



THE DANGERS OF ASBESTOS IN COMMERCIAL BUILDINGS AND THE IMPORTANCE OF ABATEMENT

WHITE PAPER

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Introduction

Asbestos is a naturally occurring mineral that was widely used in commercial buildings for its fire-resistant and insulation properties. However, it has been linked to serious health issues, including lung cancer, mesothelioma, and asbestosis. In this white paper, we will delve into the dangers presented by asbestos, the abatement process, and the financial implications.



The Dangers of Asbestos

The danger of asbestos in commercial buildings is a pressing issue that should not be overlooked. The microscopic fibers that can be released into the air when the material is disturbed can be inhaled, leading to serious health problems that can take years or even decades to develop. Asbestos has been banned in many countries, including the United States, but it is still present in many older buildings, particularly those built before the 1980s. It is estimated that over 40% of commercial buildings in the United States still contain asbestos, presenting a significant health risk to employees, tenants, and the public.

Asbestos can be found in a variety of building materials, including:

- **Insulation:** Asbestos was commonly used as insulation in homes and commercial buildings due to its fire-resistant properties.
- **Roofing materials:** Asbestos was often used in roofing materials, including shingles and tiles, due to its durability and resistance to heat and moisture.
- **Floor tiles and adhesives:** Asbestos was also commonly used in floor tiles and adhesives, particularly in commercial buildings and public spaces.
- **Textured paint and patching compounds:** Asbestos was often added to textured paint and patching compounds to improve their durability and resistance to fire.
- **Boiler and pipe insulation:** Asbestos was used to insulate boilers and pipes in commercial buildings and industrial facilities, due to its heat-resistant properties.
- **Wiring and electrical components:** Asbestos was also used in some wiring and electrical components, particularly in older buildings.

It's important to note that not all products containing asbestos pose a significant health risk. The risk of exposure to asbestos fibers is higher if the asbestos-containing material is disturbed or damaged, releasing fibers into the air.



The Abatement Process

The process of removing asbestos from a building is called abatement, and it is a complex and dangerous process that requires trained professionals to safely remove and dispose of the hazardous material. The process typically involves the following steps:

Assessment

The first step in the asbestos abatement process is to assess the extent of the problem and determine the location of the asbestos-containing materials. This typically involves a visual inspection and air quality testing to identify the presence and concentration of asbestos fibers.

Planning

Once the extent of the asbestos problem has been determined, a plan for abatement must be developed. This may include developing a budget, securing the necessary permits, and identifying the resources required to safely remove and dispose of the asbestos-containing materials.

Preparation

Before the actual abatement process begins, the work area must be prepared. This may involve sealing off the area to prevent the spread of asbestos fibers, providing respiratory protection for workers, and setting up containment and ventilation systems to prevent the release of asbestos fibers into the air.

Removal

The actual removal of the asbestos-containing materials is the most critical step in the abatement process. This must be done by trained and licensed asbestos abatement professionals who follow strict safety procedures and use specialized equipment to minimize the risk of exposure to asbestos fibers.



The Abatement Process (Cont.)

Disposal

Once the asbestos-containing materials have been removed, they must be properly contained and disposed of. This typically involves placing the materials in airtight containers and disposing of them at a facility that is licensed to handle asbestos waste.

Cleanup

After the asbestos-containing materials have been removed, the work area must be thoroughly cleaned to remove any residual asbestos fibers. This typically involves the use of HEPA vacuums and special cleaning agents to effectively clean the area.

Post-Abatement Testing

Finally, after the abatement process has been completed, the air quality must be tested to ensure that the area is safe for occupancy. If the air quality test results are within acceptable limits, the area can be considered safe for use.

Building owners and managers should consider conducting an asbestos survey to determine if asbestos is present in their buildings. If asbestos is found, a trained and licensed asbestos abatement professional should be consulted to determine the best course of action. These remediation companies have the training, expertise, and equipment necessary to safely and effectively remove and dispose of asbestos-containing materials. They also have the knowledge and experience to handle the complex regulations and legal requirements associated with asbestos abatement, helping building owners and managers to comply with local and federal regulations.

Additionally, building owners and managers should consider investing in regular air quality testing to ensure the safety of employees, tenants, and the public.



Asbestos in Heating, Ventilation, and Air Conditioning (HVAC) Systems

HVAC systems can be a particularly high-risk area for asbestos exposure due to the potential for fibers to circulate throughout the building. When asbestos-containing materials are disturbed, such as during maintenance or renovation work, the fibers can become airborne and pose a significant health risk to workers and building occupants. Construction materials containing asbestos fibers were commonly used in the construction of HVAC systems due to their excellent heat-resistant and durable qualities. Some of the most common types of these materials include:



Asbestos Seam Tape and Paper

The tape and paper were used to seal joints and seams in the ductwork to prevent air leaks.



Asbestos Fiberboard

Asbestos fiberboard was used in various construction applications, including as a fireproofing material, soundproofing material, and insulating material. It was also used in the manufacture of ceiling tiles, wall panels, and flooring.



Asbestos Aircell

Asbestos aircell was a type of insulation material used in HVAC systems and ductwork. It was used to insulate air ducts and air handling units to prevent heat loss or gain.



Asbestos Wrap

Asbestos wrap was used to insulate pipes, boilers, and other mechanical systems. It was wrapped around the pipes or equipment to prevent heat loss or gain.



Asbestos Hardcast TSI

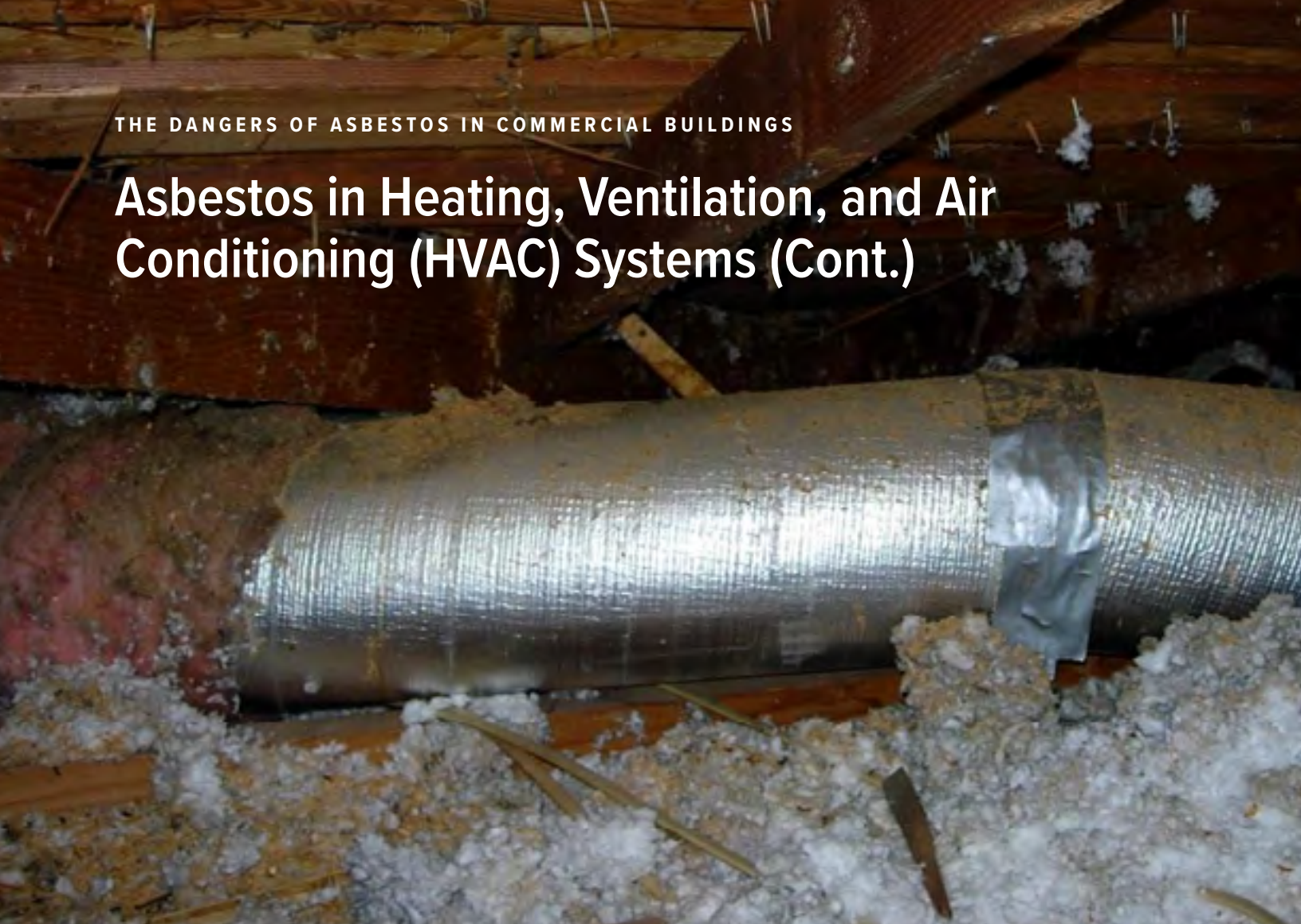
Asbestos hardcast TSI (thermal system insulation) was a type of insulation material used in HVAC systems and ductwork. It was used to insulate air ducts and air handling units to prevent heat loss or gain.



Transite Pipe

Transite pipe was a type of cement pipe that contained asbestos fibers. It was commonly used in the construction of water and sewer lines, as well as in the manufacture of chimneys and flues.

Asbestos in Heating, Ventilation, and Air Conditioning (HVAC) Systems (Cont.)



If you suspect that any of these asbestos-containing materials may be present in your HVAC system, it is recommended to seek professional assistance for their safe removal and disposal. A professional remediation company will implement one or a combination of three main abatement strategies:

Encapsulation

Involves applying a sealant to the ACM to prevent fibers from becoming airborne. This method is best suited for materials that are in good condition and unlikely to be disturbed.

Enclosure

Involves placing a barrier around the ACM to prevent fibers from escaping. This method is best suited for materials that are difficult to remove or are in areas that are difficult to access.

Removal

Involves physically removing the ACM from the duct or plenum. This method is the most effective way to eliminate the risk of exposure to asbestos fibers, but it is also the most disruptive and costly.

Preventing asbestos exposure in ducts and plenums is the best way to protect building occupants from the health risks associated with asbestos. This can be achieved through regular inspections and maintenance of HVAC systems to ensure that any ACMs are identified and dealt with promptly.

5 Myths About Asbestos

Only certain types of asbestos are hazardous.

⊗ FALSE

All types of asbestos are considered to be carcinogenic and have been linked to asbestos-related diseases.



Only high levels of exposure to asbestos are harmful.

⊗ FALSE

Even small amounts of exposure to asbestos can be dangerous and can cause serious health issues such as mesothelioma and lung cancer.

Asbestos is only harmful when it is disturbed or damaged.

⊗ FALSE

Even undisturbed asbestos-containing materials can release asbestos fibers into the air, which can be inhaled and cause health problems.

Asbestos exposure only affects older people or workers who were heavily exposed to asbestos.

⊗ FALSE

While workers who were exposed to asbestos in their jobs are at a higher risk, anyone can be affected, regardless of age. It can take years or even decades for symptoms to appear.

Newer buildings are not at risk for asbestos exposure.

⊗ FALSE

While the use of asbestos in building materials has been banned in many countries, it is still possible for newer buildings to contain asbestos. Additionally, older buildings that have undergone renovations may still contain asbestos in areas such as ducts and insulation.

The Financial Implications

The cost of asbestos abatement varies depending on the size and complexity of the project, but it can range from tens of thousands to hundreds of thousands of dollars, making it a significant financial burden for building owners and managers. In addition to the cost of abatement, buildings that contain asbestos may be difficult to sell or lease, as potential buyers or tenants are often aware of the health risks associated with the material. In some cases, buildings may be required to be retrofitted or demolished, which can result in substantial financial losses for the building owner. Furthermore, the legal liabilities associated with asbestos can be substantial, as businesses may be held responsible for any health problems caused by exposure to the material. This can result in costly lawsuits and settlements that can put a significant strain on a business's finances.

Working with a reputable and experienced environmental remediation company can help to reduce the financial burden of asbestos abatement, as environmental remediation companies can provide cost-effective and efficient solutions that minimize the impact on the business's finances. Furthermore, by working with a trusted and experienced environmental remediation company, building owners and managers can help to protect themselves from legal liabilities and ensure that their building is safe and compliant with local and federal regulations.



Did You Know?

Statistics indicate that the danger of asbestos in commercial buildings is a serious issue that should not be ignored.

According to the World Health Organization (WHO), approximately 125 million people worldwide are exposed to asbestos



at work, and as many as 90,000 deaths occur each year as a result of exposure to asbestos.

In the United States, it is estimated that approximately 3,000 new cases of mesothelioma are diagnosed each year, and that the number of cases will continue to rise in the coming decades. These numbers highlight the urgency of the situation and the need for continued public education and awareness on the dangers of asbestos.

Conclusion

In conclusion, asbestos in commercial buildings presents a significant danger to public health, and the abatement process can be complex and costly. The continued prevalence of asbestos in commercial buildings highlights the importance of public education and awareness on the dangers of this hazardous material. Ignoring the dangers of asbestos can have serious consequences for public health and financial stability, and it is crucial to take action to address this issue. In addition, partnering with environmental remediation companies in addressing the dangers cannot be overstated. Building owners and managers should consider working with these companies to ensure the safe and efficient removal of asbestos. By taking a proactive approach to asbestos abatement and educating themselves on the risks and consequences of exposure, building owners and managers can ensure the safety of their buildings, help to protect public health, and safeguard their financial interest.





Contact Us

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