From: Doug Rokke <drokke@jsucc.jsu.edu>
To: ATL_DO.ATL_PO(MSL1)
Date: Thu, Jun 1, 2000 4:01 PM
Subject: DU concerns

Mr. Mark Lessor
U.S. Nuclear Regulatory Commission

I am submitting this as requested and request formal action and a response from yourself and NRC. If neccessary I can send via certified U.S. mail also.

Dear Sir: This is a response to your specific request via telephone on May 12, 2000 regarding my concerns surrounding the use of depleted uranium (DU) munitions by the U.S. Department of Defense. As you are aware I was assigned as the DU Team health physicist during Operation Desert Storm and then again recalled to active duty as an Army Medical Service Corps officer and assigned as the Depleted uranium project director from August 1994 through November 1995. I thus acquired extensive experience with all aspects of deliberate DU use by military forces. The continuing deliberate use of DU munitions during battle and during peacetime is resulting in serious health and environmental consequences. My own and others expressed concerns regarding these consequences as resulted in retaliation because I and others refuse to cease our activties ensure medical care is provided to all DU casualties

and environmental remediation of all DU contaminated areas is completed as ordered numerous times, required by military regulations, and required by federal law. As a response to your request, I have asked my

colleagues who have experience with DU use and effects to help prepare a

list of concerns that should be addressed and resolved. Before I specify those concerns, I believe a brief review of DU use and consequences is warranted.

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DEPLETED URANIUM: USES AND HAZARDS

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Presented at JSU March 15, 2000

(This presentation is an updated version of the paper presented in the British House of Commons; London, England; on December 16, 1999)

WARNING: This presentation contains information, video footage, and photographs that may be disturbing because they reflect the reality of environmental and health consequences of war.

SCIENTIFIC AND ETHICAL CONCERNS

Environmental protection and sustaining health are dependent on science and ethical considerations. Science must include objective and subjective data acquisiton and analysis because of current limitations. Ethical concerns must also be addressed because doing what is right even

in face of political objections is the foundation of society and must never be discarded.

WHAT IS DU?

Depleted uranium is actually uranium 238. U-238 is the non-fissionable residue of the uranium enrichment process. Some confusion seems to exist in that U.S. Department of Defense and British Ministry of Defense

officials try to confuse individuals by claiming that internalized DU contamination is natural uranium rather than DU. This is unethical subversion of fact because natural uranium contains 99.2% by weight U-238 while DU contains 99.8% by weight U-238. Recent documents provide evidence to suggest that a small proportion of other toxic heavy metals such as plutonium also may be present. U-238 emits alpha particles at 4.2 Mev and 4.15 Mev that cause significant internal ionization with consequent cellular damage. In addition daughter products emit beta particles and gamma rays that may cause further radiological damage. While DU may not be an external hazard it is an internal hazard which is

why its use as a munition with consequent inhalation, ingestion, and wound contamination pose significant and unacceptable risks.

WHAT ARE THE PHYSICAL PROPERTIES?

Depleted uranium or U-238 has an atomic mass of 238. Its half-life is 4.468 billion years. It's natural occurrence is 2.1 parts per million. Uranium is silver white, lustrous, malleable, ductile, and pyrophoric. This makes DU an ideal metal for use as kinetic energy penetrators, counterweights, and shielding or armor. High density and pyrophoric nature are the two most significant physical properties that guided its selection for use as a kinetic energy penetrator.

WHERE DOES DU COME FROM?

Uranium hexaflouride is the non-fissionable residue or by-product of the

uranium enrichment process during which fissionable Uranium 235 and Uranium 234 are separated from natural uranium. Depleted uranium is refined from Uranium Hexaflouride (UF6). The United States Department of Energy has so much UF6 stored at various sites that any use that increases disposal of this waste product is welcome. Consequently economic recovery may supersede health and environmental concerns.

HOW IS DU USED BY THE MILITARY?

DU is used to manufacture kinetic energy penetrators. Each kinetic penetrator consists of almost entirely uranium 238.
The United States munitions industry produces the following DU munitions

with the corresponding mass of uranium 238:
7.62 mm with unspecified mass
50 cal. With unspecified mass
20 mm with a mass of approximately 180 grams.
25 mm with a mass of approximately 200 grams.
30 mm with a mass of approximately 280 grams.
105 mm with a mass of approximately 3500 grams.
120 mm with a mass of approximately 4500 grams.
Submunitions such as the PDM and ADAM whose structural body contain a small proportion of DU.

Many other countries now produce or have acquired DU munitions. DU is also used as armor, ballast or counter weights, radiation shielding, and

as proposed by the U.S. Department of Energy as a component of road and structural materials. All of these current or proposed uses are designed to reduce the huge U.S. Department of Energy stockpiles left over from the uranium enrichment process.

It is important to realize that DU penetrators are solid uranium 238. During an impact some portion of the spent penetrator or DU oxides are left on the terrain, within or on impacted equipment, or within impacted

structures. DU ignites upon impact. The resulting shower of burning DU causes secondary explosions, fires, injury, and death. DU fragments or oxides in form of radioactive heavy metal contamination are also present. Simply: Who would want thousands of solid uranium penetrators or pencils of masses between 180 and 4500 grams lying in your backyard? Who would want any uranium contamination of any type lying in your backyard?

HOW IS DU USED BY INDUSTRY AND DOE?

The U.S. Department of Energy possesses about 728,000 metric tonnes of DU. Consequently, DOE has been investigating and advocating additional uses for DU to reduce its stockpiles. DU is stored at Pudacah, Kentucky;

Oak Ridge, Tennessee; and Portsmouth, Ohio. DOE has proposed various uses for DU most of which support the nuclear industry. However, DOE has also proposed using DU to reinforce concrete and other building materials. DU is also used as aircraft ballast, as shielding, and in oil well drilling equipment. The potential of recycled DU contaminated metals reaching the consumer market in various products is also a concern.

WHERE AND WHEN AS DU BEEN USED?

Photographic evidence of destroyed equipment suggests that DU was first used during the 1973 Arab- Israeli war. Various written reports cite information that may have been obtained as a consequence of that use. Physicians using medical laboratory tests have verified an internalized exposure to DU in the individual who inspected that destroyed equipment. The Persian Gulf war was the first major use of DU in combat. Pilots flying aircraft fired approximately 850,950 rounds and another 9,640 rounds were fired by gunners in tanks for a total weight of 631,055 pounds or over 315 tons. Recent conversations with the individual who managed all DU rounds suggest that this figure may be to low and that the actual quantity should be 25% greater. Although warnings were issued to refrain from DU use the U.S. Marines fired DU munitions on three separate occasions during 1995 and 1996 while conducting operations in Okinawa and then did not tell the Japanese Government for some time. During 1995 the U.S. military also fired an unknown amount of DU munitions during battle in Serbia. Recently U.S. forces fired over 31000 rounds of 30 mm DU munitions during 100 missions into Kosovo or Serbia. DU munitions have been fired on ranges in Indiana, Nevada, New Mexico, Florida, Maryland, and this past year on

Vieques in Puerto Rico. The incident in Puerto Rico involved the deliberate use of DU in preparation for combat in Kosovo. Although DU use is prohibited except during combat, the Navy fired at least 258 rounds in Vieques. Navy personnel have reported that the Navy has been firing DU into Vieques for years but this was the first time they were caught. Vieques is currently a national and international issue with confirmed environmental contamination and documented adverse health effects similar to those already observed.

WHAT DID WE FIND IMMEDIATELY AFTER ODS FRIENDLY FIRE AND COMBAT INCIDENTS?

I was assigned to the DU assessment team as the team health physicist and medic by directive of Headquarters Department of the Army in

Washington, D.C. via a message sent to the theater commander during March 1991. What we found can be explained in three words: "OH MY GOD". According to official documents each uranium penetrator could loose up to 70 % of it's mass on impact creating fixed and loose contamination with the remainder passing through the equipment or structure to lie on the terrain. On-site impact investigations suggest that the mass loss is about 40% which forms fixed and loose contamination leaving about 60% of the initial mass of the penetrator in

the solid or pencil form. Equipment contamination included uranium oxides, other hazardous materials, unstable unexploded ordnance, and byproducts of exploded ordnance. U.S. Army Materiel Command documents sent to us during ODS stated the oxide was 57% insoluble and 43 % soluble with at least 50% was respirable. In addition other radioactive

materials were detected that could pose a risk through inhalation, ingestion, or wound contamination. In most cases except for penetrator fragments, contamination was inside destroyed equipment or structures, on the destroyed equipment, or within 25 meters of the equipment. After

we returned to the United States myself and two others with assistance wrote the Theater Clean up plan which was reportedly passed up through U.S. Department of Defense officials to the U.S. Department of State and

consequently to the Emirate of Kuwaiti . Today, it is obvious that none

of this information regarding clean up of extensive DU contamination ever was given to the Iraqi's. Consequently, although we knew there were

and still are substantial hazards existing within Iraq they have been ignored by the United States and Great Britain for political and economic reasons. Iraqi, Kosovar, and Serbian representatives have asked numerous times for DU contamination management and medical care procedures but they have been continuously rebuffed by U.S officials. Although residents of Vieques, who are U.S. citizens, have also asked for medical care and completion of environmental remediation DOD officials have not responded. Dr. Bernard Rostker, Assistant Secretary of the Army, recently said that he did not see any reason why the United States should tell anyone where DU was used in Kosovo. Consequently Canadian forces were exposed.

HOW DID THE DU PROJECT GET STARTED AND WHAT WERE IT'S OBJECTIVES?

The probable hazards were known before the use of depleted uranium munitions during the Gulf war as official documents substantiate. A United States Defense Nuclear Agency memorandum written by LTC Lyle that

was sent to our team in Saudi Arabia stated that quote "As Explosive

Ordnance Disposal (EOD), ground combat units, and civil populations of Saudi Arabia, Kuwait, and Iraq come increasingly into contact with DU ordnance, we must prepare to deal with potential problems. Toxic war souvenirs, political furor, and post conflict clean up (host nation agreement) are only some of the issues that must be addressed. Alpha particles (uranium oxide dust) from expended rounds is a health concern but, Beta particles from fragments and intact rounds is a serious health

threat, with possible exposure rates of 200 millirads per hour on contact." end quote.

This memorandum, the reports that we prepared immediately after the Gulf

War as a part of the depleted uranium assessment project to recover DU destroyed and contaminated U.S. equipment, the previous research, and other expressed concerns led to the publication of a United States Department of Defense directive signed by General Eric Shinseki to quote:

"1. Provide adequate training for personnel who may come in contact with depleted uranium equipment.
2. Complete medical testing of personnel exposed to DU contamination during the Persian Gulf War.
3. Develop a plan for DU contaminated equipment recovery during future operations."

It is thus indisputable that United States Department of Defense officials were and are still aware of the unique and unacceptable hazards associated with using depleted uranium munitions. Consequently, I was recalled to active duty in the U.S. Army and assigned to the U.S. Army Chemical School located at Fort McClellan, Alabama as the DU Project Director and tasked with developing training and management procedures. The project included a literature review; extensive curriculum development project involving representatives from all branches of the U.S. Department of Defense and representatives from England, Canada, Germany, and Australia; and basic research at the Nevada Test Site located northwest of Las Vegas, Nevada, to validate management procedures.

The products of he DU project included three training curricula:
Tier I: General Audience
Tier II: Battle Damage and Recovery Operations
Tier III: Chemical Officer / NCO
Three video tapes:
1. "Depleted Uranium Hazard Awareness"
2. "Contaminated and Damaged Equipment Management"
3. "Operation of the AN/PDR 77 Radiac Set" and
The draft DU and LLRM contamination management procedures including a

United States Army Regulation: "Management of Equipment Contaminated with Depleted Uranium or Radioactive Commodities" and an United States Army Pamphlet " Handling Procedures for Equipment Contaminated with Depleted Uranium or Radioactive Commodities".

Although, these products with approval of all participants were all completed and ready for distribution by January 1996, U.S. Army, U.S. Department of Defense, British, German, Canadian, and Australian officials disregarded repeated directives and did not implement or only have implemented portions of the training or management procedures. Unfortunately, only a few U.S. personnel have been trained. The training and management plan have not been given to all individuals and representatives of governments whose populations and environment have affected by DU contamination.

BASED ON ALL PREVIOUS RESEARCH AND THE DU PROJECT WHAT WERE THE RECOMMENDATIONS?

The DU project and review of previous research reinforced the original conclusions and recommendations that we developed while still in Saudi Arabia and which are just plain simple common sense. These recommendations were / are:

1. All depleted uranium contamination must be physically removed and properly disposed of to prevent future exposures.
2. Radiation detection devices that detect and measure alpha particles,

beta particles, x-rays, and gamma rays emissions at appropriate levels from 20 dpm up to 100,000 dpm and from .1 mrem/ hour to 75 mrem/ hour must be acquired and distributed to all individuals or organizations responsible for medical care and environmental remediation activities involving depleted uranium / uranium 238 and other low level radioactive

isotopes that may be present.
3. Medical screening of all individuals who did or may have inhaled, ingested, or had wound contamination to detect mobile and sequestered internalized uranium contamination must be completed.
4. All individuals who enter, climb on, or work within 25 meters of any DU contaminated equipment or terrain must wear respiratory and skin protection.
5. Uranium 238 contaminated and damaged equipment or materials should not be recycled to manufacture new materials or equipment.

WHAT HAS OCCURRED?

Visual evidence, personal experience, and published reports verify that:

1. Medical care has not been provided to all DU casualties.

2. Environmental remediation has not been completed.
3. DU contaminated and damaged equipment and materials have been recycled to manufacture new products.
4. DU training and education has only been partially implemented.
5. DU contamination management procedures have not been distributed.

The United States Army Materiel Command possesses the Nuclear Regulatory

Commission license for depleted uranium. A health physicist assigned to

the Office of the Surgeon General, U.S. Army Materiel Command told me during a conversation on November 8, 1999 that their office will not release the DU medical treatment protocols nor the DU contamination management and remediation procedures to all those who are affected by depleted uranium contamination. He has restated this decision in writing on behalf of commanding general. This decision ignores United States and international legal requirements.

WHAT ADVERSE HEALTH EFFECTS HAVE BEEN OBSERVED, RECOGNIZED, TREATED, AND

DOCUMENTED?

The answer to this question is difficult. Deliberate denial and delay of medical screening and consequent medical care of not only U.S. friendly fire casualties who inhaled, ingested, and had wound contamination but all others with verified or suspected internalized exposure makes actually knowing what has occurred difficult. Although I, physicians, scientists, and other medical personnel recommended immediate medical care during March, April, and May of 1991 and many times since then the United States Department of Defense, the British Ministry of Defense, and consequently the United States Department of Veterans Affairs are still reluctant to provide thorough medical screening and necessary medical care. Dr. Bernard Rostker wrote to me in

a letter dated March 1, 1999 that physicians and health physicists at the completion of the ground war decided that medical screening and care

for uranium exposures was not required. Actual documents refute this! Today, individuals are sick and others are dead who were denied medical care even though I requested it in a letter dated May 21, 1997 which was

sent to the Office of Surgeon U.S. Army Materiel Command and forwarded to Dr. Rostker by Dr. (LTC) Kelsey.

Verified adverse health effects from personal experience, physicians, and from personal reports from individuals with known DU exposures include: (a) Reactive airway disease, (b) neurological abnormalities,

(c) kidney stones and chronic kidney pain, (d) rashes, (e) vision degradation and night vision losses, (f) gum tissue problems, (g) lymphoma, (h) various forms of skin and organ cancer, (I) neuro-psychological disorders, (j) uranium in semen, (k) sexual dysfunction, and (l) birth defects in offspring.

Today, serious adverse health effects have been documented in employees of and residents living near Puducah, Kentucky, Portsmouth, Ohio; Los Alamos, New Mexico; Oak Ridge, Tennessee; Hanford, Washington. Additionally employees at uranium manufacturing or processing facilities

in New York, Tennessee, and the four corners area of southwest Colorado have repeatedly reported adverse health effects similar to those reported by verified Gulf War DU casualties. Iraqi and other humanitarian agency physicians are reporting serious adverse health effects in exposed populations. Today, verifying correlation between uranium exposures and adverse health effects, except in only in a few cases, may not be possible because of deliberate delays in screening. Health physics guidelines state that testing should be completed within 30 days not 8 years after exposures. Testing involves the collection of a urine, fecal, and throat samples. Eight years or so after exposures only a small fraction of the sequestered uranium or original dose will be detected. This fraction represents only the mobile or soluble portion

that is in the body. Figure 1 shows the relationship between time of sampling and detection of internalized uranium. Two recent autopsys have revealed that sequestering is an observed henomena and that the mobile fraction may or may not be representative of what is actually present. The current U.S. Army medical department guideline dated April 1999 requires immediate testing as always required by laws and regulations. However, this is still not occurring.

Even when verified medical evidence attributing adverse health effects to DU exposures is available official recognition and documentation has been erratic at best. For example during 1994 and 1995 United States Department of Defense medical personnel at an U.S. Army installation hospital removed, separated, and hid documented diagnoses from affected individuals and other physicians. Some medical records were retrieved recently, but, probably too late for many individuals. Today, this practice continues and consequently exposed individuals are not receiving adequate and effective medical care. This includes individuals whose medical care has been requested many times. This will continue as long as the United States, British, Canadian and other governments are permitted to ignore the emerging evidence and deny medical care to all individuals who have been or may have been exposed to depleted uranium (uranium 238), other isotopes, and other

contaminants created as result of the use of depleted uranium munitions. The criteria describing exposures were specified in a message from Headquarters Department of the Army dated October 14, 1993 (known as the Somlia message) . Exposures requiring medical screening and care included:

"a. Being in the midstof smoke from DU fires resulting from the burning

og vehicles uploaded with DU munitions or depots in which DU munitions are being stored.
b. Working within environments containing DU dust or residues from DU fires.
c. Being within a structure or vehicle while it is struck by DU munitions."

These guidelines should be applicable to all exposed individuals and thus care should be independent of military or civilian status. Although, I am not a physician I have been involved in teaching and providing emergency medicine for over 20 years and thus the following recommendations are based on experience and common sense applications of

emergency medicine and simple health physics principles. I also provided

emergency medical care for some DU casualties in Iraq and Saudi Arabia during the Gulf War.

Medical care must be planned and completed to identify and then alleviate actual physiological problems rather than placing an emphasis on psychological manifestations and continued testing. Warriors, civilian employees, non-combatants, and enemy personnel are sick and deserve care for the complex exposures that have resulted in observed physiological effects. Medical care for known uranium exposures should emphasize (concern in parentheses):

a. neurology (heavy metal effects)
b. ophthalmology (radiation and heavy metal effects)
c. urology (heavy metal effects and crystal formation)
d. dermatology (heavy metal effects)
e. cardiology (radiation and heavy metal effects)
f. pulmonary (radiation, particulate, and heavy metal effects)
g. immunology (radiation and heavy metal effects)
h. oncology (radiation and heavy metal effects)
i. gynecology (radiation and heavy metal effects)
j. gastro-intestinal (systematic effects)
k. dental (heavy metal effects)
l. psychology (heavy metal effects)

Many individuals with known exposures still had not received requested

care as of March 8, 2000 according to the VA DU project patient manager.

Today casualities with verified DU health related problems live on antibiotics and steroids to quell problems but treatment or cure has not

been tried to restore health. It is impossible to get proper care and treatment. IF YOU DO NOT PROVIDE MEDICAL ASSESSMENT FOR THOSE WITH VERIFIED EXPOSURES AND HEALTH PROBLEMS THEN YOU CAN SAY DU DID NOT CAUSE

ANY ADVERSE HEALTH PROBLEMS. SO MUCH FOR MEDICAL SCIENCE WHEN A COVERUP

IS DIRECTED BY POLITICIANS TO LIMIT LIABILITY FOR NON-COMBATANTS, WARRIORS, AND OTHERS. The cover-up started with the infamous Los Alamos

memorandum sent to our team in Saudi Arabia during March 1991. This memo told us to be sure no matter what we did or reported that we should

only report information so DU could always be used. A letter sent to General Leslie Groves during 1943 is even more disturbing. In that memorandum dated October 30, 1943, senior scientists assigned to the Manhattan Project suggested that uranium could be used as an air and terrain contaminant. According to the letter sent by the Subcommittee of the S-1 Executive Committee on the "Use of Radioactive Materials as a

Military Weapon" to General Groves (October 30, 1943) inhalation of uranium would result in "bronchial irritation coming on in a few hours to a few days". This is exactly what happened to individuals who inhaled DU dust during Operation Desert Storm.

The subcommittee went on further to state that "Beta emitting products could get into the gastrointestinal tract from polluted water, or food, or air. From the air, they would get on the mucus of the nose, throat, bronchi, etc. and be swallowed. The effects would be local irritation just as in the bronchi and exposures of the same amount would be required. The stomach, caecum and rectum, where contents remain for longer periods than elsewhere would be most likely affected. It is conceivable that ulcers and perforations of the gut followed by death could be produced, even without an general effects from radiation".

The twisted history of medical care of DU casualties took a unique and unprecedented turn on March 14, 2000 when representatives of the Italian

government announced that they would begin providing medical care for Iraqis who had been exposed to depleted uranium as a consequence of deliberate actions by the united States and England and the continued refusal by U.S. and British officials to provide medical treatment

protocols. In another twist on March 14 a French investigative journalist reported that "There has been lots of new things: - there are belgium sick people from Kosovo.... same symptoms. - There are italian sick soldiers from Bosnia - Some French soldiers from the Gulf are sick,journalists are working on that." This provides additional evidence of health related problems that must be addressed as previously cited in a U.S. Department of Defense press release dated July 27, 1999 which stated that 'Some soldiers in the Balkans are coming

down with the "Bosnian Crud," a type of upper respiratory infection, according to an article in the July 9 issue of the "Talon," the Operation Joint Forge newspaper for U.S. forces in Bosnia and Herzegovina.'

WHAT SHOULD HAPPEN NEXT?

The international community and all citizens of the world must raise a unified voice in opposition to future use of depleted uranium munitions and force those nations that have used depleted uranium munitions to recognize the immoral consequences of their actions and assume responsibility for medical care and thorough environmental remediation. Specifically:

1. Depleted uranium munitions and the use of depleted uranium must be banned.
2. All individuals who were exposed or who may have been exposed to any form of depleted uranium and its various integral contaminants or other contaminants created during combat, research, or training activities must receive a through physical examination and medical care to alleviate or cure the physiological consequences caused by inhalation, ingestion, or uranium wound contamination.
3. All depleted uranium penetrator fragments, depleted uranium contaminated equipment, and depleted uranium oxide contamination must be

cleaned up and disposed of at secure sites.

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I hope this document which was the basis for a university sponsored seminar clarifies some information regarding DU. I also recommend that you obtain and read:

1. GAO report: GULF WAR ILLNESSES: UNDERSTANDING OF HEALTH EFFECTS FROM DEPLETED URANIUM EVOLVING BUT SAFETY TRAINING NEEDED. GAO/NSAID-00-70
2. DON'T LOOK, DON'T FIND: GUILF WAR VETERANS, THE U.S. GOVERNMENT AND

DEPLETED URANIUM 1990-2000, DAN FAHEY, THE MILITARY TOXICS PROJECT,

MARCH 30, 2000.
3. MEDICAL AND ENVIRONMENTAL EVALUATION OF DEPLETED URANIUM, VOLUME 1, APRIL 1974, JTCG/ME AD-HOC WORKING GROUP FOR DEPLETED URANIUM
4. DEPLETED URANIUM (DU) EXPOSURES: CASE NARRATIVE, DAN FAHEY, SWORDS TO PLOWSHARES, INC.; NATIONAL GULF WAR RESOURCE CENTER, INC.; MILITARY TOXICS PROJECT, INC.; VARIOUS EDITIONS (This document has the most complete documentation of released DOD orders, memorandums, and reports)

5. A REVIEW OF THE SCIENTIFIC LITERATURE AS IT PERTAINS TO GULF WAR ILLNESSES: VOLUME 7- DEPLETED URANIUM; NAIOMI HARLEY, ERNEST FOULKES, LEE HILBORNE. ARLENE HUDSON, AND ROSSS ANTHONY, RAND CORPORATION, APRIL 1999. (The authors of this document refused to consider any of the actual reports on DU from Desert Storm, the Nevada tests, and othe documents that contradicted the predetermined official postion of DU as expressed in the March 1991 memorandum from Los Alamos and the December 1992 memorandum that initiated the U.S. Army Environmental Institute report on DU.).
6. AFRRI TECHICAL REPORT 93-2: PROTOCOL FOR MONITORING GULF WAR VETERANS WITH IMBEDDED FRAGMENTS OF DEPLETED URANIUM, LTC ERIC DAXON, MARCH 1993
7. HEALTH AND ENVIRONMENTAL CONSEQUENCES OF DEPLETED URANIUM USE IN THE

U.S. ARMY: TECHNICAL REPORT, U.S. ARMY ENVIRONMENTAL POLICY INSTITUTE, VARIOUS AUTHORS, JUNE 1995 (Although upon completion of this study, all documents regarding DU use and effects were located in the library of the AEPI, institute officials RECENTLY have stated verbally and in writing that the documents have disappeared.)
8. TOXICOLOGICAL PROFILE FOR URANIUM (UPTAKE), U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES, PUBLIC HEALTH SERVICE, AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY, SEPTEMBER 1999. (The authors of this report did not consider any of the actual reports on DU from Desert Storm, the Nevada tests, and other documents that contradicted the predetermined official postion of DU as expressed in the March 1991 memorandum from Los Alamos and the December 1992 memorandum that initiated the U.S. Army Environmental Institute report on DU.)
9. TB-9-1300-278; GUIDELINES FOR SAFE RESPONSE TO HANDLING, STORAGE, AND TRANSPORTATION ACCIDENTS INVOLVING ARMY TANK MUNITIONS OR ARMOR WHICH CONTAIN DEPLETED URANIUM, HEADQUARTERS , DEPARTMENT OF THE ARMY,
SEPTEMBER 1990.
10. OSAGWI: DU CASE NARRATIVE. (The authors of this document willfully

changed and omitted facts to justify DU use and minimize DU effects.)
11. The DU team reports
12. The Nevada tests project reports.
13. You should also obtain and watch all of the documentaries that have

been prepared by investigative reporers from around the world.
14. AR 40-14 dated 15 March 1982
15. AR 40-5 dated 1 June 1985

These documents and documentaries along with a verbal discussion will shed light on the DU mess and the virtually total disregard for human health and safety and the environment that DOD officials maintain for political purposes, to always be able to use DU munitions, and the objective to absolve them of any responsibility for deliberate DU USE AND CONSEQUENT EFFECTS.

The most recent use of DU was during battle in Kosovo and Serbia which was deliberate and in spite of warnings from myself and others and the continued written and oral statements from DOD officials that DU would not be used during battle. As part of battle preparations, we now can verify, with Navy and NRC documents, that Navy and Marine personnel willfully fired DU munitions in violation of laws and policies into the Vieques range. This willful act corresponds with the previous deliberate action on Okinawa and the delay in notifying Japanese and Okinawian officals for over one year. It has now been over nine (9) years since the deliberate use of DU during the Persian Gulf War and despite my and other medical officers recommendations, written directives, regulations, and numerous requests medical screening and consequent necessary care for all DU casualties has not been completed and this failure has been verified by U.S. Government Accounting Office personnel and personal experience. The required training also has still

not been completed as verified by recent oral admissions by U.S. Air Force personnel during sworn court testimony in Baltimore "Swords to Plowshares" trial, Navy officials written admissions regarding the Vieques use, GAO reports, and personal experience. This all suggests that as we were told during ODS that we should do nothing to disturb the

future use of DU munitions.

The list of concerns that we have are as follows as received and with no editing):

Expert #1

1. If there is not a medical surveillance protocol for DU there should be
one. It should go beyond film badge monitoring.
2. The should be a mandatory training program with annual updates for ALL working with DU OR have potential exposure. This includes combat troops.
3. There should be a protocol for clean up for DU regardless of how the environment was contaminated. This includes the clean up after any

war.
4. There MUST be a specific written policy (evolving the FAA) for the DU which is released from AIRCRAFT that has crashed. The DU is used ALL

MODERN COMMERCIAL AIRCRAFT for weight and balance. With a crash the DU is vaporized and released all over the place. Workers-air crew and mechanics and PASSENGERS should be told of this.

Expert #2

An important point you might want to include in your report is the fact that virtually all DU aerosol particles formed by burning DU penetrators or those formed when high velocity DU penetrators strike aarmor are in a ceeramic uranium oxide form. This causes them to have a

long biological half life in the bodyi, particularly in the lungs. Just

think, the U.S. Army knew this in 1985!

Here are two pieces of evidence to support this. First, the 1985 Battelle
report by Mishima, et. al. on delibereately burned DU metal penetrators includes a special experiment to measure a miinimum value of the half life
using DU oxide particles from burned penetrators. They found that at 1000 deg. C 100% of the DU was in ceramic form and they reported a biological half life for simulated lung fluid of 1170 days (3.2 yr). However, whoever interpreted the excellent numbericl data of the half life experiment and arrived at 1170 days was wrong. I studied their experiment carefully and saw that they had inclluded an assumed point with the seven measured points and this biased their half life (See my ttached analysis of the Battelle data,). I used their 7 valid data points and by least squares analysis calllculated a biological half life of 3.85 yr with a small error. Because this is a minimum value for

the half life, rounding the biological half life up to 4 yr seems reasonable. It could be longer. This briings me to the second point.

More than 8 years after the Gulf War, significant numbers of American, Canadian and British Gulf War veterans have tested positivve for DU in 24 hr urine collections. A biological half life of onlly 4 yr is sufficiently long to account for the DU observed today. Ten years or more from now, Guilf War veterans who today have DU in their urine will

still have measurable DU in their 24 hr uranium bioassay samples.

Because inhalation is the most probable pathway that DU aerosol particles can enter the body, the long biological half life for ceramic

DU oxide particles in the lungs can lead to serious medical problems developing there and elsewhere in the body.

Experimental Determination of the Biological Half Life

of

Ceramic Depleted Uranium Particles

Data are taken from Table 2.7 of Battelle Report DE85009778, PNL-5415, *Potential Behavior of Depleted Uranium Penetrators under Shipping and Bulk Storage Accident Conditions,* J. Mishima, M. A. Parkhurst, R. I. Scherpelz and D. E. Hadlock, March 1985, p. 2.27 (Battelle Pacific Northwest Laboratories).

In the table below, F is the fraction of the total uranium remaining undissolved in simulated lung fluid after time T.

N	T-Days	F	ln(F)	Residual
1	0.96	0.993	-0.007025	-0.00051
2	2.97	0.992	-0.008032	-0.00052
3	6.75	0.991	-0.009041	0.00033
4	9.72	0.990	-0.01005	0.00078
5	20.79	0.984	-0.01613	0.00016
6	38.83	0.975	-0.02532	-0.00015
7	59.87	0.965	-0.03563	-0.00009

Linear Least Squares Model: Y = A + B.T, where
Y is ln(F) and T is days.

Intercept A = - 0.006044 ± 0.000271
Slope B = - 0.0004927 ± 0.0000095
All uncertainties are 1 std. dev.

Biological Half Life of Ceramic DU Particles = 3.852 ± 0.075 yr. (1,407 ±

27 days)

Residuals are calculated as follows: Residual = ln(F) - A - B.T. Points lying above the least squares line will have positive residuals, those lying below it will have negative residuals.

The residuals show that the least squares fit of the 7 measured data points to a decay line is excellent. This view can be reinforced by plotting the data graphically.

The intercept A of the least squares line shows that at t=0, the undissolved fraction of ceramic DU particles is F = antiloge(-0.006044) = 0.994, not 0.00 as indicated in Table 2.7 of the Battelle Report. It is unclear how the authors used their graphical analysis to arrive at a half life of 1170 days (3.2 yr.). This value does not fit the precise data they reported.

Expert #3

-No radioactive material should be used in weaponry
-Concerned that the DOE should give give this material to arms manufacturers; what are the costs of disposing of it properly? Ie., what are the economic benefits to the nuclear industry of giving it away to be fired in other people's backyards?
-Concerned that no primary source field studies are being funded to look at correlations between ill health and DU exposure. Instead, only secondary literature is being relied upon. This is a very unscientific approach; and one which relies on outmoded estimates of risk; and which operates to protect the nuclear industry as a whole from the implications that might arise if relatively low levels of uranium oxide aerosols were found to be damaging to health. It would threaten the nuclear industry altogether - billions of dollars' worth of industry would be threatened if the actual risk from low- level radiation were properly calculated.
-Concerned that risk estimates for DU are partially derived from primary source field studies on the victims of Hiroshima/Nagasaki, when a great deal of more recent scientific evidence strongly points to low-level radiation over a long period being in many way more dangerous than a

sharp, quick blast of radiation for a shorter period. See Gofman, Busby, Bertell, Sternglass, Stewart, Kaku. Damaged cells can continue to reproduce, whereas cells killed outright cannot.
-The NRC should immediately stop providing licenses for this material to

be used in weaponry.

Expert #4

I think you should ask the NRC what it knows about the difference in inhaling uranium dust, and inhaling uranium ceramic aerosol. Also, are they will to provide instruments for independent labs willing to test vets. It will be important to determine the biological half life, and also develop a methology for calculating the original lung contamination. The NRC might also have information on the biological difference between inhalation and ingestion of uranium.

Expert #5

CBS News
Audience Services
524 W. 57th St.
New York, NY 10019

Dear Sir,

I would appreciate your help in locating the name and communication address of a "witness" presented in an item televised on Dan Rather's Evening NewsCast during the week of 12/06/1998. The particular item involved the pros and cons of the Iraq claim of cancer hazards caused by

the inclusion in Desert Storm weaponry of depleted uranium (identified by the industry as D-38). Used as a high-density confinement vessel intended (but not in any way as a fissionable device) merely to enhance the explosive power. The party that I wish to locate was the one who referred to the dust-like nature of uranium oxides and who was involved with cleanup after the conclusion of the Gulf War.

I am interested in communicating with this individual to share with him documentary evidence created by me which shows through technically precise calculation the very seriousness of the Iraq claim. I have for 20 years developed this proof in pursuit of other radiation phenomena and I have excerpted that material apropos this situation. That the witness of
interest to me stands rather alone among several ordinance apologists is

clear from the News Cast.

I have dispatched a document expressing my concern and pertinent technical data to the US ambassador to the UN and the Security Council, Bill Richardson. What if any thing he does is his business. My business

is to respond to the admonishment of the late ex Governor of Washington State and ex AEC Commissioner Dixie Lee Ray who asked, "Who speaks for Science?" I'm trying!
Assuming a one microgram dust particle of U3O8 has been ingested by eating or breathing and remains trapped in animal tissue, what damage might occur near that tissue? Know that there are contained in that dust particle 2,230,000,000,000,000 individual atoms of uranium 238. Of

this number about 38 disintegrate each and every hour for "eternity". Each disintegration produces a Helium daughter and a 50 kev gamma ray. While the 4 + Mev Helium bullet may cause tissue damage not many such bullets escape from the dust particle; however, a majority of the gamma rays do and it is these that do cumulative damage. To compound the hazard one needs only consider that while one dust particle may do superficial damage there is more than trivial
probability that in such a dusty environment many hundreds, thousands, or even millions might be ingested with each and every breath.

Feb. 11, 1999

Dan Rather Attn: Claire Fletcher
CBS News
524 W. 57th St
New York, NY 10019

Dear Sir/Madam,

Thank you for your expeditious response (1/18/1999) to my earlier inquiry concerning the Evening News of December 10, 1998. Consultation with Burrell 's yielded the names of two individuals with whom I share a

common interest relative to the dangers inherent with the use of "DU" (for 55 years depleted uranium has traditionally been called D-38) as a confining medium in non-nuclear weaponry.

It is imperative that I communicate with Prof. Doug Rokke and Dr.Assaf Durakovic in this matter and hope that you will be able to effect said communication.

On Dec. 2, 1998 I dispatched to Hon. Bill Richardson (United Nations Ambassador) a brief but ample treatise technically supporting the unpopular, but I believe accurate, modeling fostered by Prof. Rokke and Dr. Duracovic. It is my wish in this matter to furnish the vital data that I have generated to that group of doctors and scientists who dare

to speak the truth in defiance of popular mythology.

P.S. In the 1930's an investigation of differences in the questionable interpretation of concepts of vital public concern were conducted and resulted in a "White Paper" report. Nowadays the best source of an accurate pseudo White Paper appears to fall into the domain of "News Magazine" type investigations. 60 Minutes could do it!

March 1, 1999

Mark Phillips, Reporter/Correspondent
CBS News
524 W. 57th St
New York, NY 10019

Dear Sir,

In early December you broke a story relating to an Iraqi claim that US and British weaponry used in the Gulf War had contaminated targeted areas with radioactive debris that resulted in serious illness to Iraqi children.Without much detail I also found the story somewhat disputable.

Later, on the December 10th CBS Evening News, you presented new facts relating to that claim. One item that got my attention was that Professor Rokke had acknowledged that modern US ordinance people have been using DU (in the industry depleted uranium has been designated D-38) as a confining medium to increase explosive (non-nuclear) effectiveness. Another item of extreme relevance to me was revealed by: "(Professor) Rokke found that when a DU shell impacts, much of it burns and turns into fine uranium-oxide dust." I have been on a 55-year futile crusade trying to show that this "dust", while no great hazard in

the Earth's crust, is the potential villain in rampant health impairment

consequences.

Your referenced Dr. Assaf Durakovic and Professor Rokke and I comprise an esoteric group that shares a concern for a realistic recognition of a

genuine Worldwide public menace. It is my wish in this matter to furnish the vital data that I have generated to that group of doctors and scientists who dare to speak the truth in defiance of popular mythology.

It is imperative that I communicate with Prof. Doug Rokke and Dr.Assaf Durakovic in this matter and hope that you will be able to effect said communication. Please help me locate mailing addresses for these two interviewees.

P.S. My credentials include a 38-year career as a staff member with the

WWII Manhattan Project and the follow-on Los Alamos Scientific/National Laboratory.

May 12, 2000: The forgoing letter which asked for help from CBS resulted in
exactly nothing, I did locate these two people using the internet.

December 28, 1999

Staff of "SIXTY MINUTES" Magazine:
Attn: Mike Wallace, Morley Safer, Ed Bradley, Lesley Stahl, et al.
524 W. 57th St, New York, NY, 10019

Dear Magazine,

The "DU" (depleted Uranium, also known at the labs for more than the last 50 years as D-38) segment of the December 26th edition has been long awaited as the "denial of the generalized denials of December, 1998". Any US policy that does not categorically deny any future use of

Uranium as a jacket confining high explosives will ultimately reflect on

the credibility of its role in World leadership. The basic cause of alarm is not of the Uranium itself but of its pyrophoric nature whereby when subjected to high heating (as when adjacent to detonated H.E.) it spontaneously burns to Uranium trioxide in a manner not unlike that of Magnesium incendiary military ordnance. The physical nature of U-trioxide is that it exists as a yellow extremely fine powder that can easily become airborne by a casual saunter through loose soil where it exists. Any denial that this powder will lose its damaging effects is belied by the fact that it retains its radioactive potency FOREVER (actually reduced to one half in the next 5 billion years).

Briefly, I walked the fields of yellow smoke near the explosive test area on the outskirts of Los Alamos, NM from June of 1946 until my retirement in February of 1982. In the early years of this decade I chanced to observe a television interview of Navajo Uranium miners by a Congressional sub committee co-chaired by NM Senator Jeff Bingaman and Northern District Congressman Bill Richardson. I was aroused to action when the miners testified that there was a lot of "yellow smoke" in the Uranium mines they had been working in. My action amounted to a letter dispatched to Sen. Bingaman. I heard nothing from the Senator until later in the autumn of 1992 when, on a campaign swing through Los Alamos, a lady (named "Noreen) aide to the Senator approached me implying that my mail had been read. She invited me to send further

scientific details of my concern re: the "smoke problem". I then dispatched a comparison of the "Alpha ray activity" of microgram particles of Uranium and Thorium and a few of their oxides and silicates. I never again heard from that subcommittee. I backed away from the problem which appeared to cease with the closing of the mines. That was until early December of 1998.

Then, more than a year ago, Saddam had claimed that "Desert Storm" had left Iraqi children with radiation sickness left by the US after the war. I, assuming (as did many others), that Saddam was waving his usual

propaganda ploy, did choose denial. However, perhaps a week later (12/10/1998), the CBS evening news with Dan Rather, revealed among other

things, that indeed the US ordnance people had been using "nuclear safe DU" as an energy enhancing confinement material. With my knowledge of the rapid pyrophoric oxidation of any kind of Uranium I was obliged to recant my earlier denial. Hoping to arouse in (UN) Ambassador Bill Richardson an iota of the six year ago memory from the four corners sub committee activity, I collected all the old stuff as well as much recently developed scientific stuff. I sent it off to Bill's Office at the UN emphasizing the importance of some true bill adjudicating some relevant truth in this matter. To this date I have received no notice from the State Dept and nothing from Secretary of Energy Bill Richardson. I likewise addressed CBS News, admonishing Rather's people to get Sixty Minutes to do something. I even suggested that a US "White

Paper", such as last used in 1949, be developed to combat the institutional cannibalism practiced by some agencies of the government. CBS News presented two witnesses who vilified the oxides of DU. One was

a Dr Durakovic who was fired by the Veteran's Administration when he contested the Pentagon line. The other was Prof. Doug Rokke who in December of 1998 "insists the dust has unknown, even ominous health risks". This latter professor was the person interviewed by M. Safer this past Sunday and at this time referred to spallation behavior of impacted DU as the source DU fragments penetrating the flesh of US tank personnel. Doug had been fired by the US Army for doing his job. A denial reported in 1998 was that of Dr. Melissa McDiarmid who suggested that the kidneys were the place to look for DU poisoning. She should have been aware that the place to look was the lung where the yellow oxides become trapped.

Morley ended last Sunday's segment with the comment that many of our military allies are giving up DU jacketing of anti tank shells; THE USA SHOULD BE SO SMART!

An alternative to a sensible retreat from this replacement of the

adequate
WWII anti tank "Bazooka" is the proliferation and maintenance of a Worldwide garden of sarcophagi.

There is much more serious material discipline called for in the world of
Uranium. Dr. Reid's medical practice in Oak Ridge, TN and such as the easily overlooked problems at Paducah, KY, stand out. Most certainly the 30,000 square yards of soil surrounding EF firing point at TA-15 in Los Alamos, NM should be tested for Uranium and its trioxide because literally hundreds of tons of DU lie scattered there. I include a couple of tables that might glaze your eyes over but only to indicate the serious study I have given this often denied problem. I stand ready

to share my stuff with any serious quest.

Expert #5

1. NRC needs to stop licensing DU manufacturing comps that make DU ammo, else they and US Govt become party to clean up suits and health effects from its use. US already has standards for DU clean-up of DU test ranges and the use of DU ammo on foreign soils doing the same things is not ethical.

2. NRC needs to limit all DU licensing to just a few uses. DU needs to
stop as plane counter weights, elevator counter-weights, and as ballasts

on ships subject to burning. DU counter weights should not be used on high lifts either. DU should not be released to free market for use as a structural metal for general uses like that of steel. DOE has been
proposing using DU for industrial tanks, in place of steels.

3. NRC should continue to lic it use as specialized shielding or counterweights in ships not subject to fires.

4. NRC needs to fund studies that show the effects of internalized DU on the lymphatic system and its cells, this to show the incease of internalized DU in the lymph nodes and this effect potenitating the problems of immune system dysfunction allowing the rising effects of fungus, bacteria, mycoplasma, exogenous and endogenous viral presence in the body of those exposed. NRC needs to regognize that DU produces

prompt effects on kidneys, but also long term effects from the internalization in the lymph system.

Expert #6

I would ask NRC why they don't enforce the licenses they issue to DoD. Specifically, no testing, no training, etc., but also no accountability. I was beginning to think no one actually works at NRC because they don't seem to regulate anything that DoD does when it comes to DU. With respect to Vieques, I think it's important to find out how much DU the Navy has shot off the coast, and whether this could affect the fishing industry there. Also, ask NRC for the document or regulation which allows DoD to disregard health and safety regulations during wartime or deployment - I don't think any exists but DoD says these don't apply during wartime. How's that for a start?

Expert #6 continued.

1. Has the Navy shot 20mm DU rounds from the Phalanx guns on Navy ships into the waters around Vieques? [This is a gun with a white dome on top that is used primarily for missile defense. It is commonly shot during training exercises, and it is likely that it has been shot near Vieques.]
2. Is it possible that the Marine Corps or Navy shot DU rounds on the training range in the 1980's or 1990's and is unaware of this mistake?
3. Please provide a list of all Marine Corps, Air Force, Army and Navy aircraft that have used the Vieques bombing range. [We could compare such a list against all aircraft known to shoot DU rounds].
4. Ask the Nuclear Regulatory Commission how many times the Navy has notified them that DU was shot in Vieques.
5. If Navy ships have shot DU into the water, has the Navy devised a clean up plan for this DU?
6. When does the Navy plan to start cleaning up DU in accordance with its plan? How much does it expect this operation will cost, and when will it be completed?

My own concerns follow:

1. The adverse health and environmental effects from DOE facilitiy employee exposures seem to coincide with other DU exposures.
2. DU training still has not been completed as ordered by DOD and other government officials as confirmed by GAO.
3. Ordered and required medical care for confirmed or suspected uranium exposures is still inadeqaute, ineffective, and provided only selectively.

4. Navy officials have admitted willful use of DU munitions on Vieques in violation of laws, regulations, and the license.
5. DU dose assessments for those of us with verified exposures have still not been completed.
6. §19.13 Notifications and reports to individuals.

(a) Radiation exposure data for an individual, and the results of any measurements, analyses, and calculations of radioactive material deposited or retained in the body of an individual, shall be reported to

the individual as specified in this section. The information reported shall include data and results obtained pursuant to Commission regulations, orders or license conditions, as shown in records maintained by the licensee pursuant to Commission regulations. Each notification and
report shall: be in writing; include appropriate identifying data such as the name of the licensee, the name of the individual, the individual's social security number; include the individual's exposure information; and contain the following statement:

This report is furnished to you under the provisions of the Nuclear Regulatory Commission regulation 10 CFR part 19. You should preserve this report for further reference.

(b) Each licensee shall advise each worker annually of the worker's dose

as shown in records maintained by the licensee pursuant to the provisions of §20.2106 of
10 CFR part 20.

(c)(1) At the request of a worker formerly engaged in licensed activities controlled by the licensee, each licensee shall furnish to the worker a report of the worker's exposure to radiation and/or to radioactive material:

(i) As shown in records maintained by the licensee pursuant to §20.2106 for each year the worker was required to be monitored under the provisions of §20.1502;
and

(ii) For each year the worker was required to be monitored under the monitoring requirements in effect prior to January 1, 1994.

(2) This report must be furnished within 30 days from the time the request is made or within 30 days after the exposure of the individual has been determined by the
licensee, whichever is later. This report must cover the period of time that the worker's activities involved exposure to radiation from

radioactive material licensed by
the Commission and must include the dates and locations of licensed activities in which the worker participated during this period.

(d) When a licensee is required pursuant to §§20.2202, 20.2203, 20.2204,

or 20.2206 of this chapter to report to the Commission any exposure of an individual to
radiation or radioactive material the licensee shall also provide the individual a report on his or her exposure data included therein. This report must be transmitted at
a time not later than the transmittal to the Commission.

(e) At the request of a worker who is terminating employment with the licensee that involved exposure to radiation or radioactive materials, during the current
calendar quarter or the current year, each licensee shall provide at termination to each worker, or to the worker's designee, a written report regarding the radiation
dose received by that worker from operations of the licensee during the current year or fraction thereof. If the most recent individual monitoring results are not
available at that time, a written estimate of the dose must be provided together with a clear indication that this is an estimate.

[38 FR 22217, Aug. 17, 1973, as amended at 40 FR 8783, Mar. 3, 1975; 44 FR 32352, June 6, 1979; 58 FR 67658, Dec. 22, 1993; 59 FR 41642, Aug. 15,
1994]
In my own case, although a urinalysis was completed in November 1994 and results reported to DOE / Army on March 6, 1995, I was not notified

in writing until a letter was sent dated July 30, 1997. Consequently serious health problems have occurred with may have been minimized. Thus in my own case we have a veriifed violation of 10 CFR 19.13.

7. The willful neglect of training and education as verified by written admissions by Navy officials, sworn testimony of USAF personnel, and the GAO report is again a willful violation of:

§19.12 Instruction to workers.

(a) All individuals who in the course of employment are likely to receive in a year an occupational dose in excess of 100 mrem (1 mSv) shall be --

(1) Kept informed of the storage, transfer, or use of radiation and/or radioactive material;

(2) Instructed in the health protection problems associated with exposure to radiation and/or radioactive material, in precautions or procedures to minimize exposure,
and in the purposes and functions of protective devices employed;

(3) Instructed in, and required to observe, to the extent within the workers control, the applicable provisions of Commission regulations and

licenses for the protection of personnel from exposure to radiation and/or radioactive material;

(4) Instructed of their responsibility to report promptly to the licensee any condition which may lead to or cause a violation of Commission regulations and licenses or unnecessary exposure to radiation

and/or radioactive material;

(5) Instructed in the appropriate response to warnings made in the event

of any unusual occurrence or malfunction that may involve exposure to radiation and/or radioactive material; and

(6) Advised as to the radiation exposure reports which workers may request pursuant to §19.13.

(b) In determining those individuals subject to the requirements of paragraph (a) of this section, licensees must take into consideration assigned activities during
normal and abnormal situations involving exposure to radiation and/or radioactive material which can reasonably be expected to occur during the life of a licensed
facility. The extent of these instructions must be commensurate with potential radiological health protection problems present in the work place.

[60 FR 36043, July 13, 1995]

8. The willful and uncontrolled use of depleted uranium munitions has subjected military personnel, other citizens of the world, and U.S. citizens in Vieques to DU contamination hazards without any viable radiation protection program as required by:

§20.1101 Radiation protection programs.

(a) Each licensee shall develop, document, and implement a radiation protection program commensurate with the scope and extent of licensed activities and sufficient to ensure compliance with the provisions of this part. (See §20.2102 for recordkeeping requirements relating to

these programs.)

(b) The licensee shall use, to the extent practical, procedures and engineering controls based upon sound radiation protection principles to

achieve occupational doses and doses to members of the public that are as low as is reasonably achievable (ALARA).

(c) The licensee shall periodically (at least annually) review the radiation protection program content and implementation.

(d) To implement the ALARA requirements of §20.1101 (b), and notwithstanding the requirements in §20.1301 of this part, a constraint on air emissions of radioactive material to the environment, excluding Radon-222 and its daughters, shall be established by licensees other than those subject to §50.34a, such that the individual member of the public likely to receive the highest dose will not be expected to receive a total effective dose equivalent in excess of 10 mrem (0.1 mSv)

per
year from these emissions. If a licensee subject to this requirement exceeds this dose constraint, the licensee shall report the exceedance as provided in §20.2203 and promptly take appropriate corrective action to ensure against recurrence.

9. Neither I nor any other person that I know of in Iraq, Saudi Arabia, Kosovo, Vieques, Okinawa, nor othe areas where DU was used have received a dose summary despite numerous requests as required by:

§20.1202 Compliance with requirements for summation of external and internal doses.

(a) If the licensee is required to monitor under both §§20.1502(a) and (b), the licensee shall demonstrate compliance with the dose limits by summing external and
internal doses. If the licensee is required to monitor only under §20.1502(a) or only under §20.1502(b), then summation is not required to

demonstrate compliance
with the dose limits. The licensee may demonstrate compliance with the requirements for summation of external and internal doses by meeting one

of the conditions
specified in paragraph (b) of this section and the conditions in paragraphs (c) and (d) of this section.

(Note: The dose equivalents for the lens of the eye, the skin, and the extremities are not included in the summation, but are subject to

separate limits.)

(b) Intake by inhalation. If the only intake of radionuclides is by inhalation, the total effective dose equivalent limit is not exceeded if

the sum of the deep-dose
equivalent divided by the total effective dose equivalent limit, and one

of the following, does not exceed unity:

(1) The sum of the fractions of the inhalation ALI for each radionuclide, or

(2) The total number of derived air concentration-hours (DAC-hours) for all radionuclides divided by 2,000, or

(3) The sum of the calculated committed effective dose equivalents to all significantly irradiated(1) organs or tissues (T) calculated from bioassay data using
appropriate biological models and expressed as a fraction of the annual limit.

(c) Intake by oral ingestion. If the occupationally exposed individual also receives an intake of radionuclides by oral ingestion greater than 10 percent of the
applicable oral ALI, the licensee shall account for this intake and include it in demonstrating compliance with the limits.

(d) Intake through wounds or absorption through skin. The licensee shall

evaluate and, to the extent practical, account for intakes through wounds or skin
absorption.

Note: The intake through intact skin has been included in the calculation of DAC for hydrogen-3 and does not need to be further evaluated.

[56 FR 23396, May 21, 1991, as amended at 57 FR 57878, Dec. 8, 1992]

and

§20.1204 Determination of internal exposure.

(a) For purposes of assessing dose used to determine compliance with occupational dose equivalent limits, the licensee shall, when required under §20.1502, take

suitable and timely measurements of --

(1) Concentrations of radioactive materials in air in work areas; or

(2) Quantities of radionuclides in the body; or

(3) Quantities of radionuclides excreted from the body; or

(4) Combinations of these measurements.

(b) Unless respiratory protective equipment is used, as provided in §20.1703, or the assessment of intake is based on bioassays, the licensee shall assume that an individual inhales radioactive material at the airborne concentration in

which the individual is present.

(c) When specific information on the physical and biochemical properties

of the radionuclides taken into the body or the behavior or the material

in an individual is known, the licensee may --

(1) Use that information to calculate the committed effective dose equivalent, and, if used, the licensee shall document that information in the individual's record; and

(2) Upon prior approval of the Commission, adjust the DAC or ALI values to reflect the actual physical and chemical characteristics of airborne radioactive material (e.g., aerosol size distribution or density); and

(3) Separately assess the contribution of fractional intakes of Class D,

W, or Y compounds of a given radionuclide (see appendix B to part 20) to

the committed effective dose equivalent.

(d) If the licensee chooses to assess intakes of Class Y material using the measurements given in §20.1204(a)(2) or (3), the licensee may delay the recording and reporting of the assessments for periods up to 7 months, unless otherwise required by §§20.2202 or 20.2203, in order to permit the licensee to make additional measurements basic to the assessments.

(e) If the identity and concentration of each radionuclide in a mixture are known, the fraction of the DAC applicable to the mixture for use in calculating DAC-hours
must be either --

(1) The sum of the ratios of the concentration to the appropriate DAC value (e.g., D, W, Y) from appendix B to part 20 for each radio-nuclide in the mixture; or

(2) The ratio of the total concentration for all radionuclides in the mixture to the most restrictive DAC value for any radionuclide in the mixture.

(f) If the identity of each radionuclide in a mixture is known, but the concentration of one or more of the radionuclides in the mixture is not known, the DAC for the
mixture must be the most restrictive DAC of any radionuclide in the mixture.

(g) When a mixture of radionuclides in air exists, licensees may disregard certain radionuclides in the mixture if --

(1) The licensee uses the total activity of the mixture in demonstrating

compliance with the dose limits in §20.1201 and in complying with the monitoring requirements
in §20.1502(b), and

(2) The concentration of any radionuclide disregarded is less than 10 percent of its DAC, and

(3) The sum of these percentages for all of the radionuclides disregarded in the mixture does not exceed 30 percent.

(h)(1) In order to calculate the committed effective dose equivalent, the licensee may assume that the inhalation of one ALI, or an exposure of 2,000 DAC-hours,
results in a committed effective dose equivalent of 5 rems (0.05 Sv) for

radionuclides that have their ALIs or DACs based on the committed effective dose
equivalent.

(2) When the ALI (and the associated DAC) is determined by the nonstochastic organ dose limit of 50 rems (0.5 Sv), the intake of radionuclides that would result in
a committed effective dose equivalent of 5 rems (0.05 Sv) (the stochastic ALI) is listed in parentheses in table 1 of appendix B to

part 20. In this case, the licensee
may, as a simplifying assumption, use the stochastic ALIs to determine committed effective dose equivalent. However, if the licensee uses the stochastic ALIs, the
licensee must also demonstrate that the limit in §20.1201(a)(1)(ii) is met.

[56 FR 23396, May 21, 1991, as amended at 60 FR 20185, Apr. 25, 1995]

and:

§20.1203 Determination of external dose from airborne radioactive material.

Licensees shall, when determining the dose from airborne radioactive material, include the contribution to the deep-dose equivalent, lens dose equivalent, and
shallow-dose equivalent from external exposure to the radioactive cloud (see appendix B to part 20, footnotes 1 and 2).

Note: Airborne radioactivity measurements and DAC values should not be used as the primary means to assess the deep-dose equivalent when the airborne radioactive material includes radionuclides other than noble gases or if the cloud of airborne radioactive material is not relatively

uniform. The determination of the deep-dose equivalent to an individual should be based upon measurements using instruments or individual monitoring devices.

I must note that DOD and DOE and VA still refuse to consider the ODS DU team reports and Nevada test reports in calculating the dose as specified above.

10. DU has been used willfully with total disregard for human respiratory protection. During ODS no formal respiratory program was put into place even though it was requested, in fact, we were told that it was unneccessary in violation of:

§20.1703 Use of individual respiratory protection equipment.

If the licensee assigns or permits the use of respiratory protection equipment to limit the intake of radioactive material,

(a) The licensee shall use only respiratory protection equipment that is

tested and certified by the National Institute for Occupational Safety

and Health (NIOSH)
except as otherwise noted in this part.

(b) If the licensee wishes to use equipment that has not been tested or certified by NIOSH, or for which there is no schedule for testing or certification, the licensee
shall submit an application to the NRC for authorized use of this equipment except as provided in this part. The application must include evidence that the material
and performance characteristics of the equipment are capable of providing the proposed degree of protection under anticipated conditions

of use. This must be
demonstrated either by licensee testing or on the basis of reliable test

information.

(c) The licensee shall implement and maintain a respiratory protection program that includes:

(1) Air sampling sufficient to identify the potential hazard, permit proper equipment selection, and estimate doses;

(2) Surveys and bioassays, as necessary, to evaluate actual intakes;

(3) Testing of respirators for operability (user seal check for face sealing devices and functional check for others) immediately prior to each use;

(4) Written procedures regarding--

(i) Monitoring, including air sampling and bioassays;

(ii) Supervision and training of respirator users;

(iii) Fit testing;

(iv) Respirator selection;

(v) Breathing air quality;

(vi) Inventory and control;

(vii) Storage, issuance, maintenance, repair, testing, and quality assurance of respiratory protection equipment;

(viii) Recordkeeping; and

(ix) Limitations on periods of respirator use and relief from respirator

use;

(5) Determination by a physician that the individual user is medically fit to use respiratory protection equipment; before

(i) The initial fitting of a face sealing respirator;

(ii) Before the first field use of non-face sealing respirators, and

(iii) Either every 12 months thereafter, or periodically at a frequency determined by a physician.

(6) Fit testing, with fit factor " 10 times the APF for negative pressure devices, and a fit factor " 500 for any positive pressure, continuous flow, and pressure-demand devices, before the first field use of tight fitting, face-sealing respirators and periodically thereafter at a frequency not to exceed 1 year. Fit testing must be performed with the facepiece operating in the negative pressure mode.

(d) The licensee shall advise each respirator user that the user may leave the area at any time for relief from respirator use in the event of equipment malfunction, physical or psychological distress, procedural or communication failure,

significant deterioration of operating conditions, or any other conditions that might require such relief.

(e) The licensee shall also consider limitations appropriate to the type

and mode of use. When selecting respiratory devices the licensee shall provide for vision correction, adequate communication, low temperature work environments, and the concurrent use of other safety or radiological protection equipment. The licensee shall use equipment in such a way as not to interfere with the proper operation of the respirator.

(f) Standby rescue persons are required whenever one-piece atmosphere-supplying suits, or any combination of supplied air respiratory protection device and personnel protective equipment are used from which an unaided individual

would have difficulty extricating himself or herself. The standby persons must be equipped

with respiratory protection devices or other apparatus appropriate for the potential hazards. The standby rescue persons shall observe or otherwise maintain
continuous communication with the workers (visual, voice, signal line, telephone, radio, or other suitable means), and be immediately available

to assist them in case
of a failure of the air supply or for any other reason that requires relief from distress. A sufficient number of standby rescue persons must

be immediately available to
assist all users of this type of equipment and to provide effective emergency rescue if needed.

(g) Atmosphere-supplying respirators must be supplied with respirable air of grade D quality or better as defined by the Compressed Gas Association in publication
G-7.1, "Commodity Specification for Air," 1997 and included in the regulations of the Occupational Safety and Health Administration (29 CFR

1910.134(i)(1)(ii)(A) through (E). Grade D quality air criteria
include--

(1) Oxygen content (v/v) of 19.5-23.5%;

(2) Hydrocarbon (condensed) content of 5 milligrams per cubic meter of air or less;

(3) Carbon monoxide (CO) content of 10 ppm or less;

(4) Carbon dioxide content of 1,000 ppm or less; and

(5) Lack of noticable odor.

(h) The licensee shall ensure that no objects, materials or substances, such as facial hair, or any conditions that interfere with the
face--facepiece seal or valve
function, and that are under the control of the respirator wearer, are present between the skin of the wearer's face and the sealing surface of

a tight-fitting respirator
facepiece.

(i) In estimating the dose to individuals from intake of airborne radioactive materials, the concentration of radioactive material in the air that is inhaled when
respirators are worn is initially assumed to be the ambient concentration in air without respiratory protection, divided by the

assigned protection factor. If the dose is
later found to be greater than the estimated dose, the corrected value must be used. If the dose is later found to be less than the estimated dose, the corrected value
may be used.

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11. Because of the willful and uncontrolled use of depleted uranium munitons and total disregard for monitoring the dose to the general public is unknown as required by:

§20.2107 Records of dose to individual members of the public.

(a) Each licensee shall maintain records sufficient to demonstrate compliance with the dose limit for individual members of the public (see

§20.1301).

(b) The licensee shall retain the records required by paragraph (a) of this section until the Commission terminates each pertinent license requiring the record.

12. I do not know of any report provided to you by DOE regarding the March 5, 1995 report on my internalized exposure nor has far as I know of any reports on any other individuals exposures. This would be difficult because DOD and VA still have not provided care for all DU casualties as ordered by June 8, 1993 directive, as required by regulations and as required by:

§20.2205 Reports to individuals of exceeding dose limits.

When a licensee is required, pursuant to the provisions of §§20.2203, 20.2204, or 20.2206, to report to the Commission any exposure of an identified
occupationally exposed individual, or an identified member of the public, to radiation or radioactive material, the licensee shall also provide a copy of the report
submitted to the Commission to the individual. This report must be transmitted at a time no later than the transmittal to the Commission.

[60 FR 36043, July 13, 1995]

I also am unaware of any report of exposures on any of the other individual DU exposures being reported to you and especially from Vieques.

13. The use of DU three (3) times on Okinawan island of Torishima during December 1995 (once) and January 1996 (twice), was also an accident (yea , right??).. DU training was ready and Navy had signed off

on it's use but then again why do it and then all uses of DU that violate laws and regulations are accidents. Navy officials never even notifed Japanese / Okinawian officials for over a year of the event. So

much for following NRC or common sense guidelines. When this happened, I was called right away by AMC - LTC Kelsey (current # 301-295-3390) and asked how to clean it up. Easy, just follow the guidelines that we wrote which were in various stages. (See attached most recent version that I possess.) Did you know that per unclassified memo #1997022433 (in my hands) Navy said they would discipline violators. (Did you?). MORE IMPORTANT THE NAVY STATED THEY WOULD "PREVENT A REOCCURANCE OF THE INCIDENT" . So much for that happening. Again willful violation and distinct pattern as proven by Vieques incident.

14. I just spoke with Jane Stolte at VA DU program in Baltimore (1-800-815-7533). They still do not have names of all known DU casualties. See page 4 of Dan Fahey's "Don't Ask, Don't Find" report and page 4 of GAO DU report. It is very important to understand that LTC Rick Kolfinke and I had submitted names of all known DU consisting of casaulties well over 200 by May 1991. Of course our log books disappeared in theater. But we still submitted reports, written and on

computer disk to U.S. Army Materiel Command. OSAGI's Dr. Rostker was given the classified disk by LTC Chuck Kelsey (301-295-3390) several years ago. but then why would DOD comply with medical care orders (June 8, 1993 & October 14, 1993, and April 9, 1999 and NRC regulations. And then even when COL Eric Daxon specified care for certain levels of DU in urine (AFRRI 93-2) they did not even follow those guidelines for me when I turned up hot. In fact they did not tell me in writings for 2.5 years. Oh well!!

15. Are you aware of the Ocober 30, 1943 memorandum to General Leslie Groves that predicted health problems, specifically lungs, would occur and that the U.S. military should willfully use uranium to contaminate food, water, soil, and air.

16. The willful attempts to prevent truth from getting out as specified

by Los Alamos memo dated March 1993 and then again by memo that started AEPI project in December 1992 and continuous retaliation probability violate:

§20.2402 Criminal penalties.

(a) Section 223 of the Atomic Energy Act of 1954, as amended, provides for criminal sanctions for willful violation of, attempted violation of,

or conspiracy to violate, any regulation issued under sections 161b, 161i, or 161o of the Act. For purposes of section 223, all the regulations in §§20.1001 through 20.2402 are issued under one or more of

sections 161b, 161i, or 161o, except for the sections listed in paragraph (b) this section.

17. Dr. Rostker's stated in a letter sent to me dated March 1, 1999 that quote:
"Additionally, you have asked us to provide medical care for civilians who are sick from unusual depleted uranium exposures. The law prohibits

both the DOD and VA from providing medical care to civilians who do not qualify for care in these government facilities. Department of Defense civilians and family members of Gulf War veterans may recive a medical evaluation from the DOD through the comprehensive Clinical Evaluation program. All other civilians must seek medical care through Workers Compensation, their contract company, or private health insurance." end quote. However, Army Regulation 40-5 paragraph 5-7 a.1 specifies that care is free for occupational exposures etc. Next Dr. Rostker wrote that quote "In fact during and after the Gulf War, physicians, and health physicists in the office of the Army Surgeon General made a professional judgement of the exposures and determined that bioassays were not required". end quote. So much for truth, as I was the health physicist on scene and another one of my colleagues, a physician, was the occuaptional health physician on scene and we ordered medical care based on first hand experience. Thus we have willful act to deny care based on a lie.

18. Colonel Bob Cherry admitted in story written by Kathleen Sullivan and published on June 21, 1997 in San Francisco Examiner that they the Army violated Army Regulation 40-5 by not providing bioassays. Nothing has happened as usual with that admission of a willful violation thus denying medical care.

19. The willful attack on Robert Rabin on May 18, 2000 by Navy officials must be investigated as possible retaliation or at least intimidation.

20. The willful violation of AR 40-5 AND AR 40-14 AS ADMITTED BY COLONEL BOB CHERRY DURING JUNE 1997 is unacceptable and shows willful intent. .

21. The USAF KOREA BOMBING OF KOREAN CIVILIAN AREAS IS ALSO ANOTHER EXAMPLE OF UNCONTOLLED ACTIONS.

22. In my own case despite repeated requests an entry and exit radiation health physical examination as required by AR 40-14 was never provided by officials assigned to the U.S. Army Chemical School.

23. The incidence of adverse health effects among those with known uranium exposures continues to escalate without any effective medical response on part of either HQDA-OTSG, AMC-OTSG, nor VA.

These expressed concerns reflect substantial experience and fears of knowledgeable scientists and physicians. There has been and continues to be a formal pattern of verbal and written warnings (threats) directed

against myself and others to cease our activites. Many of us have also lost our federal and civilian jobs because we challenged official policy

regarding DU use as specified in the famed Los Alamos (March 1991) memorandum.

I will now make this very personal. Although, the Department of Defense and Army ordered me to clean up the mess, prepare the education and training program, and develop the operational and environmental remediation guidelines, as I became sick from verified exposures they willfully ignored their own recommendations, laws, and recommendations to abandon me and deny me adequate medical care thus resulting in serious and verified health problems caused by, as verified by my VA physicians, occupational exposure to Uranium 238 (DU).

The continuation of inadequate medical care, non-completion of required

dose assessments, and very limited environmental remediaton for depleted uranium exposures are in willful violation of federal law, military regulations, and direct orders. When will anyone admit my exposure and consequent dose assessment got totally screwed up? When will someone from OTSG, CHPPM, or AFRRI offer medical assistance to alleviate or cure the physiological problems that I am experiencing. I have asked OSAGWI, COL (Dr.) Charles Miller- (AMC-OTSG), and LTC (Dr.) Mark Mullansen- (AMC-OTSG) for assistance for myself, the other friendly

fire casualties, the recovery personnel, citizens of Iraq and Kuwait, and now citizens of Puerto Rico and Serbia. They still refuse to provide any assistance. The Army Materiel Command (General John Coburn) holds the Nuclear Regulatory Commission license for uranium 238

(DU) munitions and consequently there must be some acceptance of responsibility for what has and continues to transpire.

I would like to review some facts:

1. I was exposed to uranium 238 as a consequence specific assignment as

health physicist to the depleted uranium assessment team during ODS.
2. I and other medical professionals recommended medical screening and care IAW AR 40-5 and AR 40-14 for all individuals exposed to DU during ODS during the spring and summer of 1991.
3. I again recommended medical care at an industrial hygeine conference

held at Wright Patterson Air Force Base during February 1992.
4. The GAO recommended medical care during January 1993.
5. The Deputy Secretary of Defense ordered the Secretary of the Army to

provide medical care in an order dated 8 June 1993. (Retransmitted and ordered by General Eric Shinseki during August 1993.)
6. HQDA sent out the "Somalia" message from COL Pete Myers dated 14 October 1993 specifying under which types of exposures medical screening and care should be provided.
7. The DOD refused to provide me a radiobioassay when I requested it during my physical examination as a part of the CCEP in 1994 and 1995.
8. I was again probably exposed to uranium 238 (DU) during research tests conducted at the Nevada Test Site in November 1994. I was on active duty as DU Project director.
9. The U.S. Department of Energy collected a 24 hour urine sample from me at the conclusion of the Nevada tests in November 1994.
10. I was refused, numerous times, a radiation health physical as required by AR 40-14 while assigned to active duty at Fort McClellan, Alabama between 1 August 1994 and 30 November 1995 and while assigned as a civilian employee between July 1996 and January 1997.
11. I was told during a meeting at the Pentagon in Sepember 1996 that I

was hot for uranium. I requested assistance and none was provided in direct violation of AR 40-5. .
12. Finally on or about August 8, 1997, with assistance of BG Jeff Prather, OSAGWI, I received a written report from DOE indicating an extremely high urine uranium level that had been detected and reported in late February 1995.
13. I then requested medical assistance from AMC- OTSG, and from the VA. As of this date I have never received any medical assistance from AMC-OTSG. The VA finally enrolled me into the Baltimore VA DU program during March of 1999, almost exactly 8 years after my initial exposure.

Health effects caused by DU exposure were verified within months. I am currently under medical care for health problems which have been documented as caused by uranium occupational exposure. I am also being billed for co-payments for medical care and prescription drugs. Although, I have health problems, my physicians are unsure what to do

to alleviate or cure observed and verified health problems
14. The DOE and DOD should have immediately notified me of the high measured value that was reported in February / March 1995 and immediately repeated the radiobioassay and then provdied to me relevant medical care for verified exposure to uranium. A Line of Duty (LOD) incident report should have been prepared but despite numerous requests it never was prepared and AMC-OTSG in fact refused to do so and stated so in writing.
15. I have asked AMC-OTSG for assistance for all DU casualties numerous

times and completion of environmental remediation yet it has still not been provided.
16. Medical care still has not been provided to all individuals (military and civilians) who were exposed to uranium (DU) during the Persian Gulf War, during operations in Israel, as a consequence of exercises in Puerto Rico, as a consequence of military operations in Okinawa, as a consequence of the use of uranium 238 (DU) munitions in Serbia during 1995, an now in Kosovo during 1999.
17. Today, individuals (military and civilians) who who exposed to uranium 238 (DU) and whose medical care was requested and ordered numerous times as required by AR 40-14, AR 40-5, 38 USC 1710, and 38 USC

1712 are dead because they were denied medical care.
18. DOD, OTSG-DA, and OTSG-AMC have still not acknowledged the failure to provide medical screening and care for all individuals exposed to uranium munitions.
19. COL Bob Cherry, HQDA, admitted to Kathleen Sullivan in an article published in the San Francisco Examiner dated June 21, 1998 that HQDA / He violated AR 40-5 with regards to providing medical screening and care

for those exposed to uranium (DU) munitions.
20 Dr. Bernard Rostker on behalf of the Secretary of Defense in a letter dated 1 March 1999 again refused to provide medical screening and care for civilians exposed to uranium (DU) munitions as a consequence of their official activities during the Persian Gulf War in deliberate violation of AR 40-5 paragraph 5-7 a.1 .
21. NATO / DOD have deliberately ignored numerous warnings and fired uranium 238 (DU) munitions in Serbia and Kosovo.
22. DOD in willful violation of law and regulations fired at least 267

rounds of uranium 238 (DU) munitions from a Harrier jet fighter onto Vieques Island, Puerto Rico.
23. Representatives of CHPPM who are responsible by regulation for completing my dose assessment report have not contacted me to discuss any events during which I was or may have been exposed to uranium 238. Representatives of CHPPM have not offerred nor provided me any medical care nor recommendations for care to my physicians during any time. I have never received a dose assessment.

24. It has now been over 9 years since I was exposed to uranium 238 (DU) contamination as a consequence my HQDA assigned duties to clean up the uranium 238 (DU) mess during the Persian Gulf War and develop all the education and training materials and management procedues.
25. It has now been over 5 years since I was recalled to active duty as

Depleted Uranium Project director during which I was again exposed uranium 238 (DU) contamination.
26. I am still awaiting the completion of my dose assessment and provision of medical care.
27. The United States Government Accounting Office report: "Understanding of Health Effects From Depleted Uranium Evolving but Safety Training Needed, GAO/NSAID-00-70" verifies lack of training and inadequate medical care.

Questions:
1. When will accountability for the willful violation of laws and regulations be addessed?
2. When will complete medical screening and care be provided?
3. When will you respond to my questions and concerns?

In conclusion, based on the facts, evidence, and events I request a formal NRC hearing to consider the revocation of the master DU license for the U.S. Department of Defense and all services , implementation of substantial fines, and consideration of personal criminal liability. I also request formal protection under the "whistle blower" statues for myself and all others who are trying to obtain medical care for all DU casualties and completion of environmental remediation of all DU contamination.

Authority for my request and action on your part falls under:

10 CFR §19.30 Violations.

(a) The Commission may obtain an injunction or other court order to prevent a violation of the provisions of --

(1) The Atomic Energy Act of 1954, as amended;

(2) Title II of the Energy Reorganization Act of 1974, as amended; or

(3) A regulation or order issued pursuant to those Acts.

(b) The Commission may obtain a court order for the payment of a civil penalty imposed under section 234 of the Atomic Energy Act:

(1) For violations of --

(i) Sections 53, 57, 62, 63, 81, 82, 101, 103, 104, 107, or 109 of the Atomic Energy Act of 1954, as amended;

(ii) Section 206 of the Energy Reorganization Act;

(iii) Any rule, regulation, or order issued pursuant to the sections specified in paragraph (b)(1)(i) of this section;

(iv) Any term, condition, or limitation of any license issued under the sections specified in paragraph (b)(1)(i) of this section.

(2) For any violation for which a license may be revoked under section 186 of the Atomic Energy Act of 1954, as amended.

[57 FR 55071, Nov. 24, 1992]

and:

§19.40 Criminal penalties.

(a) Section 223 of the Atomic Energy Act of 1954, as amended, provides for criminal sanctions for willful violation of, attempted violation of,

or conspiracy to violate, any regulation issued under sections 161b, 161i, or 161o of the Act. For purposes of section 223, all the regulations in part 19 are issued under one or more of sections 161b, 161i, or 161o, except for the sections listed in paragraph (b) of this section.

(b) The regulations in part 19 that are not issued under sections 161b, 161i, or 161o for the purposes of section 223 are as follows: §§19.1, 19.2, 19.3, 19.4, 19.5, 19.8, 19.16, 19.17, 19.18, 19.30, 19.31, and 19.40.

[57 FR 55071, Nov. 24, 1992

and;

§19.16 Requests by workers for inspections.

(a) Any worker or representative of workers who believes that a violation of the Act, the regulations in this chapter, or license conditions exists or has occurred in
license activities with regard to radiological working conditions in which the worker is engaged, may request an inspection by giving notice of the alleged violation to
the Administrator of the appropriate Commission Regional Office, or to Commission inspectors. Any such notice shall be in writing, shall set

forth the specific
grounds for the notice, and shall be signed by the worker or representative of workers. A copy shall be provided the licensee by the Regional Office Administrator,
or the inspector no later than at the time of inspection except that, upon the request of the worker giving such notice, his name and the name

of individuals referred to
therein shall not appear in such copy or on any record published, released or made available by the Commission, except for good cause shown.

(b) If, upon receipt of such notice, the Regional Office Administrator determines that the complaint meets the requirements set forth in paragraph (a) of this section,
and that there are reasonable grounds to believe that the alleged violation exists or has occurred, he shall cause an inspection to be made as soon as practicable, to
determine if such alleged violation exists or has occurred. Inspections pursuant to this section need not be limited to matters referred to in the complaint.

[38 FR 22217, Aug. 17, 1973, as amended at 40 FR 8783, Mar. 3, 1975; 47 FR 30454, July 14, 1982; 52 FR 31610, Aug. 21,

and

§20.2401 Violations.

(a) The Commission may obtain an injunction or other court order to prevent a violation of the provisions of --

(1) The Atomic Energy Act of 1954, as amended;

(2) Title II of the Energy Reorganization Act of 1974, as amended; or

(3) A regulation or order issued pursuant to those Acts.

(b) The Commission may obtain a court order for the payment of a civil penalty imposed under section 234 of the Atomic Energy Act:

(1) For violations of --

(i) Sections 53, 57, 62, 63, 81, 82, 101, 103, 104, 107 or 109 of the Atomic Energy Act of 1954, as amended;

(ii) Section 206 of the Energy Reorganization Act;

(iii) Any rule, regulation, or order issued pursuant to the sections specified in paragraph (b)(1)(i) of this section; and

(iv) Any term, condition, or limitation of any license issued under the sections specified in paragraph (b)(1)(i) of this section.

(2) For any violation for which a license may be revoked under Section 186 of the Atomic Energy Act of 1954, as amended.

[56 FR 23408, May 21, 1991; 56 FR 61352, Dec. 3, 1991, as amended at 57 FR 55071, Nov. 24, 1992]

and

§20.2402 Criminal penalties.

(a) Section 223 of the Atomic Energy Act of 1954, as amended, provides for criminal sanctions for willful violation of, attempted violation of,

or conspiracy to
violate, any regulation issued under sections 161b, 161i, or 161o of the

Act. For purposes of section 223, all the regulations in §§20.1001 through 20.2402 are
issued under one or more of sections 161b, 161i, or 161o, except for the

sections listed in paragraph (b) this section.

(b) The regulations in §§ 20.1001 through 20.2402 that are not issued under Sections 161b, 161i, or 161o for the purposes of Section 223 are as follows: §§
20.1001, 20.1002, 20.1003, 20.1004, 20.1005, 20.1006, 20.1007, 20.1008, 20.1009, 20.1405, 20.1704, 20.1903, 20.1905, 20.2002, 20.2007, 20.2301, 20.2302, 20.2401, and 20.2402.

[57 FR 55071, Nov. 24, 1992]

Please advise me of your actions to resolve the specified concerns and actions in response to my request for a license revocation hearing and corrective actions.

Respectfully,

doug rokke, Ph.D.
former ODS DU team health physicist
former DOD/ DA DU project director
major, medical service corps

u.s. army reserve
256-435-0770

CC: bill cawood <cawoodw.nsiad@GAO.GOV>, "Cumpiano, Fl...