



11th Annual On-Scene Coordinator Readiness Training Program February 2008

ASBESTOS NESHAP

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Asbestos – General Background

- Asbestos is a generic, not a mineralogical, name given to the fibrous form of several naturally occurring minerals having commercial significance.
- Six asbestiforms are recognized for regulatory purposes.
- Asbestos does not degrade.

Asbestos – General Background (cont.)

- Inhalation of Asbestos fibers is extremely hazardous.
- Health effects take 15-20 years (minimum) before identified by medical personnel.
- Consequences are severe.
 - Asbestosis
 - Lung Cancer
 - Mesothelioma

Regulation of Asbestos

- Clean Air Act: National Emission Standard for Hazardous Air Pollutants for Asbestos (Asbestos NESHAP)
- Toxic Substances Control Act – Worker Protection Standards, Training Requirements, Asbestos Hazard Emergency Response Act (AHERA – asbestos in schools)

Regulation of Asbestos (cont.)

- State/local solid waste requirements, including landfills
- Safe Drinking Water Act
- Superfund when asbestos exceed certain level
- MSHA (mines)
- OSHA
- DOT

Asbestos Is Not Banned

- TSCA - Asbestos-containing paper and cardboard products are banned.
- Asbestos is not found in:
Glass, Steel/Metal, Wood
- All other building materials are suspect.
Testing is the only sure method to determine if asbestos is present.

Asbestos NESHAP

- 40 CFR Sections 61.141 to 61.157, Appendix A.
- General overview today.
- To fully understand the requirements, recommend AHERA asbestos training courses.

Asbestos NESHAP Regulates:

- Demolitions and renovations
- Mining, spraying, manufacturing, etc.
- Active and inactive waste disposal sites
- Conversion of ACM to non-ACM

Asbestos NESHAP Demolitions/Renovations

- What's covered? Definitions.
- Demolition and renovation requirements.
- Residential exemption and when residences are subject.
- Installation, facility, ACM, RACM.
- Asbestos NESHAP Clarification of Intent: FR, July 28, 1995 (Volume 60, Number 145, pages 38725-38726).

Residential Building Exemption

- Originally, regulations did not cover individual residential buildings containing four or fewer dwelling units.
- Revisions to the regulation and the FR Notice on Intent – residential buildings demolished or renovated as part of larger projects are not exempt.

Installations

- Refer to Asbestos NESHAP Clarification of Intent for discussion of demolitions planned at the same time or as part of the same planning or scheduling period to be part of the same project.
- Note discussion of site.

Catastrophic Events – Demolition of Buildings

- Debris on the ground from totally demolished buildings.
- Partially destroyed houses/buildings – e.g., only three walls standing, roof gone.
- Houses removed from their foundation.
- Houses damaged to the point uninhabitable and renovation not economical or feasible.

Catastrophic Events – Demolition of Buildings (cont.)

- Buildings subject to a government demolition order based on a determination that the building is structurally unsound and in danger of imminent collapse.
- Buildings severely damaged and subject to planned demolition but no order issued based on the above determination. Likely unsafe to enter – e.g., mold issues.

Applicability of Asbestos NESHAP

- Debris on the ground from structures totally demolished is not covered. No demolition activities needed.
- Note – if someone demolished the building and it was subject to NESHAP, they would be in violation.
- Demolition of damaged buildings including residences which fall within the installation definition/part of a larger project.

Asbestos NESHAP Demolition Requirements

- Inspection for presence of asbestos prior to demolition.
- Advance, written notification (10 days) of the demolition or renovation.
- Removal prior to demolition of friable asbestos and asbestos which may become friable during demolition.
- Presence of trained asbestos supervisor on the jobsite.

Demolition Requirements (cont.)

- Emission controls for removal and disposal of regulated asbestos containing materials.
- Requirement to adequately wet the material prior to, during, and after removal through to disposal.
- Special handling, transport requirements including recordkeeping.
- Landfill requirements.

Demolition Requirements – Trained Personnel

- At least one on-site representative, such as a foreman or management level person or authorized representative, trained in the provisions of this regulation and the means of complying with them, is present when RACM is being disturbed.
- Evidence of training shall be posted at demolition/renovation site.

Demolition Requirements Adequately Wet

- The asbestos NESHAP requires facility owners and/or operators involved in demolitions and renovation activities to adequately wet regulated asbestos containing material or in certain cases, material that must be assumed to be RACM.

Adequately Wet (cont.)

- Adequately wet means sufficiently mix or penetrate with liquid to prevent the release of particulates. If visible emissions are observed coming from the asbestos containing material, then that material has not been adequately wetted. However, the absence of visible emissions is not sufficient evidence of being adequately wet.

Adequately Wet (cont.)

- EPA issued a booklet entitled Asbestos/NESHAP Adequately Wet Guidance, EPA340/1-9019.
- It discusses friable asbestos material and nonfriable asbestos containing material, requirements for adequately wetting, exceptions, techniques, and procedures for different types of material.

Asbestos NESHAP Disposal Requirements

- NESHAP landfill requirements are separate from RCRA solid waste regulations and state/local permit requirements.
- Asbestos-containing waste material (ACWM) can only be disposed of in an asbestos NESHAP approved landfill.
- Asbestos-containing material also subject to state/local solid waste regulations.

Asbestos NESHAP Disposal Requirements (cont.)

- No visible emissions to the outside air OR at the end of an operations day or every 24 hours of continuous operation, cover ACWM with 6 inches of nonasbestos-containing fill or covered with a resinous or petroleum-based dust suppression agent.
- Other alternative emissions control methods must be approved by the Administrator.

Asbestos NESHAP Disposal Requirements (cont.)

- Disposal site can use a natural barrier to deter access to landfill.
- No natural barrier, landfill must use fencing and warning signs to deter access.

Asbestos NESHAP Disposal Requirements (cont.)

For all asbestos-containing waste material shipments received at the asbestos landfill.

- Keep waste shipping papers for at least 2 years.
- Develop and maintain maps/records of location, depth and area, and quantity in cubic meters of all asbestos waste containing material.

Asbestos NESHAP Disposal Requirements (cont.)

- Additional requirements for closing an active site.

Renovations

- Similar requirements as for demolitions.
- Notification if certain amount of asbestos, thorough inspection, trained certified personnel, handling requirements, and disposal.
- Disposal of contaminated debris in NESHAP approved landfills.

Flexibility in the Regulations

- Emergency renovations.
- Freezing temperatures (wetting).
- Buildings determined to be structurally unsound and in danger of imminent collapse and subject to a government issued demolition order.

Flexibility – Gov't Ordered Demolitions

- Government order.
- Order based on a determination that the building is structurally unsound and in danger of imminent collapse.
- Flexibility on when the notification is submitted.

Flexibility – Gov't Ordered Demolition (cont.)

- No inspection for asbestos is required but material must be assumed regulated.
- Information on the Order – must be attached to notification.
- Trained supervisor/authorized representative.

Government Ordered Demolitions (cont.)

- Wetting prior to and during demolition, storage (if any), transport to disposal required.
- Emission controls apply.

Catastrophic Events Involving Asbestos Issues

- San Francisco earthquake, Hurricane Hugo, underground steam pipe explosion in Gramercy Park, NY spread 200 pounds of asbestos from pipe insulation over wide area. (1989)
- World Trade Center – asbestos dust.
- Hurricane Katrina/Rita.
- Tornado in Greenberg, Kansas.

Possible Compliance Issues – Inspection and Notification

Insufficient trained personnel to handle the increased workload during a disaster:

- State accredited inspectors (private, not state compliance inspectors) to inspect and sample for asbestos.
- Trained, accredited supervisors/workers to be on-site.
- Certified laboratories to analyze samples.

Possible Compliance Issues – Emission Controls

- No mail delivery or courier service available to deliver notifications.
- Lack of knowledge of the asbestos NESHAP requirements.
- Limited availability of water for wetting the asbestos containing material.
- Emission control when bulldozing is method of demolition.

Possible Compliance Issues – Transport to Landfill

- Staging areas may be required rather than direct transport. Emission controls such as wetting required. Records issue.
- Landfill space especially ones permitted for asbestos.

Other Issues

- Public concern (local gov't/public).
- Public safety – from demolition but also from entry into damaged houses; dust.
- Safety to workers.
- Adequacy of monitoring. Concerns when monitoring is reduced. Monitoring is not required under the asbestos NESHAP.

Other Issues (cont.)

- Limited ways to communicate with the public especially initially.
- Right of access to accomplish demolitions.
- Difficulty in transporting large volumes of waste to landfills – highway safety issues.

Hurricane Katrina/Rita

- Worked with regions/states to resolve issues with the result being compliance.
- Offered to help find trained asbestos personnel from other regions/states.
- Worked through how to ensure certain landfills were in compliance with NESHAP – upgrades.
- Reviewed state guidance documents.

Hurricanes Katrina and Rita (cont.)

- Limited No Action Assurances provided – limited in time and scope and maintained most of the asbestos NESHAP requirements.
- Monitoring required as well as review of OSHA monitoring data.
- Allowed “block” determinations about housing that was structurally unsound.

Hurricanes Katrina and Rita (cont.)

- Allowed demolitions of certain houses to be treated as though they were structurally unsound and in danger of imminent collapse.

Prior to asking for a No Action Assurance

- What is the issue? Are there other ways to resolve this? Example – insufficient personnel or landfills – are they available out of state?
- What specific relief is being requested?
- Why it is needed? What supporting data is available?

Prior to asking for an NAA

- Who is the entity for whom relief is being sought?
- What Federal statutes/regulations are involved? State or local?
- How will the request be coordinated with county/local governments? Other Federal/State agencies?
- What is the role of other agencies?

Prior to asking for an NAA (cont.)

- What is the timeframe? NAAs by nature are short term and limited in scope. Identify time limit, geographic restrictions, other limits such as number of houses.
- NAAs not only provide some relief, they also impose conditions to minimize any potential for environmental harm – e.g., monitoring, buffer zones, oversight. Identify these.

Prior to Asking for an NAA (cont.)

- Often the answers will help identify other solutions that result in compliance.

Actions You Can Take Before a Catastrophic Event Occurs

- Know your regional asbestos NESHAP coordinator and enforcement contacts and their phone numbers/e-mail address (office and home).
- Ask if they maintain information on their state and local counterparts.
- Ask if they have lists of laboratories approved for asbestos analysis.

Actions (cont.)

- Ask if they can provide websites or other information that list accredited contractors, supervisors, and workers.
- Ask if they have information on landfills that are approved for asbestos.
- Ask if the state has an asbestos NESHAP regulation.
- Identify states which are delegated OSHA states.

Actions (cont.)

- Take an asbestos course.
- Check EPA's websites on asbestos.

QUESTIONS