Federal Regulations- Overview

➢ Two main regulatory agencies governing asbestos in buildings:

- Environmental Protection Agency (EPA)
  ✓ Title 40 of the Code of Federal Regulations (40 CFR.....)
  ✓ Protection of the environment from asbestos including in the air, water, soil, and beings (human, animal)

- Occupational Safety and Health Administration (OSHA)
  ✓ Title 29 of the Code of Federal Regulations (29 CFR.....)
  ✓ Protection of workers conducting asbestos work or being exposed to asbestos
Federal Regulations- Overview

- Other federal agencies that have rules or procedures related to asbestos work include:
  - U.S. Department of Transportation (USDOT)
    - Rules for transporting asbestos
  - National Institute of Standards and Technology (NIST)
    - Standards for Laboratory Accreditation
  - Consumer Product Safety Commission (CPSC)
    - Banning asbestos in some products
  - National Institute for Occupational Safety and Health (NIOSH)
    - NIOSH Manual of Analytical Methods (NMAM)
    - The approval agency for respirators and associated filters

Two EPA statutes specifically addressing asbestos:

- Clean Air Act (CAA)- 40 CFR Part 61
  - Asbestos NESHAP- Subpart M
    - 1970s - demolition and renovation
    - Administrative, civil, and criminal authority

- Toxic Substances Control Act (TSCA)- 40 CFR Part 763
  - AHERA- Subpart E
    - 1986 USC - Conducting asbestos work in schools
  - EPA Worker Protection Rule- Subpart G
    - EPA has authority to enforce OSHA standard in government agency facilities.
  - EPA Ban & Phase Out Rule- Subpart I
    - 1989- banned six asbestos product categories and scheduled other materials to be banned over the next several years. Most of the ban was repealed in 1991, leaving only the six categories still banned.
National Emissions Standards for Hazardous Air Pollutants (NESHAP)

- Amended November 20, 1990
- Asbestos Containing Material (ACM)
  - Any material containing greater than 1% asbestos
- Friable
  - Any ACM that when dry, can be crumbled, pulverized, or reduced to powder by hand pressure.
- Non-friable
  - Any ACM that when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.
    - Category I: ACM packings, gaskets, resilient floor covering, and asphalt roofing products
    - Category II: Any other non-friable ACM not listed in Category I

Regulated Asbestos Containing Material (RACM)

- Friable material
- Category I non-friable that will be subjected to sanding, grinding, or abrading
- Category II material that has a high probability of becoming friable by the forces expected to act on the material during demolition or renovation

Notification to the EPA

- Building owners must notify EPA prior to any:
  - Renovation involving stripping or removal of asbestos, or any other activity that would break up, dislodge or similarly disturb asbestos material; or
  - Demolition
National Emissions Standards for Hazardous Air Pollutants (NESHAP)

➢ Notification to the EPA (continued)
  • This notification must be made 10 working days prior to the following amounts of asbestos being abated:
    ✓ ≥260 linear feet (ft.)
    ✓ ≥160 square feet (ft²)
    ✓ ≥35 cubic feet (ft³)
  • EPA requires that the asbestos be removed prior to the renovation or demolition or ensure that there will be no activity which may render the material friable or cause visible emissions of asbestos to be discharged into the air.

➢ Use adequately wet methods
➢ No visible emissions

NESHAP: Typical Process for Asbestos

➢ Decide to renovate/demolish a building
➢ Asbestos survey
  • AHERA-Certified Building Inspector
➢ Identify types and quantities of ACM
➢ Abate ACM
  • Asbestos abatement contractor,
  • PPE,
  • Methods to control fiber release,
  • Air monitoring, etc.
➢ Proceed with renovation/demolition
## NESHAP - Disposal

- NESHAP regulates disposal requirements
- Active and inactive waste disposal sites
- Waste handling: Bags, labels, wet methods
- Bulk wastes (trucks or roll-off containers): “burrito wrap”
- EPA approved landfill facility requirements
- Waste shipping record/manifest
  - Must be received by generator within 35 days
  - If not received in 45 days, report to EPA office that administers the NESHAP program

## Ask the NESHAPs Expert!

- Q: Following a pre-demolition survey of construction debris that found asbestos, additional samples of the debris piles were collected and were negative for asbestos. Can the debris be disposed of as non-asbestos-containing waste material?
  - A: No. A negative sample does not disprove a prior positive sample. For example, a trained asbestos building inspector may take 10 samples of a ceiling. If one comes back positive, the policy is to treat the entire homogenous area as positive.
- Q: Can the asbestos results from multiple samples be averaged to determine whether a demolition debris pile is not an asbestos-containing waste material? Can composite debris samples be collected and analyzed?
  - A: No. Each suspect material must be identified and assessed on its own.
NESHAP Bans of Certain ACM

➢ Most sprayed-applied Surfacing Material
  - Fireproofing/insulating material - 1973
  - Decorative Purposes - 1978

➢ Thermal System Insulation (TSI) - 1975
  - Wet-applied/pre-formed (molded) pipe insulation
  - Pre-formed asbestos block insulation on boilers and hot water tanks

Asbestos Hazard Emergency Response Act (AHERA)

➢ K-12 schools, public and private/non-profit
➢ Inspections & Assessments
➢ Management Plans
➢ Response Actions
➢ Abatement final clearance issues
➢ AHERA Appendix C (MAP) Training Categories:
  • Building Inspector
  • Management Planner
  • Project Designer
  • Abatement Worker
  • Abatement Supervisor
  • Project Monitor - recommendation, up to each state to decide
Asbestos School Hazard Abatement Reauthorization Act (ASHARA)

- Amendment to AHERA Appendix C MAP, 1994
- Took the training and certification requirements found in the AHERA regulation for working in schools and applied them to working in public and commercial buildings.
- Applies to inspectors, project designers, workers and supervisors
- Does not apply to management planners

EPA Ban and Phase Out Rule

- 1989- Banned many asbestos product categories
- 1991- Most of the ban was repealed, except for the six categories that did get banned prior to 1991.
- Banned asbestos product categories:
  - Corrugated paper, roll board, commercial paper, specialty paper, flooring felt, and any new use of asbestos (after 1989)
- Product categories that did not get banned:
  - Vinyl asbestos floor tile, pipeline wrap, roofing felt, roof coatings, non-roofing coatings, automatic transmission components, clutch facings, friction materials, disc brake pads, drum brake linings, brake blocks, gaskets, millboard, asbestos clothing, and asbestos-cement pipe, shingle, flat sheet, and corrugated sheet.
Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)

- CERCLA/Superfund (1980)
  - Hazardous substance, pollutant or contaminant
  - Extremely broad - not limited to fiber type
  - National Priority List (NPL) - published list of hazardous waste sites that are eligible for federal funding to cleanup actions


- Referred to as “CERCLA” or “Superfund”
- Provides for EPA authority to cleanup uncontrolled hazardous waste sites
- Failure to comply with the NESHAP or improper handling, storage, or disposal of asbestos may result in NPL listing
- Activities could be in either the Removal or Remedial Programs
OSHA Construction Standard for Asbestos

- 29 CFR 1926.1101
- Applies to the following activities involving asbestos:
  - Demolition or salvage of structures
  - Removal or encapsulation of materials containing asbestos
  - Construction, alteration, repair, maintenance, renovation
  - Installation of products containing asbestos
  - Asbestos spills or emergency cleanup
  - Transportation, disposal, storage, containment of and housekeeping activities involving asbestos or products containing asbestos, on the site or location at which construction activities are performed.

OSHA Construction Standard for Asbestos

- Key Definitions:
  - Presumed Asbestos Containing Material (PACM)
    - Any TSI or SM found in buildings constructed no later than 1980
    - Asphalt and vinyl flooring material installed no later than 1980
    - If employer/building owner has actual knowledge, or should have known through the exercise of due diligence, that other materials are asbestos containing, they too must be treated as such.
  - Work Classification
    - Class I - Removal of TSI or SM ACM or PACM
    - Class II - Removal of any ACM not TSI or SM [Misc.]
    - Class III - Repair or Maintenance operations, where ACM is likely to be disturbed [no more than would fit in a 60” by 60” waste bag or glove bag]. Bulk sampling has been interpreted as a Class III activity by OSHA.
Asbestos Workshop

OSHA Construction Standard for Asbestos

- Class IV - Custodial and Maintenance activities during which employees contact but do not disturb ACM or PACM and activities to cleanup dust, waste and debris resulting from Class I, II, or III activities.

➢ Permissible Exposure Limits

- 8-hour Time Weighted Average (TWA) Limit - 0.1 f/cc
  - When the TWA is exceeded, engineering controls and respiratory protection must be provided and a negative pressure regulated area must be established to prevent fibers from escaping.
  - Often referred to as “the” PEL
- 30 Minute Excursion Limit (EL) - 1.0 f/cc
  - Some refer to this as the STEL but that was changed in the 1994 revisions.

OSHA Construction Standard for Asbestos

➢ Multi-employer worksites

- Communicate asbestos hazards to other employers on the site
- Other employer responsibilities to protect their workers
- General Contractor (GC) of a project involving asbestos, deemed to exercise general supervisory authority over asbestos work

➢ Regulated Areas - Class I, II, and III asbestos work are conducted in regulated areas, as well as all other operations where the Permissible Exposure Limit (PEL) is, or may reasonably be, exceeded

➢ Exposure Assessments

- Basis of Initial Exposure Assessment
- Negative Exposure Assessment
  - Objective Data
  - Historical Air Monitoring data - must be from within 12 months, be from closely resembling activities, PEL/EL will not be exceeded
OSHA Construction Standard for Asbestos

- Methods of Compliance
  - General methods for all jobs
  - Specific requirements for Class I – Class IV work
- Respiratory Protection
  - Respirator rules specific to asbestos work, beyond what is found in the Respiratory Protection standard
- Protective Clothing
- Hygiene Facilities and Practices
- Communication of Hazards
  - Signs and Labels
  - Training Requirements

OSHA Construction Standard for Asbestos

- Label requirements as of June 1, 2015
Asbestos Workshop

OSHA Construction Standard for Asbestos

- Sign requirements as of June 1, 2016

OSHA Construction Standard for Asbestos

- Housekeeping
- Medical Surveillance
- Recordkeeping
- Competent Person
- Mandatory and Non-mandatory Appendices
## Federal Asbestos Regulations - Summary

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## State and Local Regulations
- State environmental agencies
- State occupational safety/health agencies
- County health departments
- Local clean air agencies (e.g., Washington State)
- Tribal agencies