

Information about the anti-depleted uranium (DU) movement

by Blaine N. Howard, Health Physicist

On Tuesday February 20th, CNN broadcast “A DU Minefield Known as Iraq” which included the following interview with Dr. Asaf Durakovic.

DR. ASAF DURAKOVIC, URANIUM MEDICAL RESEARCH CTR: *Inhalation of uranium dust is harmful.*

HUNTER: *Even in small amounts?*

DURAKOVIC: *Even in the amount of one atom.*

When I heard the “even in the amount of one atom”, I was appalled that this man, who claim to be an expert on depleted uranium (DU) and holds a Ph. D in something, could make such a ridiculous statement. Either he is ignorant of basic science or he is trying to alarm people. He claims DU, in minute amounts, causes a myriad of health problems and is trying to get legislation passed to test everyone who has been anywhere in the vicinity of DU.

One of his accomplices in the scandal to incriminate the United States for using DU munitions is Lauren Moret. I found this interesting quote in “Uranium for Dummies”, a web site maintained by the anti-DU people and found at: <http://www.countercurrents.org/hall230306.htm>

Geologist Leuren Moret is an independent scientist and internationally recognized expert on radiation, DU, and public health. She estimates that “one millionth of a gram [of depleted uranium] accumulating in a person’s body would be fatal. There are no known methods of treatment.”

Depleted uranium contamination causes virtually every known illness from acute skin rashes, severe headaches, muscle and joint pain, and general fatigue, to major birth defects, infection, depression, cardiovascular disease, brain tumors, and every other type of cancer. Uranium replaces calcium, destroying teeth and bones.

This sounds a little more reasonable than Dr. Durakovic's one atom being dangerous. However, when we look at the facts, a “standard man” normally has 700 millionths of a gram (This is 1.765×10^{18} atoms) of uranium in his body. This is taken from the 1970 edition of the “Radiological Health Handbook”. The “annual limit for intake” by inhalation for DU for the public is 5,270 millionths of a gram or over 5,000 times what Leuren Moret says would be lethal.

Isn't it interesting that an “internationally recognized expert on radiation, DU, and public health” can say that an amount of uranium only 1/700th of what a normal body contains would be fatal? Would you consider trusting this “expert” with your health concerns for DU? I certainly would not!

Also associated with Dr. Durakovic and Leuren Moret are Dennis Kyne and Douglas Rokke. They are making a major effort to incriminate the United States for use of DU munitions in Iraq and making unreasonable claims that almost every malady you can think of is caused by DU in such minute amounts as to be undetectable.

Their claims are unfounded and their efforts malicious. There is no need to expend public funds to chase their whims. If you want accurate and dependable information about the health effects of depleted Uranium, you should consult a “health physicist”. Health Physicists are professionals dedicated to the protection from harmful effects of radiation.

There is an international Health Physics Society with over 6,000 members including many who have been Certified by the American Board of Health Physics (CHP's). You can go to their internet site at: <http://hps.org/> or you can call them at (703) 790-1745. If you prefer, you can contact me by email at blainehoward@yahoo.com and I will be glad to help you or put you in touch with a qualified professional.

Believe me, these individuals (the anti-DU's) are not experts in radiation protection or else they are deliberately trying to deceive.

Since writing the above, I found some additional information which help explain these claims.

The estimate of 1 microgram of DU being fatal comes from a misquote of a secret memo from Manhattan Project scientists to General Groves in 1943 concerning the possible use of fission products as a weapon for warfare. I can get you a copy of the memo if you would like. The actual quote is:

“As a gas warfare instrument the material would be ground into particles of microscopic size to form dust and smoke and distributed by a ground-fired projectile, land vehicles, or aerial bombs. In this form it would be inhaled by personnel. The amount necessary to cause death to a person inhaling the material is extremely small. It has been estimated that one millionth of a gram accumulating in a person's body would be fatal. There are no known methods of treatment for such a casualty.”

The error in trying to infer that this applies to DU becomes very apparent from a comparison of specific activities of these materials as follows:

A typical fission product might be phosphorus-32 with a half life of 14.3 days, while DU is nearly all uranium-238 with a half life of 4.5 billion years.

One microgram of U-238 contains 3.33×10^{-7} microcuries

One microgram of P-32 contains 285,000 microcuries. It would take 856 kilograms (1,883 pounds) of DU to make the same activity as one microgram of P-32.

To someone who has worked with such calculations all his life, this is obvious, but to a self proclaimed expert without experience, it is not. I have been in this field of study since 1953, when I received an Atomic Energy Commission Graduate Fellowship in Radiological Physics to study at the University of Rochester, except for 2 years in Uncle Sam's Army, 3 years graduate study in nuclear physics and 5 years as a Physics Professor. I have worked at a nuclear reactor, a food irradiation project, a low level radioactive waste site, 18 years in Utah's radiation control program, as well as private consultation as a Certified Health Physicist.