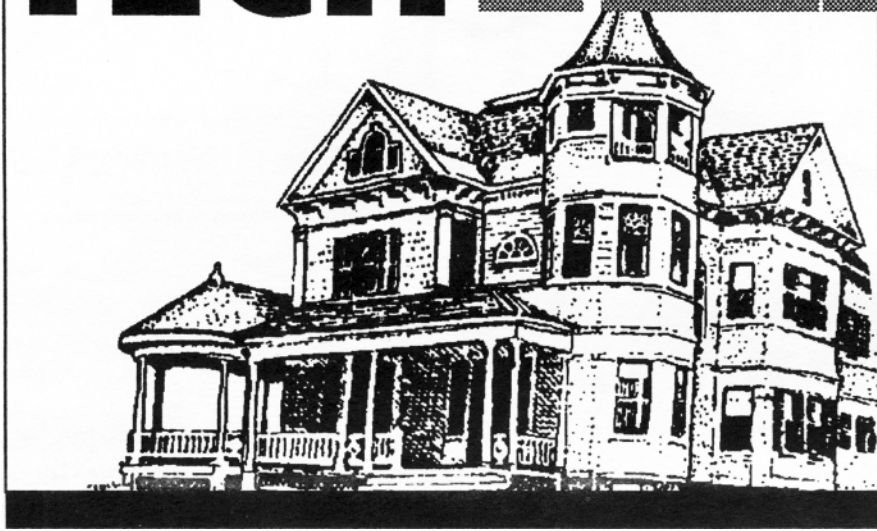


TECH TALK



Editor's note: This bimonthly column provides technical assistance on preservation matters. We invite you to submit questions on any topic affecting historic properties—building materials, design, treatment, attitudes about preservation, etc. Your question will be directed to the appropriate staff member at the Minnesota Historical Society for reply. This month's question is answered by Charles W. Nelson, historical architect, and Paul Storch, objects conservator.

I've heard about the dangers of lead-based paints and about the new laws for removing them. What special precautions should I take in repainting my historic building?

First of all, don't panic. Yes, lead-based paints pose health hazards. But by following proper procedures, you can minimize the risk. Methods for lead abatement range from simple management to encapsulation to total removal. Understanding the nature of the problem is essential to selecting the proper treatment.

The Dangers of Lead

Until the 1970s lead was commonly added to oil paints to improve opacity. Gradually scientists came to understand lead's toxic

effect on people exposed to it regularly. We now know that lead can be absorbed by direct ingestion of paint chips, by skin contact with paint dust or simply by inhalation of paint fumes.

Lead is considered highly toxic. This means that even a very small amount of lead inhaled during one eight-hour workday poses a danger. Acute exposure can cause convulsions, coma and death. Chronic exposure can cause anemia and damage to the brain, nervous system and kidneys. Because lead accumulates in bones and tissue, health problems may persist over long periods of time.

Infants and toddlers are particularly susceptible to lead poisoning, partly because their still developing systems are more vulnerable, and partly because they are attracted to the slightly sweet taste of lead-based

paint chips. Lead also poses a hazard to fetuses and can affect the reproductive capabilities of both men and women.

Lead Paint is Banned

Lead was banned as a paint additive in 1977. But the ban did not erase the danger posed by everything painted with lead-based paints prior to that time. In the 1980s, increasing concerns about health hazards from lead in the environment resulted in laws that today affect everyone from building inspectors to contractors to homeowners.

The U.S. Department of Housing and Urban Development is mandated to assess and abate lead by Title X of the Housing and Community Development Act of 1992—the Residential Lead-Based Paint Hazard Reduction Act of 1992. The Minnesota Legislature has passed similar provisions. For information about



the state's lead abatement program, call the Minnesota Department of Health, (612) 627-5498.

To help you determine whether lead is present on your property, there are simple tools for testing paints. Easy-to-use kits can be purchased at hardware stores, discount chains and even the museum shop at the Science Museum of Minnesota in St. Paul. The presence of lead will be indicated by a change of color in the test reagent.