Special Requirements for Hunting Areas 10, 11 and 12

Please read this information carefully since you must sign a statement saying that you did so.

Q: What's the issue?

A: A section of the Gorge possibly has some depleted uranium (DU) contamination from past tests.

Q: Where is it?

A: It's up in the Gorge in the main area where testing and demolition are done in the vicinity of bldg 1222. It's easy to identify when you are up there since it is marked off with yellow rope.

Q: How serious is the contamination problem?

A: Samples of the soil have been taken throughout the roped off area. During the sampling process a few splinters of depleted uranium were found and removed from subsurface samples. None of the surface samples had DU in them. Although we removed all of the DU that we found (which was only in subsurface samples) we must assume there might be a little more in places where we didn't sample. So far the amount found is quite small – just a few particles distributed among many tons of soil well beneath the surface. However more samples need to be taken, so it is important that the area not be disturbed.

Q: Where did it come from?

A: The particles are remnants of tests done years ago involving shaped charge type mines that used depleted uranium liners. Most of the uranium was recovered at the time in the steel target plates and was properly disposed of, but a few fragments were missed.

Q: Is it dangerous to hunters?

A: Certainly not as long as you stay out of the roped off area. As discussed above, walking on the surface without disturbing it is also not hazardous, but digging up the ground or otherwise disturbing it might unearth some contamination. This may sound cold but we are more concerned that people may disturb the soil and ruin the validity of the tests we have already performed than about the very small chance that they could take up a small amount of contamination by doing so. So until all test results are available to us we are compelled to keep people from entering the roped off area.

Q: How can you be so confident that it is safe for anyone who does not enter the area?

A: Besides the testing we've done, there are people who have worked in the area for many years. Their urine has been regularly tested for depleted uranium due to other work that they do. None has ever been found and the tests are very sensitive.

Q: Assuming there is serious contamination there what would it do to me if I mess around in the roped off area?

A: The most likely way it could get into your body is by digging around in there, stirring up the dust and breathing it in. Most of what enters your lungs is passed back up your throat and back down your throat to your digestive tract. The remainder that was in your lungs goes directly into your blood or remains lodged in your lungs. Most of the majority that goes through your digestive tract passes harmlessly out through your bowels, but a very small portion is actually digested and enters your blood stream. Thus a small fraction goes into your blood stream and some remains in your lungs. Once in your blood stream it tends to concentrate in your kidneys. In very extreme cases a very high concentration can destroy your kidneys.

Q: They make atomic bombs out of uranium. Everyone knows what happens from nuclear blasts. Isn't uranium extremely radioactive?

A: No. It is only weakly radioactive. Atomic bombs use a different, much more radioactive isotope of uranium. This contamination is depleted uranium. It is called "depleted" because it is natural uranium with the much more radioactive portions used in nuclear bombs removed. Even nuclear bombs aren't terribly radioactive. The massive radioactivity associated with nuclear detonations is the result of the nuclear fission, not the bomb materials themselves. Actually the chemical toxicity of depleted uranium is more hazardous than the radiation it produces.

Q: Shouldn't people who go to the Gorge wear lead suits or something?

A: No. The radiation levels there are too little to measure.

Q: I'm a hunter. The deer I may shoot lives and eats in that general area. Isn't the venison poisonous?

A: No. There is very little grass in the area. It is unlikely that the roots reach the potentially contaminated zone and there is no guarantee that grass would even absorb uranium. Even if the deer were to eat contaminated grass, like us he would absorb only a small portion of the DU. That fraction would concentrate in his kidneys and leave through his urine. You probably don't eat the kidneys. Furthermore, such a small quantity is likely to be in the soil there that it wouldn't be concentrated enough to hurt YOU if you ate the grass yourself. There is a lot of vegetation in the surrounding area and very little where the suspected contamination is located. Deer forage over a wide area. They'd spend so little time there that it just wouldn't be a factor. Actually depleted uranium is approximately as toxic as lead, so you are probably far more at risk from the toxicity of your own lead shot than from the tiny amount of depleted uranium that may be there. And of course there is quite a bit of uranium naturally in the soil of this portion of the state anyway.

Q: So why bother me about it?

A: Although this site is probably clean enough to be released for general use by the Nuclear Regulatory Commission, they haven't done so yet. Sometime in the future we may have to do further testing and if the area is disturbed, all the testing we've done so far may be nullified. And of course we just want to be extra careful and not take any unnecessary chances. If you stay out of the contaminated area, we feel you are taking no chance at all. This may sound crass but one reason we don't want you to go into the roped off area is that we can't afford to test the whole area again.

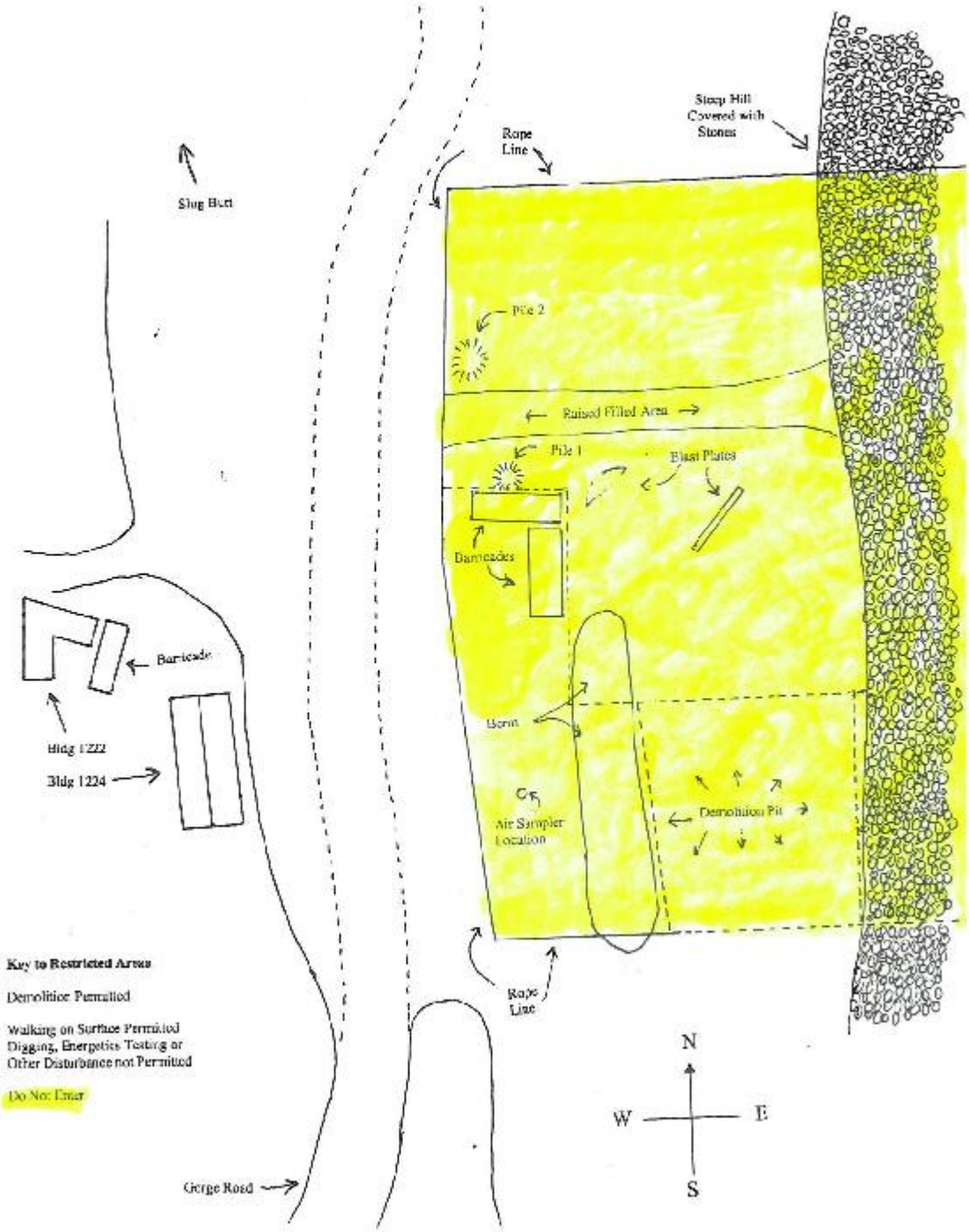
Q: So what should I do?

A: It's quite simple. **Stay out of the roped off area**. Period. You can walk past it. You can drive past it. You can look into it. You can shoot across it. Just stay out of it. If you kill a deer and against all probability it runs/falls into the area and dies, just leave it and notify us. We'll arrange to let you retrieve it making sure you don't disturb the area.

Statement: I have read this notice in its entirety. I understand what I read and I agree to follow the requirements outlined above. I promise not enter or cross the roped off area of the Gorge. If I have a need to enter it I know I must first get authorization from the Radiation Protection Office (973-724-5804).

Name: _____ Signature: _____ Date: _____

The Gorge Test and Demolition Area



Key to Restricted Areas

Demolition Permitted

Walking on Surface Permitted
Digging, Energetics Testing or
Other Disturbance not Permitted

Do Not Enter