

Chapter 14

Facility Inspections

On-site facility inspections provide the foundation for all asbestos NESHAP enforcement actions for substantive violations and therefore are critical to enforcing the regulation. On-site inspections are also used to determine whether potential AHERA, ASHARA (MAP) or WPR violations exist. (See appendices for checklists for these regulations.)

Recommendations

Inspectors typically try to visit sites undergoing active removal, demolition or renovation; however, since all asbestos NESHAP inspections are intended to be unannounced, inspectors may discover that removal has not yet begun or has been completed ahead of schedule.

Examine the worksite no matter what the current status of the operation is, for useful information regarding compliance/noncompliance with the regulation may be gathered. Whenever violations of the regulation are suspected, gather as much evidence as necessary. Proper acquisition and maintenance of such evidence enhances the chances of success in bringing an enforcement action against a facility.

Evidence

To run an effective asbestos NESHAP program (i.e., one that prevents asbestos air pollution), one must be successful in bringing enforcement actions against violators of the regulation. The severity of an enforcement action (and ultimately its deterrent effect) that can be brought against a violator is often directly related to the amount of evidence the agency can produce regarding the violations. For this reason, the gathering of evidence during on-site inspections is a crucial component to the potential success of an asbestos NESHAP program.

The American Heritage Dictionary of the English Language defines evidence as "the data on which a judgment or conclusion may be based, or by which proof or probability may be established."

The law recognizes five types of evidence:

- **testimonial** - a person's reported sense impressions and the opinions the person formed based on them (e.g., the inspector's testimony);
- **real** - the object, item or thing itself (e.g., ACM sample);
- **documentary** - a "document" having significance and effect due to its content (e.g., discrepancy reports, messages, logs, stationary source reports);

- **demonstrative** - something other than the above which is prepared or selected to illustrate or otherwise make some relevant fact clearer or easier to understand (e.g., photographs, diagrams, maps, summaries, videotapes); and
- **judicially-noticed** - matters about which there could be no dispute and become evidence by virtue of their being so noticed by a judge (e.g., asbestos analytical procedures, film development procedures, geographic locations, matters of common knowledge).

Unless these forms of evidence are gained in an appropriate manner and maintained properly, they may not be considered admissible in enforcement proceedings.

Field Logbook

The inspector's field logbook is the core of all inspection documentation. It should contain accurate and inclusive documentation of all inspection activities. The logbook is used as the basis for preparing the inspection report and to refresh the inspector's memory regarding the specifics of sample collection and other inspection procedures should the inspector be called upon to testify. Logbooks become part of the official inspection file.

Language in the logbook should be objective, factual, and free of personal feelings and conclusions of law. The logbooks can be provided to the opposing side during the discovery process of an enforcement case and can be entered as evidence in court.

Since an inspector may be called to testify in an enforcement proceeding long after the inspection was conducted, it is imperative that each inspector keep detailed notes on every aspect of the inspection, including interviews, visual observations, records assessments, and sample collection and handling.

Entries in the logbook should correlate readily with particular samples and photographs taken, and copies of records or other documentation collected at the site. Use of assigned identification numbers will allow tracing back to the exact time, place, conditions, and procedures employed for gathering each piece of evidence.

General Procedures

When conducting asbestos NESHAP compliance inspections:

- Some believe only bound field logbooks, preferably with consecutively numbered pages, should be used. Bound surveyors' logbooks may be acceptable. Check with your agency counsel for advice regarding logbooks.
- Use a different logbook for each inspection. Again, this may vary by agency.
- Make entries using waterproof ink.
- Write legibly.

- Line out (strike through, single line) incorrect entries and initial them. Do not obliterate, erase or use correction fluid on mistakes!
- Write in the date and time of each entry.
- At the end of an entry on a particular event, draw a diagonal line at the conclusion of the entry and initial it. This will facilitate review of notes by the inspector and case development staff.

Important Information

Provide information regarding the following in the field logbook:

- **Sampling procedures.** Note that standard operating procedures have been followed in the taking of physical samples.
- **Documents.** Record all documents taken or prepared (e.g., photographs) and relate them to specific inspection activities (such as physical sample taking).
- **Unusual conditions and problems.** Describe in detail any unusual conditions or problems.
- **Interview notes.** Record the names, titles, and duties of facility personnel with notes from the statements they make.
- **General information.** Note the names and titles of facility officials, size of facility, description of operations, number of employees, and other general information, such as how the facility keeps its records, since this information may be useful in case development or future inspections.
- **Other incidents.** Keep detailed notes about any other incidents that occurred during the inspection, such as an electrical power failure or tampering with government vehicles or equipment.
- **Administrative data.** Record entries regarding inspection travel and fiscal data in accordance with Regional and/or program policy.
- **Identification numbers.** Key each piece of evidence collected (document, physical sample, photograph) to an entry in the field logbook.
- **Observations.** Note conditions or practices that may be useful in inspection report preparation or will contribute to valid evidence.
- **General procedures.** List all procedures followed involving entry, records inspection, and document preparation. Such information will help avoid damage to case proceedings on procedural grounds.

Statements

Since statements by site personnel can constitute important evidence in the determination of violations of the asbestos NESHAP, inspectors must develop good interviewing techniques and record statements accurately. Be sure to record the name and title (and address, if possible) of every person interviewed. In addition:

- Conduct the discussion in a comfortable, private location.
- Behave in a considerate, non-threatening, friendly manner.
- Take notes as unobtrusively as possible.
- Make no promises of confidentiality or protection.
- Avoid leading or complex questions.
- Ask questions from the general to the specific, and known to the unknown.
- Keep time sequencing consistent.
- Allow the interviewee to think and answer questions without interruption.

During the course of a site inspection, personnel may admit to or describe illegal activities that have taken place on site. Such statements may be made because of health concerns or ignorance of the regulations. While admissions or descriptions may not constitute conclusive proof of a violation, they may be used to question the credibility of defendant(s) who make subsequent contradictory statements. Proper elicitation and documentation of such statements, therefore, is extremely important.

Bulk Samples

The taking of bulk samples is an essential component of an asbestos NESHAP inspection. Without analytical results proving the existence of asbestos-containing materials on site, an inspector will find it difficult, if not impossible, to prove that the asbestos NESHAP regulation was applicable to the facility visited.

Record bulk sample locations on a site diagram (see Figure 14-1) and other pertinent information in a sample collection log (see manual appendices). Always provide a physical description of a sample, including how the sample changed when it was wetted.

Although the *Clean Air Act* does not address the splitting of samples with the site owner or operator, you may choose to when requested in order to maintain good relations. Alternatively, if such a request is made, ask that a qualified individual accompany you and take samples at your sample locations. This will save a great deal of time.

Inspectors must be able to testify that the samples:

- accurately represent conditions at the site;
- were taken from specifically described sampling locations;
- were maintained using proper chain of custody; and
- were acquired and analyzed using proper methodology.

Observations

Since enforcement cases may not be resolved for years, inspectors must record accurately, and in sufficient detail, all pertinent observations made. Observations of noncompliance should be detailed in field notes and supported by personal statements, photographs, and drawings as needed (see Figure 14-1).

Photographs

To be admissible as evidence, photographs must accurately and truthfully represent site conditions at the time in question. Photographs must be taken in sufficient number, be of high quality, and contain appropriate identification. Although use of a video camera can provide excellent documentation of an asbestos site inspection, decontamination is a major concern. To avoid contaminating their video cameras, some inspectors house them in clear plastic boxes that are used for underwater photography.

Become familiar with the operation of the camera well before its use becomes necessary. Failure to do so can prove to be exceedingly troublesome, as significant documentation can be lost and considerable embarrassment incurred!

Pay particular attention to the following:

- focal distance of the lens and flash distance (often much shorter than anticipated);
- pre-programmed settings such as “indoor”, “outdoor”, “close-up” on digital cameras. (learn to use these in advance and employ as needed during the inspection);
- digital cameras:
 - have extra memory and batteries and know how to load them;
 - be sure “date” and “time” are set properly;
- film camera – bring proper film type and batteries and know how to load them.

Photographic documentation should tell the story with as little need for narrative as possible. This is done by shooting a series of shots that provide general to specific information.

"Establishing shots" are taken from a distance and show not only the subject but also one or more permanent landmarks that can be used for reference in establishing the exact location. "Subject" shots emphasize a specific object or event. Subject shots may be shot in sequence to show all sides of a subject. "Tight" or "detail" shots are close-up shots that provide very specific information concerning the subject.

The advantage of digital photography is that each shot can be viewed immediately to assure its adequacy. **Do not delete photos even if they are not optimal.** Digital cameras assign a number to each photo, so if a photo is deleted, so is its number. Such gaps in the numbering sequence could lead to negative scrutiny during a later enforcement action.

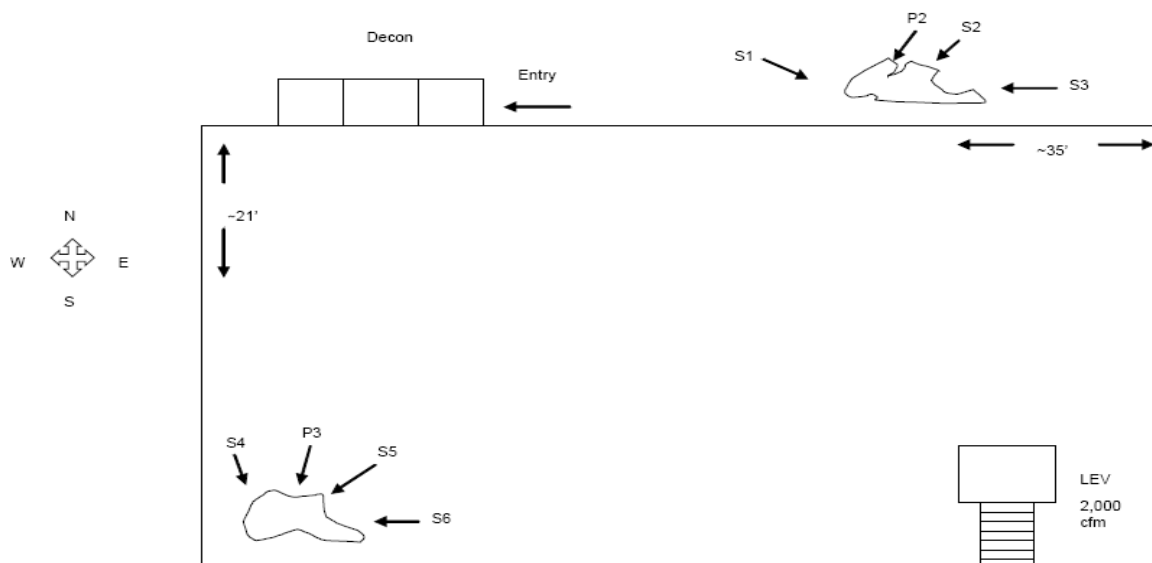
Photos should be taken only of landmarks, materials, sampling locations or owner/operator staff. Do **not** photograph other inspectors, for pictures of minor flaws in sampling practices, PPE use, etc., could create problems later on.

All photographs taken should be noted on a site diagram (see Figure 14-1) and in a photograph log. This log includes site identification information and picture/frame numbers, detailed descriptions of the photographic subjects, and dates/times when the pictures were taken. The log will become part of the inspection report. A sample photograph identification log sheet is provided as an appendix in this manual.

Once the photographs have been developed, immediately record in indelible ink the following information on the back of each print:

- site name;
- date of inspection;
- photograph number (as noted in the photograph log);
- subject of photograph; and
- photographer (inspector) initials.

If utilizing digital photography, all downloaded files from memory cards should be sent to a file created for that purpose. These original downloads should never be altered. Security passwords should be placed on the file so that only those authorized can retrieve them. Only copies of original photos should be altered for later use.



S = sample

P= photograph

Figure 14-1. Abatement area diagram

Records

Inspectors may need to review a variety of records during the conduction of asbestos NESHAP inspections. These include building and worksite diagrams, as well as waste shipment records, discrepancy reports, exception reports, stationary source reports, etc. Check required records for completeness and accuracy, and appropriate retention times.

Be sure to clearly mark copies of pertinent documents with identifying information (e.g., inspector's initials, "Attachment A", etc.) and record the acquisition of documents in the field logbook. The logbook should indicate:

- what the document is;
- who provided the document; and
- the actual physical location of the original document.

Pre-Entry Observations/Activities

Prior to entering the site, the inspector should do the following:

- Drive around the site and try to determine the location(s) and type(s) of asbestos-related activities in progress. These preliminary observations will help in the selection of appropriate safety equipment and in the determination of inspection priorities;

- Make note of areas to visit (office trailers, waste storage sites, waste load-out areas, etc.);
- Take a photograph of the building/site. Try to include an identifying feature (name of the building; street sign, curb number, etc.). If there is no identifying feature, take a photo of a small whiteboard on which you've written the name and address of the facility, and date and time of the inspection. Include your name, as well, if your agency approves;
- Look for visible emissions to the outside air (from windows, doors, etc.) and suspect ACWM debris outside the facility;
- Draw a diagram of (see Figure 14-2) and record photographically land use surrounding the site (residential, industrial, recreational, etc.).

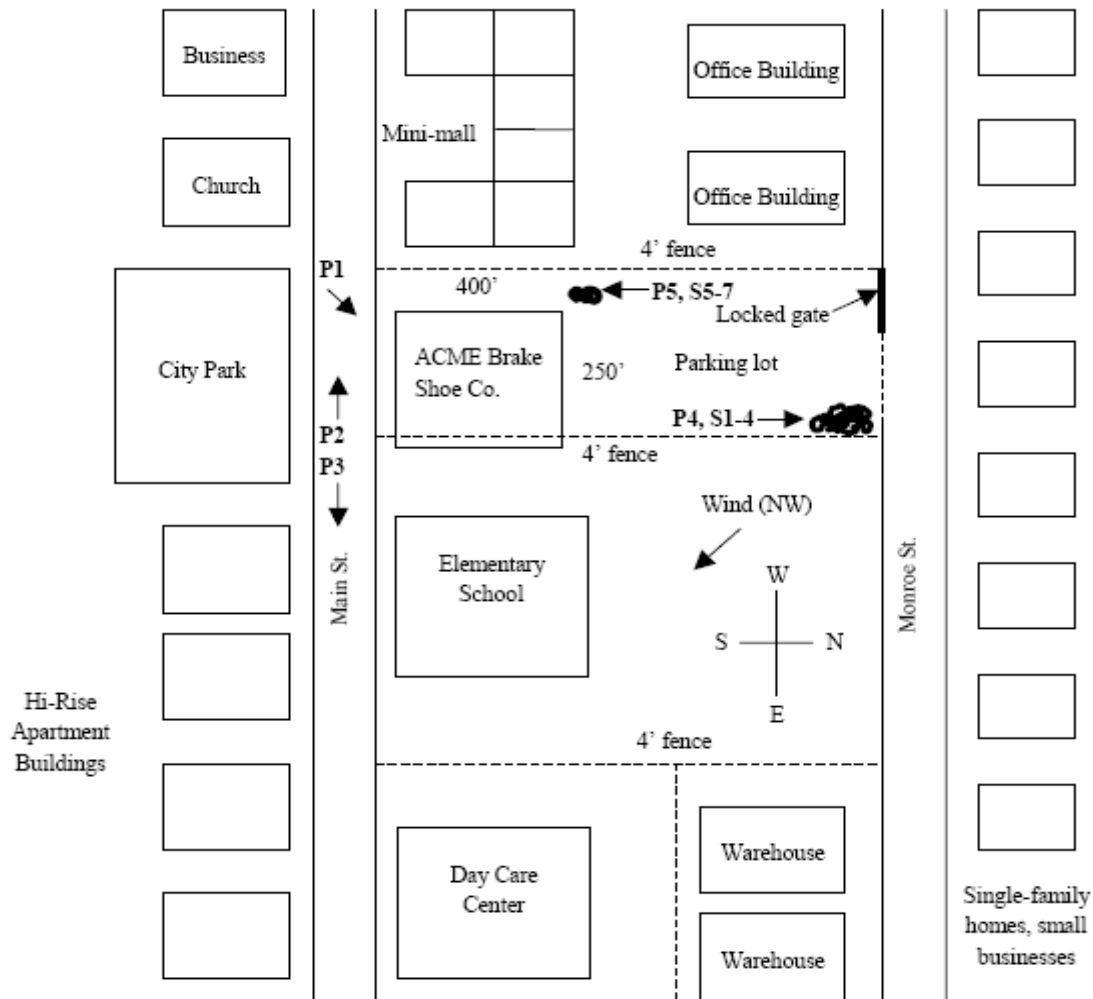


Figure 14-2. Land Use Diagram

Gaining Entry

To help ensure the admissibility of evidence gathered during an inspection, properly enter the site.

Be sure to:

- Visit the facility at a reasonable time (whenever abatement, demolition, renovation is ongoing).
- Enter through the main gate or office.
- Locate the person in charge (facility representative, site supervisor) as soon as possible.
- Present your identification (credentials) and give your business card to the person in charge. Do not allow your credentials out of your sight! (State and local inspectors may need to present specific licenses or certificates to gain entry.).
- Explain the purpose of the inspection (compliance with the asbestos NESHAP).
- Describe the legal basis for the inspection if requested [Section 114(a)(2) of the *Clean Air Act* states that EPA inspectors "*have a right of entry to, upon, or through any premises in which an emission source is located...*"]. (A copy of this is included in the appendices to this course manual.). Note that rules covering “right of entry” may vary with jurisdiction (EPA/State/Local).

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- Describe the scope of the inspection (site inspection, records' review, interviews, photographs, samples, etc.).

Once these conditions are met, begin the inspection. (The facility representative does not need to express consent for the inspection; absence of expressed denial constitutes consent to proceed.)

On occasion, inspectors will be unable to adhere precisely to recommended entry procedures. For example, if an unmarked transport vehicle is being loaded with suspect ACWM, and the vehicle may soon depart, begin the inspection at that location. Document such deviations from typical entry procedures and justify them in the field notes and inspection report.

Denial of Entry

Denial of entry to a site may take several forms: refusal of access to the site, unreasonable delays, changes in the conditions of inspection, or threats to the safety of the inspector.

Any time entry is denied, explain again to the site representative the purpose and authority of the inspection, and tell the representative that the agency's regulatory attorney will be informed and, if necessary, a warrant to gain entry will be sought. If entry continues to be denied, ask the

representative to read and sign a "Denial of Entry" form (included as an appendix in this course manual). If the individual refuses to sign the form, indicate this in the inspection report.

Note: "Ongoing violation" or "routine inspection" warrants are more easily obtained than "criminal" warrants (This may also vary with jurisdiction).

Verbal Refusal

The owner/operator may occasionally verbally deny access to the facility.

Unreasonable Delays

If the requested facility representative does not appear after a reasonable amount of time (10-15 minutes), tell the person in charge (secretary, receptionist, abatement worker, etc.) that continued delay will be considered denial of entry.

Change in Conditions

Any change in conditions of the inspection clearly understood in the opening conference (use of photography, gathering of samples, etc.) which compromises the inspector's ability to conduct or document the inspection constitutes denial of entry.

Threats

Verbal or implied threats of bodily harm are considered denial of entry.

Pre-Entry Interview

In addition to the activities described for gaining proper entry:

- Ask to see (and then quickly review) the site survey or inspection report, if available.
- The asbestos NESHAP regulation states that the owner or operator of a demolition or renovation activity must, prior to the commencement of such activities, thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos, including Category I and Category II nonfriable ACM. If a site survey is not available, ask the site representative who it was who conducted the thorough inspection and record this information.
- Determine the applicability of the regulation to the site.

In order for the asbestos NESHAP regulation to apply, the following must be true:

- the site is a "facility" as defined in the regulation;

- activities occurring at the site are regulated (demolition, renovation, waste disposal, etc.); and
- regulated amounts of RACM are being disturbed (260/160/35)
- Present evidence of medical monitoring/fit testing.

In some instances a facility representative may demand to see proof that an inspector is meeting the requirements of the OSHA medical monitoring program. This is a reasonable request, for even though EPA personnel are not specifically subject to the requirements of the OSHA standard, they must comply with the provisions of EPA's health and safety guidelines that are very similar. Evidence regarding respirator fit testing may also be requested and should be provided.

- Establish the identities of all responsible individuals.

These include the abatement contractor supervisor, building owner, hygienist, etc. Collecting business cards from these individuals is a good practice.

- Determine whether a notification exists; if it does, review all information with the facility representative.

Although the asbestos NESHAP regulation requires owners/operators to update notifications when changes occur, this may not happen. An inspector, therefore, may have an inaccurate notification form when visiting a facility and should review the form with the on-site representative to correct inaccuracies. (In some circumstances very little of the original notification still applies - the contractor, transporter and waste disposal site may all be different!)

- Sign no liability waivers.

It is EPA's policy that liability waivers never be signed. Other inspectors should follow the specific policies of their State or local agencies. Inspectors should sign entry logs (which document their presence on site) when requested to do so.

- Determine a logical sequence for the site inspection.

Preplanning which areas to visit will promote the overall efficiency of the inspection.

- Discuss safety considerations.
 - Ask to see, and then quickly review, the most recent air monitoring data.
 - Determine what type of asbestos being disturbed (amosite, chrysotile, etc.), work practices being employed (wet or dry removal, use of amended water) and types of potential hazards in the facility (overhead obstacles, active chemical lines, electrical, etc.). Use this information to make a preliminary determination regarding the type of PPE to utilize.
- Determine the expertise of the owner/operator and site personnel at the site.

The asbestos NESHAP regulation requires at least one onsite representative, such as a foreman or management-level person, to be trained in the provisions of the regulation. Find out who received this training. Evidence of this training is supposed to be posted at the site, but often is not. In many cases the supervisor's and workers' course certificates are located in a binder; this is an acceptable alternative.

Ask questions regarding the owner's/operators' previous experience, training, and understanding of the NESHAP requirements for the handling of asbestos during removal.

Pre-Entry Worksite Observations (OSHA/NESHAP/MAP Compliance)

Examine the worksite area and make a preliminary assessment of the project's compliance with the OSHA and NESHAP regulations and other pertinent standards [e.g., AHERA, ASHARA (MAP), etc.]. The project may be in compliance if:

- There are records that show that all employees have been trained as required.
 - **OSHA** - Individuals who are conducting work subject to the OSHA *Construction Standard* must be trained as specified in the Standard. The employer must keep training records for one year beyond the last date of employment by that employer (29 CFR Part 1926.1101 *Occupational Exposure to Asbestos*).
 - **NESHAP** requires that one on-site representative at a demolition or renovation site be trained in the provisions of the asbestos NESHAP regulation and that evidence of such training be posted and made available for inspection at the site (40 CFR Part 61).
 - **AHERA** - For individuals subject to the provisions of the AHERA regulation (public and private schools K-12), training records must be kept in a centralized location in the administrative office of both the school and the local education agency as part of the management plan (40 CFR Part 763 -*Asbestos-Containing Materials in Schools*).

Note: A sample AHERA Compliance Referral Form is included as an appendix to this workshop manual.

- **ASHARA** - Individuals conducting work subject to the ASHARA (MAP) regulation (public, commercial and industrial buildings) must have their initial and current

accreditation certificates at the location where they are conducting work [40 CFR Part 763, Subpart E, Appendix C -Asbestos Model Accreditation Plan].

Note: A sample ASHARA Compliance Referral Form is included as an appendix to this workshop manual.

Individuals performing abatement work in facilities other than schools, public, commercial or industrial buildings need not be accredited under the MAP; they most often subject to state and/or local training requirements. Many states also require licensing.

- Amended water is being used to wet ACM. (Note whether amended water is on-site outside the containment.);
- No power tools (including air-driven devices) are being used to remove ACM;
- The containment area is secure and no dust or debris appears to be coming from the removal area;
- Danger signs are posted and adequately labeled containers are being used;
- Decontamination accommodations, including shower facilities, are in place, and are operational;
- Monitoring data are available (use this information to select appropriate respiratory protection);;
- A negative pressure enclosure has been established. HVAC systems, excluding LEV systems, should be inoperative. Containment area entrances should have a double barrier seal;
- Materials removed from the work area have been cleaned and the pathway for removal of bags and equipment is clear and clean;
- Waste shipment records are available;
- Generator labels are present at the worksite and are being applied to waste bags/bundles.

Pre-Removal Inspection

Facility inspections conducted prior to commencement of asbestos removal do not enable the inspector to fully evaluate the owner/operator's compliance with the asbestos NESHAP. However, if an inspector does arrive prior to the onset of removal activities, useful information still can be gathered. In this case the principal objectives are to verify that the asbestos NESHAP is applicable and that the owner/operator has the ability to remove the asbestos properly.

As with any inspection, safety must be considered before the inspection begins. Personal protection needs must be determined. As a general rule, if any friable ACM or non-friable ACM in poor

condition is being disturbed, treat the inspection as an active removal situation and follow appropriate PPE donning procedures.

The following summarizes inspection activities relative to NESHAP requirements.

Applicability [(\$61.141, §61.145(a))

Determine whether the asbestos NESHAP regulation applies to the site:

- Is the site is a "facility" as defined in the regulation?
- Are activities at the site regulated (demolition, renovation, waste disposal, etc.)?
- Will regulated amounts of RACM be disturbed (260/160/35)?

Be sure to record how measurements were made and ask the site representative to verify your estimates. Some inspectors have the representative sign a statement to that effect.

Notification [§61.145(b)]

Determine the accuracy of information conveyed during the pre-inspection interview.

- Is the worksite location accurate?
- Are the amounts and types of RACM designated for removal accurate relative to what will potentially be disturbed during the demolition or renovation?

Planned Emission Controls [§61.145(c)]

Observe equipment on site and elicit verbal explanations of planned emission control procedures to ascertain whether the owner/operator is sufficiently equipped and knowledgeable to meet the wetting and handling requirements of §61.145(c). Consider the following:

- Will water and wetting agents be available for wetting ACM before removal and for maintaining it in a wet condition until it is collected for disposal?
- If wet methods will not be used, what emission control methods are planned?
- Will RACM be removed or stripped more than 50 feet above ground level? If so, how will it be brought down?

Be aware that the asbestos NESHAP allows exemptions from *removal, stripping, wetting, and packaging* of RACM in certain situations. A detailed description of these exemptions can be found in "**Emission Control**" of the "**Active Removal Inspections**" portion of this chapter. ***Disposal Techniques (§61.150)***

Although the asbestos NESHAP delineates several waste disposal options, most owner/operators choose to remove RACM and package it for off-site transport. At the work site, determine the following:

- Are leak-tight containers or wrapping available to package RACM?
- Do these containers or wrappings exhibit the required OSHA danger label?
- If the RACM to be removed is destined for off-site transport, are labels containing the name of the waste generator and the location at which the waste was generated available?

Note: Either the owner's or operator's name is acceptable for identification of the waste generator, but many regulators prefer the operator's name be used, especially if more than one contractor is involved in the abatement. Some states may specifically require the owner's name, project contracts may require both.

- Where will the ACWM be deposited and how often will it be removed from the worksite?
- Are waste shipment record (WSR) forms available?
- Is the owner/operator aware of the NESHAP requirements regarding use of WSRs? (e.g., required information, delivery to waste disposal site, verification of disposal, recordkeeping, etc.)

Evidence Collection

In addition to the general information conveyed by the owner/operator, collect the following evidence during a pre-removal inspection:

- **Measurements** of area, linear footage or volume of suspect RACM that will be disturbed during the project. Document technique of measurement (tape measure, pre-measured pace, etc.).
- **Samples of materials that were stated in the notification to be RACM.** Collect these samples and document (using sketches and photographs) their specific locations within the facility. If the owner/operator later states that the notification was inaccurate (e.g., that the material removed did not contain asbestos), these samples may provide legal evidence to the contrary.
- **Samples of friable and non-friable suspect ACM which are likely to be disturbed during the demolition or renovation but which were not listed by the owner/operator in the notification.**

Collect these samples and document (using sketches and photographs) their specific locations within the facility.

Active Removal Inspections

To fully evaluate compliance of the asbestos NESHAP, be prepared to enter the active removal area. Follow the procedures discussed previously for pre-inspection observations and interview and select appropriate safety equipment and procedures to follow.

The inspector's principal objectives in entering the active asbestos removal area are to: (1) make first-hand observations of the adequacy of wetting and maintaining wetness until RACM is collected for disposal; (2) take samples of any suspect RACM to serve as evidence that a violation involved asbestos-containing material; and (3) accurately determine whether the quantity of suspect ACM meets the minimum regulated quantity of 260/160/35.

Entry Preparation

- If a three-stage decontamination unit is available, enter the clean room, remove street clothes (except bathing suit), and don PPE appropriately. Store street clothes in a plastic bag to keep them dry and clean.
- If there is no 3-stage decontamination unit, suit-up with double disposable coveralls over street clothes.
- Gather up inspection and sampling tools. Take into the active removal area only items that are disposable or can be cleaned in the shower. A comprehensive checklist of inspection materials has been included as an appendix in the manual.

Applicability [§61.141, §61.145(a)]

Determine whether the asbestos NESHAP regulation applies to the site:

- Is the site is a "facility" as defined in the regulation?
- Are activities at the site regulated (demolition, renovation, waste disposal, etc.)?
- Are regulated amounts of RACM being disturbed?

Be sure to record how measurements were made.

Notification [§61.145(b)]

- Is the worksite location accurate?
- Are the amounts and types of RACM being disturbed accurately noted on the notification form?

Emission Control [§61.145(c)]

- Has all RACM been removed from a facility being demolished or renovated before any activity begins that would break up, dislodge, or similarly disturb the material or preclude access to the material for subsequent removal? [§61.145(c)(1)]
- For facility component unit/section removal [§61.145(c)(2)]:
 - Has RACM exposed during cutting or disjoining operations been adequately wetted?
 - Are the units/sections carefully lowered to the floor or ground level and not dropped, thrown, slid or otherwise damaged or disturbed?
- Is RACM adequately wetted while being stripped from in-place facility components? [§61.145(c)(3)]
- Has a facility component which has been removed in units/sections been stripped or contained in leak-tight wrapping? [§61.145(c)(4)]
- Has the RACM, including material that has been removed or stripped [§61.145(c)(6)]:
 - been adequately wetted and maintained wet until collected and contained or treated in preparation for disposal?
 - carefully lowered to the ground and floor without dropping, throwing, sliding or otherwise damaging or disturbing it?

If the RACM has been removed or stripped more than 50 feet above ground level and it was not removed as units or in sections, has it been transported to the ground in leak-tight chutes or containers?

- Is there evidence posted at the site that at least one on-site representative has been trained in the provisions of this regulation and the means of complying with them? [§61.145(c)(8)]
- During an ordered demolition, is the portion of the facility containing RACM adequately wetted during the wrecking operation? [§61.145(c)(9)]
- Has all RACM, including Categories I and II non-friable ACM been removed before intentionally burning a facility? [§61.145(c)(10)]

Determination of Adequately Wet

“Adequately wet” (as defined in §61.141) means to:

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

The inspector is responsible for the overall determination of "adequately wet" relative to the above listed citation from the asbestos NESHAP. Always document whether or not material has been adequately wetted and how this determination was made. (Refer to EPA's *Asbestos/NESHAP Adequately Wet Guidance* document.)

The following questions and procedures will help document compliance with this provision of the asbestos NESHAP:

- Is there a water supply in place?
- Is water or a wetting agent observed being sprayed onto the RACM or ACWM both during stripping or removal and afterwards while the material awaits proper disposal? If yes, carefully note the method of application used (e.g., misting, fogging, spraying of surface area only, or drenching to penetrate the ACM throughout).
- Does the equipment used to apply the wetting agent appear to be operating properly?
- If an aqueous solution is not being used, determine why it is not and document the reason. Possible (although not necessarily valid) reasons include:
 - prior permission obtained from the Administrator (safety hazard, potential equipment damage);
 - no water source at the facility;
 - temperature at the point of wetting below 32 degrees F;
 - portable water supply ran out and contractor continued to work; or
 - contractor prepared the area earlier, etc.
- Examine a stripped or removed piece of suspect ACWM or RACM that wets readily. Does it appear to be wetted throughout? If it does not, photograph the material and then wet it. Describe how the physical characteristics of the material changed upon wetting (e.g., color, weight, texture, etc.). Take samples, as necessary, to document the presence of asbestos in the suspect material.
- When examining materials that do not readily absorb a wetting agent (e.g., pre-molded thermal system insulation, ceiling tiles, floor tiles), note whether all exposed surfaces of these materials have been wetted as required.

- Is there visible dust (airborne or settled) or dry suspect ACWM debris in the immediate vicinity of the operation? Collect samples of such materials and analyze them to determine their asbestos content.

Emission Control Exemptions [§61.145(a, c), §61.150(a)]

If the owner/operator is not following standard work practices relating to removal, stripping, wetting and packaging of RACM, carefully evaluate whether activities seen are justified by the following exemptions in the asbestos NESHAP:

Removal of ACM is not required before demolition if it:

- §61.145(a)(3)] - is located in a building which has been ordered by a government authority to be demolished. Wetting of the portion of the facility that contains RACM is required during the wrecking operation per §61.145(c)(9), and ACWM must be handled in accordance with waste disposal requirements of §61.150.
- §61.145(c)(1)(i) - is Category I non-friable ACM that is not in poor condition and not friable.
- §61.145(c)(1)(ii) - is on a facility component encased in concrete or other similarly hard material and is adequately wet whenever exposed during demolition. (Doubled concrete-block walls with risers inside do not meet the "encased in concrete" definition.)
- §61.145(c)(1)(iii) - was not discovered until after demolition began and therefore cannot be safely removed. The exposed RACM and any asbestos-contaminated debris must be treated as ACWM and must be adequately wet at all times until disposed of.
- §61.145(c)(1)(iv) - is Category II non-friable ACM and the probability is low that the material will become crumbled, pulverized, or reduced to powder during demolition.

Stripping of ACM from facility components is not required:

- §61.145(c)(4) - if the components have been taken out of the facility as a unit or in sections contained in leak-tight wrapping.
- §61.145(c)(5) - if large facility components (excluding beams) are handled without disturbing or damaging the RACM, are wrapped leak-tight, and are appropriately labeled.

Wetting is not required in renovation operations if:

- §61.145(c)(3)(i) - it would unavoidably damage equipment or present a safety hazard. Written approval from the Administrator must be obtained (and kept at the worksite) and either a local exhaust ventilation and collection system, glove-bag system, or leak-tight wrapping prior to dismantlement must be employed.

- §61.145(c)(3)(ii) - the Administrator has given written approval to an alternate equivalent method. This approval must be kept at the worksite.
- §61.145(c)(4) - a facility component taken out as a unit or in sections is contained in leak-tight wrapping, or an LEVC system is used while stripping the component.
- §61.145(c)(7) - the temperature at the point of wetting is below freezing. Facility components must be removed as units or in sections to the maximum extent possible and temperature records maintained.

Packaging of ACWM prior to disposal is not required if:

- §61.150(a) - no visible emissions are discharged to the outside air during the collection, processing (including incineration), packaging, or transporting of any ACWM generated by the source.
- §61.150(a)(3) - the ACWM results from a government-ordered demolition. (Wetting requirements still apply.)

Disposal Techniques (§61.150)

Although the asbestos NESHAP delineates several waste disposal options, most owner/operators choose to remove RACM and package it for off-site transport. During an active removal inspection determine whether:

- There are visible emissions to the outside air during the collection, processing (including incineration), packaging, or transporting of any ACWM.

If emissions are seen (dust, debris, etc.), gather samples and determine their asbestos content. The presence of asbestos in such dust constitutes a violation of §61.150. It is not necessary to be a certified visible emission observer to legally document whether a visible emission exists.

- ACWM is being adequately wetted.
- ACWM generated during ordered demolitions or demolitions where RACM is not required to be removed is kept adequately wet at all times after demolition and kept wet during handling and loading for transport to a disposal site. (Sealing in leak-tight containers or wrapping is not required; ACWM may be transported and disposed of in bulk.)
- Leak-tight containers or wrapping are being used to package removed RACM.
- Containers or wrappings exhibit the required OSHA warning label.
- Containerized RACM destined for off-site transport is labeled with the name of the waste generator and the location at which the waste was generated.

- Vehicles used to transport ACWM are appropriately marked during loading and unloading.
- The ACWM will be deposited at an appropriate waste disposal site as soon as is practical (excluding removed or stripped Category I non-friable ACM that is not RACM).

Verify the ACWM destination information reported in the notification and, if possible, conduct an inspection at the disposal site while ACWM is being deposited.

Inspection of Waste Containers

The presence of a regulatory inspector often causes the owner/operator to quickly and vastly improve wetting procedures. Inspectors can determine typical wetting procedures, however, by evaluating the contents of waste containers found both inside containment and in other waste storage areas. At the site:

- Randomly select bags or other containers for inspection.
- Lift the bag or container to assess its overall weight. A bag of dry ACWM can generally be lifted easily with one hand, whereas a bag filled with well-wetted material is substantially heavier.

If waste material is contained in a transparent bag:

- Visually inspect the contents of the unopened bag for evidence of moisture (e.g., water droplets, water in the bottom of the bag, change in color of the material due to the presence of water, etc.).
- Without opening the bag, squeeze chunks of debris to ascertain whether moisture droplets are emitted.

Note: Squeezing cannot be used to determine adequate wetting of materials such as ceiling tiles, floor tiles, or pre-molded TSI, etc. which do not readily absorb a wetting agent. For these materials, determine whether exposed surfaces have been adequately wetted, document information, and take samples as needed.

- If the material appears dry or not penetrated with water or a wetting agent, open the bag using steps described below and collect a bulk sample of each type of suspect material in the bag. Document variations in size, patterns, colors, and textures of adequately-and inadequately-wetted materials seen.

If the waste material is contained in an opaque bag or other container, or if the material in a transparent bag appears to be inadequately wetted:

- Carefully open the bag or other container (in the containment area, if possible). If there is no containment area, use a glove bag or attach a clear waste bag to enclose the container prior to opening it. This will minimize the risk of fiber release.
- Examine the contents of the container as noted above for evidence of moisture. Document findings, take samples as needed, and carefully reseal the opened container.

Note: If inadequately packaged suspect RACM stored outside is discovered upon arrival at a worksite, don protective gear and take samples before continuing the on-site inspection.

Waste Shipment Records [§61.150(d)]

Examine whatever on-site records exist to help determine if the owner/operator is complying with the waste shipment recordkeeping requirements of the asbestos NESHAP. Obtain copies (or originals) of documents that indicate potential noncompliance. If originals are acquired, leave a receipt with the facility representative and quickly return the originals after making copies for the Agency.

Evidence Collection

Collect the following specific evidence during an active removal inspection:

- **Measurements** of area, linear footage, or volume of suspect RACM to accurately document that 260/160/35 is met.

Document measurement technique (tape measure, pre-measured pace, etc.).

- **Samples of material that were stated in the notification to be RACM.**

Collect these samples and document (using sketches and photographs) their specific locations within the facility. If the owner/operator later states that the notification was misrepresentative (i.e., that the material removed did not contain asbestos), these samples may provide legal evidence to the contrary.

- **Samples of suspect RACM to document violations of the work practice standards.**

Document specific sample locations using photographs and sketches.

- **Samples of friable and non-friable suspect ACM which have been, or are likely to be disturbed during the demolition or renovation and which were not listed by the owner/operator in the notification.**

Collect these samples and document (using sketches and photographs) their specific locations within the facility.

- **Documents, statements of site personnel, and photographs which illustrate potential noncompliance.**

TSCA Compliance

During the inspection check for evidence of apparent violations of the AHERA, ASHARA (MAP) and WPR regulations. AHERA regulates asbestos abatement work conducted at schools. ASHARA (MAP) deals with abatement activities in public, commercial and industrial buildings. WPR regulations apply to State and local government employees who conduct asbestos abatement work and are not covered by the OSHA asbestos standard. Abbreviated checklists for the AHERA, ASHARA and WPR regulations are included as appendices to this workshop manual. The appropriate asbestos program personnel should be contacted and informed about the possible violations noted.

Exiting the Removal Area

Leave the active removal area when satisfied that the operation complies with the requirements of the asbestos NESHAP or when sufficient evidence (observations, samples, photographs, owner/operator admissions) to document potential violations has been collected.

- If a 3-stage decontamination unit is available, enter the dirty room and discard any asbestos-contaminated waste material. Remove disposable clothes (keep the respirator on), move into the shower area and clean reusable equipment. Quickly rinse head region and body, and remove respirator. Wet and dispose of filter cartridges. Finish showering and dry off using disposable towels. Move to clean room to dress in street clothes.
- If there is no three-stage decontamination unit, just prior to exiting, spray with water any materials to be taken offsite and set them outside the dirty area. Spray down and then remove the outer layer of the doubled disposable coveralls. Exit the dirty area and remove the second layer of coveralls. Use wet wipes to clean potential asbestos fibers from the respirator and face area before removing the respirator and disposing of cartridges.

Post-Removal Inspection

Inspection of a facility after asbestos removal has been completed is the least preferred option since an improper removal already would have released fibers to the ambient air. Arriving after removal has taken place, however, can still provide useful information.

Upon arrival, determine whether the use of protective clothing and respiratory protection is necessary. As a general rule, if there is any doubt concerning whether the area is cleared for re-occupancy, treat the inspection as an active removal situation and follow appropriate suit-up procedures.

The following inspection procedures apply to most post-removal inspections.

Applicability [§61.141, §61.145(a)]

Determine whether the asbestos NESHAP regulation applies to the site:

- Is the site is a "facility" as defined in the regulation?
- Are the activities that occurred at the site regulated (demolition, renovation, waste disposal, etc.)?
- Were regulated amounts of RACM disturbed (260/160/35)?

Be sure to record how measurements were made.

Notification [§61.145(b)]

- Note whether information conveyed during the pre-inspection interview is confirmed by on-site observations.

Emission Controls [§61.145(c)]

- Verify that all RACM required to be removed has been removed from a facility scheduled for complete demolition. Take samples as needed.
- Verify that *all* RACM, including *Category I and Category II non-friable ACM*, has been removed from a facility scheduled to be demolished by intentional burning. Take samples as needed.
- Visually inspect all renovated areas from which RACM is said to have been removed to verify that it has been done. No dust or debris should be left behind. Take samples as needed.

- Visually inspect other areas of the facility that will be disturbed during the impending demolition or renovation to determine if any other suspect RACM exists. Determine if 260/160/35 will be met and take samples as necessary.

Waste Disposal (§61.150)

If waste is still stored on site at the time of a post-removal inspection, inspect the containers to determine compliance. Use safety equipment and appropriate sampling procedures.

- Inspect for leaking or ripped bags, or other evidence of asbestos contamination.
- Lift bags or containers to assess their overall weight. A bag of dry ACWM can generally be lifted easily with one hand, whereas a bag filled with well-wetted material is substantially heavier.
- Inspect bags as noted in "Active Removal Inspections".

Evidence Collection

In addition to the general information conveyed by the owner/operator, collect the following specific evidence during a post-removal inspection:

- Samples of any suspect RACM left behind as dust, debris or residue.
- Measurements of area, length, or volume where RACM was removed, in order to establish that the facility met the applicability requirements.

Note: Document technique of measurement -tape measure, pre-measured pace, etc.

- Samples of any dry RACM from the storage area if still available.

Note: Use sketches and photographs to illustrate sample locations.

- Documents, statements of site personnel, and photographs which illustrate potential noncompliance.

Post-Inspection Interview

After completing the inspection, conduct a quick wrap-up interview to obtain any additional information necessary to complete the checklist and to convey to the site owner/operator the findings of the inspection.

If potential violations were seen, discuss the specific provisions of the asbestos NESHAP regulation that **may** have been violated. Highlight these areas in a copy of the regulation and document how the owner/operator reacts to the items discussed. This may prove useful if similar

violations are identified during follow-up inspections. Give the owner/operator the highlighted copy of the regulation and make note of this in the logbook.

Do not convey compliance determinations to the owner/operator while onsite because:

- Laboratory analyses have not been completed.
- There has been no time for reflection upon and correlation of observations.
- Statements such as "No violations were seen." or "Everything is OK." may create difficulties if violations are recognized later.
- The intricacies of EPA-administered statutes/regulations do not lend themselves to "off-the cuff" assessment.
- Onsite findings may represent only a portion of the enforcement case.

Also, **do not** supply a copy of field notes or inspection checklist to the owner/operator at the time of the inspection, for changes or additions made to such documents after leaving the site may be called into question should an enforcement action be pursued.

Exit Activities

Resurvey the site and complete any site drawings not finished prior to or during the inspection. If possible, observe the waste storage area and other areas to determine if any significant changes have occurred since the inspection began. Note such changes since they help to assess whether the previous observations are representative of operations when a regulatory inspector is not present. Finally, complete chain-of-custody forms for any samples collected.

Some inspectors, particularly if significant potential violations were seen, record the license plate numbers of vehicles at the site.