



Depleted Uranium Projectiles

Uranium was first mined in the 1400s, when it was used to create a red-orange color in ceramics. In the 1800s, uranium was mined to get to radium, which was thought to have medicinal properties. Uranium mining expanded again during World War II as several world powers sought to create nuclear weapons.



Uranium is one of the most common radioactive elements found in the ground. Ore is mined and then processed and the metal has many uses. Much of the highly radioactive isotope of uranium (uranium-235) is removed and used for nuclear power and weapons. The remaining uranium, known as depleted uranium (DU), is left. DU is 40 percent less radioactive than natural uranium because most of the radioactive uranium-235 isotope has been removed. DU is used for a number of military and scientific applications, such as enhanced tank armor and balance weights for aircrafts.

In the 1970's the U.S. Department of Defense began to search for a high density metal that could penetrate the Soviet Union's sophisticated armor. Tungsten and DU were the top two choices. Since the U.S. Department of Energy was operating facilities that were producing DU as a waste product, DU was determined to be the most logical choice due to its abundant availability.

The first major use of DU in the battlefield was during the Persian Gulf War in 1991. During the war, approximately 20 U.S. soldiers were hit with DU fragments that became permanently embedded in their bodies. To date, studies have shown that these soldiers have not experienced health problems related to DU. The soldiers' children, who were born after the war, have not shown any DU related health problems either, such as birth or developmental defects. However, the amount of data is very small and additional studies are continuing.

Who is protecting you

U.S. Department of Defense (DoD)

Through programs and policies, such as the 2003 Health Affairs Policy and Operation Iraqi Freedom DU Medical Management, DoD monitors the men and women of the Armed Forces for potential and confirmed exposure to DU. In addition, the Deputy Secretary of Defense ordered DU education programs to be introduced in military training.

U.S. Department of Energy (DOE)

The mission of DOE's Depleted UF₆ (Uranium) Management Program is to safely and efficiently manage the Department's inventory of DU in a way that protects workers, the public, and the environment.

U.S. Environmental Protection Agency

It is unlikely that the average American civilian would come into contact with depleted uranium or technologically-enriched uranium. However, EPA does have standards and special programs that focus on radiation from uranium mines and mills. Specifically, EPA sets Maximum Contamination Levels for uranium in drinking water and dose standards for inhalation around DU production plants.

What you can do to protect yourself

Be Informed: Although DU poses little risk when outside the body, DU has about as much toxicity as other heavy metals, like lead. Because DU can cause kidney damage if inhaled or ingested in large amounts, it should be avoided by humans and animals.

Resources

You can explore this radiation source further through the resources at the following URL:
http://www.epa.gov/radtown/depleted_uranium.html#resources

We link to these resources to maintain up-to-date information.