

Strategies for Depleted Uranium on Army Posts in Hawaii

Department of Health

Environmental Health Administration

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Background

- In August 2005 at Schofield Barracks, the Army discovered depleted uranium (DU): Parts of spotter rounds for the Davy Crockett weapon.
- In August 2007 at Pohakuloa Training Area (PTA), Army contractor, Cabrera Services, saw evidence of Davy Crockett use.

Legal Constraints

- DU is under the sole authority of the U.S. Nuclear Regulatory Commission (NRC).
- DOH lacks authority on federal property for radioactive materials.
- DOH can monitor off-base
- In early 2007, the Army invited DOH to help resolve the DU issue on Army posts in Hawaii.

DOH Objectives

- Ensure that DU does not harm the general public.
- Affirm that the Army is the responsible party.

DOH Strategy #1

- Check the Army's health risk assessment and public health protections.
 - DOH reviews data, protocols, analyses, & results.
 - So far, the Army has made all records available.
 - Army surveys have met nationally-accepted protocols and standards.
 - DOH uses a third party radiation expert.
 - David Allard, Certified Health Physicist, has much experience in health physics, DU production & clean-up

DOH Strategy #2

- Address concerns of the general public that DU from the Army hurts public health.
- DOH measures ambient radiation periodically:
 - In W. Hawaii downwind from Pohakuloa TA, and
 - On Oahu from Kapolei to Waianae.

Radiation Levels

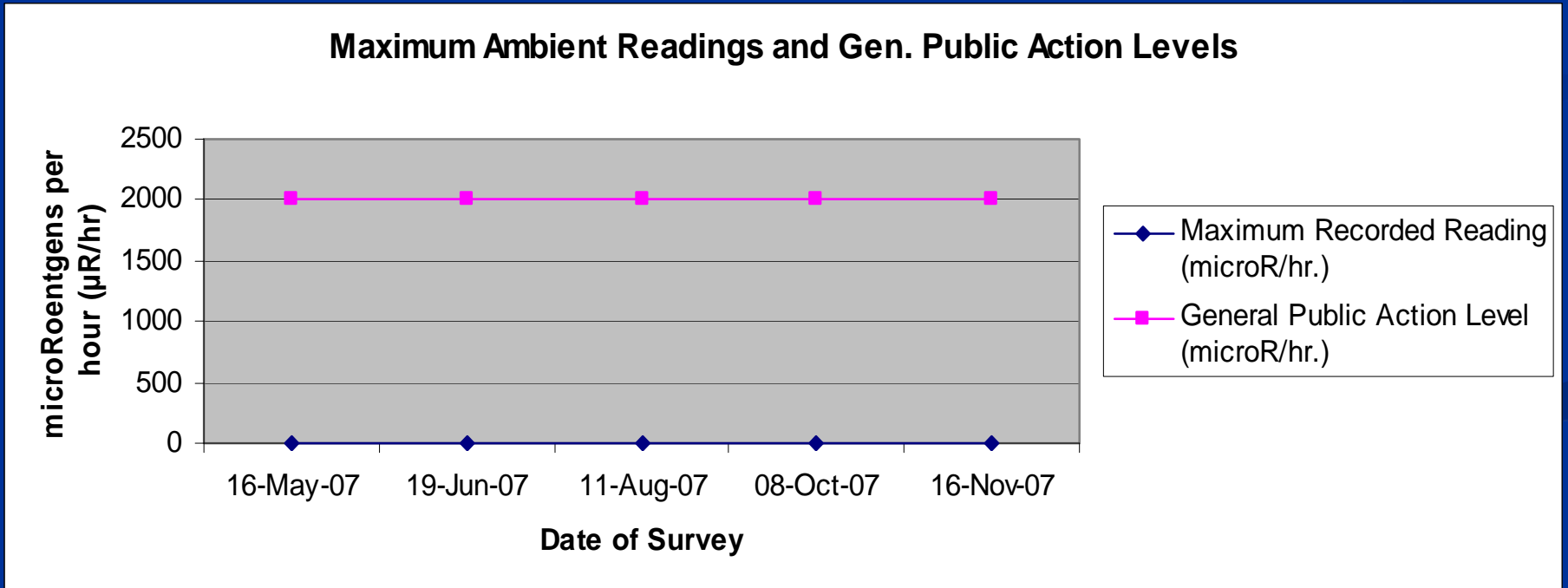
- Since May 2007, average ambient levels have been ≤ 0.005 milliroentgens per hour (mR/hr).
- Action level for general public protection is 2.000 mR/hr (2000 μ R/hr) (400x greater) to meet limit of 2 mrems in any one hour.
 - Action level set by National Council on Radiation Protection & Measurements (NCRP), NRC, and State Rules (HAR, ch 11-45).

AMBIENT RADIATION SURVEYS ON THE BIG ISLAND OF HAWAII

General Public Action Level (microR/hr.)	2000				
Date of Survey:	16-May-07	19-Jun-07	11-Aug-07	08-Oct-07	16-Nov-07
Maximum Recorded Reading (microR/hr.)	8	7	7	7	6

SITE:	$\mu\text{R/hr.}$	$\mu\text{R/hr.}$	$\mu\text{R/hr.}$	$\mu\text{R/hr.}$	$\mu\text{R/hr.}$
1 - Konawaena HS	3-4	3-5	2-4	2-4	2-4
2 - Kona Comm. Hospital	3-4	3-4	2-4	2-3	2-3
3 - Bishop Road	3-4	2-4	2-4	2-4	2-3
4 - Waiono Meadows	3-4	2-4			
5 - Keopu Mauka	3	2-4	2-3	2-3	2-4
6 - Puulani Drive	6-7	5-7	3-5	3-5	3-4
7 - Waikii Ranch	4-5	3-5	2-3	2-4	2-3
8 - Waikoloa Villages	7-8	4-6	2-3	2-3	2-4
9 - Girl Scout Camp		3-6	2-3	2-3	2-4
10 - Puuanahulu Ranch		3-6	5-7	5-7	3-6

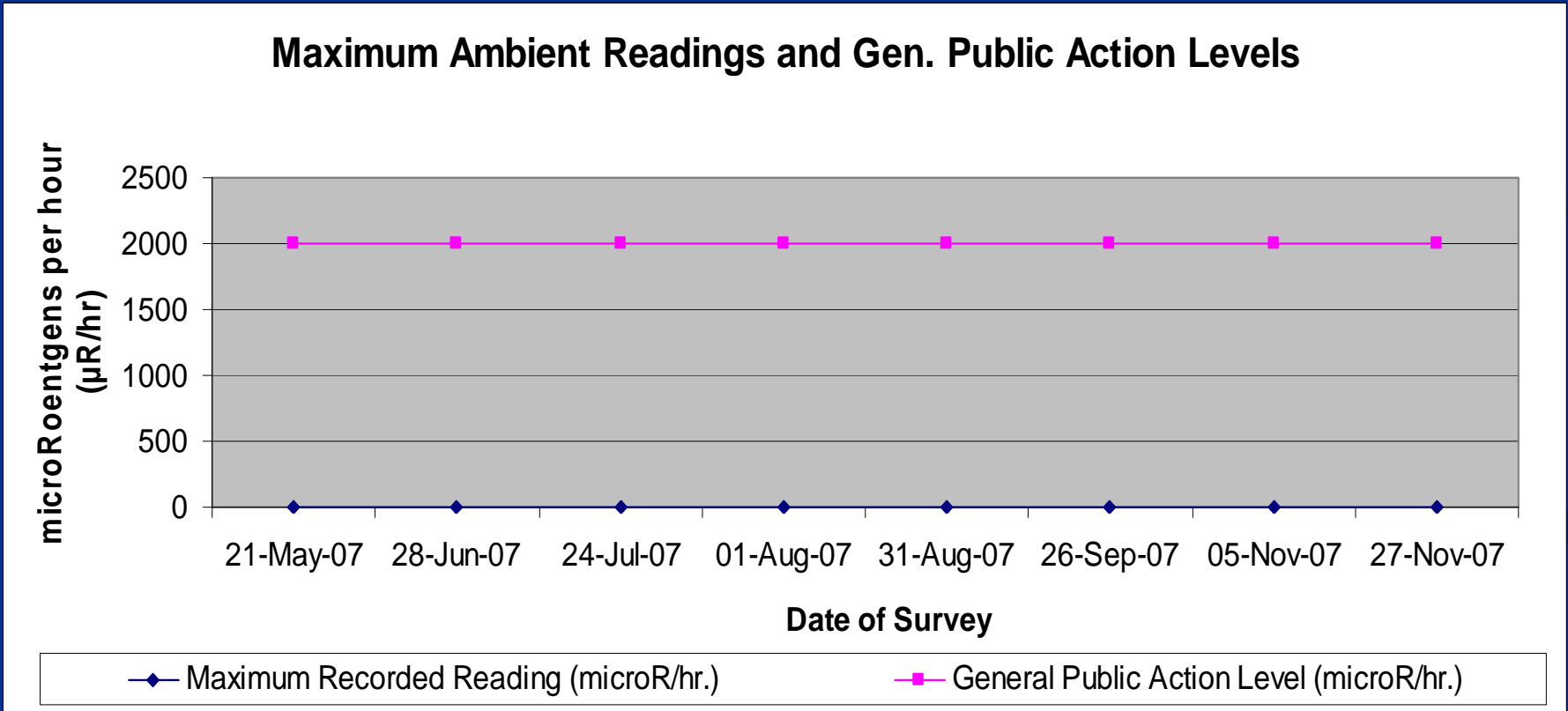
*** Maximum Recorded Reading (microR/hr.) based on highest reading at any given site during monitoring period.



AMBIENT RADIATION SURVEYS ON THE WAIANAE COAST OF OAHU

General Public Action Level (microR/hr.)	2000							
DATE:	21-May-07	28-Jun-07	24-Jul-07	01-Aug-07	31-Aug-07	26-Sep-07	05-Nov-07	27-Nov-07
Max Rec. Read. (μ R/hr.)	5	4	4	4	4	4	4	5
SITE:	μ R/hr.	μ R/hr.	μ R/hr.	μ R/hr.	μ R/hr.	μ R/hr.	μ R/hr.	μ R/hr.
1 - Waianae Mall	3-4	3-4	2-4	2-3	2-4	2-3	3-4	2-3
2 - Waianae Coast Hlth. Ctr.	3-4	3-4	2-4	2-3	2-4	2-3	3-4	3-4
3 - Pacific Shopping Mall	3-4	2-3	3-4	3-4	3-4	2-3	3-4	3-4
4 - Kapolei Shopping Center	4-5	3-4	3-4	3-4	3-4	3-4	2-3	4-5

*** Maximum Recorded Reading (microR/hr.) based on highest reading at any given site during monitoring period.



Big Island Ambient Survey – Girl Scout Camp near Pohakuloa



DOH Strategy #3

- Independent testing of DU from Army posts.
- Conduct analysis on split samples.
 - Discussing test methods
- Monitor air with EPA equipment & analyze samples at Pennsylvania's accredited radiochemistry lab.
 - DOH has no accredited radiochemistry laboratory.

DOH Strategy #4

- Provide facts on DU to the general public.
 - Answer telephone, e-mail, and mail questions.
 - Explain use of monitoring equipment
 - July 28, 2007, Hilo
 - August 11, 2007, Kona

DOH Strategy #4

- Provide facts on DU to the general public (cont).
 - Conduct DU update community meetings.
 - Oct. 12, 2007, Air & National Guardsmen in Hilo
 - Nov. 16, 2007, w/ Rep. C. Evans & Army in Waikoloa
 - Nov. 17, 2007, Puako & Kealakahe, and
 - Nov. 18, 2007, Waimea Senior Center.
 - More meetings later.

Expectations

- Complete baseline human health risk assessment in early 2008.
- Determine actions to be taken for PTA.
- Assure public health.
- Continuous talks with military.

Questions?