THE ASSISTANT SECRETARY OF DEFENSE

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HEALTH AFFAIRS

JUN 2 0 2006

MEMORANDUM FOR ASSISTANT SECRETARY OF THE ARMY (M&RA)
ASSISTANT SECRETARY OF THE NAVY (M&RA)
ASSISTANT SECRETARY OF THE AIR FORCE (SAF/MR)
DIRECTOR, ARMED FORCES INSTITUTE OF PATHOLOGY

SUBJECT: Operation Iraqi Freedom Depleted Uranium Bioassay Results—Fifth Semiannual Report and Request for Data Submission

REFERENCE: Health Affairs Memorandum, "Operation Iraqi Freedom Depleted Uranium Bioassay Results and Semiannual Data Submission," September 10, 2004

My February 27, 2006, memorandum, "Operation Iraqi Freedom Depleted Uranium Bioassay Results and Fourth Semiannual Report and Request for Data Submission," requested the semiannual submission of the Services' Operation Iraqi Freedom (OIF)-related depleted uranium (DU) bioassay results. The attachments summarize the data for the fifth reporting period (October 1, 2005–March 31, 2006) and the cumulative DU urine bioassay results obtained since June 1, 2003.

The next semiannual submittal from the Services is due November 1 to the Deployment Health Support Directorate. Please include the results from the reporting period from April 1–September 30, 2006, and your cumulative totals from June 1, 2003–September 30, 2006. In addition, I request that the U.S. Army Center for Health Promotion and Preventive Medicine and the Armed Forces Institute of Pathology continue to report their analytic results for the metallic elements identified in any metal fragments removed from OIF or OEF personnel. These data will permit us to assess any long-term health hazards that may be associated with specific metal fragments.

During this latest reporting period, 57 additional personnel received DU urine bioassays. There were no new reports of personnel with confirmed elevated total uranium levels, or with depleted uranium confirmed in their urine. A level of exposure to DU could not be assigned for seven additional soldiers because of incomplete or missing DU exposure assessment forms. Once again, I request that the Army and Navy continue their efforts to complete DU exposure assessment forms for all of their uncategorized Service members and obtain confirmatory samples as required under the Department of Defense (DoD) DU Urine Bioassay Policy. Please report on your efforts in the next semiannual progress report.

As of March 31, 2006, of the 2,174 U.S. personnel who have undergone a DU urine bioassay, no one had total urine uranium levels or DU levels that caused or are expected to cause adverse health effects. Initial total urine uranium levels of 131 Service members were above the 95th percentile of the normal urine uranium concentrations found in the U.S. civilian population. Of these 131 Service members, subsequent testing has confirmed elevated levels of uranium in only four members; a number of follow-up tests are pending. Seven personnel had confirmed detections of DU in their urine, all of whom either had DU fragments removed or were suspected to have had retained DU fragments in their body at the time of testing.

Please submit your reports to Colonel George Johnson, Deployment Health Support Directorate, *George.Johnson@deploymenthealth.osd.mil*, (703) 578-8523. Additional information and clinical guidance on this program is available on the DoD Deployment Health Clinical Center website, *www.pdhealth.mil*.

For Stephen L. Jones
William Winkenwerder, Jr., MD

Attachments:
As stated

cc:
Assistant Secretary of Defense (Reserve Affairs)
Surgeon General of the Army
Surgeon General of the Navy
Surgeon General of the Air Force
Director, Joint Staff
Assistant Deputy Under Secretary of Defense (ESOH)
Director, Health and Safety, USCG
Director, DoD Deployment Health Clinical Center
Under Secretary for Health, Department of Veterans Affairs
Baltimore VA Medical Center (Dr. Melissa McDiarmid)
Commander, US Army Center for Health
Promotion and Preventive Medicine

Service Summary of Operation Iraqi Freedom Depleted Uranium (DU) Bioassay Results
Fifth Semiannual Report
October 31, 2005–March 31, 2006

Level	Army	Navy/ Marine	Air Force	TOTAL	Confirmed Elevated Total Uranium	Confirmed DU Detected in Urine Specimen	Retained Fragments or Fragment-Type Injury
I	8	1	0	**9**	0	0	1
II	26	0	1	**27**	0	0	0
III	14	0	0	**14**	0	0	0
Uncat	7	0	0	**7**	0	0	0
TOTAL	**55**	**1**	**1**	**57**	**0**	**0**	**1**

Service Summary of Operation Iraqi Freedom Depleted Uranium (DU) Bioassay Results
Fifth Cumulative Report
June 1, 2003–March 31, 2006

Exposure Level	Army	Navy/ Marine	Air Force	TOTAL	Confirmed Elevated Total Uranium	Confirmed DU Detected in Urine Specimen	Retained Fragments or Fragment-Type Injury
I	197	48	2	**247**	4	6[a]	17
II	298	220	8	**526**	0	0	1[b]
III	214	43	7	**264[c]**	0	0	7[d]
Uncat	1126	11	0	**1137[e]**	0	1[f]	29
TOTAL	**1835**	**322**	**17**	**2174**	**4**	**7[g]**	**54**

a Includes one AF member who had a small DU fragment removed from his eyelid. His urine had detectable levels of DU at the time of the fragment removal, but was negative for DU on the confirmatory test several months later.

b This individual entered a DU-impacted vehicle and got two "splinters" which were removed and analyzed; they did not contain DU.

c Includes only those Level III (incidentally exposed) personnel who received a bioassay. Bioassays are optional for Level III personnel.

d Fragments removed from Level III (incidentally exposed) personnel have been analyzed for many reasons, for instance, to ensure that fragments generated from an improvised explosive device did not contain DU.

e Uncategorized exposures consist of those individuals who were tested, some only with a spot urine sample, but had incomplete or missing DU exposure assessment forms.

f This individual (uncategorized as to level of DU exposure) with bioassay results consistent with a retained DU fragment (quite elevated) has separated from the Army and is working as a contractor in Iraq. He originally submitted a spot urine specimen rather than a 24-hour specimen, but because the DU level was extremely elevated, he is categorized as a confirmed exposure despite the fact he has not submitted a 24-hour urine specimen. The Army has contacted him and requested he submit a 24-hour urine specimen. He informed the Army he intends to either follow-up (with the Army) when he returns to Germany or with the Veterans Affairs upon return to the U.S.

g All seven of these personnel have confirmed DU embedded fragments or fragment injuries