
ENVIRONMENTAL Fact Sheet



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Asbestos Waste Disposal Sites in Nashua/Hudson, N.H.

What is asbestos?

Asbestos is the term used to refer to a group of fibrous, naturally occurring silicate minerals. Asbestos is non-flammable, resistant to heat, and has high tensile strength, electrical resistance, and other properties that are valuable in producing a variety of commercial and industrial products. In the US, widespread asbestos product manufacturing and use began around 1880, peaked during the 1970s and then sharply declined in the 1980s due to rising health concerns about exposure to asbestos and related new regulations.

What health concerns are associated with asbestos?

The inhalation of asbestos fibers is known to cause respiratory disease and cancer in humans. Asbestosis, mesothelioma, and lung cancer are each associated with asbestos exposure. Those diseases are physically debilitating and typically lead to death. Generally speaking, the symptoms of asbestos-caused diseases do not appear until 10 to 35 years after exposure.

How was asbestos waste used in the Nashua/Hudson area of New Hampshire?

In Nashua, the Johns-Manville Corporation produced asbestos-containing building materials for many decades during the 1900s. During that time and until the late 1970s, the company delivered its asbestos waste material, free of charge, to area property owners for use as "clean fill." As a result, several hundred properties in Nashua and the nearby community of Hudson are now filled with asbestos waste and considered "asbestos disposal sites." The sites include residential, commercial, industrial and public lands, both developed and undeveloped, as well as areas beneath roads and along riverbanks.

What does asbestos manufacturing waste look like?

Asbestos manufacturing waste from the Nashua Johns-Manville plant is typically found in the following forms: pellets produced from punching out the holes in peg board; marble sized and smaller spheres; whole sheets (e.g., 4' x 8', 4' x 12') of varying thickness and textures, resembling "cement board"; palm sized and smaller scraps/fragments of sheets; rolls of material produced for laminating surfaces; dewatered sludge from the wastewater collection systems, and "baghouse" waste from dust collection systems. The waste comes in a variety of colors, including gray, white, black, green, and red. Pictures of the waste are available on the [NHDES website](#).

Are all forms of asbestos waste considered a risk?

Yes, but the degree of risk varies depending on the potential for the material to release fibers to the air and surrounding surfaces where it may result in human exposure. Asbestos fibers are extremely small and invisible to the naked eye. One million asbestos fibers placed side-by-side

span one inch, compared to 630 human hairs. Asbestos that can be crushed, pulverized or reduced to powder by hand pressure, when dry, is referred to as *friable* asbestos. Asbestos that does not crush or pulverize under hand pressure, when dry, is referred to as *non-friable* asbestos. Friable asbestos is of greatest concern, because it has the potential to release fibers.

Do the asbestos disposal sites in Nashua and Hudson contain friable asbestos material?

Yes, asbestos disposal sites in Nashua and Hudson contain both friable and non-friable asbestos materials. In addition, non-friable asbestos containing material may eventually disintegrate and become friable after it remains outdoors and exposed to the elements for many years.

How can the risk of exposure be minimized at asbestos disposal sites?

Generally speaking, asbestos can be safely and permanently disposed of by burying it under enough clean soil and other materials to prevent it from resurfacing. In the Nashua/Hudson area, at least 2 feet of soil cover is recommended to prevent the material from resurfacing over a period of years due to repeated freeze/thaw action. Lesser depths can be effective when the cover materials are properly engineered and maintained. For example, incorporating a geotextile barrier can reduce the depth of soil cover needed to prevent the underlying waste from resurfacing. Use of geotextile barriers reduces the risk of inadvertently digging into the material as well. The surface of the cover soils must be protected to prevent erosion and withstand anticipated land use activities at the site. This can be accomplished, in part, by properly grading the surface to control runoff, the primary cause of erosion, and by planting shallow-rooted vegetation, such as grass. Depending on the land-use setting, asphalt or concrete may also be appropriate surface treatments. In all cases, land use activities at the site must be controlled so that the cover materials will maintain their integrity and the underlying asbestos waste will not be disturbed.

Are there regulations that apply to managing asbestos disposal sites?

Yes, [Env-Sw 2100](#) applies to managing the asbestos disposal sites found. The regulations include requirements for covering the sites to prevent asbestos release; monitoring and maintaining the cover; recording notice of the buried asbestos in the property chain-of-title; notifying other parties such as tenants, contractors and others who might have occasion to disturb the material; obtaining NHDES approval before excavating or otherwise disturbing the waste; using licensed/qualified persons to perform the site work; and other requirements for shipping, transportation and off-site disposal.

Where can I obtain more information?

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