One of the most common misconceptions an environmental consultant with a focus on industrial hygiene, and specifically asbestos, is confronted with is that newer buildings, specifically those built after 1980, cannot contain asbestos. This would mean they are not subject to asbestos inspection and sampling provisions required by EPA’s National Emission Standards for Hazardous Air Pollutants: Asbestos (Asbestos NESHAP) [40 Code of Federal Regulations (CFR) Part 61, Subpart M]. Asbestos NESHAP states that “the owner or operator of a demolition or renovation activity and prior to the commencement of the demolition or renovation will thoroughly inspect the affected facility or part of the facility where the demolition or renovation operation will occur for the presence of asbestos.” The term facility, as defined in Asbestos NESHAP, excludes residential buildings having four or fewer dwelling units.

The basis for this misunderstanding appears to derive from misinterpretations of the following:

- EPA asbestos bans, including the “Ban and Phase Out” (40 CFR 763, Subpart I);
- OSHA asbestos standards (Construction (29 CFR 1926.1101) and General Industry (29 CFR 1910.1001);

**Banned Asbestos-Containing Products**

Contrary to most widely held opinions, products containing asbestos have not been completely banned for use or import in the U.S. In fact, the list of banned asbestos-containing products is limited to only ten types of building products, plus the prohibition on newly developed uses for asbestos. The list includes:

- Surfacings, defined in 40 CFR 763, Subpart E, as material that “is sprayed-on, troweled-on or otherwise applied to surfaces,” were among the first products banned. The following asbestos-containing surfacing materials are currently subject to ban:
  - spray-applied asbestos-containing material (ACM) for fireproofing/insulating (banned by NESHAP in 1973);
  - spray-applied ACM banned for “decorative” purposes (banned by NESHAP in 1978);
  - spray-on application of ACM to buildings, structures, pipes and conduits unless the material is encapsulated with a bituminous or resinous binder during spraying and the materials are not friable after drying (banned by NESHAP 1990).

The following asbestos-containing thermal system insulations, defined in 40 CFR 763, Subpart E, as material that “applied to pipes, fittings, boilers, breeching, tanks, ducts or other interior structural components to prevent heat loss or gain, or water condensation, or for other purposes,” are currently subject to ban:

- installation of wet-applied and preformed (molded) asbestos pipe insulation (banned by NESHAP in 1975);
- installation of preformed (molded) asbestos block insulation on boilers and hot water tanks (banned by NESHAP in 1975).

The following asbestos-containing miscellaneous products are subject to ban in accordance with 40 CFR 763, Subpart I:

- corrugated paper;
- rollboard;
- commercial paper;
- specialty paper;
- flooring felt;
- new uses of asbestos.

Following a 1991 appeals court ruling that overturned a large portion of the “Asbestos Ban and Phase Out” rule (40 CFR 763, Subpart I), the following common consumer products are still allowed for use in the U.S.:

- vinyl-asbestos floor tile;
- roofing felt and coatings;
- asbestos-cement products (corrugated and flat sheets, shingles, pipe);
- asbestos clothing;
- pipeline wrap.
• millboard;
• gaskets;
• non-roofing coatings;
• automotive products (automatic transmission components, clutch facings, friction materials, disc brake pads, drum brake linings, brake blocks).

Thus, it is evident from these lists that numerous building products may potentially still be manufactured with asbestos, and with the proliferation of products installed in buildings today imported from nations that do not regulate asbestos as strongly as the U.S., there is a very real potential for installation of new products containing asbestos.

**PRESUMED ASBESTOS-CONTAINING MATERIAL**

While the misunderstanding related to the non-banning of most ACM is a major component in the failure to properly inspect all buildings prior to renovation/demolition, nothing has done more to confuse the issue than OSHA’s revision to the asbestos standards for Construction (29 CFR 1926.1101) and General Industry (29 CFR 1910.1001) in 1994. These revisions introduced the concept of the presumed asbestos-containing material (PACM).

PACM was defined as “thermal system insulation and surfacing material found in buildings constructed no later than 1980.” Elsewhere in these two regulations, the 1980 date was included as the cutoff date for which asphalt and vinyl flooring material needed to be considered asbestos-containing, if not proven otherwise by laboratory analysis.

However, nowhere in this regulation is it stated that materials in buildings constructed later than 1980 were to be considered non-asbestos-containing. Nevertheless, this date is often incorrectly cited in environmental reports, including many Phase I environmental site assessment reports, as the date after which asbestos in building materials ceases to be a concern.

A further source of confusion regarding the need to conduct asbestos inspections is the so-called “architect’s letter” exclusion described in 40 CFR Part 763.99(a)(7) of the “Asbestos-Containing Materials in Schools” rule. This exemption allows “an architect or project engineer responsible for the construction of a new school building built after Oct. 12, 1988 or an accredited inspector signs a statement that no ACBM (asbestos-containing building material = surfacing ACM, thermal system insulation ACM or miscellaneous ACM that is found in or on interior structural members or other parts of a school building) was specified as a building material in any construction document for the building, or, to the best of his or her knowledge, no ACBM was used as a building material in the building.” This exemption applies only to this regulation and does not meet the requirements of a thorough inspection as required by the asbestos NESHAP.

In addition, the procurement of such a letter does not meet the requirements that OSHA has set forth in the asbestos standards for construction (29 CFR 1926.1101) and general industry (29 CFR 1910.1001) for the rebuttal of a material designated as PACM. OSHA specifically states that bulk samples must be collected and analyzed to declare that a material is not asbestos-containing.

**IDPH INITIATIVE**

The Illinois Department of Public Health (IDPH), which in addition to its role in regulating healthcare facilities in the State of Illinois, has the authority for insuring compliance with the Asbestos Abatement for Public and Private Schools and Commercial and Public Buildings in Illinois (77 Illinois Administrative Code (IAC) 855). Under this authority, IDPH issued an Aug. 20, 2007, letter addressed to healthcare facility owner/operators regarding this very issue, and while IDPH has no authority outside Illinois, the letter addresses the need for building owners to comply with the Asbestos NESHAP, which is a federal regulation not subject to interference by individual states. In the letter, IDPH states that building owners must comply with the inspection requirements of Asbestos NESHAP and that “this requirement applies to all buildings regardless of age or certification of construction. In fact, buildings cer-
tified by an architect to have been constructed free of asbestos, still must undergo an inspection.”

Asbestos NESHAP requires that the owner or operator of a structure perform a thorough asbestos inspection of any area that will undergo renovation or demolition activity prior to the commencement of such activity but does not include residential buildings with four or fewer dwelling units. This regulation does not contain any timeframe after which an asbestos inspection need not be performed.

In addition, there are no exemptions or exclusions under which the asbestos inspection requirements are waived except for certain residential buildings as stated previously. All buildings, except for residential structures of four or fewer dwelling units, are subject to Asbestos NESHAP regardless of the structure’s age. Prior to performing any renovation and/or demolition activity, the owner or operator must conduct an asbestos inspection, including bulk sample collection and analysis, as appropriate, of any area of the structure that will be impacted by the renovation and/or demolition activity.

CONCLUSION

As the pace of new building construction continues to move slowly, building owners and operators are more often turning to renovation to increase the value of their buildings. It is essential that building owners, and the professional firms that work with them, understand the regulatory requirements when it comes to asbestos in buildings and that accredited and, if required by state regulations, licensed asbestos professionals be consulted to ensure that the project is performed in full compliance with the applicable regulations. Furthermore, as asbestos-containing products continue to be available in the market, building owners and professionals involved in building construction, whether new or renovation, should ensure that building materials used on their projects have been determined to be non-asbestos-containing and that documentation (test results, manufacturer’s certification) ascertaining their non-asbestos status be maintained in the building’s records.

REFERENCES


Brendan J. Quealy, EI, is the department manager for industrial hygiene/asbestos services for Terracon Consultants Inc., in Naperville, IL. He has more than 19 years’ environmental and industrial hygiene consulting experience. Terracon is an employee-owned engineering consulting firm with more than 2,700 employees providing geotechnical, environmental, construction materials and facilities services from more than 100 offices in 39 states nationwide.

OSHA Seeks Materials for Training Mini-Videos

OSHA is producing several training mini-videos on various aspects of respiratory protection for workers in general industry and construction (e.g., fit testing, respiratory hazards in the workplace, medical evaluations, etc.). OSHA requests your help in acquiring materials to use in the mini-videos.

Any video footage or photos (300 dpi print quality or better) that you can provide would be appreciated. Video/photos of workplace hazards that could require respiratory protection, as well as workers actually using respiratory protection of any type (half/full facepiece, powered-air purifying respirators, supplied-air respirators), would be helpful. OSHA can also work with appropriate pieces from a company’s plant tour/employee training/promotional materials. Any material used will be credited.

The new training videos will be similar to the mini-videos that OSHA produced in 2009:
• The Difference Between Respirators and Surgical Masks.
• Respirator Safety: Donning (Putting on) and Doffing (Taking off) and User Seal Checks.

Please contact Natalia Stakhiv at stakhiv.natalia@dol.gov with any questions. Submit all videos/photos to Krista Sonneson at ksonneson@asse.org.