

President Mathews,

In your October 18, 2004 letter, referenced as Environmental Commission Review of Potential Asbestos Risk, the Environmental Commission was requested to provide supplemental information related to asbestos risk during single-family housing teardowns. While the issue may appear to be straightforward - "asbestos is dangerous", Commissioners have identified that the issue of potential hazards related to the demolition of single-family homes is more complex and therefore calls for a broader response to your request.

It is important to note that members appointed to the Environmental Commission include a cross-section of Glen Ellyn residents. Commissioners offer diverse perspectives on environmental issues, based upon expertise in the medical, environmental, preservation and construction occupations. The Commissioners also represent different age groups, from high school to senior members of our community.

For the last several months, the Commissioners reviewed documents and data provided by both Village Staff and Commissioners. A bibliography of the primary documents reviewed is attached. As an advisory commission to the Village Board, the Commissioners offer observations on the issues surrounding the subject of Potential Asbestos Risk during demolition of single-family houses. Commissioners do not intend to suggest policy, but offer suggestions to the Village Board that may be helpful in providing a more pragmatic municipal program to abate potential asbestos risks, and encourage open communication with, and education of, the residents of Glen Ellyn. In this regard, our findings are as follows:

Commissioners are in agreement ...

A. ...About the realities of asbestos:

1. Documents reviewed by Commissioners indicate that a link can be made between asbestos-related diseases and individuals working daily for extended periods of time with asbestos-containing materials. These documents included studies with photographs of x-rays showing hundreds of asbestos fibers found in the lungs of patients with asbestos-related diseases. It appears that in the cases studied, the workers did not wear protective equipment or clothing nor did it appear that the manufacturing process and/or methods were either controlling or adequately monitoring the release of asbestos fibers. Family members living in the households of these affected workers were also among the individuals contracting asbestos-related diseases. While these studies appear to indicate that hundreds of fibers are necessary to have an adverse impact on health, Commissioners and Staff were not successful in obtaining studies that identified any threshold that would cause adverse health issues. Currently, individuals listed at risk include workers in occupations that place them in direct contact with asbestos, such as demolition construction workers and firefighters.
2. Since asbestos is a naturally occurring mineral, studies reveal that most people have ingested asbestos fibers. In these particular studies there is no indication that the individuals, identified as having ingested small quantities of naturally occurring asbestos fibers, contracted an asbestos-related disease.
3. There is a distinct difference between friable and non-friable asbestos. The presence of friable asbestos, asbestos that can easily be crumbled or pulverized, has a significant impact on the potential for exposure. Non-friable asbestos does not.
4. Commissioners reviewed information that detailed physical characteristics of asbestos fibers. A certain size of asbestos fiber is more susceptible to invading the lung tissues or lining of the chest or abdomen. Small fibers are generally attacked by the immune system inside the body and large fibers have difficulty entering the body. It is asbestos fibers with sizes in-between that pose potential health problems.

5. In comparison to most other diseases, the number of individuals contracting an asbestos-related disease is relatively small. Reviewed documents indicate that confirmed cases were related to occupations where workers were in direct contact with asbestos.
 6. Because the symptoms of asbestos-related diseases are latent - 15 to 40 years, it is difficult to monitor those who may eventually be affected by small quantities of ingested asbestos fibers. Other health issues, particularly smoking, contribute to a compounding affect on the health of an individual who may otherwise have been unaffected by asbestos.
- B. ...About the best method for preventing asbestos or other hazardous or non-hazardous fibers or dust from becoming airborne. Wetting as prescribed by NESHAP (National Emission Standard for Hazardous Air Pollutants), if performed correctly, is intended to prevent asbestos particles from becoming airborne. The Glen Ellyn Village Ordinance specifies demolition procedures. Commissioners observations of the current Village Ordinance and its implications include the following:
1. The Village Ordinance requires wetting/watering down of all categories of buildings during the demolition process.
 2. The amount of water, including coverage and saturation, applied to the building during demolition is currently not well defined.
 3. Monitoring by Village Staff or General Contractor/Developer during the wetting process, or proof of the adequacy of the wetting process, is not required.
 4. The length of time that building debris should remain wet during the demolition process, including debris loading and removal, is not addressed. While the actual teardown/knockdown process may be completed in a single day, the removal of the debris sometimes occurs over a period of several days.
- C. ...About the responsibility of Contractors to carry out demolition safely. Contractors who regularly offer demolition services are required by health insurance companies to have their employees periodically x-rayed to verify that they are free from asbestos- and other work-related exposures and/or diseases. General demolition and asbestos abatement construction workers are constantly in an environment where they could potentially encounter hazardous airborne fibers. Medical testing is used to help verify whether or not hazardous fibers have been ingested to the point of causing potential health illnesses. Based upon conclusions from the test results, it appears that the demolition industry and its insurance carriers are satisfied that current practices are adequate to minimize the potential for worker health and safety risks.

Michael Taylor, Executive Director of the National Demolition Contractors Association (NDCA), confirmed that while residential buildings with four or less units are not required to meet EPA/NESHAP regulations, Demolition Contractors are required to comply with the regulations of OSHA. If a Demolition Contractor violates air quality standards, the contractor could be liable for \$25,000 per day in penalties and the owner could face three years in jail. The NDCA, established in 1971 in Chicago, represents approximately 85% of all Demolition Contractors nationwide, but have also come to the defense of Demolition Contractors that are not members of the NDCA. The NDCA has recently completed a national study for the U.S. Environmental Protection Agency that attempted to determine the extent of the affects of asbestos on individuals. The results found no correlation between individuals who contracted an asbestos-related illness and small building demolition. Mr. Taylor cited a case where asbestos exposure is prevalent. Throughout the countryside in Pennsylvania, rock roads consisting of serpentine (a type of asbestos) can still be found. Although these roads have been traveled for decades and winds still stir about the rock dust, no known epidemic of asbestos-related diseases in this geographical location has been recorded. While the NDCA is active in educating its members through literature and videos, it does not regulate contractors. The NDCA promotes education as the best method to prevent hazardous situations and has worked with Purdue University on a Demolition curriculum to be implemented in September of 2005.

- D. ...About education for residents. Not only should residents be educated about what to look for when contractors are demolishing a house next door, but residents should also be educated about how to safely remodel their homes. This is especially important for remodeling and repair projects that do not require a permit, such as replacing tile, roofing, or insulation, including vermiculite. Information can help the residents of Glen Ellyn identify the difference between friable and non-friable asbestos and how these and other hazardous materials can safely be removed.
- E. ...About notification to residents. Other airborne particles associated with demolition work can also carry allergens that could potentially create adverse health concerns for residents with existing respiratory ailments. The Village currently notifies residents within a prescribed circumference of the building that is to be demolished. Residents living near the building to be torn down should be given a more accurate notice. This notice could include the start date of demolition and anticipated number of days to remove debris and could be as simple as the contractor delivering written notice to nearby property owners the day before demolition begins.
- F. ...About hazardous building materials in general. Asbestos should not be the only concern when discussing teardowns. Glen Ellyn residents should also be educated about the identification and safe removal of lead, plaster, and mercury.

In summary, the Environmental Commission acknowledges that while asbestos has the potential to be a harmful substance, the abatement procedures currently in place for building demolition appear to be appropriate for the residents of Glen Ellyn. The Environmental Commission, however, offers the following important enhancements to the understanding and addressing of Potential Asbestos Risk, that are recommended for integration into the Village Ordinance and programs:

1. *Requirement of 'wetting' the building* or debris must be more specific, and should reference possible modifications and refinements in procedures when weather conditions change (such as below-freezing, during heavy rain, or high winds).
2. *Verification* that the demolished building remains wet during the entire demolition *and* removal process is essential to satisfying the requirement as stated in the current Village Ordinance.
3. A more specific time *notification* to nearby property owners is a courtesy that will benefit our neighbors.
4. *Education* for Glen Ellyn residents to understand safe home remodeling and demolition practices is necessary.

The Commission understands that Village Staff is currently reviewing and investigating revisions to ordinances related to demolition of single-family housing. The Environmental Commission anticipates that this is a beginning point in the Ordinance revision process.

Sincerely,

Michelle Z Thorsell, Chairman
Environmental Commission

Bibliography:

1. "The Asbestos Epidemic in America: Early knowledge that asbestos was deadly", Environmental Working Group. (www.ewg.org/reports/asbestos)
2. "Where Asbestos Hazards May Be Found In The Home", The Asbestos Testing Lab. (www.asbestostestinglab.com)
3. "Asbestos: The Asbestos Informer", United States Environmental Protection Agency. (<http://yosemite.epa.gov>)
4. "Occupational Safety and Health Guideline for Asbestos Potential Human Carcinogen", 1988, U.S. Department of Health and Human Services.
5. "Solving the Asbestos Litigation Crisis: S.1125, the Fairness in Asbestos Injury Resolution Act of 2003", Testimony at United States Senate Committee on the Judiciary by Dr. James D. Crapo.
6. "Report on the Peer Consultation Workshop to Discuss a Proposed Protocol to Assess Asbestos-Related Risk", 2003, Eastern Research Group for U. S. Environmental Protection Agency.
7. "What is Asbestos?" and "Asbestos-Related Illnesses, Agency for Toxic Substances and Disease Registry (ATSDR).
8. "Changing Patterns of Pneumoconiosis Mortality-United States, 1968-2000", Centers for Disease Control and Prevention. (www.cdc.gov)
9. "Asbestosis", Health and Safety Executive. (www.hse.gov.uk)
10. "Public Health Assessment - Public Comment Release: Libby Asbestos NPL Site".
11. "Asbestosis: Mortality (1970-1999)", National Center for Health Statistics multiple cause of death data.
12. "National Emission Standards for Asbestos" (1990), U.S. Environmental Protection Agency, Office of Air and Radiation and the Office of Air Quality Planning and Standards.
13. Fate of fibers letter response(1991), Dr. Sidney Shindell, MD, LLB, Professor of Preventative Medicine.
14. "Asbestos Regulations and Information Seminar" (2004), Jensen Environmental Management.
15. "Where to look for Asbestos in your home or office", Asbestos Trouble. (www.asbestostrouble.com).
16. 40 CFR Part 61, "National Emission Standards for Hazardous Air Pollutants; Asbestos NESHAP Revision". Environmental Protection Agency, Final Rule, Federal Register (1990).
17. Various memos and ordinances from Glen Ellyn Village Staff outlining Glen Ellyn and other Illinois community demolition regulations.