Asbestos Symposium 2014: Q&A Session

1. What training is needed for demolition activities?

   MIOSHA: To learn what training is needed for demolition activities, refer to the following MIOSHA Asbestos Program publication: Asbestos & Demolition/Renovation – MIOSHA's Requirements.

   NESHAP: For demolitions that are subject to the Asbestos NESHAP regulations, an individual trained in the provisions of 40 CFR Part 61, subpart M must be onsite during demolition involving regulated asbestos-containing material (RACM) above the threshold and/or during an ordered demolition.

2. What are the survey/inspection procedures during an ordered demolition when it is unsafe to survey/inspect the affected structure or portions thereof for the presence of asbestos-containing material?

   MIOSHA: MIOSHA rules 1926.1101(k)(2) and 1926.1101(k)(3) of Part 602 Asbestos Standards for Construction require a survey; there are no exceptions described in the regulations. If a building/facility owner or an employer does not conduct a survey, they will be cited for an alleged violation(s) of the appropriate regulation(s), unless a survey was not possible. MIOSHA will decide whether or not a survey was possible, on a case-by-case basis.

   NESHAP: Under NESHAP, a thorough inspection of a facility for RACM is not required before demolition and the facility may be demolished without removing the RACM before demolition, if a facility is being demolished under an order of a state or local government agency where the order is issued because the facility is structurally unsound and in danger of imminent collapse.

   The "Asbestos NESHAP Demolition Decision Tree" (EPA, 1994) provides a flow chart that describes how to deal with asbestos discovered during demolition activities and asbestos inspections in unsafe buildings. If the materials cannot be inspected because of an ordered demolition, suspect materials must be assumed to contain asbestos and handled according to the NESHAP. After demolition, suspect contaminated debris may be declared to be asbestos-free if it is inspected and the samples are found to contain no asbestos (one percent or less of asbestos). If asbestos is known to be present but cannot be safely segregated, all the debris must be treated as if it is asbestos-containing material.

3. Do individuals performing bulk sampling need 40-hour training?

   MIOSHA: The required training ranges in length from 16 to 24 hours.

   Bulk sampling is an activity in the definition of "inspection" in Act 440 of 1988, the Asbestos Workers Accreditation Act (Act 440). Act 440 requires that a person shall not inspect for asbestos-containing materials (ACM) in a school building or public and commercial buildings, unless that person receives a certificate of accreditation and maintains annual reaccreditation through training, examination, and continuing education. An asbestos inspector shall complete an initial 3-day (24 hours) training course and successfully pass an examination. Reaccreditation as an asbestos inspector requires completion of a 1/2-day (4 hours) annual refresher training course.

   A person who is certified by the American Board of Industrial Hygiene as a Certified Industrial Hygienist (CIH) is not required to be an accredited asbestos inspector in Michigan. However, we recommend a CIH complete initial and subsequent refresher training courses.

A person does not have to be accredited to conduct a limited scope inspection as defined in Act 440. Limited scope is an inspection associated with a remodeling, renovation, or maintenance activity in public and commercial buildings that involves not more than two homogeneous areas and not more than six bulk samples collected in a randomly distributed manner.

Bulk sampling is a disturbance activity when it disrupts the matrix of ACM, or presumed asbestos containing material (PACM). Therefore, a limited scope inspection is Class III asbestos work as defined by Part 602 Asbestos Standards for Construction. Persons conducting Class III asbestos work must receive at least 16 hours of training in accordance with Part 602, 1926.1101(k)(9)(v). If the person conducting Class III asbestos work is accredited under Act 440, he/she does not need the additional 16 hours (or more) of training stipulated in Part 602.

NESHAP: Not applicable (NA)

4. Is there any reason for individuals to continue with their Project Designer accreditation?

   MIOSHA: Yes. A person (project designer) still needs to receive a certificate of accreditation and maintain annual reaccreditation through training, examination, and continuing education under the Asbestos Workers Accreditation Act, Act 440 of 1988, to design a response action beyond the scope of a small-scale, short-duration operation, maintenance and repair activity, or a response action to a major fiber release episode, in a school building or a public and commercial building in Michigan. A full list of items that project designers may perform is found in Appendix C to Subpart E of Part of 40 CFR 763.

   NESHAP: NA

5. In what situation would it be appropriate to leave joint compound in a facility during demolition?

   NESHAP: Joint compound when used as a skim coat on the entire wallboard system is treated as an add-on material. It is only when joint compound and/or tape is used specifically to cover the joints and nail holes in a wallboard system that the materials may be averaged for a "composite" result per the Asbestos NESHAP. If a composite analysis shows an asbestos content of one percent or less, the wall system (which includes joint compound) may be left in the building during demolition. In 1992, EPA made an asbestos NESHAP applicability determination regarding sheetrock joint compound. EPA considers joint compound and/or tape applied to wallboard to be an integral part of the wallboard and in effect one material forming a wall system. This policy of compositing material for analysis is only applicable to sheetrock joint compound.

   MIOSHA: For purposes of determining applicability of the MIOSHA asbestos regulations, please note that MIOSHA/OSHA will not accept composite sampling even though the requirements of 40 CFR Part 763.86 are followed. Each material must be analyzed separately to determine if it contains more than 1 % asbestos. If a material contains more than 1% asbestos, then MIOSHA asbestos regulations apply. References:
   https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=22395
   https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=22584
   https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=22753
   https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=24205

6. What are the requirements for labeling during on-site work activities?

   MIOSHA: Appropriate labels shall be affixed to all products containing asbestos and to all containers containing such products, including waste containers. When feasible, installed asbestos

products shall contain an appropriate visible label. For additional labeling information, please refer to Paragraph 29 CFR 1926.1101(k) of Part 602 Asbestos Standards for Construction.

NESHAP: The Asbestos NESHAP regulations state to label the waste containers or wrapped materials using warning labels specified by Occupational Safety and Health Standards of the Department of Labor, Occupational Safety and Health Administration (OSHA) under 29 CFR 1910.1001(j)(2) or 1926.58(k)(2)(iii). The labels shall be printed in letters of sufficient size and contrast so as to be readily visible and legible. For asbestos-containing waste material to be transported off the facility site, label containers or wrapped materials with the name of the waste generator and the location at which the waste was generated.

7. Do you have to segregate demolition material?

   MIOSHA: Part 602 Asbestos Standards for Construction does not require segregating asbestos-containing material from non-asbestos-containing demolition material. However, if these materials are intermingled and cannot be completely separated, all the materials must be treated as asbestos-containing materials. For additional information, please refer to Part 602 Asbestos Standards for Construction.

   NESHAP: Under the Asbestos NESHAP regulations however, if the asbestos-containing material is not regulated (RACM) and permitted to stay in place during demolition, there are no requirements for waste segregation or disposal. If the asbestos-containing material is considered RACM, then it must be handled in accordance with 40 CFR Part 61, subpart M. For more information refer to the NESHAP definition of RACM.

   If a facility or a portion of a facility cannot be thoroughly inspected for asbestos prior to demolition or the RACM cannot be safely removed, there may be certain circumstances where segregating asbestos-containing waste materials from the demolition debris are feasible. For more information, please refer to the attached EPA Demolition Decision Tree Guidance Document.

8. What type of signage is necessary during transportation of waste?

   MIOSHA: Waste containers must be labeled in accordance with Paragraph 1926.1101(k) of Part 602 Asbestos Standards for Construction. For waste transportation requirements contact the Michigan State Police, Motor Carrier Division.

   NESHAP: Same as MIOSHA

9. Can you use a floor grinder to remove mastic if you are utilizing sand and water?

   MIOSHA: No. A floor grinder utilizing sand and water must not be used to remove mastic.

   Using the procedure specified in a booklet titled "Recommended Work Practices for Removal of Resilient Floor Coverings," (published by the Resilient Floor Covering Institute), adhesive (mastic) may be removed using a floor machine fitted with a 3M™ Black Stripper Pad 7200 (or equivalent), ensuring that the floor is kept wet in the area where the machine is operating. Adhesive around the edge of the room and in areas that were missed or difficult to reach with the machine can be removed with a hand-held piece of the 3M Black (or equivalent) floor pad.

   NESHAP: Under the Asbestos NESHAP regulations, a floor grinder used with sand and water to remove mastic will render the material friable. If the amount of mastic removed is 160 square feet or more, NESHAP requirements apply.

10. For mastic removal, what method makes it friable and what method of removal makes it non-friable?

    MIOSHA: For floor tile and mastic, the mechanical means which would render materials friable include bead blasters, rotating blade scrapers (buffers with blades), jackhammers, mechanical sanders, rotating blade saws. Allowable manual methods which keep the materials non-friable include scrapers (extensive breakage may render the material friable), dry ice, wetting, solvents (for mastic). Allowable mechanical means which keep the materials non-friable include infrared machines and gas or electric powered chisels (extensive breakage may render the materials friable).

    NESHAP: Under the Asbestos NESHAP regulations, any method that will sand, grind, abrade, cut any non-friable Category I materials, will render them friable. Please refer to the Asbestos NESHAP Demolition Practices document for discussion on methods that may render Category I materials friable.

11. What are the labeling requirements for GHS?

    MIOSHA: For your guidance, please visit the following web site for information regarding the Globally Harmonized System (GHS) of Classification and Labeling of Chemicals: http://www.michigan.gov/lara/0,4601,7-154-61256_11407_30453-93831--,00.html (click on Hazard Communication/Right to Know, then click on publication number 5531).

    NESHAP: NA

12. Where is the appropriate location for decontamination?

    MIOSHA: For employees performing Class I, II, III, and IV asbestos work, a decontamination area must always be adjacent to the regulated area. For employees performing Class I asbestos jobs involving over 25 linear or 10 square feet of TSI or surfacing ACM/PACM, the decontamination area must be adjacent and connected to the regulated area.

    NESHAP: NA

13. If a contractor is only removing less than 25 linear feet of asbestos, does the decontamination facility need to be at adjacent to the work, or can it be in a trailer outside (remote decontamination)?

    MIOSHA: The decontamination facility must be established adjacent to the regulated area, not remotely located. See the provisions in Rule 1926.1101(j)(2) of Part 602 Asbestos Standards for Construction for details.

    NESHAP: NA

14. In a negative pressure enclosure, are you permitted to do prohibited work activities?

    MIOSHA: Prohibited work activities are not permitted. As specified in Rule 1926.1101(g)(3) of Part 602 Asbestos Standards for Construction, the following work activities are prohibited in a negative-pressure enclosure, regardless of the measured levels of asbestos exposure or the results of initial exposure assessments:
    - Use of a high-speed abrasive disc saws that are not equipped with point of cut ventilator or enclosures with HEPA filtered exhaust air.

- Use of 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.
- Dry sweeping, shoveling or other dry clean-up of dust and debris containing ACM and PACM.
- Employee rotation as a means of reducing employee exposure to asbestos.

NESHAP: Under the Asbestos NESHAP regulations, wetting requirements are only waived if the owner or operator has obtained prior written approval from the administrator of the Asbestos NESHAP program. Certain requirements must be met in order to obtain approval. For additional information, please refer to the Asbestos NESHAP section 61.145 (c) 'Procedures for asbestos emission control.'

15. Is asbestos awareness training required for all outside contractors?

MIOSHA: On September 11, 2013, MIOSHA Construction Safety & Health Division responded in writing to several questions posed by the Associated General Contractors of Michigan (AGC) concerning asbestos awareness training and training for Class IV asbestos work. Please view the contents of MIOSHA's response to AGC's questions here.

NESHAP: NA

16. Is there an exemption for demolition waste?

MIOSHA: Demolition of a building with ACM left in place falls under the definition of removal of installed ACM. The removal of installed ACM is either Class I or Class II asbestos work, and all applicable requirements of the regulations apply. Whether such demolition is Class I asbestos work or Class II asbestos work is determined by the type of ACM left in place. If any asbestos-containing thermal system insulation or surfacing material is left installed in the building, then the work being performed is Class I asbestos work. If the ACM left installed in the building does not include any thermal system insulation or surfacing material, then the work being performed is Class II asbestos work.

NESHAP: Under normal circumstances, Asbestos NESHAP Category I non-friable materials need not be removed prior to demolition or renovation. **This is not, however, a hard and fast rule; each facility must be evaluated on a case by case basis.** If Category I materials have become friable or are in poor condition, they must be removed. Also, if you sand, grind, abrade, cut or render friable any non-friable materials, including Category I materials, you must treat the material as friable, if more than the jurisdictional amount is involved.

Category II materials: These materials should be evaluated on a case-by-case basis. If Category II non-friable materials are likely to become crushed, pulverized or reduced to powder during demolition or renovation, they should be removed before demolition or renovation begin.

If, for safety reasons, the RACM in the facility is not removed prior to demolition, the RACM must be kept adequately wet during the wrecking operations. After wrecking, all the contaminated debris must be kept adequately wet until disposal. All contaminated debris which cannot be segregated and cleaned should be disposed of as asbestos containing waste material.

17. Is medical surveillance required for individuals using PAPR's for less than 30 days?

    MIOSHA: No, medical surveillance is not required for individuals using PAPR's for less than 30 days per year.

    NESHAP: NA

18. Can you perform shot-blasting in a negative pressure enclosure without water for removing vinyl and asphalt flooring materials?

    MIOSHA: No. Regardless of the levels of exposure, the employer must always use wet methods, or wetting agents, to control employee exposures during asbestos handling, mixing, removal, cutting, application, and cleanup, except where it can be demonstrated that the use of wet methods is infeasible. Shot-blasting (mechanical chipping) is prohibited unless performed in a negative-pressure enclosure which meets the requirements of Rule 1926.1101(g)(5)(i) of Part 602 Asbestos Standards for Construction.

    NESHAP: Under the Asbestos NESHAP regulations, wetting requirements are only waived if the owner or operator has obtained prior written approval from the administrator of the Asbestos NESHAP program. Certain requirements must be met in order to obtain approval. For additional information, please refer to the Asbestos NESHAP section 61.145 (c) 'Procedures for asbestos emission control.'

19. Who is responsible for missed items on a survey: the 3rd party contractor who performed the survey?

    MIOSHA: If ACM or PACM is missed on a survey, all employers who discover the missed ACM and/or PACM on a worksite must: (1) comply with the applicable protective provisions to protect their employees (for example, remove their employees from the area until the asbestos hazard is abated), and (2) convey information concerning the presence, location, and quantity of such newly discovered ACM and/or PACM to the owner and to other employers of employees working at the work site, within 24 hours of the discovery.

    NESHAP: Under the Asbestos NESHAP regulations, a facility is required to be thoroughly inspected for the presence of asbestos prior to the renovation and/or demolition. Both the owner and the operator are held equally liable under the regulation if a thorough inspection is not conducted.

20. When performing a demolition survey, does the individual performing the survey have to be a PE?

    MIOSHA: Please refer to Rule 2031(1) of Part 20 Demolition. The rule does not state that the individual performing the survey be a professional engineer (PE). However, the individual must be a competent person knowledgeable in demolition. A copy of the survey must be available at the work site or at least be at the main office and readily available for review.

    NESHAP: NA

21. Are demolition surveys being reviewed or followed-up on during investigations/inspections?

    MIOSHA: Yes, questions regarding the demolition survey are routinely asked during investigations/inspections at demolition sites.

    NESHAP: NA

22. Should there be testing of ACM if it is less than 1% but employee exposures are in excess of the PEL?

    MIOSHA: If employee exposures to asbestos fibers exceed the permissible exposure limit (PEL), testing may be conducted on the materials. If prior testing has shown the ACM to be less than one percent, then employers must do whatever is necessary, using the hierarchy of controls (engineering, administrative, PPE) to ensure that employees are not exposed above the PEL.

    NESHAP: The Asbestos NESHAP regulations require that materials with an asbestos content of less than 10 % (including trace amounts) as determined by a method other than point counting by PLM (Polarized Light Microscopy) be verified by point counting using PLM. (Unless the material is already considered ACM and will be managed as such).

23. Are there plans to develop a smart phone app for the on-line services?

    MIOSHA & NESHAP: There is currently no plan to develop a smart phone application.

24. Who is responsible to inspect for material suspected of being ACM? Example: Floor tile

    MIOSHA: Before work is begun, building and facility owners must <u>determine</u> the presence, location, and quantity of ACM and/or PACM at the work site, and must notify all affected persons. Also, before work in areas containing ACM and/or PACM is begun, employers must <u>identify</u> the presence, location, and quantity of ACM, and/or PACM, and also must inform all affected persons.

    NESHAP: Under the Asbestos NESHAP regulations, a facility is required to be thoroughly inspected for the presence of asbestos prior to the renovation and/or demolition. Both the owner and the operator are equally liable to thoroughly inspect the facility.

25. Is the quantity of asbestos being removed for a large project per house or per project (i.e., for a 50 house group, the first house has 200 feet of asbestos wrapped pipe (RACM), and the 2nd house has 60 feet of pipe, is that 2 separate instances, or is the threshold (260 ft.) cumulative for all houses in the project)?

    NESHAP: If the amount of RACM to be stripped, removed, dislodged, cut, drilled, or similarly disturbed in a group of residential buildings under the control of the same owner or operator, and part of the same renovation or demolition project (even if the homes are not proximate to each other), equals or exceeds 260 linear feet on pipes, 160 square feet on other facility components or 35 cubic feet off facility components, notification must be provided.

    MIOSHA: NA

26. How many samples do you have to take for friable miscellaneous material?

    MIOSHA & NESHAP: 40 CFR part 763.86(c) says that “an accredited inspector shall collect bulk samples [plural] from each homogeneous area of friable miscellaneous material that is not assumed to be asbestos containing material.” Therefore, at least two samples must be taken.

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27. How many samples do you have to take for non-friable suspected asbestos-containing building material?

    MIOSHA & NESHAP: 40 CFR Part 763.86(d) says that, "If any homogeneous area of nonfriable suspected ACBM is not assumed to be ACM, then an accredited inspector shall collect, in a manner sufficient to determine whether the material is ACM or not ACM, bulk samples [plural] from the homogeneous area of nonfriable suspected ACBM that is not assumed to be ACM." Therefore, at least two samples must be taken.

28. How many samples of miscellaneous material or non-friable suspected material must be taken to determine if the material is asbestos-containing material (ACM)?

    MIOSHA & NESHAP: For miscellaneous material, 40 CFR part 763.86(c) states that "in a manner sufficient to determine whether material is asbestos-containing material (ACM) or not ACM, an accredited inspector shall collect bulk samples [plural] from each homogeneous area of friable miscellaneous material that is not assumed to be ACM." Although a specific number of samples are not mentioned, at least two samples from each homogeneous area of miscellaneous material must be taken due to the use of plural form ("samples") of the word sample. An accredited inspector may determine that more than two samples are necessary to determine whether or not the material is ACM. In regards to non-friable suspected material, 40 CFR Part 763.86(d) also uses the plural word "samples" and therefore also requires a minimum of two samples. An accredited inspector can use his or her discretion to take more than two samples.