

## EXECUTIVE SUMMARY

### STUDY OBJECTIVES

The Connecticut Department of Public Health (DPH) administers regulations related to the management of asbestos in public and non-public elementary and secondary schools. These regulations parallel regulations promulgated by the US Environmental Protection Agency (EPA) under the Asbestos Hazard Emergency Response Act (AHERA). Each school is required to have a licensed professional (defined as a licensed asbestos professional who has been approved by DPH for developing asbestos management plans and performing site inspections) perform an initial inspection for the presence of asbestos and to develop an asbestos management plan that is maintained and updated. Additionally, a reinspection by a licensed professional is required every three years. Based upon these inspections, the local education agency (LEA) must select and implement an appropriate response action designed to protect human health and the environment consistent with regulatory requirements.

In the Brookfield Public Schools and Amity School District, parents were concerned about the effectiveness of their school's asbestos management plan. To address this concern, micro-vacuum dust sampling was conducted to determine if asbestos was present in the settled dust. However, there is currently no regulatory or universally recognized standard for implementing a response action based upon the asbestos level in settled dust.

The Connecticut Academy of Science and Engineering (CASE) was requested by DPH to perform a study to provide guidance on issues that may arise during the current (2004-2005) school year regarding asbestos contamination in schools. The primary goal of this study was to develop interim suggested guidelines that should be followed concerning asbestos contamination in schools, including the use of asbestos in dust data. This was accomplished by convening a study committee that included locally and nationally recognized asbestos health scientists. The committee was briefed on issues specific to Connecticut by a project planning team convened by DPH, discussed and deliberated on methods and protocols for evaluating asbestos contamination in schools, and developed suggested guidelines for the assessment of asbestos contamination in schools. The Study Committee's investigation and development of suggested guidelines and findings were based on its knowledge of current known science regarding the topic and, at the request of DPH, were not confined to regulatory requirements as expressed in existing federal and state laws.

### SUGGESTED GUIDELINES

Through a series of meetings, teleconferences, and emails, the study committee developed a four-step plan for assessment of asbestos-containing material (ACM) in schools to address concerns regarding asbestos contamination, as follows:

- Step 1 - Inventory and Record Keeping Review of Asbestos Containing Materials (ACM);
- Step 2 - Seek Professional Advice;
- Step 3a - Surface Dust Sampling in High Contact Areas;
- Step 3b - Airborne Sampling and Determination of Asbestos Fiber Contamination;
- Step 4a - Remediation of Location;
- Step 4b - Cleanup and Abatement of Asbestos.

## SUMMARY OF FINDINGS

In summary, the committee would like to emphasize the following points concerning asbestos contamination in schools:

- Following good management practices as outlined in the AHERA regulations, including maintaining the school's Asbestos Management Plan, a current inventory list, and good records, is a critical step in achieving a safe indoor environment.
- Providing flexibility for a licensed professional to efficiently implement an appropriate response plan which may include dust and/or air sampling, or immediate contamination abatement, is important.
- If microvacuum dust sampling is used to collect surface dust, samples should be collected in high contact areas (see Step 3a on page 4 of the report for additional information) immediately prior to the next janitorial cleaning to determine the probability of airborne asbestos. Currently there are insufficient data to specify a threshold level for intervention. Because of the potential of this technique to characterize the level of asbestos contamination, it is recommended that additional studies be conducted to determine whether or not it is possible to establish a statistically significant threshold value for long fibers of asbestos in settled dust.
- Assessing the health risk of asbestos fiber contamination is accomplished by activity-based airborne sampling.
- Counting long fibers that are greater than 5 $\mu$ m in length, which are most likely associated with increased risk of lung cancer and mesothelioma, should be the standard analytical procedure, as opposed to counting all asbestos structures.