction Standard found at 29 CFR 1926.58.
 6. OSHA Hazard Communication Standard found at 29 CFR 1926.59.
- (t) Course Review. A review of key aspects of the training course.

6. Project Monitor.

... EPA recommends that the project monitor training course adequately address the following topics:

- (a) Roles and responsibilities of the project monitor. Definition and responsibilities of the project monitor, including regulatory/specification compliance monitoring, air monitoring, conducting visual inspections, and final clearance monitoring.
- (b) Characteristics of asbestos and asbestos-containing materials. Typical uses of asbestos; physical appearance of asbestos; review of asbestos abatement and control techniques; presentation of the health effects of asbestos exposure, including routes of exposure, dose-response relationships, and latency periods for asbestos-related diseases.
- (c) Federal asbestos regulations. Overview of pertinent EPA regulations, including: NESHAP, 40 CFR part 61, subparts A and M; AHERA, 40 CFR part 763, subpart E; and the EPA Worker Protection Rule, 40 CFR part 763, subpart G. Overview of pertinent OSHA regulations, including Construction Industry Standard for Asbestos, 29 CFR 1926.1101; Respirator Standard, 29 CFR 1910.134; and the Hazard Communication Standard, 29 CFR 1926.59. Applicable State and local asbestos regulations; regulatory interrelationships.
- (d) Understanding building construction and building systems. Building construction basics, building physical plan layout; understanding building systems (HVAC, electrical, *etc.*); layout and organization; where asbestos is likely to be found on building systems; renovations and the effect of asbestos abatement on building systems.

6.20: continued

(e) Asbestos abatement contracts, specifications, and drawings. Basic provisions of the contract; relationships between the principal parties, establishing chain of command; types of specifications, including means and methods, performance, and proprietary and nonproprietary; reading and interpreting records and abatement drawing; discussion of change orders; common enforcement responsibilities and authority of project monitor.

(f) Response actions and abatement practices. Pre-work inspections; pre-work considerations, precleaning of the work area, removal of furniture, fixtures, and equipment; shutdown/modification of building systems; construction and maintenance of containment barriers, proper demarcation of work areas; work area entry/exit, hygiene practices; determining the effectiveness of air filtration equipment; techniques for minimizing fiber release, wet methods, continuous cleaning; abatement methods other than removal; abatement area clean-up procedures; waste transport and disposal procedures; contingency planning for emergency response.

(g) Asbestos abatement equipment. Typical equipment found on an abatement project; air filtration devices, vacuum systems, negative pressure differential monitoring; HEPA filtration units, theory of filtration, design/construction of HEPA filtration units, qualitative and quantitative performance of HEPA filtration units, sizing the ventilation requirements, location of HEPA filtration units, qualitative and quantitative tests of containment barrier integrity; best available technology.

(h) Personal protective equipment. Proper selection of respiratory protection; classes and characteristics of respirator types, limitations of respirators; proper use of other safety equipment, protective clothing selection, use, and proper handling, hard/bump hats, safety shoes; breathing air systems, high pressure v. low pressure, testing for Grade D air, determining proper backup air volumes.

(i) Air monitoring strategies. Sampling equipment, sampling pumps (low v. high volume), flow regulating devices (critical and limiting orifices), use of fibrous aerosol monitors on abatement projects; sampling media, types of filters, types of cassettes, filter orientation, storage and shipment of filters; calibration techniques, primary calibration standards, secondary calibration standards, temperature/pressure effects, frequency of calibration, recordkeeping and field work documentation, calculations; air sample analysis, techniques available and limitations of AHERA on their use, transmission electron microscopy (background to sample preparation and analysis, air sample conditions which prohibit analysis, EPA's recommended technique for analysis of final air clearance samples), phase contrast microscopy (background to sample preparation, and AHERA's limits on the use of phase contrast microscopy), what each technique measures; analytical methodologies, AHERA TEM protocol, NIOSH 7400, OSHA reference method (non-clearance), EPA recommendation for clearance (TEM); sampling strategies for clearance monitoring, types of air samples (personal breathing zone v. fixed-station area) sampling location and objectives (pre-abatement, during abatement, and clearance monitoring), number of samples to be collected, minimum and maximum air volumes, clearance monitoring (post-visual-inspection) (number of samples required, selection of sampling locations, period of sampling, aggressive sampling, interpretations of sampling results, calculations), quality assurance; special sampling problems, crawl spaces, acceptable samples for laboratory analysis, sampling in occupied buildings (barrier monitoring).

(j) Safety and health issues other than asbestos. Confined-space entry, electrical hazards, fire and explosion concerns, ladders and scaffolding, heat stress, air contaminants other than asbestos, fall hazards, hazardous materials on abatement projects.

(k) Conducting visual inspections. Inspections during abatement, visual inspections using the ASTM E1368 document; conducting inspections for completeness of removal; discussion of "how clean is clean?"

(l) Legal responsibilities and liabilities of project monitors. Specification enforcement capabilities; regulatory enforcement; licensing; powers delegated to project monitors through contract documents.

(m) Recordkeeping and report writing. Developing project logs/daily logs (what should be included, who sees them); final report preparation; recordkeeping under Federal regulations.

6.20: continued

(n) Workshops (six hours spread over three days). Contracts, specifications and drawings: This workshop could consist of each participant being issued a set of contracts, specifications, and drawings and then being asked to answer questions and make recommendations to a project architect, engineer or to the building owner based on given conditions and these documents.

Air monitoring strategies/asbestos abatement equipment: This workshop could consist of simulated abatement sites for which sampling strategies would have to be developed (*i.e.*, occupied buildings, industrial situations). Through demonstrations and exhibition, the project monitor may also be able to gain a better understanding of the function of various pieces of equipment used on abatement projects (air filtration units, water filtration units, negative pressure monitoring devices, sampling pump calibration devices, *etc.*).

Conducting visual inspections: This workshop could consist, ideally, of an interactive video in which a participant is taken through a work area and asked to make notes of what is seen. A series of questions will be asked which are designed to stimulate a person's recall of the area. This workshop could consist of a series of two or three videos with different site conditions and different degrees of cleanliness.

REGULATORY AUTHORITY

453 CMR 6.00: M.G.L. c. 149, ' ' 6A through 6F.

(PAGES 81 THROUGH 86 ARE RESERVED FOR FUTURE USE.)

7.08: continued

- (l) No person shall cause, suffer, allow, or permit the operation of any hazardous waste incinerator unless said operation is in conformance with the following:
1. During start-up and shutdown, hazardous waste shall not be fed into the incinerator unless the incinerator is operating within the conditions of operation as specified in the Department's approval; and
 2. Fugitive emissions from the combustion zone shall be controlled by:
 - a. keeping the combustion zone totally sealed against fugitive emissions; or
 - b. maintaining a combustion zone pressure lower than atmospheric pressure; or
 - c. an alternative means of fugitive emissions control equivalent to maintenance of combustion zone pressure lower than atmospheric pressure as approved by the Department; and
 3. Each hazardous waste incinerator shall be equipped with a functioning system to automatically cease operation of the incinerator when change(s) in waste feed, incinerator design, or operating conditions exceed limits as designated in a Department approval. Each such systems, and each alarm associated therewith, shall be tested at least weekly to verify operability; and
 4. At least once each day during which it is operated, each hazardous waste incinerator and associated equipment (*e.g.* pumps, valves, conveyors, and pipes) shall be subjected to thorough visual inspection for leaks, spills, fugitive emissions, and signs of tampering; and
 5. All monitoring and inspection data shall be recorded and the records shall be placed in the operating log required by 310 CMR 30.542.
- (m) No incinerator for the burning of polyhalogenated aromatic hydrocarbons shall be constructed, substantially reconstructed, altered, or operated except in compliance with the following requirements:
1. Polyhalogenated aromatic hydrocarbons may be burned only after the Department has expressly and in writing approved the burning of such material, and only to the extent and only while such approval is in effect. The application to the Department for such approval shall expressly state that approval is sought to burn polyhalogenated aromatic hydrocarbons.
 2. The burning of polyhalogenated aromatic hydrocarbons shall achieve a destruction and removal efficiency, as determined pursuant to 310 CMR 7.08(4)(h)1., of 99.9999% for each POHC, based on burning materials more difficult to burn than tetra-, penta-, and hexachlorodibenzo-p-dioxin and dibenzofurans.

7.09: U Dust, Odor, Construction, and Demolition

- (1) No person having control of any dust or odor generating operations such as, but not limited to asphalt batching plants, asphalt roofing materials manufacturing plants, asphalt blowing plants, foundries, chemical products manufacturing plants, incinerators, fuel utilization facilities, petroleum products manufacturing plants, aggregate manufacturing plants, food preparation or processing facilities, wood products plants, dry cleaning establishments, paint and varnish manufacturing plants, paper manufacturing plants, leather manufacturing plants, concrete batching plants, metal coating and treating plants, land clearing operations, construction work, dump operations, agricultural operations and street sweeping shall permit emissions therefrom which cause or contribute to a condition of air pollution.
- (2) No person responsible for any construction or demolition of an industrial, commercial, or institutional building or residential building with 20 or more dwelling units, shall cause, suffer, allow, or permit emissions therefrom which cause or contribute to a condition of air pollution. Said person shall notify the Department in writing ten working days prior to the initiation of said construction or demolition operation. The ten working day advance notice period will be waived in the event of emergency demolition necessary to prevent a public health or safety hazard.

7.09: continued

- (3) No person responsible for an area where construction or demolition has taken place shall cause, suffer, allow, or permit particulate emissions therefrom to cause or contribute to a condition of air pollution by failure to seed, pave, cover, wet, or otherwise treat said area to prevent excessive emissions of particulate matter.
- (4) No person shall cause, suffer, allow, or permit the handling, transportation, or storage of any material in a manner that results or may result in emissions therefrom which cause or contribute to a condition of air pollution.
- (5) No persons responsible for any construction or demolition of a structure that contains friable asbestos material shall fail to comply with 310 CMR 7.09(2) and 310 CMR 7.02. (National Emission Standards for Hazardous Pollutants)
- (6) No person shall cause, suffer, allow, or permit the operation of mechanized street sweeping equipment that is not equipped with a suitable dust collection or dust suppression system which is maintained in good operating condition and is operated continuously while the street sweeping equipment is in use to prevent conditions of air pollution.
- (7) 310 CMR 7.09(1) through 7.09(4) and 7.09(6) are subject to the enforcement provisions specified in 310 CMR 7.52.

7.10: U Noise

- (1) No person owning, leasing, or controlling a source of sound shall willfully, negligently, or through failure to provide necessary equipment, service, or maintenance or to take necessary precautions cause, suffer, allow, or permit unnecessary emissions from said source of sound that may cause noise.
- (2) 310 CMR 7.10(1) shall pertain to, but shall not be limited to, prolonged unattended sounding of burglar alarms, construction and demolition equipment which characteristically emit sound but which may be fitted and accommodated with equipment such as enclosures to suppress sound or may be operated in a manner so as to suppress sound, suppressible and preventable industrial and commercial sources of sound, and other man-made sounds that cause noise.
- (3) 310 CMR 7.10(1) shall not apply to sounds emitted during and associated with:
 - (a) parades, public gatherings, or sporting events, for which permits have been issued provided that said parades, public gatherings, or sporting events in one city or town do not cause noise in another city or town;
 - (b) emergency police, fire, and ambulance vehicles;
 - (c) police, fire, and civil and national defense activities;
 - (d) domestic equipment such as lawn mowers and power saws between the hours of 7:00 A.M. and 9:00 P.M.
- (4) 310 CMR 7.10(1) is subject to the enforcement provisions specified in 310 CMR 7.52.

7.11: U Transportation Media

- (1) Motor Vehicles.
 - (a) All motor vehicles registered in the Commonwealth shall comply with pertinent regulations of the Registry of Motor Vehicles relative to exhaust and sound emissions.
 - (b) No person shall cause, suffer, allow, or permit the unnecessary operation of the engine of a motor vehicle while said vehicle is stopped for a foreseeable period of time in excess of five minutes. 310 CMR 17.11 shall not apply to:
 1. vehicles being serviced, provided that operation of the engine is essential to the proper repair thereof, or

7.13: continued

(d) to be summarized and submitted to the Department with analyses and report within such time as agreed to in the approved test protocol.

(2) Any person having control of a facility, relative to which the Department determines that stack testing (to ascertain the mass emission rates of air contaminants emitted under various operating conditions) is necessary for the purposes of regulation enforcement or determination of regulation compliance shall cooperate with the Department to provide:

- (a) entrance to a location suitable for stack sampling,
- (b) sampling ports at locations where representative samples may be obtained,
- (c) staging and ladders to support personnel and equipment for performing the tests,
- (d) a suitable power source at the sampling location for the operation of sampling equipment, and
- (e) such other reasonable facilities as may be requested by the Department.

7.14: U Monitoring Devices and Reports

(1) Upon request by the Department through direct communication or public notice, any person who owns or operates a stationary emission source of a category and class specified by the Department:

- (a) shall install, maintain, and use emission monitoring devices, of a design and installation approved by the Department, and
- (b) shall make periodic reports to the Department on the nature and amounts of emissions from said source which the Department shall review and correlate for its use in emissions control and exhibit for public information.

(2) Any person who owns or operates an emission source as described in 40 CFR, Part, 51, Appendix P, as amended, shall comply with the minimum requirements for continuous emission monitoring, recording, and reporting as set forth therein for opacity, nitrogen oxides emissions, sulfur dioxide emissions, and oxygen or carbon dioxide.

(3) The monitoring and recording required in 310 CMR 7.14(2) shall begin by August 6, 1988.

7.15: U Asbestos

(1) Standards for Demolition/Renovation

(a) Applicability. No person shall cause, suffer, allow, or permit the demolition/renovation, installation, reinstallation, handling, transporting, storage, or disposal of a facility or facility component that contains asbestos, asbestos-containing material, or asbestos-containing waste material in a manner which causes or contributes to a condition of air pollution.

(b) Notification. Each owner/operator of a demolition/renovation operation involving asbestos-containing material shall:

1. Provide the Department with all information required on a Department-approved form with respect to the intended demolition/renovation operation of a facility or facility component. A waiver to the notification provisions contained in 310 CMR 7.15(1)(b)2.a. and b., may be granted by the Department in the case of an emergency.
2. Postmark or deliver all required information to the applicable Department regional office:
 - a. at least ten working days before a demolition/renovation operation begins, or
 - b. within one working day prior to the beginning of an emergency demolition/renovation operation unless a waiver is granted by the Department, or if less than one working day, notification shall be made initially by telephone with written follow-up, or

7.15: continued

- c. where an owner/operator receives written Department approval of a planned demolition/renovation operation occurring during a 12 month period, provide revised information as required by the Department in writing, and a monthly report of updated information for actual work performed.
3. Include but not be limited to the following information on the Department-approved form:
 - a. Name, address, and telephone number of the facility owner, operation manager, if any, contractor, and subcontractor, if any, contractor's or subcontractor's Massachusetts asbestos removal certification and licensing number, if any;
 - b. Description of the facility being demolished and renovated, including the address, worksite location or locations as described in 7.15(1)(b)2.c., size, age, and prior and current use of the facility;
 - c. Estimate (in linear feet or square feet) of the approximate amount of asbestos-containing materials to be handled under this application with a description of the techniques used for the estimation;
 - d. Scheduled start-up and completion dates of the demolition/renovation operation, transportation, storage at a refuse transfer station facility (if applicable), and disposal at a sanitary landfill site of the asbestos-containing waste material; if the demolition/renovation start-up or completion date changes or is cancelled ensure that notification is made in writing at least one working day prior to the originally-scheduled start date of the operation;
 - e. Description of proposed demolition/renovation operation and procedures to be used;
 - f. Name, address, and telephone number of the transporter company(s) responsible for transporting asbestos-containing waste material from the demolition/renovation site to storage site, if any, and to final disposal site;
 - g. Name, address, and telephone number of the refuse transfer station facility and owner responsible for storing the asbestos-containing waste material prior to final transport and disposal at a sanitary landfill site;
 - h. Name, address, and telephone number of the sanitary landfill facility and owner where the asbestos-containing waste material will be disposed;
 - i. For a facility described as an emergency demolition/renovation operation, the name, title, and authority of the state or local government official who evaluated the emergency and ordered the operation;
 - j. Date and signature of the facility owner/operator or facility owner's designee and date and signature of the contractor.
 4. Separate notification will be required, except as to 310 CMR 7.15(1)(b)2.c., when:
 - a. demolition/renovations are scheduled for widely-spaced geographical locations on the same facility;
 - b. demolition/renovations are scheduled for a single facility, but are separated by a time period of greater than one week; or
 - c. when a demolition/renovation is postponed more than 30 days from the date on the initial notification.
- (c) Procedures for Asbestos Emission Control. Each owner/operator shall comply with the following procedures to prevent visible or particulate emissions to the ambient air space:
1. Remove any asbestos-containing material from a facility or facility component prior to demolition/renovation operations if such operations will cause asbestos emissions, or will render the asbestos-containing material friable, or will prevent access to the asbestos-containing material for subsequent containment and removal;
 2. When a facility component covered or coated with asbestos-containing material is being removed as units or in sections:
 - a. Adequately wet asbestos-containing material exposed during the removal operations;
 - b. Lower the units or sections to the ground level so as to not cause airborne emissions of asbestos; and
 - c. Ensure no release of asbestos to the ambient air space during removal of asbestos from these units or sections handled so as to ensure:

7.15: continued

- i. maintaining adequate wetness of the asbestos-containing material, and
 - ii. sealing the work area and using a local exhaust ventilation and collection system designed and operated to capture particulate asbestos material. This system must exhibit no visible or particulate emissions to the outside air and be designed and operated in accordance with the requirements of 7.15(1)(d), Air Cleaning;
 - 3. When asbestos-containing material is being removed from a facility component the following procedures shall be performed:
 - a. Ensure that such material is adequately wet;
 - b. Contain the material *in situ* of the facility component;
 - c. Lower the contained material carefully to the ground so as to prevent emissions;
 - d. Ensure no release of asbestos emissions by methods of capture and containment of fugitive dust such as work area seal and air cleaning, as described in 310 CMR 7.15.
 - 4. Once the asbestos-containing material have been removed and wetted, ensure that the material remains wet until and after it is sealed into a container for disposal.
- (d) Air Cleaning. The owner/operator using air cleaning at a facility shall properly install, use, operate, and maintain all air-cleaning equipment authorized by 310 CMR 7.15(1)(d). Bypass devices may be used only during upset or emergency conditions and then only for so long as it takes to shut down the operation generating the particulate asbestos-containing material. Each owner/operator shall use one of the following air cleaning systems or their equal:
- 1. Use fabric filter collection devices and perform the following:
 - a. operate the fabric filter collection devices at a pressure drop of no more than four inches water gauge, as measured across the filter fabric;
 - b. ensure that the air flow permeability, as determined by ASTM Method D737-75, does not exceed 350 ft³/min/ft² for felted fabrics;
 - c. ensure that felted fabric weighs at least 14 ounces per square yard and is at least 1/16 inch thick throughout; and
 - d. avoid the use of synthetic fabrics that contain fill yarn other than that which is spun; or
 - 2. Use portable, high efficiency particulate air (HEPA) filtered power exhaust units equipped with negative air pressure systems with operational alarm system capable of indicating the unit is working properly, and utilizing a clean filter specified for the unit and capable of filtering 0.3 micron particles with 99.97% efficiency; or
 - 3. In the event that the use of an air cleaning system causes a fire or explosion hazard, the Department may authorize as a substitute
 - a. the use of wet collectors designed to operate with a unit contracting energy of at least 40 inches water gauge pressure; or
 - b. the use of filtering equipment other than that described in 310 CMR 7.15, if the owner/operator demonstrates to the Department's satisfaction that it is as efficient in filtering particulate asbestos material.
- (e) Waste Disposal. Each owner/operator shall:
- 1. Discharge no visible or particulate emissions to the ambient air during the collection, processing, packaging, transporting, transferring, or disposing of any asbestos-containing waste material, and use the disposal methods specified in 310 CMR 7.15(1)(e) such that the asbestos-containing material is non-friable;
 - a. adequately wet asbestos-containing waste material obtained from air cleaning equipment or from removal operations and, while wet, containerize and seal the asbestos-containing waste material in leak-tight containers, labeled

7.15: continued

CAUTION

Contains Asbestos
Avoid Opening or
Breaking Container

Breathing Asbestos is Hazardous
to your Health

or, use warning labels specified by Occupational Safety and Health Standards of the Department of Labor, Occupational Safety and Health Administration (OSHA), or

b. process asbestos-containing waste material into non-friable form such as pellets or other shapes; or

c. use an alternative processing method that has received prior approval by the Department.

2. Store at a refuse transfer station facility permitted to manage asbestos waste in accordance with 310 CMR 19.061: *Special Waste*.

3. Dispose of asbestos-containing waste material at an approved sanitary landfill special waste site. If within Massachusetts, such sites must be operated in accordance with 310 CMR 19.000. Outside Massachusetts, such sites must be operated in accordance with applicable state and federal asbestos laws.

(f) Spraying. No owner/operator of a facility shall spray on any facility or facility component any asbestos-containing material.

(g) Insulating Material. No owner/operator of a facility may install or reinstall on a facility or facility component asbestos-containing insulating material.

(2) Enforcement Provisions. 310 CMR 7.15 is subject to the enforcement provisions in 310 CMR 7.52, except as to 310 CMR 7.15(1)(b).

7.16: U Reduction of Single Occupant Commuter Vehicle Use

(1) Commencing with the effective date of 310 CMR 7.16 each affected facility (except as provided below) shall diligently and expeditiously implement and thereafter continuously maintain the following mandatory measures which are designed to achieve a goal of reducing the number of single occupant commuter vehicles customarily commuting daily to each employment facility as of its base date by 25% or as adjusted pursuant to 310 CMR 7.16(7):

(a) making available to commuters any pass program offered by the area transit authority, if any commuter to the facility uses the public transit facilities of such Authority as part of his daily commuting trip, including making all administrative arrangements for commuters to purchase the pass and thereby participate in the pass program and encouraging commuters to participate by such means as publicizing the availability of the pass program and the cost advantages thereof.

(b) posting in a conspicuous place or places the schedules, rates and routes of every bus which serves the facility including the services offered by the area transit authority and any privately or publicly operated services which may exist in the immediate vicinity of the employer.

(c) providing incentives for bicycle commuting such as secure locking facilities and removal of restrictive rules against bicycle usage at the facility.

(d) negotiating with authorities in charge of bus lines serving the facility for improved service to the facility including providing information on the location and density of employees' residences and commuting times to be used for route planning by local transit authorities.

(e) conducting a carpooling program (either alone or in cooperation with neighboring facilities) which:

1. matches on a regularly recurring basis (not less often than once every 12 months) the names, addresses, and suitable contact information of all commuters who commute in single-occupant commuter vehicles or carpool to a facility or group of neighboring facilities and who express interest in carpooling, so that such commuters with similar daily travel patterns are informed and aware of each other for the purpose of forming carpools;

19.060: continued

2. Location. If the Department determines during the pre-application review that the location of the beneficial use activity must be identified in order to manage risks posed by the beneficial use activity, a U.S.G.S. 7.5 minute topographic map or smaller scale equivalent map clearly marking the location(s) of the beneficial use activities.
3. End of Use Management. A description of how the proposed secondary material may be managed when removed or processed during its lifecycle.
- (d) Property Owner Notification. The Applicant shall prepare and record, when required by permit term or condition, a record in the Registry of Deeds, Land Court, or other permanent record approved by the Department that shall:
 1. Provide notice to holders of any interest(s) in a property or a portion thereof (including without limitation, owners, lessees, tenants, mortgagee, and holders of easement rights) of the existence and location of the secondary material at such property and the conditions for continued beneficial use and ultimate disposal, if applicable;
 2. Outline management options if removed, modified, or processed during its lifecycle to prevent adverse impacts and significant risks to public health, safety and the environment, including, but not limited to, nuisance conditions; and
 3. Provide reference to the Department beneficial use application file by including the permit application transmittal number and file location.
- (17) Category 4 -- Use of Secondary Material in Unrestricted Applications.
 - (a) Applicability. Secondary materials that are beneficially used in applications that do not limit exposure to potential human or environmental receptors from secondary material constituents are reviewed in accordance with 310 CMR 19.060(17) when constituents have the potential to adversely impact or create a risk to public health, safety, or the environment, including, but not limited to, nuisance conditions when improperly stored, treated, transported, disposed of, used, or otherwise managed.
 - (b) Demonstrating Compliance With the Reuse Criteria. Compliance with the Reuse Criteria shall be made on the basis of provisions detailed in 310 CMR 19.060(16)(b), using conservative, unrestricted general exposure assumptions (*e.g.* residential exposures including sensitive receptors) in order to protect public health, safety and the environment.
 - (c) Application Requirements. In addition to the general permit application requirements identified at 310 CMR 19.060(5) the application shall include characterization information, the scope and level of effort of which shall depend on the proposed secondary material, the beneficial use, and the general exposure assumptions identified with this category of use. The characterization shall be of sufficient scope and adequately documented to demonstrate compliance with 310 CMR 19.060(13): *Reuse Criteria*.

19.061: Special Waste

- (1) General. No solid waste management facility shall receive, store, process, treat or dispose of a special waste unless said solid waste management facility:
 - (a) is operated and maintained in compliance with a valid site assignment, plan approval or permit and any authorizations issued by the Department;
 - (b) has received written approval from the Department to handle the specific special waste pursuant to 310 CMR 19.061(5) and operates in compliance with the conditions of the approval, if required herein; and
 - (c) manages the waste in accordance with the requirements of 310 CMR 19.061(6).
- (2) Classification of Special Wastes. A solid waste is classified as a special waste if:
 - (a) the waste is a special waste listed in 310 CMR 19.061(3); or
 - (b) the waste will require special management to ensure protection of public health, safety or the environment based upon the physical, biological, or chemical properties of the waste.
- (3) Listed Special Wastes. Solid wastes that the Department has classified as listed special wastes include:
 - (a) asbestos waste;
 - (b) infectious wastes, except as specified in 310 CMR 19.061(6)(c)4.;
 - (c) sludges, including but not limited to wastewater treatment sludges, drinking water treatment sludges and industrial process wastewater treatment sludges.

19.061: continued

(4) Application to Manage Special Wastes.

(a) General.

1. Solid waste management facilities shall use the application procedures described in 310 CMR 19.061(4), to apply to the Department for approval to manage a special waste.
2. The application shall include such information, data and descriptions as required by the Department to fully assess the nature of the special waste, its handling requirements and the capability of the facility to properly manage the waste.

(b) Filing. An application for approval to manage a special waste shall be filed with the Department. At the time of application to the Department, a copy of the application shall be filed with the board of health in whose jurisdiction the facility is located.

(c) Application for Special Wastes Other than Asbestos and Infectious Wastes. Except for asbestos waste and infectious waste as specified in 310 CMR 19.061(4)(d), applications to manage special wastes shall include the information specified in 310 CMR 19.061(4)(c). Data submitted on the physical, chemical or biological properties of the waste shall be generated from analyses of representative samples of the waste for each source of the waste. The application shall include:

1. identification of the solid waste management facility;
2. identification of the generator(s) of the waste and the specific source or sources of the waste;
3. a general description of the nature of the waste;
4. a description of the industrial or other process which generates the waste;
5. the quantity of the waste to be disposed and frequency of disposal (volume and/or tonnage per month or year);
6. a detailed description of the physical properties of the waste including, but not limited to size, density and percent solids;
7. a detailed description of the chemical properties of the waste including, but not limited to ph, reactivity, leachability and total metals;
8. a demonstration that the waste is not a hazardous waste pursuant to 310 CMR 30.000;
9. the biological properties of the waste, if applicable, including, but not limited to pathogens;
10. identification of special waste handling procedures to be employed by the facility to ensure proper management of the special waste; and
11. other information about the waste or the solid waste management facility as required by the Department in order to classify the waste or to determine the ability of the facility to handle the material.

(d) Applications for Asbestos Wastes and Infectious Wastes. Applications to manage asbestos wastes or infectious wastes shall include:

1. identification of the solid waste management facility;
2. the quantity of the waste to be handled or disposed (volume and/or tonnage per month or year);
3. identification of special waste handling procedures to be employed by the facility to ensure proper management of the special waste; and
4. other information about the waste as required by the Department in order to determine the ability of the facility to handle the special waste.

(5) Department Approval to Manage Special Wastes.

(a) Classifications. When the waste is not a listed special waste, the Department shall determine whether the waste is classified as a special waste. The Department's determination shall be based upon the quantity of waste, the physical, biological and chemical properties of the waste and whether the waste will require special management to ensure protection of public health, safety or the environment.

(b) Decision. The Department shall determine whether a facility shall receive approval to manage the special waste identified in the application. The Department shall base its decision on whether the facility can safely manage the special waste.

(c) Issuance of a Decision. The Department shall issue a written decision for all wastes for which it receives a request conforming with the requirements set forth in 310 CMR 19.061(4).

19.061: continued

(d) Conditions. The Department may issue an approval to manage a special waste subject to any conditions the Department deems necessary to protect public health, safety or the environment. The approval may also contain a condition prohibiting the applicant from accepting the special waste for a period of not less than 14 days, to allow the Department to review comments from the board of health submitted pursuant to 310 CMR 19.061(5)(f), unless the Department determines that an adverse impact would result from a delay in disposal.

(e) Permit Modification. If the Department determines that the handling of a waste at a facility shall cause a deviation from the approved plan or permit, the operator shall submit an application for permit modification in accordance with 310 CMR 19.039.

(f) Board of Health Notification and Comment Period.

1. The board of health shall be notified of the Department's decision on an application to manage a special waste.

2. Within 14 days of receiving such notification the board of health may request the Department to rescind or modify an approval to manage a special waste where the board of health deems that the handling of the special waste would have an adverse impact.

(g) Modification or Rescission. The Department shall modify or rescind, as appropriate, an approval to accept special waste if the board of health demonstrates to the satisfaction of the Department, in the request filed in accordance with 310 CMR 19.061(5)(f), that the acceptance of the special waste under the conditions which may have been imposed by the Department is likely to result in an adverse impact.

(6) Management Requirements for Special Wastes.

(a) General Requirements. The following conditions shall apply to any solid waste management facilities handling special wastes:

1. the operator shall keep a copy of the approval to manage a special waste on file at the facility and make available said approval letter upon request by Departmental representatives; and

2. the operator shall instruct and train employees in proper handling procedures for any special waste approved to be managed by the facility.

(b) Requirements for Handling Asbestos Wastes. In addition to the requirements at 310 CMR 19.061(6)(a), all asbestos waste, except as specified in 310 CMR 19.061(6)(b)3., shall be managed in accordance with 310 CMR 19.061(6)(b)1. and 2.

1. All facilities shall observe the following requirements for handling asbestos waste:

a. Asbestos waste shall not be accepted for disposal at solid waste combustion facilities.

b. Asbestos waste that has not been properly wetted, containerized and labelled according to 310 CMR 7.15 shall not be accepted at any solid waste management facility.

c. Asbestos waste that has been properly wetted, containerized and labelled in accordance with 310 CMR 7.15 shall not be accepted at any solid waste facility unless that facility has received approval from the Department in accordance with 310 CMR 19.061 to accept asbestos waste.

d. Asbestos waste that has been properly wetted, containerized and labelled shall be managed so as to maintain the integrity of its containers and to prevent emissions of asbestos fibers to the ambient air.

2. Landfill Specific Requirements. In addition to the requirements in 310 CMR 19.061(6)(b)1., landfills that have received approval from the Department to accept asbestos waste shall observe the following operational requirements:

a. Asbestos waste shall be immediately disposed in the landfill and shall not be stored at the landfill prior to placement in the landfill.

b. Asbestos waste shall be placed in the landfill in such manner as to prevent the release of asbestos fibers to the air during placement.

c. Asbestos waste shall be placed in the landfill using a method approved by the Department. The approved method shall be as described in 310 CMR 19.100 through 19.204 in Department guidance or in a Department approval or permit. All such approved placement methods shall include requirements that the asbestos waste is covered by sufficient amounts of either solid waste that does not contain asbestos and/or daily cover material to assure that no asbestos fibers are released to the air during or subsequent to compaction.

19.061: continued

- d. Accurate records of the surveyed location in the landfill of all asbestos waste shall be maintained. Locations of asbestos deposition shall be noted in the Record Notice of Landfill Operation pursuant to 310 CMR 19.100 through 19.204. Locations of asbestos deposition shall also be included whenever information regarding the property is recorded on the property deed pursuant to M.G.L. c. 111, § 150A.
 - e. Areas of the landfill containing asbestos shall be clearly marked by the operator.
 - f. Areas of the landfill containing asbestos waste shall not be excavated.
3. Requirements for Certain Classes of Asbestos Wastes. The following asbestos wastes are not subject to the provisions of 310 CMR 19.061 except as specified at 310 CMR 19.061(6)(b)1.a.:
- a. intact and unbroken vinyl asbestos tile (VAT);
 - b. asphaltic asbestos-containing siding products and asphaltic asbestos-containing roofing materials such as roofing felts and roofing shingles (Note: This does not include other asbestos containing roofing shingles and siding products such as those containing a cementitious binding characterized as being hard and brittle.); and
 - c. other asbestos waste so designated by the Department in writing.
- (c) Requirements for Handling Infectious Waste. In addition to the requirements at 310 CMR 19.061(6)(a), infectious waste shall be handled in accordance with the following:
- 1. In addition to the requirements of 310 CMR 19.000, infectious waste shall be treated, packaged, labeled and disposed of in accordance with 105 CMR 480.000.
 - 2. Landfills. Infectious waste shall not be disposed in a solid waste landfill unless the waste is processed and managed to meet the requirements of 310 CMR 19.061(6)(c)4.
 - 3. Facilities Other than Landfills. Infectious waste (which has not been rendered non-infectious) shall not be accepted at a solid waste management facility unless that facility has received approval under 310 CMR 19.061 to manage infectious waste.
 - 4. Infectious waste that has been rendered non-infectious in accordance with 105 CMR 480.000 and is packaged, labeled and otherwise managed in accordance with 105 CMR 480.000 is not subject to 310 CMR 19.061 and may be accepted at any solid waste facility.
- (d) Requirements for Handling Sludges. In addition to the requirements at 310 CMR 19.061(6)(a), sludges shall be handled in accordance with the following:
- 1. General Requirements. Disposal of all types of sludges shall comply with the following requirements.
 - a. Sludges accepted at a solid waste facility shall not contain free draining liquids.
 - b. Sludges disposed at landfills shall contain a minimum of 20% solids.
 - c. Odor control methods, acceptable to the Department, shall be employed at all landfills accepting odor-producing sludges.
 - 2. Requirements for Sewage Treatment and Water Treatment Sludges. In addition to the requirements set forth at 310 CMR 19.061(6)(d)1., sewage treatment and water treatment sludges shall comply with the following requirements.
 - a. Sewage treatment and water treatment sludges shall be incorporated into the active face of a landfill in a 3:1 mixture of solid waste to sludge or placed in a designated area and covered immediately.
 - b. Sewage treatment sludges may be accepted at a solid waste landfill only after land application and composting options have been investigated by the applicant or by the generator of such sludge and determined by the Department not to be feasible, provided that said investigation of options may be deferred for a reasonable time upon a determination by the Department that adverse impacts may occur as a result of delaying disposal of the sludge.
 - c. Sewage treatment sludges containing pathogens that have not been stabilized using methods approved by the Department shall not be disposed at an unlined landfill, unless specifically approved by the Department on a temporary basis.
 - 3. Requirements for Industrial Wastewater Treatment Sludges. In addition to the requirements set forth at 310 CMR 19.061(6)(d)1., industrial wastewater treatment sludges shall comply with the following requirements.

The solid waste management facility operator shall provide data, descriptions and other information required at 310 CMR 19.061(4) to the Department for each separate source of industrial wastewater treatment sludge prior to acceptance at the landfill.

19.061: continued

(7) Reclassification. The Department may reclassify a waste in accordance with 310 CMR 19.061(5) or place further conditions on an approval to manage a special waste in accordance with 310 CMR 19.061 should such action be deemed necessary. Any such reclassification or conditions shall be in writing.

19.062: Demonstration Projects or Facilities

(1) Applicability. Any person who wishes to establish a demonstration project at a permitted solid waste management facility or establish a demonstration solid waste management facility for the purpose of demonstrating the effectiveness and utility of a new or innovative solid waste management technology shall submit an application to the Department for a demonstration project permit and notify the board of health of jurisdiction.

(2) Application Requirements. An application for a demonstration project permit shall include:

(a) a detailed description of the proposed activity, including:

1. a discussion of the objectives of the project;
2. a discussion of the purposes for undertaking the project;
3. an analysis indicating the benefits of the proposed new technology;
4. a description of the applicability of the new technology to solid waste management in general;
5. a description of how the applicant intends to provide for the receipt and treatment or disposal of those types and quantities of solid waste proposed to be necessary for purposes of determining the efficiency and performance capabilities of the technology or process; and
6. a technical analysis indicating environmental, public health and safety benefits and risks from the proposed new technology;

(b) a set of plans which shall include:

1. a site plan indicating the location of the project or facility;
2. an operational plan outlining operational details of the project or facility, the particular types of equipment required for proper operation and a discussion of measures to be taken to ensure the protection of public health, safety or the environment;
3. a corrective action plan which indicates how conventional solid waste management technology shall be utilized in the event of failure of the proposed technology; and
4. a data collection and analysis plan which outlines all data collection and analysis procedures, protocols and reporting formats required to document and evaluate whether the demonstration project has achieved its objectives.

(c) a project timetable; and

(d) such other descriptions, plans or information as the Department deems necessary to review the demonstration project.

(3) Department Review of an Application. The Department shall not grant a permit for a demonstration project unless:

(a) the application is complete and accurate;

(b) the facility has a valid site assignment where required pursuant to the Site Assignment Regulations at 310 CMR 16.00;

(c) the facility has a valid permit and necessary authorizations issued by the Department, if applicable;

(d) the project can be adequately accommodated at a permitted facility without interfering with or disrupting normal operations of the facility, where the project is to be located at a permitted facility;

(e) the demonstration project or facility has merit and seeks to improve operational aspects of a facility, produce significant cost savings or serve to increase protection of human health and the environment;

(f) the proposed demonstration project will not cause or contribute to pollution of the air, water or other natural resources of the Commonwealth; and

(g) the applicant has provided adequate proof of financial assurance as specified in 310 CMR 19.062(5).