

More About Beryllium

The industrial hygiene beryllium assessments represent one of several ways Hanford is addressing health concerns about this metal. A Web site includes information on the Hanford Beryllium Awareness Group, discusses where beryllium was used and stored at Hanford, and provides points of contact for medical testing. The site can be found at <http://www.hanford.gov/safety/beryllium.index.htm>. Among frequently asked questions are:

Q: What is beryllium?

A: Beryllium is a silver-gray metallic element used as pure metal, in beryllium-copper and other alloys, and as beryllium oxide. In nature, beryllium can be found in compounds in mineral rocks, coal, soil and volcanic dust. It is processed in soluble and insoluble forms. Beryllium has many applications due to its strength, light weight, relatively high melting point, corrosion resistance, good neutron moderation, thermal conductivity and machinability. Beryllium is purified for use in electrical parts, machine parts, ceramics, aircraft parts, nuclear weapons and mirrors. With its advantages come several serious disadvantages; the most significant of these is the toxicity of beryllium dust, fumes and soluble salts.

Q: Are we still using beryllium at Hanford?

A: No, there are no active beryllium operations at Hanford. Beryllium was used at Hanford from about 1960 until 1986. However, it is still possible that some beryllium may be present in some facilities from past usage. This could include fume hoods, exhaust ducts, etc.

Q: Do most people who work with beryllium end up with the disease?

A: No, most people who work with beryllium do not end up with beryllium disease. Even with routine high-level exposure to airborne beryllium, only about 2 percent of the people who work around beryllium will ever develop beryllium disease. A higher percentage of people who worked around beryllium will develop beryllium sensitivity — an allergic reaction to beryllium exposure.

Q: What about non-sparking tools? I've heard they contain beryllium. Do they present the same hazard?

A: Non-sparking tools may contain up to about 2 percent beryllium. This small amount is not likely to be released, *unless* the tools are welded, cut, ground or treated in any manner that could release beryllium fumes or dust. Normal use of a non-sparking tool should not create a hazard. ♦