

Spring Valley Formerly Used Defense Site Clean Up  
Subcommittee on Federal Workforce, Postal Service, and the District of  
Columbia  
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Statement of Gregory A. Beumel  
Community Co-Chair, Spring Valley Restoration Advisory Board

I am Greg Beumel, the Community Co-Chair of the Spring Valley Restoration Advisory Board (RAB). I began serving on the RAB in June 2002 and became co-chair in January 2005. I have also served on the Science Task Group of the RAB and as chair of task group.

Briefly, I am a toxicologist with 20 years experience in human health risk assessment, quantitative and qualitative analysis of chemical data, regulatory support, database management, communications, and program and project management. I have performed more than 50 risk assessments at federal facilities nationwide ranging from baseline risk assessments to toxicity assessments to support U.S. EPA rulemakings. I am currently supporting EPA's Office of Water as a contractor to the Water Security Division.

This statement is my own evaluation and comment on the cleanup at Spring Valley. This statement is based on a meeting with the Science Task Group of the RAB consisting of Dr. David Feary a geologist and Dr. Peter deFur, the technical advisor to the RAB under the Technical Assistance for Public Participation (TAPP) program. Much of this testimony was presented by Dr. deFur at a hearing called by Council member Mary Cheh of the District of Columbia City Council.

Spring Valley is a most challenging site from a technical point of view because of the diversity of problems and the length of time that has passed since the initial releases and disposals. Spring Valley has or had contaminated soil, groundwater contamination, buried munitions, chemical weapons from WW I, and undocumented activities.

The process of cleanup at Spring Valley is treated similarly to an Early Action would be conducted on most Superfund sites. This designation means that the agency, in this case the Army, has determined, with the concurrence of the EPA and DC Department of the Environment, that the contamination problems are sufficiently well described and documented that remediation should proceed in order to more quickly reduce or remove health threats. The data obtained prior to 2002 provided sufficient evidence and justification for remediation actions to address:

- soil contamination with arsenic,
- groundwater contamination,

- surface water contamination,
- burial of military debris, chemical weapons materiel, etc.,
- military debris and materiel in soil

Other information has informed further investigations into any and all aspects to contamination, whether chemicals in soil, possible burial pits or individual items beneath the surface. At the conclusion of these remediation activities, the Army will be preparing an analysis of the conditions, as known, documenting sources and nature of threats to health and environmental conditions, and propose what actions may need to be taken as a result of the analysis. This process is known as the Remedial Investigation and Feasibility Study (RI/FS). A risk assessment of the entire site will be completed at that time.

The process used here at Spring Valley has proceeded with remediation more expeditiously than at other sites where I or Dr. deFur have worked. Usually, for a site as large as Spring Valley, a complete RI/FS is conducted early in the process, delaying many remediation efforts by years.

At present, there are a number of activities in progress to address the problems at Spring Valley. The actions in progress include:

- Completing the investigation at the Glenbrook Road address,
- Removing soil and items from a debris field at the AU Public Safety Building,
- Removing arsenic contaminated soil,
- Investigating groundwater contaminated with arsenic and perchlorate,
- Investigating possible military items in residential properties by geophysical scanning and some excavating
- Investigating possible military items and contamination on the federal property north of Dalcarlia Blvd,
- Disposal of military items recovered in earlier investigations
- Planning for the investigations and completion of the work

An upcoming project of concern is the plan to destroy military munitions recovered during investigations that are now ending. I have signed a confidentiality agreement with the U.S. Army Corps of Engineers, and I will not be in a position to say more of what will be destroyed. That information must be obtained from the Army under whatever conditions are appropriate.

The plans to destroy the munitions in a specially designed and constructed (mobile) facility located on the federal property makes sense and presents the lowest risk situation in my professional opinion and that of the member of the RAB Science Task Group. Our conclusion is based on risk factors identified for destruction activities, the design and operation of the destruction equipment and the characteristics of the known threats to human health. Two of the greatest risk factors are the handling and transport of such items. Each handling increases the probability that a mistake can result in an accident. Transportation not only

requires special permits from any state through which the item(s) must move, but increases the probability for accidents and unexpected events.

In terms of the specific actions and risks on site, the risks are lowered by the facts of:

- Two containment systems,
- Air handling systems,
- Well tested equipment,
- Experienced operators,
- Distance from the facility to any residences or commercial facilities, and
- A plan to monitor local weather and proceed only when safe conditions prevail.

Given all the specific risk factors, I agree with the decision to proceed with on-site destruction using the equipment described.

As a matter of policy, governments and communities across the nation have repeatedly expressed a preference for local treatment of highly dangerous materials, over transportation through other communities with the attendant increase in risk factors. In 1993, the Army dramatically flew Spring Valley munitions out of the neighborhood via helicopter. Those days have ended as communities realized that they did not want to become a secondary dumping ground for highly dangerous materials recovered in another community. In 1999, the army completed fabrication of a useable prototype of a mobile explosive destruction system (EDS) that allowed for destruction of chemical munitions closer to the location of discovery. The EDS has been used in a number of communities throughout the U.S., including Spring Valley, with great success.

The Spring Valley clean up has complications, difficulties, challenges and more unknowns than most contaminated sites and more than most people envisioned when the clean up started. In spite of all these factors, or perhaps because of these factors, there are a number of important and, in some cases, unique aspects of the Spring Valley project. These features are briefly explained below.

Other scientific opinions, and other inputs and concerns are included in the discussions and deliberations, leading to improvements and changes in what is done and how it is done. The Army has sought and accepted the input from not only EPA and DC, but also from American University, the RAB TAPP advisor, US Geological Survey, Washington Aqueduct, and outside scientists. Work on a number of areas has been drastically influenced by other scientists, including the groundwater investigation, soil sampling, intrusive investigation at Lot 18, Public Safety and Pit 3, arsenic removal, and the search for other areas to investigate.

The USACE managers have included Dr. deFur as the technical advisor and RAB representative in all the technical discussions and deliberations, taking his contributions on par with the agency input. According to Army policy, the TAPP

grant is supposed to last for five years with a \$25,000 limit each year. On two occasions, I have requested that the Baltimore District Commander of the USACE ask the Deputy Assistant Secretary of the Army to waive caps on TAPP grants for Spring Valley, and in both cases my request was granted. The RAB has used Dr. deFur extensively to monitor the technical aspects of the project. He attends the monthly technical partner meetings of agencies and contractors, and also attends calls and meetings on groundwater, soil sampling, determining the list of chemicals to sample, special site investigations, etc. He was part of the group that investigated other areas that may have been overlooked, the Area of Interest Task Force, and helped arrange a site visit by Rick Woods who had discovered munitions more than 10 years ago.

When appropriate and applicable, the USACE has used alternative technologies and sought to collect important data that will inform this effort and future efforts. The USACE used ferns to remove arsenic, and used a new method of air sampling that does not require pumps. The USACE collected data using multiple methods of sampling to determine the best and most complete approach.

Starting at the end of 2002 or beginning of 2003, when the military project manager in Spring Valley was reassigned to Iraq, civilian project managers at USACE took over the responsibility for clean up. After this change in management, the process has opened up, increasing transparency and improving community relations. The USACE managers recognized two important, and I think necessary, elements in contaminated site clean up: such sites are not planned and documented at creation and will present unknowns and surprises in remediation; in spite of seeking perfection, there will be mistakes that must be acknowledged, corrected, learned from and move on. The current leaders from the USACE continue to strive for an open and transparent process.

As responsible project managers, however, they must make and attempt to adhere to schedules. Much is made of their schedule to end the field work in Spring Valley in 2010. Some behave as though this means that the USACE has already left town. The investigation, however, is continuing. As recently as last month the investigation of underground metallic anomalies continued at two residential properties where WWI-related items were recovered during each investigation. Pieces of debris from a WWI 75 mm munition item were removed from one property. At another property, the field personnel recovered dozens of munitions debris items alongside the remnants of a WWI-era wooden storage box and packing material. The debris included the handle and top of a grenade, and small detonator tubes that may have been used to initiate the explosive chain during tests of munitions in place. Since some of the tubes were still intact and potentially contained a small amount of initiating explosive, the field team will complete the anomaly removal at this property within a slightly wider safety zone, but this will not impact neighborhood traffic or nearby residents. Completion of the anomaly removal at this property is anticipated within the next month.

The purpose of these investigations is to find other WWI era items if they exist, so I be surprised if additional discoveries are not made. The current schedule leaves time for additional discoveries of the size made in May. If there is a major discovery such as a new burial pit, the schedule will need adjustment. At that point, we will need to see the resolve of the USACE to complete the project in Spring Valley.