

Southeastern States
Asbestos Conference
2003 thru 2007
Questions and Answers

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Annual Notifications

Q: What good are annual notifications to regulators?

A: Annual notifications are intended to give regulators an idea or "heads up" regarding renovations that are anticipated to occur within the year due to anticipated repairs or maintenance. They give regulators an opportunity to plan for necessary oversight activities. In addition, they prevent a regulated facility from circumventing the rules through performing renovations in a piecemeal fashion (since all renovations covered by the annual notification are regulated since they are anticipated to add up to threshold amounts).

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: What does EPA want designees to do with or about annual notifications?

A: Utilize them as they see fit for planning, inspection and follow-up purposes.

Q: Is the delegated agency expected to "punish" facilities for not submitting annual notifications or for submitting improper annual notifications?

A: The delegated agency is actually expected to take appropriate action for situations for which the agency can establish that the regulated facility consciously tried to circumvent Asbestos NESHAP requirements by performing renovations in a piecemeal fashion in order to keep renovations below threshold amounts.

Q: Is another notification required if a removal covered by an annual notification involves reportable amounts of regulated ACM?

A: Yes. An amended notification or a new notification with the exact dates of the renovation should be submitted.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: How can a delegated agency identify annual non-notifiers who should notify if no notification of any type had been received previously?

A: Under most circumstances, the delegated agency would not be able to identify such non-notifiers. In some situations, however, the agency might have knowledge of renovations that will be ongoing in the upcoming year (for example, learning of such in the press or other media!

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: What is the relationship of an emergency renovation operation to a nonscheduled renovation operation?

A: An emergency renovation results from a sudden, unplanned, unexpected event (see discussion in #22 above). A nonscheduled renovation operation is anticipated to be necessary in the future due to anticipated or planned repair, upgrading, or maintenance.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Category I Material

Q: When is the removal of Category I floor tile regulated?

A: The Asbestos NESHAP requirements are applicable to renovations involving the removal of specified threshold amounts (260 linear feet, 160 square feet, and 35 cubic feet) of regulated asbestos-containing material (RACM). Category I non-friable asbestos-containing materials (packings, gaskets, resilient floor coverings and mastic, and asphaltic roofing materials) are considered RACM only when: (1) they will be or have been subjected to sanding, grinding, cutting, or abrading; (2) they are in poor condition and hence friable; or (3) they are located in a structure to be demolished by burning.

Under most common removal scenarios identified in EPA's *A Guide to Normal Demolition Practices Under the Asbestos NESHAP*, resilient floor tile should not be rendered friable if it was in good condition before the renovation. Some removal techniques which would not render the tile to be friable include the use of solvents or water in conjunction with long-handled scrapers or gas or electrically-powered mechanical chisels, dry ice, and infrared machines. **However**, if the tiles are extensively damaged prior to removal, the aforementioned removal techniques **could** render the floor tile to be RACM. Furthermore, any removal method that will cut, grind, sand or abrade the tile as described in 40 C.F.R. Part 61, Section 61.141 will cause the tile to become RACM. Also, pulling the tile off of the floor, if still attached to the subfloor by mastic, may tear the vinyl tile making it become RACM.

In summary, the applicability of the Asbestos NESHAP to the removal of Category I non-friable asbestos-containing materials (ACMs) depends on the following: (1) the condition of the material at the time of renovation, (2) the nature of the operation to which the material will be subjected, and (3) the amount of ACM involved. The requirements contained in the Asbestos NESHAP are only applicable to renovations involving threshold amounts of vinyl asbestos tile (VAT) when such VAT is considered to be RACM or considered to be rendered RACM by the removal procedures being employed. An inspector would have to be on-site to examine the debris to determine if the method used to remove the floor tile rendered it to be RACM. This must be determined on a **case-by-case basis!**

(October 24-26, 2005; Gatlinburg, Tennessee)

Q: Are the notification requirements contained in 40 C.F.R. Section 61.145(b) applicable to the removal of Category I non-friable asbestos-containing material (ACM) that is in good condition and that has not become regulated asbestos-containing material (RACM).

A: The notification requirements contained in 40 C.F.R. Section 61.145(b) are applicable to renovations involving the specified threshold amounts of RACM. Category I non-friable asbestos-containing materials (packings, gaskets, resilient floor coverings and mastic, and asphaltic roofing materials) are considered RACM only when: (1) they will be or have been subjected to sanding, grinding, cutting, or abrading; (2) they are in poor condition and hence friable; or (3) they are located in a structure to be demolished by burning.

Under most common removal scenarios identified in EPA's *A Guide to Normal Demolition Practices Under the Asbestos NESHAP*, resilient floor tile should not be rendered friable if it was in good condition before the renovation. Some removal techniques which would not render the tile to be friable include the use of solvents or water in conjunction with long-handled scrapers or gas- or electrically-powered mechanical chisels, dry ice, and infrared machines. If the tiles are extensively damaged prior to removal, the aforementioned removal techniques could render the floor tile to be RACM. Furthermore, any removal method that will cut, grind, sand or abrade the tile as described in 40 C.F.R. § 61.141 will cause the tile to become RACM. Also, pulling the VAT off of the floor, if still attached to the subfloor by mastic, may tear VAT making it become RACM.

In summary, the applicability of the Asbestos NESHAP to the removal of Category I non-friable asbestos-containing materials (ACMs) depends on the following: (1) the condition of the material at the time of renovation, (2) the nature of the operation to which the material will be subjected, and (3) the amount of ACM involved. The notification requirements contained in 40 C.F.R. § 61.145(b) are only applicable to renovations involving threshold amounts of VAT when such VAT is considered to be RACM, or considered to be friable, or considered to be rendered RACM by the removal procedures being employed. An inspector would have to be on-site to examine the debris to determine if the method used to remove the floor tile rendered it friable.

EPA realizes that without being provided with a notification, an inspector is often unable to observe the floor tile removal. Thus, the inspector has no opportunity to determine the condition of the tile and to confirm that the floor tile removal is being handled properly. A state or local regulatory agency could adopt notification regulations with more stringent requirements than the Asbestos NESHAP. Such regulations could require notification for every VAT removal in order to provide inspectors with an opportunity to inspect each removal.

A statement published in the preamble to the November 20, 1990, Asbestos NESHAP Revision published at 55 Federal Register 48406 states, "This policy determination stated in essence that any ACM, whether originally friable or non-friable that become (or are likely to become) crumbled, pulverized, or reduced to powder are covered by the NESHAP." This statement should not be used as a basis for regulators to regulate resilient floor tile removals. Further down on the final column of page 48408, the following statement is made:

A statement in the determination to the effect that some non-friable materials may \ remain non-friable throughout demolition and renovation is evidence that this determination was intended to be narrowly interpreted and not used to require removal of all non-friable materials. For example, materials such as resilient floor covering, asphalt roofing products, packings, and gaskets would rarely, if ever, need to be removed because, even when broken or damaged, they would not release significant amounts of asbestos fibers.

This statement demonstrates that EPA did not intend to regulate the removal of non-friable VAT under the Asbestos NESHAP. EPA believes that the aforementioned removal techniques do not render the VAT "likely to become" friable

(December 6-8, 2004)

Category II Material

Q: Does the Asbestos NESHAP allow for the implosion of a building that has Category II asbestos-containing paint on the exterior of the building?

A: If you implode the building, the asbestos-containing paint does turn to dust hence becoming RACM. Quite a disposal mess would likely be created. An encapsulate could be applied to the paint surface to allow for the removal of the paint before the implosion. This would avoid all of the debris following the implosion being required to be treated as RACM.

(October 24-26, 2005; Gatlinburg, Tennessee)

Convert ACM into non-ACM

Q: Are any facilities approved pursuant to 40 C.F.R. § 61.155 in Region 4 for converting ACM into non-ACM?

A: Currently, no process approved under 40 C.F.R. § 61.155 is operating in the Region. If a facility could prove its process does convert ACM into non-ACM, it would have to apply pursuant to § 61.155 with a demonstration submission before EPA would allow it. Such approvals are not quick. It took EPA almost a year of review time to approve the two processes approved for ACM conversion in the country, plus whatever time it took the facilities to gather data before submitting it to EPA.

(December 6-8, 2004)

Demolitions

Q: Is the temporary removal of load-supporting structural members to add or remove pieces of equipment considered a demolition or a renovation?

A: EPA considers the temporary removal of load-supporting structural members to add or remove pieces of equipment to be renovations. Even though these removals involve the wrecking or removal of a load-supporting structural member, the intent is not to destroy the facility or facility member but to alter it or re-support it. As renovations, these removals are only subject to the notification and work practice provisions of the Asbestos NESHAP if threshold amounts of asbestos are involved in these renovations.

Examples of activities that would be considered renovations even though the removals involve the removal or alteration of a load-supporting structural member include the following: the cutting of an outside load-bearing wall for installation of a new door; the replacement of a rotted support column; the cutting of a hole in a structural member to allow for a passage of a pipe; and the cutting of metal cross beams or vertical load-supporting structural members to allow the removal and replacement of equipment.

For removals where the intent is to destroy the facility or facility member, these removals would be considered demolitions. All demolitions are subject to the ten-day notification requirements regardless of the amount of asbestos involved.

(December 6-8, 2004)

Q: The regulations for demolition notification do not explicitly state that the regulated asbestos-containing material must be removed prior to submitting the demolition notice, only that the RACM be removed prior to demolition. Does EPA believe that the intent of the Asbestos NESHAP implies all RACM be removed at least 10 days prior to the start of demolition, thereby allowing sufficient time for the implementing agency to make a fair assessment?

A: No, this is not EPA's intent. If threshold quantities are to be removed, the owner/operator must submit the renovation notification and then wait 10 days before beginning the removal. This gives the regulatory agency time to inspect to ensure that all of the RACM has been identified. If demolition is to occur following the renovation, dates of the removal and dates of the demolition should be specified on the notification. If threshold amounts are not met, the NESHAP still requires 10-day notification in advance of the demolition. This allows sufficient time for the regulator agency, to ensure that threshold amounts of ACM are not involved. If the regulatory agency finds this confusing, they may wish to require two separate notifications - one for the renovation and one for the demolition.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: A site is discovered with asbestos-containing debris in the soil. The site used to be a V.A. hospital until it was demolished some time in the 70s. Does the Asbestos NESHAP require the removal of the debris?

A: The statute of limitations for violations of the Asbestos NESHAP is five years. Since the demolition was done more than five years ago, it will be difficult to require removal of the debris pursuant to the NESHAP. The soil itself is not a regulated facility. Hopefully, the clean-up of the debris can be required under some state or local solid waste rules (but not the Asbestos NESHAP).

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: A city owns clean concrete slabs that used to be DOT office buildings demolished some time ago. The city is now going to remove the slabs. How does the Asbestos NESHAP view the removal of these slabs?

A: Bear in mind the statute of limitations for violations of the Asbestos NESHAP discussed in #55 above. If the building was properly demolished pursuant to Asbestos NESHAP requirements, the city or the owner/operator would have conducted a thorough inspection of the concrete slabs prior to the demolition of the building. Since the slabs are part of the old demolition project, they should be treated as such. The slabs are a part of the original demolition project, and they should have been taken to an approved asbestos landfill (if RACM). If not RACM, the slabs may be disposed of in accordance with state or local solid waste rules. Regardless, the slabs should have been inspected.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: Which of the following, if any, would be considered a facility under the NESHAP and thus require an asbestos inspection prior to activities associated with disturbance or demolition?

- roadside billboards (associated with businesses)
- bridges (sandblasted for paint removal)
- utility transmission towers/lines
- roadways and paved parking lots
- fences / gates / similar structures

- agricultural grain storage bins / tanks, etc.

A: Any of the above items could be subject to the NESHAP. Some of the items could be considered to be commercial or public structures. “Structure” is not defined in the NESHAP. However, “structural member” is defined as “any load-supporting member of a facility, such as beams and load-supporting walls; or any non-load-supporting member, such as ceilings and non-load-supporting walls.” Many of the above items could be considered structures since they have load-bearing members. Other items above could be considered to be facility components. A “facility component” is defined as “any part of a facility including equipment.” Although these items would not usually contain asbestos, a “facility component” includes any item that potentially contains or is covered with or coated with asbestos. A “facility component” should be located on contiguous, attached or adjacent facility property. Billboards and bridges could be considered to be structures. Utility towers and lines could be structures or facility components. Roadways, parking lots, and fences could be considered to be facility components.

For example, a roadway could be a facility component if the roadway happens to go through a military base. A case could be made to say the roadway is a component of the military base. The focus should be on how many of the items listed above actually contain asbestos on or in them and the quantity of asbestos concerned. Are there no larger structures that impact a large number of people or are located in an environmentally sensitive area that need to be inspected than a fence or a gate?

Agricultural buildings used for commercial purposes, such as a dairy barn or crop storage structure, are subject to the NESHAP. However, the rule does not apply to sheds used to store equipment for a homeowner’s garden or to temporary farm stands that sell fresh produce.

These opinions are based upon the very limited information provided and do not represent an official EPA applicability determination about any specific situation. It is always better to present a specific case scenario and ask the EPA to respond to it than to ask general questions.

(November 3-5, 2003; Savannah, Georgia)

Billboards, Piers, Bridges, Utility Towers, Pools, Water Basins, Agricultural Bins and Tanks

Q: Are billboards and piers considered to be facilities under the Asbestos NESHAP thus requiring inspections and notifications prior to renovation or demolition?

A: The Asbestos NESHAP defines “facility” as “any institutional, commercial, public, industrial, or residential structure, installation, or building (including any structure, installation, or building containing condominiums or individual dwelling units operated as a residential cooperative, but excluding residential buildings having four or fewer dwelling units); any ship; and any active or inactive waste disposal site.” Some items could be considered to be commercial or public structures. Although “structure” is not defined in the Asbestos NESHAP, “structural member” is defined as “any load-supporting member of a facility, such as beams and load-supporting walls; or any non-load-supporting member, such as ceilings and non-load-supporting walls.” Billboards and piers could be considered to be structures. Other items that could be considered to be structures include bridges, utility towers and lines, pools, water basins, and agricultural bins and tanks.

Some items could be regulated under the Asbestos NESHAP as facility components. A “facility component” is defined as “any part of a facility including equipment.” A “facility component” includes any item that potentially contains or is covered with or coated with asbestos. A “facility component” should be located on contiguous, attached or adjacent facility property. Items such as roadways, parking lots, and fences could be considered to be facility components.

Many of the aforementioned items would not usually contain asbestos or may not contain RACM meeting threshold amounts for renovation and pre-demolition removals. Notification would be required for the demolition of the aforementioned items.

(December 6-8, 2004)

Swimming Pool, Floating Docks, Tennis Courts, Boilers, Indoor Liquid Tanks, Water Chillers, Fishing Piers, Sea Walls, Gasoline Canopies and Water Towers

Q: What types of structures constitute a demolition operation under the Asbestos NESHAP? Would the removal of a swimming pool be considered a demolition or a renovation? Floating docks? Tennis courts? Large equipment such as boilers, indoor liquid tanks, or water chillers? Fishing piers and sea walls? Gasoline canopies and water towers?

A: "Load-supporting structural member" refers to structural components such as beams and load-supporting walls. If such members are removed with the intent of demolishing a regulated structure, their removal would constitute a demolition.

Equipment that is considered to be a part of a facility is a facility component: In the given examples, the removal of load-supporting structural members from a fishing pier or a sea wall would be considered to be a demolition. The other examples could be considered to be facility components. Facility components are parts of a facility that may or may not have load-bearing members. Pipelines are an example of a facility component that has no load bearing members. Facility components that have load-bearing members such as gasoline canopies and water towers may be renovated or demolished, depending on whether or not a structural support member is being removed. For example, transite may be removed from the outside of a water tower which would qualify as a renovation. If the water tower were being taken down, that operation would be a demolition. See EPA's August 21, 2006, letter to Mr. Michael Shroup of the South Carolina Department of Health and Environmental Control.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Disposal

Q: If company B takes asbestos-containing waste material (ACWM) from different sources including company A before compacting the combined ACWM from the various sources and sending the waste to company C for disposal, how should waste shipment records (WSRs) be handled? Could company B consider itself the waste generator of the combined ACWM shipment and send the combined ACWM for disposal with one WSR for the combined waste?

A: For purposes of compliance with the Asbestos NESHAP, all original WSRs from company A and from the other sources giving waste to company B should accompany the combined waste shipment to the final disposal site. For example, if three separate ACWM shipments are combined before they are transported to the disposal site, the separate WSRs for each of the three shipments must accompany the combined shipment until final disposal. Disposal site operators should verify amounts of disposed ACWM to the best of their ability although EPA realizes that verifying waste volumes may be difficult due to the volume reduction caused by the compacting of the ACWM. Even though one shipping paper for the combined waste may be satisfactory for Department of Transportation (DOT) regulatory purposes, such is not true for the purpose of complying with the Asbestos NESHAP.

(December 6-8, 2004)

Q: In order to satisfy the requirements of 40 C.F.R. Section 61.154(f), can a landfill that accepts asbestos-containing waste material (ACWM) designate the entire landfill as the location that ACWM was deposited?

A: No. The location and quantity of each waste shipment should be documented. Ideally, each shipment should be able to be located in the future if necessary.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: When you are inspecting a landfill, how can you tell if asbestos-containing materials (awaiting final disposal at the landfill -not yet deposited in a cell) originated from a regulated facility? How can you tell if amounts were from jobs that met the threshold?

A: If materials came from jobs not regulated by the Asbestos NESHAP, you can't always determine these things. The inspector could, perhaps, gain some information from examining weigh tickets or from requesting asbestos waste shipping papers. Several states and locals

have solid waste rules that are more stringent than the NESHAP that apply to asbestos-containing materials.

Q: Is it a violation of the Asbestos NESHAP if a landfill renders non-friable asbestos-containing material friable at the landfill?

A: If non-friable asbestos-containing material is removed during a renovation of a regulated facility, it is expected to stay that way until it reaches its final state of disposal.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: Does the Asbestos NESHAP allow landfill operators to intentionally run over ACWM with heavy equipment thus creating visible emissions and dispersing asbestos fibers into the air?

A: The ACWM is supposed to reach its disposal cell in the same condition as that in which it reached the landfill (i.e., contained, wrapped, wet, etc.). Therefore, this should not occur. An inspector would need to be on-site at the landfill to observe this occurring as it would be difficult to document such an occurrence after the fact.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: A renovation site proposes to ship their regulated asbestos waste to China for disposal. Is this allowable under the Asbestos NESHAP?

A: 40 C.F.R. 61.150(b) requires all ACWM to be deposited as soon as practical at a waste disposal site operated in accordance with 40 C.F.R. 61.154 if it is not converted into nonasbestos (asbestos-free) material. The only caveat to this requirement is that it does not apply to Category I nonfriable ACM that is not RACM. Since the disposal facility in China is probably not operated in accordance with 61.154, only Category I nonfriable ACM that is not RACM may be disposed of there.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: Has the EPA made a determination on whether or not waste debris from a NESHAP subject structure where the presence and quantity of RACM is unknown (including fire damaged structures) needs to be disposed of in an approved landfill?

A: EPA has not made a formal applicability determination on this issue. Applicability determinations are made only when requested by EPA Headquarters on a case-by-case basis. EPA is still of the opinion that since the quantity of RACM is unknown, the debris should be disposed of in an approved landfill. Disposal of such debris in an approved landfill will provide the maximum protection of public health and safety. While testing of the ash may be sufficient to establish the presence of asbestos, the converse may not be true since testing of the ash may not be sufficient to determine the lack of the presence of asbestos. Factors such as wind directions and rising heat currents may disperse the asbestos fibers released during the burning.

(November 3-5, 2003; Savannah, Georgia)

Fire and Burning

Q: Is there evidence that ACM present in a fire, such as asbestos cement material, reduces the asbestos content percentage when analyzed by PLM?

A: EPA interprets this question to ask if during a fire, would asbestos fibers be reduced as a percentage when analyzed by PLM.? Certain types of asbestos when heated to a very high temperature for a period of time will degrade. Unless the fire gets hot enough to degrade the fibers, the fire would not reduce the percentage of asbestos fibers that would have been present before the fire. Research shows that chrysotile will degrade around 800 degrees Celsius (about 1500 degrees F) to forsterite which is not an asbestos material.

(October 24-26, 2005; Gatlinburg, Tennessee)

Q: A person leases land owned by a county. A dilapidated house is located on this land. The county tells the person that he can do whatever he wants with this house. The person decides to burn down the house. Was the burning of this house subject to the Asbestos NESHAP?

A: If a house qualifies for the residential exemption as discussed above, the Asbestos NESHAP does not prohibit the homeowner from burning down their own house.

Q: When is the burning of a house subject to the Asbestos NESHAP?

A: If a house is burned for institutional purposes (i.e., the house is burned for fire training purposes by the Fire Department), all asbestos-containing materials must be removed from the house prior to burning in accordance with the Asbestos NESHAP.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: A house (not covered by the residential exemption) is destroyed by accidental fire or by a natural catastrophe. Is the disposal of the asbestos-containing debris subject to the Asbestos NESHAP?

A: No. The debris was not generated by renovation or demolition activities.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: Could EPA offer any explicit and specific guidance on procedures for dealing with facilities that have been destroyed by fires, explosions, natural disasters, etc.?

A: EPA currently uses the *Guidelines For Catastrophic Emergency Situations Involving Asbestos* (EPA 340/I-92-010, February 1992). The Agency is currently in the process of updating this guidance.

(November 3-5, 2003; Savannah, Georgia)

Fort Worth Method

Q: This is a quote from the Environmental Information Association's website. What's EPA's current take on the acceptability of this method?

A: The "Fort Worth Method" of asbestos abatement allows for the demolition of a structure with the asbestos-containing material still in place! In order to assure that asbestos does not become airborne during demolition, the method specifies the use of a fire hose with a variable rate 11-G (11 gpm) or 30-G (30 gpm) fire hose to adequately wet asbestos-containing material in the building. While water is being applied, the structure is bulldozed or collapsed. After the structure is demolished, a "NESHAP trained individual" will sift through the waste material to determine what parts of the demolition debris must be disposed of as "asbestos-contaminated waste". The method goes one step further, and specifies that "if RACM is isolated on the structure, the contractor will be advised to demolish the other areas of the structure first, taking care not to disturb the RACM, and to load the demolition debris separately. Then the part of the structure containing the RACM will be demolished and that debris will be disposed of as asbestos-containing material",

The "Fort Worth Method" is no longer under consideration. In that method, all materials were left in place and wetted prior to demolition. What was actually carried out at the Fort Chaffee Redevelopment Authority was side-by-side demolitions of two identical structures (military barracks) at Fort Chaffee, Arkansas this past spring. On one structure, the Alternative Asbestos Control Method (AACM) was used. The AACM uses amended water before and during the demolition. Some specific ACM was removed prior to demolition (pipe wrapping). Candidate structures are limited in height, and all debris is disposed of as ACWM. No water leaves the site, and two inches of soil are removed after the demolition and disposed of as ACWM. The standard NESHAP demolition process was used for the demolition of the other structure. The AACM is different in many respects from what the City of Fort Worth proposed under the XL Program several years ago. The website for the AACM demolitions is <http://epa.gov/region6/6xa/asbestos.htm>

A multitude of samples were taken during the demolitions. The final report on the findings will be ready to go for internal review next week. After that, it will be reviewed by the members of the Quality Assurance Project Plan Technical Development Team. After that, it will go to formal peer review and public comment. The final report should be completed by the spring of 2007. EPA will then use the data from this report along with other information as they desire to determine if the Asbestos NESHAP should be revised.

(November 13-15, 2006; West Palm Beach, Florida)

General Guidance

Q: What is the status of the Green (Managing Asbestos in Place) and the Purple (Guidance for Controlling Asbestos-Containing Materials in Buildings) book revisions? Who revised them?

A: EPA (Office of Prevention, Pesticides & Toxic Substances) is in the process of revising updating these two books. They should be out sometime early next year.

Labeling

Q: At what point in time (during an abatement job) is it reasonable to expect OSHA and generator labels to be on asbestos waste containers?

A: These labels must be applied for asbestos-containing waste material to be transported off of the facility site. Once the asbestos is transported off of the facility site, the lack of such labeling constitutes a violation of 61.150 requirements.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: Discuss the option of labeling as mentioned in 40 C.F.R. Section 61.150(a)(1)(v) versus the option of discharging no visible emissions to the outside air as is allowed in 40 C.F.R. Section 61.150(a). How should the latter option be enforced when field inspectors are not present throughout the duration of an abatement job?

A: An owner or operator subject to the Asbestos NESHAP may choose either to discharge no visible emissions to the outside air during the collection, processing, packaging, or transporting of any asbestos-containing waste material or may choose to comply with one of the emission control and waste treatment methods specified in 61.150(a)(1) through (4). 61.150(a)(1) includes provisions for wetting the waste, sealing it in leak-tight containers or wrapping, and labeling the waste. It should be specified on the notification whether the option of wetting or no visible emissions is chosen for the abatement. If no visible emissions is chosen, the inspector will not be able to prove a violation of the NESHAP unless visible emissions are observed.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Mining or Excavation

Q: What is going on with excavations, especially any involving W.R. Grace sites?

A: An emergency response removal is currently ongoing at Zonolite Company / W.R. Grace Wilder Plant located at 112 North Street in Wilder, Kentucky. Contaminated soil from this vermiculite exfoliating plant is being removed. The NESHAP does not apply when asbestos is a waste product of mining or excavation (example: Libby, Montana - asbestos was a tailing of the vermiculite mining where W.R. Grace was not mining commercial asbestos but vermiculite).

(November 3-5, 2003; Savannah, Georgia)

Mobile Homes and RV's

The following questions relate to trailer parks. Since this appears to be an area in which circumvention of the regulations is quite possible, EPA Region 4 will be requesting a formal applicability determination from Headquarters to address these questions in greater detail. The preliminary answers herein have been discussed with EPA Headquarters. SESAC attendees will be asked to provide additional specific scenarios which they would like to be addressed in the applicability determination.

Q: Would 40 C.F.R. Part 61, Subpart M, apply if the trailer park is purchased by a developer, and a trailer transport company purchases or otherwise takes control of a group of individual trailers from the original trailer owners, and the trailer transport company or other parties later dismantle the trailer for scrap? The trailer park developer's intent is to eliminate all of the trailer homes within the park.

Q: Would 40 C.F.R. Part 61, Subpart M, apply if the trailer park is purchased by a developer, and a trailer transport company purchases or otherwise takes control of a group of individual trailers from the original trailer owners, and the trailers are later resold by the trailer transport company to another party? All transactions are made by the original trailer owner and the trailer transport company. The trailer park developer's intent is to eliminate all of the trailer homes within the park.

Q: Would 40 C.F.R. Part 61, Subpart M, apply if the trailer park is purchased by a developer, and a metal scavenger purchases or otherwise takes control of a group of individual trailers for the purpose of removing aluminum components for recycling? The aluminum scavenging includes the removal of load bearing structures (car ports). All transactions are made by the original trailer owner and the metal scavenger. The trailer park developer's intent is to eliminate all of the trailer homes within the park.

A: In all three scenarios provided, a **group** of individual trailers is taken control over from the same project (the future development of the trailer park) at the same site. Therefore, each of these groups of trailers referred to in the above scenarios are considered to be an installation. In all three scenarios provided, the Asbestos NESHAP applies since each group of trailers is considered to be a residential installation. If only one, single trailer was involved in the transfer of control or ownership, the residential exemption would be applicable to its demolition or renovation, and the Asbestos NESHAP would not apply. The Asbestos NESHAP, when applicable, applies to both the owner and the operator.

(November 13-15, 2006; West Palm Beach, Florida)

Notifications

Q: How does EPA feel regarding the submittal of notifications using fax or e-mail (i.e., must notifications be submitted in writing)?

A: The Asbestos NESHAP does not have provisions allowing for these electronic means of notification submittal. If a state or local agency chooses to accept these notifications, they should be followed up with paper copies (fed-ex overnight) the following day.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Pipes

Q: Is a stand-alone (i.e., not connected to a facility) municipal storm water pipe, regulated as a facility component or as a facility in and of itself? If this pipe is ACM, how does the Asbestos NESHAP view the crushing of this pipe? Who is the owner/operator of a stand-alone storm water system? Is the removal of old storm water pipes considered to be a demolition or a renovation?

A: A stand-alone storm water pipe would be considered to be a facility component owned by the municipality. The operator would be the entity performing the removal or the crushing of the pipe. The removal of the pipe would be considered to be a renovation. The crushing of asbestos-cement pipe, Category II non-friable ACM, would cause the material to become regulated ACM subject to 40 C.F.R. Sections 61.145 and 61.150 if thresholds are met. The backfilling and burial of crushed pipe in place would cause these locations to be considered to be active waste disposal sites subject to 40 C.F.R. Section 61.154. If no additional asbestos waste is buried at that location within a year, the site would become an inactive waste disposal site subject to 40 C.F.R. Sections 61.151(e) and 61.154(h). If the pipe is not crumbled, pulverized, or reduced to powder during its removal, such removal would not be subject to the Asbestos NESHAP. Pumping grout into buried lines in place would not necessarily cause the pipe to become RACM. However, if the condition of the pipe is such (old, brittle, crumbly) that such filling with grout will render the pipe RACM, applicable requirements of the Asbestos NESHAP, as previously discussed, will apply.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Recycling

Q: Can asphalt shingles be recycled by grinding the shingles and placing the material in a hot mix to make roads and parking lots?

A: See answer to next question.

Q: Can the debris from a demolished building be sent to a recycling center (where the debris will be subject to sanding, grinding, and abrading) if none of the building material contains greater than 1% asbestos or if the building is an exempt residential building or is a building below threshold amounts?

A: If the material is not subject to the Asbestos NESHAP, the NESHAP allows for the recycling of such material. EPA would not recommend that any asbestos containing material be subject to sanding, grinding, or abrading without proper precautions to protect human health.

Although the Asbestos NESHAP would not apply, the OSHA Construction Asbestos Standard, 29 C.F.R. 1926.1101, contains two work practice requirements and three prohibitions which must be observed in the case of work activities involving installed construction materials that do not contain >1% asbestos. Those, requirements and prohibitions applicable to all materials containing any amount of asbestos, are as follows:

- 29 CFR 1926.1101(g)(l)(ii), which requires: wet methods, or wetting agents, to control employee exposures during asbestos handling, mixing, removal, cutting, application, and cleanup, except where employers demonstrate that the use of wet methods is infeasible due to, for example, the creation of electrical hazards, equipment malfunction, and, in roofing, except as provided in paragraph (g)(8)(ii) of this section;
- 29 CFR 1926.1101(g)(l)(iii), which requires: prompt clean-up and disposal of wastes and debris contaminated with asbestos in leak-tight containers except in roofing operations, where the procedures specified, in paragraph (g)(8)(ii) of this section apply;
- 29 CFR 1926.1101(g)(3)(i), which prohibits: high-speed abrasive disc saws that are not equipped with point-of-cut ventilator or enclosures with HEPA filtered exhaust air;
- 29 CFR 1926.1101(g)(3)(ii), which prohibits: compressed air used to remove asbestos, or materials containing asbestos, unless the compressed air is used in conjunction with an enclosed ventilation system designed to capture the dust cloud created by the

compressed air; and 29 CFR 1926.1101(g)(3)(iv), which prohibits: employee rotation as a means of reducing employee exposure to asbestos.

There are also some other provisions that apply to work activities involving installed construction materials even where the material does not contain >1% asbestos. However, if neither asbestos PEL is exceeded, only the following few provisions apply:

- 29 CFR 1926.1101(f)(2)(i), the provision for establishing that neither asbestos PEL is exceeded: Each employer who has a workplace or work operation covered by this standard shall ensure that a "competent person" conducts an exposure assessment immediately before or at the initiation of the operation to ascertain expected exposures during that operation or workplace. The assessment must be completed in time to comply with requirements which are triggered by exposure data or the lack of a, "negative exposure assessment," and to provide information necessary to assure that all control systems planned are appropriate for that operation and will work properly;
- 29 CFR 1926.1101(f)(6)(i), a provision covering the observation of monitoring;
- The employer shall provide affected employees and their designated representatives an opportunity to observe any monitoring of employee exposure to asbestos conducted in accordance with this section;
- 29 CFR 1926.1101(f)(5)(i), a provision covering employee notification of monitoring results: The employer shall notify affected employees of the monitoring results that represent that employee's exposure as soon as possible following receipt of monitoring results;
- 29 CFR 1926.1101(f)(5)(ii), another provision covering employee notification of monitoring results: The employer shall notify affected employees of the results of monitoring representing the employee's exposure in writing either individually or by posting at a centrally located place that is accessible to affected employees; and
- 29 CFR 1926.1101(n)(2)(i)-(iii), a set of provisions covering recordkeeping for 1 measurements of exposures to airborne asbestos.

In addition, OSHA requires employee exposure monitoring when work activities involve asbestos even where the material does not contain >1% asbestos to ensure OSHA PELs are not exceeded.

If a demolition is performed with asbestos in place of <1% or less than threshold quantities or >1% but not RACM, OSHA still requires the aforementioned wet methods and the placement of waste in leak-tight containers.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: ACM mastic is located between pre-stress concrete panels. The owner wants to re-use these panels following their removal to stabilize ponds/lagoons. Does the Asbestos NESHAP allow the owner to grind these panels for re-use?

A: If these panels were removed from a regulated facility in a non-friable manner, it is expected that they be maintained in such state through their final disposal. The creation of threshold amounts of RACM, through grinding, would require such RACM to be disposed of in accordance with the NESHAP. The re-use described would thus constitute alternative disposal requiring EPA approval. OSHA likely has more stringent requirements applicable to this situation (see #34 above).

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Regulatory Guidance

Q: What updates to regulatory guidance are in the works?

A: The purple book, Guidance for Controlling Asbestos-Containing Materials in Buildings is in final review after its recent update. It may be available first on line and then in printed form by the early part of next year. The book The ABCs of Asbestos in Schools has been updated. The Spanish version is now on EPA's asbestos website. The Catastrophic Guide may be updated as early as the spring of 2005.

(December 6-8, 2004)

Residential Exemption

Q: Do the regulatory requirements contained in the Asbestos NESHAP apply to the renovation of a house for the purpose of converting the house into a commercial establishment?

A: A single, residential house containing four or fewer dwelling units is not a regulated “facility” under the Asbestos NESHAP. Since it is not a regulated facility, the house is exempt from the Asbestos NESHAP requirements. It does not matter if the house will be used for commercial purposes at some time in the future. The residential exemption does not apply, however, if the house was ever used for commercial purposes in the past. Once the house is utilized for commercial purposes, the residential exemption is lost forever. In these instances where the residential exemption does not apply, the requirements of the Asbestos NESHAP are applicable.

The residential building exemption would not apply when multiple (more than one) small, residential buildings on the same site are renovated or demolished by the same owner or operator as a part of the same project (example: an urban renewal project in which two or more houses on the same block are to be demolished). The exemption also would not apply when a single, residential building is demolished or renovated as a part of a larger project that includes the renovation or demolition of a regulated facility or regulated facilities (nonresidential building(s) or residential building(s) having more than four dwelling units in a building). In these instances, the requirements of the Asbestos NESHAP are applicable.

(December 6-8, 2004)

Q: Five houses are owned by the same owner and are located side-by-side. The owner chooses to renovate only one of the houses. Does the residential exemption apply?

A: Since the owner is renovating only one of the houses, this is not an installation. Assuming that the house has four or fewer units under one roof, the residential exemption applies. Since the five houses are located on the same site, the exemption would not apply should the owner choose to renovate more than one house as a part of the same project. The owner may not circumvent the NESHAP regulations by performing such a job involving more than one house “piecemeal” simply to avoid complying with the NESHAP.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: An apartment or condominium building has more than four units under one roof. The owner of one of the units renovates his unit. Does the residential exemption apply?

A: Since the building has more than four dwelling units under; one roof, the residential exemption does not apply. Although the renovation may not involve threshold amounts of asbestos, the Asbestos NESHAP would, at a minimum, require that a thorough inspection be performed. Moreover, the condominium board or some other condominium management group should be monitoring the situation to determine if more than an inspection is necessary, i.e., the renovation is regulated due to threshold amounts having been met by other earlier renovations in the building. See EPA's April 19, 1990, memo entitled "Applicability of the Asbestos NESHAP Regulation to 'Condominiums, Cooperatives and Lofts'". This memo explains how EPA views the responsibility of the apartment or condominium board. The board should be asking their residents if they plan any renovations over the course of the next year and should be submitting annual notifications if threshold repairs are anticipated.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: A row or condominiums or townhomes (more than four) are horizontally attached. Each condominium is individually owned. Each owner also owns the land on which the condominium sits. One owner decides to renovate his condominium. Does the residential exemption apply?

A: A facility contains more than four dwelling units. Regardless of whether they are joined vertically 'or horizontally, the joining of more than four dwelling units makes the residential complex a facility. The residential exemption does not apply here. Answer number 2) above is applicable.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: A homeowner decides to renovate his house which has four or fewer dwelling units. The house is part of a homeowners' association. Does the residential exemption apply?

A: Since only one house is being renovated and the house has four or fewer dwelling units, the residential exemption applies. If more than one house, on the same site is renovated as a part of the same project under the same owner **or** operator (for example, at the direction of the homeowners' association as the operator), the residential exemption is lost.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: Several houses are considered to be a part of a residential cooperative. One owner decides to renovate his house. Does the residential exemption apply?

A: If only one house is being renovated (it., it is not part of an installation), and the house contains four or fewer dwelling units, the residential exemption applies.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: One house on a military base is renovated (four or fewer dwelling units). Does the residential exemption apply?

A: Although it seems unrealistic that only one house is being renovated on the same site on the base as a part of the same project, until you get more than one house, same project, same site, same owner or operator, the residential exemption applies.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: If a homeowner owns two houses side-by-side (or on the same site), and he demolishes both houses to build a new house, does the residential exemption apply?

A: Since two houses on the same site (an installation) are being demolished as a part of the same project under the control of the same owner or operator, the residential exemption does not apply. A thorough inspection and notification would be required. Other requirements of the Asbestos NESHAP may also be applicable.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: Is the renovation or demolition of two duplexes located side-by-side (or on the same site) subject to the residential exemption?

A: Two residential buildings renovated or demolished as a part of the same project by the same owner or operator on the same site form an installation. The residential exemption does not apply; the Asbestos NESHAP does apply.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: Two houses located on the same site are being demolished by the same contractor. However, the demolitions are not part of the same project. Does the residential exemption apply?

A: Since the houses are not a part of the same project, the residential exemption applies. Two neighbors could each hire the same contractor (each neighbor doing their own thing), and the residential exemption still applies. It should be noted that EPA has not made a definitive determination on this point at the national level.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: A residential building with four or fewer dwelling units is being renovated for future use as a commercial structure. Does the residential exemption apply?

A: The residential exemption is not lost merely because a house will be used for commercial purposes in the future provided the house otherwise qualifies for the residential exemption. However, if the house was ever used for commercial purposes (i.e., as a business and not as a residence) at any time in the past, the residential exemption is forever lost (i.e., the Asbestos NESHAP applies).

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: When applying the Asbestos NESHAP to the demolition of multiple residences on the same "site", is a "site" a city block including all of the even and odd numbered houses on a street, or is a "site" the area which includes two parallel streets with houses back-to-back? Is there any situation where a "site" may be considered to be larger than a city block?

A: Either one can be considered to be a "site". A "site" may be considered to be equivalent to a city block or to a postal block.

There is one situation where a "site" may include houses that are farther apart than a city block. A highway expansion project which may cover quite a large area may be considered to be one "site". All of the houses on this "site" would be considered to be regulated under the Asbestos NESHAP even if they are not located on the same block.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: In a scenario where a city is demolishing one blight house per block on two contiguous blocks, and the demolitions are not part of a larger project nor are other demolitions planned for the sites, and no other demolitions have been performed in the past on the sites under the control of the city, are both or neither house demolitions regulated by the Asbestos NESHAP?

A: Two contiguous blocks are not considered to be a "site" (see #11 above). Therefore, the residential exemption applies to both houses. Note, however, that if the houses are considered to be a postal block, they may be considered to comprise a site.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: A city demolishes one house on a block with no plans for demolishing another house or any other type of building on the block. The same contractor is hired within the same year by the city to demolish another house on the same block under a different contract. Is the second demolition subject to the Asbestos NESHAP?

A: The regulatory agency must decide if the city made a conscious decision to split the job up, or to perform the job "piecemeal", in order to circumvent the regulations. If the regulatory agency believes that there is sufficient evidence to show that the second demolition is a part of the same project or to show that the city should have known about the second demolition when they performed the first demolition, one or both demolitions could be subject to the Asbestos NESHAP. Otherwise, one or both demolitions could qualify for the residential exemption.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: A house is or was being used as a residential rental property. Does the residential exemption apply?

A: If a house otherwise qualifies for the residential exemption, the exemption is not lost merely because the house was used as a rental property as long as the house was always used as a residence.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: Are outbuildings associated with a single-family home subject to the residential exemption (i.e., multi-vehicle garages, private bath houses, gazebos, boat houses, boat docks, horse stables, guard houses, and guest houses)?

A: If a building that is used as a residence (i.e., the guest house) is renovated or demolished in conjunction with the single-family home, they form an installation, and the Asbestos NESHAP applies. The other mentioned structures, if never used for commercial purposes, may be renovated or demolished in conjunction with the single-family home, and the residential exemption still applies.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: Houses are being demolished after a hurricane. A volunteer group is performing tile demolitions. Does the Asbestos NESHAP apply?

A: Applicability of either the Asbestos NESHAP or the residential exemption does not depend on whether or not volunteers perform the activities. If multiple houses on the same site are demolished as a part of the same project by the same owner or operator, the Asbestos NESHAP applies even if volunteers perform the demolitions. If volunteers perform demolitions that would otherwise qualify for the residential exemption, the residential exemption still applies. Note that no decision has been made regarding this issue at the EPA national level. Site specific factors may need to be considered.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: What is considered to be a project period for houses demolished after hurricane?

A: A FEMA grant period could be considered to be a project period. The period of a particular contract could be considered to be a project period. Remember, a project is under the control of the same owner **or** operator (but not necessarily both). For example, a city may have control or ownership of multiple houses on the same site but use multiple contractors. These houses could still be considered to be a part of the same project. The regulatory agency must decide what is reasonable for a project period. EPA has stated that a project period could be the time of the contract. More likely, it will be a budget or calendar determination, but it must be a reasonable period (not one selected to circumvent the NESHAP). The regulatory agency

must decide if a conscious decision was made to circumvent the Asbestos NESHAP requirements by establishing bogus or multiple project periods.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: One unit within a three unit building catches fire, damaging the unit. The other three units are undamaged. Twenty-five other buildings comprise the residential cooperative. The other twenty-five buildings are also not damaged. The owner of the damaged unit disturbs the asbestos ceiling. Does the residential exemption apply?

A: Since only one unit was renovated and that building had four or fewer "nits under one roof, the unit qualifies for the residential exemption. Since the building has four or fewer units, it is not a facility. Since only one of the twenty five buildings was damaged, there is no installation. Granted, it may be a residential type, commercial building as are 4 unit complexes and duplexes. However, the definition of facility only recognizes 5 or more dwelling units under one roof as a facility when applied to residential type, commercial buildings.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: Would a mobile home used (set up) as a temporary office on a construction site be subject to the NESHAP regulations? Would moving the mobile home be considered a demolition? What other activities could make it subject to the NESHAP regulations? Since the mobile home is not a permanent structure, would it ever be considered subject to the federal NESHAP regulations? What if the temporary office were a trailer designed as a mobile office (on wheels), would it be subject to the NESHAP regulations in the same manner as a mobile home used as a temporary office?

A: If a house or mobile home is an affected facility, moving of the house or mobile home from its foundation or from any load-supporting structural element is considered to be a demolition under Subpart M regardless of whether or not the mobile home is affixed to a foundation. The moving of a mobile home set up as a temporary office on a construction site would be considered a demolition under Subpart M since the mobile home is being used for commercial purposes. The applicability of Subpart M does not depend on whether the house is moved in tact or in sections. The reason a house is being moved is not a deciding factor on whether the asbestos NESHAP applies. For example, if the DOT were widening a road, the house(s) being moved would still need to be an affected facility in order for Subpart M to apply.

It also does not matter if the mobile home is on wheels or not for the purposes of Subpart M applicability. If the mobile home on wheels is used for commercial, industrial, or other purposes identifying it as a facility, the mobile home is subject to the NESHAP. Every time the

mobile home is moved, it would not be subject since there is no structural member to consider if the home is being kept on wheels. However, if the mobile home on wheels is renovated or demolished, it would be subject to Subpart M.

(November 3-5, 2003; Savannah, Georgia)

Q: What types of condominiums, cooperatives or lofts would be considered subject to the NESHAP?

A: If a residential building has four or fewer dwelling units, it is not a facility. If it has more than four units, it is a facility for NESHAP purposes. If you have a commercial building that has a residential loft, it is a facility. The whole building (loft and commercial part) is subject to the NESHAP.

(November 3-5, 2003; Savannah, Georgia)

Q: A house was torn down fifteen years ago. Asbestos-containing debris from the house is discovered on the site. Is the removal of this debris subject to the Asbestos NESHAP?

A: We do not have enough information here to know if the house qualified for the residential exemption when it was originally demolished. Provided that it did not qualify for the exemption, the statute of limitations for the Asbestos NESHAP is five years. Therefore, it would be difficult to regulate the debris removal fifteen years after the fact. The debris removal, in and of itself, does not qualify as a regulated renovation or demolition.

Sampling and Analysis

Q: Would a building or structure that was suspected of being contaminated with asbestos and showing a greater than 1% result for wipe samples but with no visible emissions be regulated under NESHAP?

A: If the building or structure were to be demolished or renovated, it may be subject to the Asbestos NESHAP. Bulk samples would need to be taken since wipe samples are not recognized by the Asbestos NESHAP. In order to determine which Asbestos NESHAP requirements would be applicable, amounts of regulated asbestos-containing material (RACM) that would be involved in the renovation or demolition would need to be determined.

(November 13-15, 2006; West Palm Beach, Florida)

Q: If a contractor performs polarized light microscopy (PLM) with point counting and determines that no ACM is present in a removal and a regulatory agency finds ACM utilizing transmission electron microscopy (TEM), can the regulatory agency allege violations of the Asbestos NESHAP?

A: The Asbestos NESHAP states that polarized light microscopy (PLM) or PLM with point counting is to be utilized to analyze the asbestos content of a sample. An owner or operator of a demolition or renovation activity is not required by the Asbestos NESHAP to collect samples. However, the owner or operator is required pursuant to 40 C.F.R. Part 61, Section 61.145(a) to "... thoroughly inspect the affected facility or part of the facility where the demolition or renovation operation will occur for the presence of asbestos, including Category I and Category II non-friable ACM." A regulatory agency can allege violations under the Asbestos NESHAP based on TEM analyses. Although TEM analyses is not required, a thorough inspection is required pursuant to Section 61.145(a). This thorough inspection should include a number of samples sufficient to determine the presence and extent of asbestos contamination (although sampling is **not** specifically required by the Asbestos NESHAP). The fact that a regulatory agency finds asbestos that was not previously discovered (regardless of the sample analyses procedures utilized) can be indicative of the failure to perform a thorough inspection. If the thorough inspection had been performed as required, the ACM that was later discovered by the regulatory agency should have been found. The regulatory agency could also allege other Asbestos NESHAP violations including notification, work practice, and disposal violations as applicable. The owner or operator would have known that he needed to comply with specific Asbestos NESHAP requirements if he had performed the thorough inspection.

(October 24-26, 2005; Gatlinburg, Tennessee)

Q: What is the difference in chemical composition and physical structure between chrysotile and crocidolite?

A: Asbestos minerals are divided into two major classes - serpentine and amphibole asbestos. The serpentine group contains only one asbestos mineral, chrysotile. Chrysotile has been the most widely-used type of asbestos accounting for approximately 95% of the asbestos found in buildings in the United States. Chrysotile has a sheet or layered structure. Chrysotile has scroll-like, very fine, white fibers (.02-.08 micrometers in diameter). Chrysotile is flexible, heat resistant, and exhibits high tensile strength. The composition of chrysotile is $\text{Mg}_3\text{Si}_2\text{O}_5(\text{OH})_4$. Crocidolite is one of the five asbestos minerals in the amphibole group. The other minerals are amosite, antinolite, anthophyllite, and tremolite. Amphiboles have a chain-like crystal structure. Crocidolite, although rarely used (some high temperature applications), is the most dangerous form of asbestos. It is known as blue asbestos. It consists of straight, rigid fibers. The composition of crocidolite is $\text{Na}_2\text{Fe}_3^{2+}\text{Fe}_2^{3+}\text{Si}_8\text{O}_{22}(\text{OH})_2$.

(October 24-26, 2005; Gatlinburg, Tennessee)

Q: If a contractor performs polarized light microscopy (PLM) with point counting and determines that no ACM is present in a removal and a regulatory agency finds ACM utilizing transmission electron microscopy (TEM), can the regulatory agency allege violations of the Asbestos NESHAP?

A: The Asbestos NESHAP states that polarized light microscopy (PLM) or PLM with point counting is to be utilized to analyze the asbestos content of a sample. An owner or operator of a demolition or renovation activity is not required by the Asbestos NESHAP to collect samples. However, the owner or operator is required pursuant to 40 C.F.R. § 61.145(a) to "...thoroughly inspect the affected facility or part of the facility where the demolition or renovation operation will occur for the presence of asbestos, including Category I and Category II non-friable ACM." A regulated agency can allege notification and work practice violations under the Asbestos NESHAP based on TEM sample analyses. Although a contractor is not required to perform TEM analyses, he is required to perform a thorough inspection pursuant to 40 C.F.R. 61.145(a). This thorough inspection should include a number of samples sufficient to determine the presence and extent of asbestos contamination (although sampling is **not** specifically required by the Asbestos NESHAP). The fact that a regulatory agency finds asbestos that the contractor did not discover (regardless of the sample analyses procedures utilized) can be indicative of the contractor's failure to perform a thorough inspection. If the contractor had performed a thorough inspection as required, he should have discovered the

ACM discovered by the regulatory agency. The regulatory agency could also allege other Asbestos NESHAP violations including notification and work practice violations as applicable. The contractor would have known that he needed to comply with specific Asbestos NESHAP requirements if he had performed the thorough inspection.

(December 6-8, 2004)

Q: Does the EPA require point counting of samples that are less than 1% by PLM estimation in order to determine whether or not the material is actually asbestos-containing? If so, does this apply to non-friable as well as friable material? Can laboratories represent analytical results as less than 1% based solely on PLM estimation without point counting the material?

A: Revisions to 40 C.F.R. Part 61, Subpart M, were promulgated on November 20, 1990, and included a requirement to perform point counting using PLM to quantify asbestos in samples where the asbestos content is below ten (10) percent. Such a requirement was included in the revisions in response to several reports of data from split samples analyzed by visual estimation (PLM) by two or more laboratories which showed conflicting results making it difficult to determine if a sample contained more than one (1) percent asbestos, thus classifying the material as asbestos-containing material. Prior to the requirement to perform point counting using PLM, a review of data from performance audits indicated a high number of false positives and false negatives reported by laboratories when analyzing the asbestos content of samples using PLM. These false negatives and false positives resulted in either projects not being covered by 40 C.F.R. Part 61, Subpart M, or unnecessary expenditure of funds for asbestos abatement and compliance with the requirements of Subpart M, respectively. The intent of the revision to Subpart M which requires point counting using PLM is to improve the quantitative analysis of samples for asbestos content. The revision applies to all regulated asbestos-containing material (RACM) as defined in 40 C.F.R. Section 61.141.

A sample in which **NO** (none detected) asbestos is discovered by PLM does not need to be point counted. The laboratory should examine a sufficient amount of any sample to be sure that the sample does not contain asbestos. A minimum of three slide mounts should be prepared and examined by PLM to determine if asbestos is present. If such examination shows the amount of asbestos to be less than ten (10) percent but greater than none detected, the owner or operator has two options. First, he may assume the amount of asbestos in the sample to be greater than one (1) percent and treat the material as asbestos-containing material for the purposes of 40 C.F.R. Part 61, Subpart M.. Alternatively, he may determine the amount of asbestos in the material by point counting using PLM. If an analysis of sample content determined by point counting using PLM is different from an analysis obtained by using PLM alone, the analysis determined by point counting using PLM **must** be used in determining applicability of and compliance with the requirements of 40 C.F.R. Part 61, Subpart M.

This discussion of point counting using PLM applies to all RACM. If non-friable material is not RACM for the purposes of the NESHAP, such point counting using PLM is not required.

Please see applicability determination C112 dated May 8, 1991, enclosed.

(November 3-5, 2003; Savannah, Georgia)

Q: How is composite sampling of wall systems done, and can other materials such as flooring be considered the same way?

A: When joint compound and/or tape is applied to wallboard, it becomes an integral part of the wallboard. The joint compound and wallboard become one material forming a wall system. Where a demolition or renovation affects such a wall system, a composite analysis of the wall system layers (percent of asbestos in the joint compound, tape and wallboard) should be conducted. The lab examines each level of the sample and results are combined to determine the average percent of asbestos content for the total composite sample.

For all other multi-layered systems (other than the joint compound situation previously discussed), multiple layers of one core sample may be composited for analysis provided the procedures for sample analysis using gravimetric reduction and transmission electron microscopy (TEM) are followed. These procedures are contained in EPA's Method for the Determination of Asbestos in Bulk Building Materials, EPA/600/R-93/116. EPA finds that this method is an acceptable alternative sampling method under Section 61.13(h)(1)(ii). When using the gravimetric procedures, the result may be recorded as percent asbestos by weight. If the result of the composite sample analysis indicates that the multi-layered system contains asbestos in the amount of one percent or less, but greater than none detected, then analysis by layers is required to ensure that no layer in the system contains greater than one percent asbestos. All layers in a multi-layered system will need to be treated as asbestos-containing if the layers can not be separated without disturbing the asbestos-containing layer. Requirements to perform point counting still apply for any layers being analyzed individually. Please refer to 60 FR 65243 dated December 19, 1995, and 59 FR 542 dated January 5, 1994, which discuss the analysis of multi-layered systems further. Please also refer to the letter from EPA Region 4 to Palm Beach County dated May 22, 2002, which discusses the same.

(November 3-5, 2003; Savannah, Georgia)

Q: Does EPA have any plans to change the EPA 600 Polarized Light Microscopy (PLM) Method - July 1993, Test Method for the Determination of Asbestos in Bulk Building Materials?

A: Not at the present time.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: Does the Improved Method require roof shingles to be treated as composites requiring gravimetric reduction followed by PLM or is standard PLM acceptable?

A: PLM with point counting is acceptable. The gravimetric method comes from the updated 1993 method but was never published and commented on in the Federal Register. The published book is not regulation.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: If PLM point counting results come back >.5% asbestos, should the results be rounded up?

A: No. A reading of 5 fibers per 400 fields (1.25) may be rounded down. A reading of 6 fibers per 400 fields (1.5) must be rounded UP.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: EPA has for some time recommended sampling using the “3-5-7” method when conducting a NESHAP inspection. As you know, the 3-5-7 sampling method applies to surfacing material only as it is not applicable to thermal system insulation (TSI) or miscellaneous material (see 40 CFR 763.86). Does EPA still recommend the “3-5-7 rule” for sampling TSI and miscellaneous material? If so, has EPA created a sampling protocol which is different from AHERA and OSHA?

A: Not speaking at all about what OSHA may require, sampling protocol may be found in the AHERA regulations at 40 C.F.R. § 763.86, *Sampling*. It provides the 3-5-7 rule on how many minimum samples you should take given the situation you encounter. 40 C.F.R. § 763.86(a) discusses sampling protocol for surfacing material. Sampling protocol for thermal system insulation (TSI) is discussed in 40 C.F.R. § 763.86(b). Miscellaneous material sampling is addressed in 40 C.F.R. § 763.86(c). Sampling of non-friable suspected asbestos-containing building materials is discussed in 40 C.F.R. § 763.86(d). Please see 40 C.F.R. § 763.86 enclosed.

(November 3-5, 2003; Savannah, Georgia)

Sinking a Ship

Q: How is the demolition of a ship covered under the asbestos NESHAP?

A: A ship is defined as a facility under the Asbestos NESHAP. Sinking a ship by setting controlled charges in the hull is considered a demolition. In order to sink a ship, some event has to occur to make a load-supporting structural member no longer capable of supporting the load of the facility (in this case, the ship).

(December 6-8, 2004)

Q: If sinking a ship is considered a demolition, what material must be removed from the ship prior to its demolition?

A: The owner/operator would need to remove the RACM from the ship that will be or may be disturbed. This includes friable material and non-friable material that may have a high probability of becoming regulated during or after the demolition. All friable ACM that are loose, detached or disturbed (i.e., deteriorated or damaged) shall be removed from the vessel and disposed of appropriately or repaired in place by encapsulation (or other method) such that it can not be released into the environment.

Certain ACM may be left in place during the demolition. Non-friable ACM may be left in place unless loose or otherwise disturbed. For example, gaskets may generally be left in place. Additionally, friable material on a component that is encased in concrete or other similarly hard material may also be left in place. For example, asbestos in the bulkheads would be allowed to remain in place as long as the bulkheads are not “wrecked” thus exposing the asbestos during the demolition. It is unlikely that this material would be released into the environment. Pipe lagging that is wrapped in cloth or tin would not be an example of encased material. Any encased asbestos that will be exposed by any of the demolition activities would need to be removed prior to demolition. Category II ACM may or may not be left in place. This decision would need to be made on a case-by-case basis.

In summary, materials that will be disturbed by actions relating to the demolition, or materials that are likely to fall off of ship components during the demolition or as a result of environmental forces after the demolition must be removed prior to the sinking of the ship. Materials that are not likely to degrade significantly, including encased materials, may remain in place.

(December 6-8, 2004)

Thorough Inspection

Q: What constitutes a “thorough inspection” under the Asbestos NESHAP?

A: Prior to demolition or renovation activities, the Asbestos NESHAP requires that a thorough inspection be conducted to determine the presence of asbestos in the area subject to the demolition or renovation. A thorough inspection, which is the responsibility of the owner or operator, means that every accessible area of an affected facility (part of the facility where the demolition or renovation will take place) is inspected. The presence of asbestos and the amount of asbestos in materials may differ from one situation to the next. The inspector should consider all factors pertaining to a particular situation in determining the appropriate number of samples “sufficient to determine” the presence of asbestos including but not limited to homogeneous areas, construction dates, and materials mixed on site. Cinder blocks, mortar, brick, cement foundation, and paint do not typically contain asbestos and would not normally be sampled. However, if any of these materials are suspected to contain asbestos, they should be sampled and analyzed. EPA recommends that samples be collected such as described in the 3-5-7 sampling rule (3 samples < 1,000 sq. ft., 5 samples - 1,000-5,000 sq. ft., 7 samples > 5,000 sq. ft.) Since most demolition and renovation activities would cause the ACM to become RACM (see *Asbestos in Buildings: Simplified Sampling Scheme for Friable Surfacing Materials* - pink book). If EPA or another regulatory agency finds asbestos which was not identified prior to beginning a demolition or renovation, enforcement action may be warranted. Strict liability exists here. If asbestos is present, it should be identified in the “thorough inspection”. EPA recommends utilizing enforcement resources to pursue a failure to perform a thorough inspection only in situations where both asbestos is found that was not previously identified in the thorough inspection and the amount of asbestos involved meets applicable regulatory threshold amounts.

(October 24-26, 2005; Gatlinburg, Tennessee)

Q: When is the thorough inspection required to be conducted by an accredited building inspector?

A: An accredited inspector is required pursuant to 15 U.S.C. Section 2646 to perform inspections at public and commercial buildings. An accredited inspector is also required pursuant to 15 U.S.C. Section 2646 to perform inspections at K-12 schools.

40 C.F.R. Part 763, Subpart E, Appendix C defines “public and commercial building” as the following:

The interior space of any building which is not a school building, except that the term does not include any residential apartment building of fewer than 10 units or detached single-family homes. The term includes, but is not limited to: industrial and office buildings, residential apartment buildings and condominiums of 10 or more dwelling units, government-owned buildings, colleges, museums, airports, hospitals, churches, preschools, stores, warehouses and factories. Interior space includes exterior hallways connecting buildings, porticos, and mechanical systems used to condition interior space.

Accredited inspectors are not required to perform the thorough inspection for facilities that are not covered under 15 U.S.C. Section 2646. Bear in mind that other facilities not exempted under the Asbestos NESHAP definition of "facility" as well as building exteriors are covered by the Asbestos NESHAP.

(October 24-26, 2005; Gatlinburg, Tennessee)

Threshold Amounts

Q: When determining if threshold amounts are met for transite removal, do you look at the amount actually cut or rendered friable, or do you look at the amount to be removed by methods of removal that **could** render it friable? How do you establish if threshold amounts were removed after the fact - can a certain debris amount be used to establish that regulated amounts were involved? Since you have to notify for all demolitions at regulated facilities, are the threshold amounts for transite removal based on the probability of removal or demolition techniques rendering the material RACM? Under which scenarios would a dry removal be acceptable? Is there any guidance on transite removal similar to the roofing guidance?

A: If transite is to be removed in excess of the threshold amounts contained in 40 C.F.R. Section 61.145, the removal could be subject to the requirements of the Asbestos NESHAP. Transite is a Category II non-friable asbestos-containing material (ACM). Under the Asbestos NESHAP, regulated ACM (RACM) includes "...Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations... ." Therefore, if a threshold amount of transite is removed **very, very** carefully (i.e., nails are pulled out; screws are unscrewed, and the transite is brought down carefully from the walls so it doesn't crumble into pieces), the removal would not be subject to the Asbestos NESHAP since the removal techniques would not have a high probability of rendering the transite friable. Alternatively, if the threshold amount of transite is to be subject to removal techniques that have a high probability of rendering it friable, the entire removal is subject to Asbestos NESHAP requirements. In order for an inspector to determine that a violation of the Asbestos NESHAP had occurred, the inspector would not need to observe a threshold amount of transite that actually had been rendered friable. If the threshold amount is to be subjected to conditions that will make it friable and less than a threshold amount has been made friable at the time of inspection, the whole removal amount is subject to the Asbestos NESHAP.

It may be difficult to determine if a threshold amount of transite was involved in a renovation or demolition by noting the debris amount after the fact. Although the 35 cubic feet might be able to apply to the debris amount removed from facility components, it would be more appropriate to determine if a threshold amount of transite was involved by establishing a picture of the facility prior to demolition or renovation activities with a reasonable method to determine the amount of transite involved. For example, when documenting Asbestos NESHAP violations, an architect's plan or other building schematics that identify how much transite was used in construction together with leftover transite debris in excess of 1% asbestos could be used to verify that a threshold amount was involved.

All demolitions require notification. Notifications must include an estimate of the amount of RACM to be removed from the facility and an estimate of the amounts of Category I and

Category II non-friable ACM that will not be removed before demolition. However, even if threshold amounts are met, 40 C.F.R. Section 61.145(b)(4)(vi) does not require that an estimate of the amounts of Category I and Category II non-friable ACM to be removed from a facility prior to demolition be provided in the notification if these materials are not to be rendered RACM by removal or demolition techniques. The demolition notification does provide the inspector with an opportunity to inspect to determine that Category I and Category II nonfriable ACM are handled in accordance with the Asbestos NESHAP.

The dry removal of Category I and Category II non-friable ACM is allowed in situations where the materials are not to be rendered RACM. In such instances, Asbestos NESHAP work practice requirements, including wetting, would not be applicable. Also, 40 C.F.R. Section 61.145(c)(7) allows for dry removals during freezing temperatures below 32 F. Exceptions to the wetting requirements are also allowed pursuant to 40 C.F.R. Section 61.145(c)(3)(i)(A) for renovations with prior Administrator approval.

There is no EPA policy which exists specifically applicable to the removal of transite. Subsequent to the publication of the Asbestos NESHAP, roofing industry representatives met with EPA to establish guidance applicable to the removal of roofing materials. EPA has not been requested to provide similar guidance applicable to the removal of any other particular ACM.

(December 6-8, 2004)

Q: If friable asbestos material is identified in a structure to be demolished and the amount of the friable material is less than threshold amounts, must this material be abated prior to demolition?

A: No, this material need not be removed if threshold amounts are not met. Under 61.145(a)(2), if threshold amounts are not met in a facility being demolished, only the notification requirements of paragraphs (b)(1), (2), (3)(i) and (iv), and (4)(i) through (vii) and 4(ix) and (xvi) of § 61.145 apply.

(November 3-5, 2003; Savannah, Georgia)

Q: Are linear feet and square feet additive for notification purposes?

A: No. If you are below threshold for linear feet for one material involved in a renovation and below threshold for square feet for another material involved in a renovation, notification is not required.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Trained Representative

Q: Is it a requirement under the NESHAP for a trained supervisor to be on-site for any demolition activity?

A: Under Section 61.145(c)(8) of the Asbestos NESHAP, it states, "...no RACM shall be stripped, removed, or otherwise handled or disturbed at a facility regulated by this section unless at least one on-site representative...trained in the provisions of this regulation and the means of complying with them, is present." Since the possibility exists of finding asbestos-containing material regulated by Subpart M at any point during a demolition, a trained on-site supervisor should be present throughout all of the removal and demolition activities until the debris has been properly prepared for disposal. This only applies to demolitions in which threshold amounts are met or exceeded.

(November 13-15, 2006; West Palm Beach, Florida)

Q: Is it a requirement under the NESHAP for a trained supervisor to be on-site for any demolition activity?

A: Under 61.145(c)(8), it states, "... no RACM shall be stripped, removed, or otherwise handled or disturbed at a facility regulated by this section unless at least one on-site representative... trained in the provisions of this regulation and the means of complying with them, is present." Since the possibility exists of finding asbestos-containing material regulated by Subpart M at any point during a demolition, a trained on-site supervisor should be present throughout all of the demolition activities until the debris is hauled away to the landfill. This applies only to demolitions in which threshold amounts are met or exceeded.

(November 3-5, 2003; Savannah, Georgia)

Training

Q: Can state/local asbestos inspectors get hazardous duty pay?

A: There have been times when EPA inspectors have received hazardous duty pay in the past. Generally, EPA inspectors do not currently receive hazardous duty pay. Inspections do not frequently involve entering the containment. If you can get your state or local agency to pay you hazardous duty pay, go for it!

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: Does the MAP require an OSHA inspector to be accredited?

A: No. Accreditation is not required for Federal, State, or local regulatory agency inspectors. It is also not required for inspectors performing periodic surveillance or visual inspections. Accreditation is not meant to apply for inspectors whose primary purpose is to determine regulatory compliance and not to locate, assess, or remedy the condition of ACBM.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: How many EPA Worker Protection Rule inspections has Region 4 made during the last two years?

A: Approximately three; in Region 4, Georgia, Alabama, Florida, and Mississippi do not have State OSHA programs.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: Will EPA Region 4 be presenting the #350 Course, Asbestos Inspector and Safety Procedures Workshop this fiscal year?

A: EPA always wants to know how many staff members in your offices need this training. EPA has not made plans to offer this course this fiscal year, at the current time. The year is early; resource allocation is still being decided.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: Does EPA have any plans for developing an Asbestos NESHAP course to help contractors meet the 61.145(c)(8) training requirements?

A: The #350 course satisfies this. EPA currently does not have any plans to develop another course.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Waivers

Q: When may an agency allow a "waiver" of the 10-day asbestos demolition notification requirement? For example, should an agency allow for such a waiver for safety reasons (i.e., the building poses an environmental or safety hazard)?

A: The Asbestos NESHAP does not allow for such a waiver unless the demolition is the result of a government order that is issued because the facility is structurally unsound and in danger of imminent collapse. The Asbestos NESHAP has no provisions for other demolition waivers.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: Can an exemption from the 10-day notification requirement be granted if delaying a renovation/demolition to allow for the 10-day notification period would pose an unreasonable financial burden on the contractor?

A: Waivers for demolitions are discussed in the question above. A waiver for a renovation can only be granted for an "emergency renovation operation".

An "emergency renovation operation" is defined, in part, as follows:

...a renovation operation that was not planned but results from a sudden, unexpected event that, if not immediately attended to, presents ,: safety or public health hazard, is necessary to protect equipment from damage, or is necessary to avoid imposing an unreasonable financial burden.

Without the pre-requisite event that was not planned, but results from a sudden, unexpected event, you do not have an operation that can qualify as an emergency renovation. The imposition of an unreasonable financial burden does not qualify as an emergency renovation unless such imposition is a result of the sudden, unexpected event.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Work Practices

Q: A demolition of a facility is performed without notification and without a thorough inspection. The >160 square feet ceiling was suspected to be asbestos containing material. However, it was not known to be asbestos-containing material. Can violations of the Asbestos NESHAP work practice standards be pursued?

A: It will be difficult, at best, to pursue work practice violations if there is no actual proof that the ceiling was >1% asbestos.

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

Q: How should we determine if wallboard joint compound is adequately wet before removal?

A: The inspector could make observations at the work site (is., is there a water source, evidence of water having been applied, visible emissions). The inspector could examine the bags of material that await disposal. Is there evidence of water in the bags? Does the material stick together like wet material when it is squeezed?

(October 29-31, 2007; The Brown Hotel -Louisville, Kentucky)

UPDATES

(1) Integrated Risk Information System (IRIS) -

IRIS is managed by EPA's Office of Research and Development (ORD). IRIS is in the process of being updated for asbestos based on toxicology studies regarding health impacts and risks. The updated IRIS will undergo peer review and internal/external review.

The updated IRIS will be utilized by EPA to revisit the Asbestos NESHAP in the distant future (at least that is EPA's vision for now). Therefore, it will be a few more years before EPA considers revising the NESHAP. At this point in time, EPA anticipates re-opening the Asbestos NESHAP during 2008-2009 at the earliest.

(2) ASTM E2356-04, Standard Practice for Comprehensive Building Asbestos Surveys -

In July, 2004, ASTM published the E2356 Standard Practice for Comprehensive Building Asbestos Surveys. E2356 describes both baseline surveys and project design surveys. In addition to including inspection and sampling methodology, the baseline survey includes recommendations for long-term management / abatement of ACM based on assessments done according to protocols described in an appendix to E2356. E2356 identifies 18 categories of information pertinent to the preparation of a project design survey for an abatement project.

More than half of the 40-page E2356 standard is devoted to three appendices: Sampling Techniques and Equipment, Assessment Protocols, and Data Collection and Report Format. Sampling Techniques and Equipment includes detailed sampling procedures for 18 types of suspect ACM. Assessment Protocols describes qualitative and quantitative protocols to be used to provide information to prioritize response actions. Data Collection and Report Format is a set of pre-formatted pages to assist in compiling survey results.

The use of E2356 in schools would provide additional information with which a local education agency can manage ACM. E2356 also recognizes that public, commercial, and industrial buildings and facilities are different from the school buildings for which the AHERA regulations were developed. A baseline survey provides more information than previously available methodologies and incorporates the latest analytical and assessment techniques. The quantitative assessment protocol provided in the appendix allows asbestos program managers to prioritize removal and O&M plans. The project design survey ensures that important building-related factors will be considered when designing abatement plans, therefore increasing the likelihood of a successful abatement project.

E2356 may be purchased on-line at astm.org or by calling (610) 832-9585.

3) CDC Work-Related Lung Disease Surveillance Report - 2002-

This report, published by CDC-NIOSH in December, 2002, has separate chapters on asbestosis and mesothelioma. According to the report, the number of deaths from asbestosis in the U.S. has been steadily increasing and is still on the rise (1,265 in 1999, 948 in 1990). Males getting asbestosis far outnumber females. Nearly 2,500 deaths occurred from mesothelioma in 1999, and the number is still increasing. Approximately 20% of the deaths were women. Some people believe that the number of mesothelioma deaths in the U.S. are under reported by as much as half due to misdiagnosis, lack of autopsy, etc. . These numbers are much higher than what has been predicted over the years.

4) Naturally Occurring Asbestos (NOA)-

EPA has been looking into naturally occurring asbestos in the soil in El Dorado County, California. Ultramafic rocks are areas containing serpentine rock and related rock types where chrysotile and tremolite asbestos may be found, particularly near faults. EPA has conducted studies on airborne asbestos levels during simulated activities that would disturb the soil (example: playing baseball). EPA found asbestos fibers in nearly all El Dorado Hills air samples. This included those collected nearby, but outside of the activity area. Personal asbestos exposures from simulated sports and play activities were significantly elevated over levels observed in the nearby asbestos air samples taken outside of the activity areas. EPA stated that the main asbestos fiber type detected was amphibole. EPA further stated that amphibole is considered more toxic than chrysotile.

The California Air Resources Board has put out an advisory on ACM used on playgrounds and other surfaces. The advisory suggested that playgrounds, unpaved parking lots, and unpaved roads on school grounds, bus stops and day-care centers should be inspected to determine if they are surfaced with asbestos-containing serpentine rock. For areas surfaced with crushed rock or gravel that is grayish-green or bluish-black in color, the advisory recommended that a registered geologist determine whether the material is serpentine rock. If indeed it is, the advisory further advised that the rock be tested using ARB Test Method 436 to determine if asbestos is present. The advisory recommended abatement or sealing / covering the asbestos-containing rock to prevent its disturbance.

Georgia has the highest naturally occurring asbestos concentrations in the Southeast (mostly in the talc / marble area of North Georgia). EPA is working with the states to develop strategies for confirming the locations of NOA sites identified by the United States Geological Society (USGS) and screening these sites for potential human exposure to NOA.

5) S. 852 (H.R. 1360 is the House version of this bill) - Part of the Asbestos Compensation Fairness Act of 2005 (FAIR Act) -

S. 852 is an asbestos bill that was introduced into Congress on April 19, 2005. The bill is essentially what was the Hatch Bill (S. 1125). S. 852 is currently pending in the U.S. Senate after being reported by the Judiciary Committee in mid-June, 2005. The bill is sponsored by Senator Arlen Specter, Pennsylvania Republican and chairman of the Senate Judiciary Committee. The bill aims to prevent future asbestos litigation. Such litigation has resulted in over 74 companies going into bankruptcy and the loss of thousands of jobs. This has placed a great strain on the nation's economy. Stakeholders include manufacturers, labor - AFL/CIO, the insurance industry and trial lawyers.

Under S. 852, asbestos claims would be handled through a federally defined process rather than through the state/local court systems. Persons exposed to asbestos would be paid based on the severity of injuries, similar to workmen's compensation, without proving in court who would be liable under existing tort laws. S. 852 would eliminate the high costs of litigation and contingent attorneys' fees. Unlike current law where exposure may be compensated for potential future injuries, S. 852 would allow damages to be collected only on proof of existing harm.

This legislation would establish an approximately \$140 billion trust fund from contributions by manufacturers and insurers. The fund would be administered by the U.S. Department of Labor. Business is adamant that no additional money would be added to the \$140 billion fund. Labor groups have been running television and other ads opposing S. 852, mostly on the basis that labor wants significantly more money allocated to the fund. S. 852 puts all cases in the fund unless they had previously gone to verdict or had signed settlements with individual defendants. Without an active trial bar reviewing potential claims for litigation, S. 852 opts to give workers screening of their physical condition. Business objects to periodic medical screening of the workers exposed to asbestos, arguing that it would bring unmeritorious cases into the fund.

If the fund runs out, claimants have the right to return to court to reclaim their right to a jury trial. Claimants could go back to federal court or the venue where the injury occurred or the claimant lives. Business is anticipated to be covered by the fund, according to Senator Specter, for at least 7.5 years.

The Congressional Budget Office (CBO) analysis said this Asbestos Injury Claims Resolution Fund that would be created by the bill could cause some defendant companies to file bankruptcy and could force unforeseen federal borrowing. CBO said the fund will increase the projected federal deficit by approximately \$6.5 billion in 2006-2015.

The CBO analysis estimated the number of cases, the amount of revenue, and the amount of compensation that the fund would provide. Claims were estimated to range from \$120 billion to \$150 billion over the next 50 years. Maximum revenues were expected to be \$140 billion "but could be significantly less." The borrowing would occur because the fund would have more than half of its anticipated claims expenses in its first 10 years although it would receive constant revenue collections from insurers and defendant companies for the first 30 years, causing a gap. CBO also concluded that the Department of Labor would need more than 700 employees to staff the fund for 2006 through 2015, generating administrative costs of nearly \$1 billion.

H.R. 1360 is the House version of this bill. An asbestos ban portion (originally Patty Murray, D-WA) is in place as an appendix in both bills. This would control asbestos exposure by prohibiting the future manufacturing of asbestos-containing products as well as requiring the eventual removal of such products from commerce.

Legislation similar to S. 852 was voted out of the Judiciary Committee in July, 2003. Thirty-six mediation sessions have taken place with the stakeholders since August, 2003. Twenty-seven Senate offices have participated.

(6) H.R. 1957 - Also part of the FAIR Act of 2005 -

H.R. 1957 was introduced into Congress on April 28, 2005. H.R. 1957 has been referred to the House Committee on the Judiciary. The bill would provide for equitable judicial consideration of personal injury and wrongful death claims arising out of asbestos or silica exposure. Under H.R. 1957, no damages shall be awarded for fear of risk of cancer in any civil action asserting an asbestos or silica claim. H.R. 1957 also limits noneconomic loss rewards to \$250,000 regardless of the number of parties against whom an action is brought (mesothelioma - \$500,000). Under H.R. 1957, no punitive damages shall be awarded in any civil action alleging an asbestos or silica claim.

(7) Other Asbestos Legislation -

S. 668, Asbestos Standards Enforcement Act of 2005, was introduced into Congress on March 17, 2005 (status: referred to the Committee on Health, Education, Labor, and Pensions). S. 668 provides for enhanced criminal penalties for willful violations of occupational standards for asbestos.

S. 1199, Prompt Disability Payment to Mesothelioma Victims Act of 2005, was introduced into Congress on June 8, 2005 (status: referred to the Committee on Finance).

S. 1199 is a bill to amend Title II of the Social Security Act to shorten the waiting period for social security disability benefits for people with mesothelioma.

(8) Cross Media Electronic Reporting and Recordkeeping (CROMERR) -

Headquarters is working on the CROMERR Rule which is anticipated to be published by the end of 2005. OMB instructed government agencies to examine the feasibility of electronic reporting in the mid-1990s. The CROMERR will explain how local and state agencies should analyze / revise their electronic systems to ensure their

compatibility with EPA's electronic systems. The CROMERR will not automatically allow electronic submittals. The CROMERR will outline the next steps to be taken by EPA to make electronic communication a reality. EPA may need to analyze / revise its electronic systems to ensure that they are capable of accepting electronic submittals in accordance with the CROMERR.

Qualifier Statement

EPA has responded to the above questions to the best of the Agency's ability given EPA's understanding of the questions and given the limited information provided. Asbestos regulations are some what subjective in their nature so the responses may vary given the particular circumstances of a given situation (i.e., on a case-by-case basis). It is always best to provide EPA with detailed facts about a particular situation and to request an official applicability determination based on the facts provided for that specific situation.