

Summary of Changes (v19.08)

1. Comprehensive updates necessary for TG 13281 Attachment A Technical Guide (last update was done in May 2003) and now incorporated into TG 13281 (was part of TG13280).

Removal and Disposal of Asbestos Containing Materials (ACM) (Attachment A) TECHNICAL GUIDE

TG 13281

DISCUSSION OF THRESHOLDS AND WORK PRACTICES IN EPA REGULATIONS FOR ROOF REMOVAL WORK

1. EPA recently simplified roof removal work by the publication of an Interpretative Rule (see Attachment B).
2. Category I roofing: Our main interest regarding the Rule pertains to nonfriable asbestos containing material (ACM) which are classed as Category I. These include existing nonfriable asphalt built up roofing, underlayment felts, asphaltic shingles, roof coatings and mastics, and base flashings. ACM is defined by EPA and OSHA as any material containing more than 1% asbestos. Any ACM which is regulated under NESHAP is referred to as "regulated asbestos containing material" or RACM. See Attachment B when roofing is friable.
3. Thresholds: Category I roofing is excluded (not regulated) under the National Emission Standards and Hazardous Air Pollutants (NESHAP) when:
 - A. The roof removal project is for a single dwelling or a residential building containing four or fewer units.
 - B. Roof area is less than 160 SF regardless of removal method or type or condition (friable or nonfriable) of roofing material.
 - C. Roofing material is nonfriable and area is less than 5,580 SF when a rotating blade (RB) cutter is used to cut roof material.
 - D. Roofing material is nonfriable and area of any size when the method used for removal does not cut, grind, or abrade the material. (See 4B below).
4. Removal methods for Category I roofing are as follows:
 - A. Subject to NESHAP (Asbestos abatement regulations apply): Removal method involves cutting (as opposed to "slicing") using a rotating blade (RB) cutter, sanding, grinding or abrading such that the structural matrix is destroyed resulting in the material becoming crumbled, pulverized or reduced to powder.
 - B. Not subject to NESHAP (Asbestos abatement regulations do not apply):
 - 1) Manual methods, using equipment such as axes, hatchets, or knives, spud bars, pry bars, and shovels (but not saws) that slice, shear, punch or pry.
 - 2) Power equipment with sharp or tapered blades that "slice" rather than cut.
 - 3) Power removers or power tear-off machines that pry the roofing material from the deck.
5. Non-regulated work. If the project roof area is under the above thresholds or the project specifications are written to restrict the roof removal to a method not subject to NESHAP, then the following NESHAP requirements will not apply and the work can be done by a roofing contractor:
 - A. Certified asbestos removal contractor and asbestos trained workers. (OSHA requires that all workers handling ACM be trained in at least a minimum 8-hour asbestos awareness

- course including hands on training and that the project be supervised by a "competent person" as defined in the OSHA standard).
- B. Notification.
 - C. Wetting (Required by OSHA).
 - D. Waste collection and disposal: (Although NESHAP considers the debris as non-asbestos waste, private and municipal landfill operators may impose their own restrictions, such as bagging, and waste disposal).
 - E. Note: To handle ACM, the roofing contractor will have to conform to OSHA regulations for asbestos work. See Attachment C.
6. Category II roofing, which includes asbestos-cement shingles and sheets, is of less interest to us as this material is not often encountered or in need of replacement.
7. Thresholds: Category II roof removal is not subject to NESHAP when:
- A. The roof removal project is for a single dwelling or a residential building containing four or fewer units.
 - B. Roof area is less than 160 SF, regardless of removal method or condition (friable or nonfriable) of roofing material.
 - C. Roof of any size if the material is not crumbled, pulverized, reduced to powder, or contaminated with RACM (from other ACM that has been crumbled, pulverized or reduced to powder).
8. Removal methods for Category II ACM are as follows:
- A. Subject to NESHAP.
 - 1) The roofing material has a high probability of becoming crumbled, pulverized or reduced to powder by the forces expected to act on the material.
 - 2) Material is dropped from a building.
 - 3) Material is scraped off a building with heavy machinery.
 - B. Not subject to NESHAP.
 - 1) Material is removed using methods that do not crumble, pulverize or reduce the material to a powder (such as with pry bars, spud bars, and/or shovels used to carefully pry the material).
 - 2) The material is carefully handled during and after removal.
 - C. As with Category I material, the work can be done by a roofing contractor if not regulated by NESHAP, as described in paragraph 5 above.

END OF SECTION 13281 - ATTACHMENT A