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Determination Detail

Control Number: A070006

Category: Asbestos
EPA Office: CAMPD
Date: 01/31/2007
Title: Rounding Reported Values
Recipient: Zlatic, Michael
Author: Alushin, Michael
Comments:

Subparts: Part 61, M Asbestos

References: Part 763, Subpart E, Appendix E, Section 1
61.141

Abstract:

Q: Could EPA clarify to the Saint Louis County Health Department in Missouri how best to interpret the following phrase in 40 CFR part 63, subpart E: "the value reported should be rounded to the nearest percent", in connection with point counting results to determine the percentage of asbestos as between 1.0 percent and 1.5 percent and defining Category I and Category II nonfriable asbestos-containing material (ACM)?

A: EPA explains that when a bulk sample is analyzed using Polarized Light Microscopy, and further quantified using the point counting method/formula in 40 CFR Part 763, Subpart E, Appendix E, Section 1.7.2.4, sample results are allowed to be rounded to the nearest percent. EPA interprets the rounding of results using the formula in Section 1.7.2.4 as, if the sample result yields a=4, “a” being the number of asbestos counts, the

result is 1 percent, which does not meet the regulatory threshold of greater than 1 percent. If the sample result yields a=5, the result is 1.25 percent asbestos, which may be rounded down to 1 percent, which is not greater than 1 percent and therefore not regulated. If the sample result yields a=6, the result is 1.5 percent asbestos, which would be rounded to 2 percent and therefore regulated.

Letter:

January 31, 2007

Mr. Michael A. Zlatic, P.E.
Chief Environmental Engineer
Saint Louis County Health Department
Division of Environmental Protection
111 South Meramec Avenue
St. Louis, MO 63105

Dear Mr. Zlatic:

This responds to your letter of May 22, 2006 in which you request an EPA determination that addresses how the following sentence found in 40 CFR Part 763, Subpart E, Appendix E, section 1.7.2.4 should be implemented: "The value reported should be rounded to the nearest percent." You specifically ask how this sentence should be interpreted in connection with point counting results placing the percentage of asbestos as between 1.0% and 1.5% because the asbestos NESHAP specifically defines Category I and Category II nonfriable asbestos-containing material (ACM), in relevant part, as "containing more than 1 percent asbestos as determined using the methods specified in Appendix E, Subpart E, 40 CFR Part 763, section 1, Polarized Light Microscopy,:

The sentence at issue first appeared in EPA's regulations in 1982. On May 27th of that year, EPA promulgated a Final Rule entitled Friable Asbestos-Containing Materials in Schools; Proposed Identification and Notification (47 FR 23360). In that final rule, EPA took a document originally entitled Interim Method for the Determination of Asbestiform Minerals in Bulk Insulation Samples, which had been referenced in EPA's proposed rule, and made it an appendix (specifically, Appendix A - Interim Method of the Determination of Asbestos in Bulk Insulation Samples) to the final regulatory text. Subsequently, when these regulations were amended in 1987, becoming EPA's current Asbestos-Containing Materials in Schools regulations (40 CFR Part 763, Subpart E), what was formerly Appendix A became, with some modification, Appendix E. The sentence at issue previously was found in Appendix A and is included in the current Appendix E, Subpart E.

In responding to your inquiry, my staff researched previous Federal Register Notices,

Agency guidance documents, and files from Docket # OPTS 61004B; TSH-FRL 2064-3 (the docket for the Agency's 1982 Final Rule promulgating the Friable Asbestos-Containing Materials in Schools regulations). They did not locate any specific reference in these materials discussing the sentence in Section 1.7.2.4. However, there are discussions in several documents in this docket regarding the variability of sample results analyzed by different laboratories. Based on results of sampling analysis by commercial and non-commercial laboratories, the Agency determined that the technical capability of the microscopist was crucial for proper sample analysis. In order to improve the sample analysis results by the microscopist, the Agency developed the previously mentioned document entitled Interim Method for the Determination of Asbestiform Minerals in Bulk Insulation Samples. In addition, the Agency worked with the Department of Commerce to develop a laboratory accreditation program to ensure accurate sample analysis.

Based on our research, it is EPA's position that when a bulk sample is analyzed using Polarized Light Microscopy, and further quantified using the point counting method, 40 CFR Part 763, Subpart E, Appendix E, section 1.7.2.4 (specifically, the sentence for which you are seeking clarification) allows for the rounding of such results to the nearest percent. For example, if the percent asbestos is calculated for a sample using the formula set forth in Section 1.7.2.4 - i.e., % asbestos = (a/n) 100%, where a=number of asbestos counts and n= number of nonempty points counted (400) -- and the sample result yields a=4, the result is 1% asbestos, which does not meet the greater than 1% asbestos regulatory threshold for ACM. If a sample result yields a=5, the result is 1.25% asbestos. In this case, section 1.7.2.4 of Appendix E allows rounding of the result to 1%. Accordingly, if rounded, this result does not meet the greater than 1% regulatory threshold for ACM. If the sample result yields a=6, the result is 1.5% asbestos. In rounding this sample result to the nearest percent, the result is 2% asbestos. This sample result is greater than 1% and therefore the tested material qualifies as ACM.

The Office of Civil Enforcement, the Office of Air Quality Planning and Standards, the Office of Prevention, Pesticides and Toxic Substances and the Office of General Counsel have reviewed this determination.

Very truly yours,

Michael S. Alushin
Compliance Assessment and Media Programs Division Office of Compliance

cc: Tahani Rivers, OCE
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