



## MEMORANDUM

July 30, 2009

To: Asbestos Regulated Community

From: Robin S. Mack, Asbestos Section Manager

RE: Questions regarding state regulatory requirements for sampling and analyzing non-friable organically bound (NOB) materials

The purpose of this memorandum is to clarify the state regulatory requirements for sampling and analyzing NOB materials.

Q1. What is a NOB material?

A1. **ASTM E 2356-04** defines NOB materials as “materials that are not friable and that consist of fibers and other particulate matter embedded in a solid matrix of asphaltic, vinyl or other organic substances.”

Q2. What are examples of NOB materials?

A2. Examples of NOB materials include but are not limited to flooring materials (floor tiles (vinyl and asphaltic) and sheet flooring), adhesives, mastics, asphalt shingles, roofing materials, glazing, caulks, and cove base.

Q3. Is sheet vinyl considered a NOB material since the asbestos fibers are not in the vinyl facing but in the woven or matted backing?

A3. The Department considers sheet vinyl to be a NOB material because of the high probability that the backing will become embedded in the vinyl.

Q4. How many samples must be taken of a NOB material?

A4. The examples of NOB materials provided in A2 would be considered miscellaneous materials. A minimum of three samples must be collected by a Department licensed asbestos building inspector from each homogeneous area of a miscellaneous material. For detailed guidance on sampling requirements, refer to Section VI D of the state's asbestos regulation (**Regulation 61-86.1 Standards of Performance for Asbestos Projects**).

Q5. What are the requirements for analyzing NOB materials?

A5. At a minimum, NOB materials must be analyzed by polarized light microscopy (PLM). If all of the samples analyzed by PLM are negative for the presence of asbestos, then one of the samples must be verified by transmission electron microscopy (TEM).

Q6. Is it acceptable to do a TEM analysis first and not do any additional analysis of the remaining samples if the sample analyzed by TEM is positive for asbestos?

A6. Yes. The Department would accept a positive TEM result and not require that the remaining samples of the homogeneous material be analyzed by PLM. However, if the TEM result is negative, then the remaining samples would need to be analyzed by PLM.

Q7. If three samples of a miscellaneous NOB material are collected, is it acceptable to have the first two samples analyzed by PLM and the third sample analyzed by TEM if the first two samples are negative for the presence of asbestos?

A7. Yes and no additional analysis would be required.

Q8. When TEM analysis is required, is it acceptable to use the "Chatfield method"?

A8. Yes.