
A BILL FOR AN ACT

RELATING TO HEALTH.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

1 SECTION 1. Depleted uranium has special toxic properties
2 when used as weaponry. When used as armor piercing projectiles,
3 depleted uranium munitions are exploded, burst into flames and
4 vaporize. These vapors can then be inhaled. Combustion on
5 impact will release a variety of uranium compounds of different
6 phases (gas, particulates) sizes (nano to shrapnel dimensions)
7 and chemistries (elemental metal, and a series of oxides). The
8 radiation risk of these compounds are similar (alpha particle
9 emissions) with low risk outside of the body, but of very high
10 risk if internalized. Compounds can aerosolize from combustion
11 on impact and then travel for dozens of miles depending on size,
12 phase, and wind conditions. Retention of inhaled compounds
13 depends on size while clearance from the body depends on phase
14 and chemistries (the oxides are relatively insoluble and can
15 remain in the body for decades). These compounds are considered
16 chemically toxic by the Armed Forces Radiobiology Research
17 Institute, the Army Environmental Policy Institute, the United
18 Nations, and others. The radioactivity can cause



1 scarring/fibrosis and genetic mutations which can lead to
2 cancers, infertility, and birth defects.

3 Depleted uranium weaponry has been found at Schofield
4 Barracks. An email message obtained through a Freedom of
5 Information Act request, dated September 19, 2005, from Samuel
6 P. McManus of the United States Army Engineering and Support
7 Center in Huntsville, Alabama to Ronald Borne, an Army employee
8 involved with preparations for the Stryker brigade at Schofield
9 Barracks, states: "We have found much that we did not expect,
10 including the recent find of depleted uranium."

11 The purpose of this Act is to test Schofield Barracks for
12 markers of depleted uranium weapon use by using established
13 authority and the following military regulations.

14 Authority for environmental sampling include Army
15 regulations TB 9-1300-278, Department of the Army Pamphlet
16 700-48, 1-6 Summary for Commanders b. which states "In
17 peacetime, comply with the Nuclear Regulatory Commission
18 licensed requirements and all applicable federal, state, Army,
19 and host nation laws, regulations, and policies regarding
20 radioactive materials and contaminated equipment. This document
21 applies to peacetime, or operations other than war, incidents,
22 and accidents involving Bradley Fighting Vehicles uploaded with



1 depleted uranium ammunition." The depleted uranium weaponry
2 find at Schofield Barracks is one such incident.

3 Adherence includes coverage of costs since depleted uranium
4 contamination would only occur because of military operations.

5 SECTION 2. Chapter 321, Hawaii Revised Statutes, is
6 amended by adding a new part to be appropriately designated and
7 to read as follows:

8 **"PART . TESTS FOR DEPLETED URANIUM.**

9 **§321- Soil samples required; depleted uranium.** The
10 department of health shall take soil samples as close as
11 possible to the center of the target impact sites at Schofield
12 Barracks, but not beyond ten yards from the impact sites. The
13 department of health shall develop a sampling scheme according
14 to the frequency and number of soil samples to be taken based on
15 records of type of target practice, ammunition caliber, and
16 frequency of use, and information from cultural monitors with
17 direct experience in the field on military bases, and on state
18 lands that were formerly used as firing ranges (such as the
19 island of Kahoolawe).

20 Personnel (Civilian or Hawaii National Guard) reporting
21 symptoms compatible with Gulf War Syndrome, or those exposed to
22 military firing ranges or other suspected depleted uranium sites



1 may be screened for depleted uranium (twenty-four hour urine
2 samples).

3 Military personnel may perform the collecting of soil
4 samples and participate in the survey and testing but state
5 department of health authorities shall oversee all aspects of
6 the testing, including collecting of the samples. The testing
7 shall include an adequate number of positive and negative
8 controls and blinding of all laboratory personnel to the source
9 of the sample. The state department of health shall coordinate
10 with the University of Hawaii in order to arrange for analysis
11 of the soil samples. The state department of health shall
12 coordinate with the United States Army in Hawaii regarding its
13 continued monitoring and remediation of training areas and
14 weapon ranges.

15 **§321- Rulemaking.** The director of health may adopt
16 rules, pursuant to chapter 91, necessary for the purposes of
17 this part.

18 **§321- Annual report to legislature.** The director shall
19 submit a report summarizing the director's findings to the
20 legislature and the committees on health of both houses of the
21 legislature no later than twenty days prior to each regular
22 session beginning with the regular session of 2008."



1 SECTION 3. There is appropriated out of the general
2 revenues of the State of Hawaii the sum of \$ or so
3 much thereof as may be necessary for fiscal year 2007-2008 and
4 \$ or so much thereof as may be necessary for fiscal
5 year 2008-2009 for the department of health to take soil samples
6 in accordance with this Act.

7 The sums appropriated shall be expended by the department
8 of health for the purposes of this Act.

9 SECTION 4. This Act shall take effect on July 1, 2007.



Report Title:

Depleted Uranium; Mandatory Soil Samples; Schofield Barracks

Description:

Requires the department of health to take soil samples within 500 meters of Schofield Barracks to assess for depleted uranium, at least once every 3 months, and annually report to the legislature. (SD1)

