

Massachusetts  
Department of  
Environmental Protection  
**Asbestos Cement Pipe  
Emergencies**

**Plymouth County Water  
Works Association**

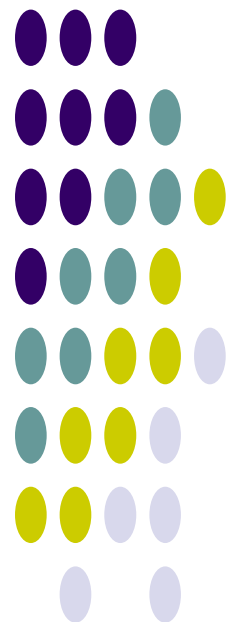


August 19, 2009

Jim McQuade

Andrew Cooney

Ernie Kelley



Massachusetts Department of  
Environmental Protection  
**Asbestos Cement Pipe  
Emergencies**

**Plymouth County Water Works  
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## Asbestos

- What is it?
- Where is it found?
- What are the regulations?
- Asbestos Cement Pipe Removal Practices
  - Planned removals
  - Emergency Situations

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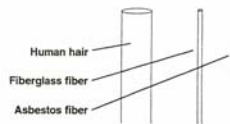
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## What is asbestos?

- Widely used naturally occurring fibrous mineral.
- Resistant to heat and corrosive chemicals
- Fibers range from long and flexible to straight and needle like.

When crushed, it breaks into tiny, sharp fibers. You cannot often taste, feel or see them.

HOW SMALL IS ASBESTOS?



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## When is asbestos dangerous?



- WHEN IT IS AIRBORNE. When you breathe in asbestos fibers, they easily get into the lungs and your digestive system.
- If you handle asbestos, the fibers can become airborne (especially when subject to sawing, sanding, drilling, grinding or tearing).
- Once in the air, asbestos fibers can stay suspended for 24 hours or more.
- Asbestos fibers freely move on any draft of air.

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## Asbestos-related diseases



- Asbestosis
- Lung Cancer
- Possible gastro-intestinal cancers from ingestion
- Mesothelioma

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## Where is asbestos found?



- Friable:
  - Sprayed on, or troweled on, decorative plaster
  - Sprayed on fire proofing
  - Pipe and boiler insulation
  - Duct insulation
  - Suspended ceiling tiles
  - Wallboard and joint compound
  - Some attic/wall insulation (such as **vermiculite** or **sprayed on**)
- Non-friable
  - Asbestos Cement Pipe
  - Cementitious siding and roofing shingles
  - Floor covering (e.g. floor tiles and linoleum backing)
  - Mastic (damp proofing)
  - Caulking and glazing
  - Roofing felts and shingles
  - Fire rated drapes and curtains

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## State & Federal Asbestos Laws



- Federal Regulations
  - National Emission Standards for Hazardous Air Pollutants (NESHAP)
  - Asbestos Hazard Emergency Response Act (AHERA)
- MassDOS enforces AHERA
  - 453 CMR 6.00 – Training, Licensing and Certification
- MassDEP enforces NESHAP
- Massachusetts Air Quality and Solid Waste Regulations
  - 310 CMR 7.00 and 310 CMR 19.000

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## Asbestos Cement Pipe



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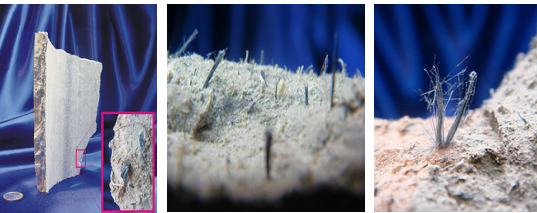
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## Asbestos Cement Pipe

Close-up of Crocidolite & Chrysotile



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## MassDOS Worker Protection Requirements



- Sawn or cut (rendered friable)
  - Asbestos contractor & containment
- Broken (**not** rendered friable)
  - OSHA training

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## Notification Requirements



- Filing of the Asbestos Notification Form (ANF-001) with MassDEP is sufficient to meet both MassDEP and DOS requirements
  - Planned Removals
    - 10 Working Day
    - Blanket Waivers (routine maintenance under 10 linear feet)
- Emergency Situations
  - Emergency Waivers
    - Notify MassDEP within 24 hours
    - MassDEP Southeastern Regional Office emergency waiver telephone number: 508-946-2882

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## Work Practices



- Uncover pipe without disturbing pipe
- Examine pipe to determine if it is asbestos cement pipe
- Is it damaged or broken?

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**Not Damaged (intact and not broken)**



- Place 6 mil polyethylene sheeting under the asbestos cement pipe to prevent soil contamination.
- Adequately wet the asbestos cement pipe with amended water before and during removal to avoid dust.
- Remove the pipe to the nearest coupling (bell fitting)
  - Slide it apart at the joints (no saw cutting) or other methods that do not cause the pipe to become friable or release asbestos fibers.

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**Not Damaged (intact and not broken) - Continued**



- Wrap wet asbestos cement pipe in two layers of 6 mil polyethylene sheeting, seal with duct tape and appropriate label.
  - This can be done either in the trench or adjacent to the trench.
- Manage wrapped asbestos cement pipe and any other material contaminated with visible debris as asbestos-containing material.

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**Damaged (not intact and/or broken) or when saw cutting is necessary**



- Place 6 mil polyethylene sheeting under the asbestos cement pipe to prevent soil contamination.
- Adequately wet asbestos cement pipe with amended water where cutting or breaking will occur.
- Planned activities require "mini-containment".
- Emergency situations require best management practices.
  - E.g. wet saw or shrouded cutting equipment

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**Damaged (not intact and/or broken) or when saw cutting is necessary - Continued**



- 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.
- Manage wrapped asbestos cement pipe, polyethylene sheeting and any other material contaminated with visible debris as asbestos containing waste material.

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**Leak-tight Containers**



- Properly wrapped and labeled ACM pipe and debris must be placed in lined roll-off container(s).
  - The container should be an enclosed container and locked having proper labels and DOT placards.
  - If open top roll-off containers are used, they must be properly sealed, labeled and secured inside a locked fenced area to prevent tampering from unauthorized personnel.

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**Transport**



- Package, transport and dispose of asbestos-containing waste material in accordance with local, state, and federal regulations.

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## Disposal



- Complete waste shipment records.
- Dispose of asbestos-containing waste material at a landfill permitted to accept asbestos-containing waste material.

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## Storage



- With prior MassDEP approval, storage of intact asbestos cement pipe may be allowed for a limited time.
  - Asbestos-containing cement pipe that has been properly wet, sealed and labeled shall not be stored for more than 30 days.
  - Storage of properly contained ACWM is permitted for up to 30 days at the site of generation or at the place of business of a DOS licensed asbestos contractor but not anywhere else without prior approval from MassDEP.

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## Questions



Jim McQuade  
Massachusetts Department of Environmental Protection  
617-348-4095  
james.mcquade@state.ma.us

Andrew Cooney  
Massachusetts Department of Environmental Protection  
508-946-2882  
andrew.cooney@state.ma.us

Ernie Kelley  
Massachusetts Division of Occupational Safety  
413-781-2676  
ernest.kelley@state.ma.us

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