

**Opening Statement of Hon. Bart Stupak**  
**“Nuclear Terrorism Prevention: Status Report on the Federal**  
**Government’s Assessment of New Radiation Detection Monitors”**  
**Oversight & Investigations Subcommittee**

**September 18, 2007**

Preventing terrorists from smuggling radioactive material or a nuclear weapon into this country is our nation’s highest homeland security priority. Since 1993, the International Atomic Energy Agency (IAEA) has confirmed 16 incidents of trafficking in highly enriched uranium and plutonium, and 540 cases of illicit trafficking of nuclear and radiological materials. A significant percentage of that material could be used to produce a nuclear weapon or a “dirty bomb.” The co-chair of the 9/11 commission, Tom Keane summed it up when he said: “Preventing terrorist access to weapons of mass destruction ‘warrants a maximum effort’ by our government.”

Radiation detection equipment is currently deployed at our ports and borders. By using a two step process coupled with U.S. Customs and Border Protection (CBP) procedures, CBP is able identify the types of radioactive material in cargo containers.

As cargo enters the United States, it is screened through Polyvinyl Toluene (PVT) radiation detectors at the “Primary” inspection stage. PVT detectors will alarm if the cargo contains a nuclear weapon or innocuous forms of naturally occurring radiation -- which is present in substances such as granite, bananas, and kitty litter. If there is an alarm, CBP officers pull the cargo container aside conduct a “Secondary” inspection with a handheld Radioactive Isotope Identification Device (RIID) to determine whether the radiation is coming from an innocuous source or an actual threat. If necessary, physical inspections of the cargo may follow.

The Domestic Nuclear Detection Office (DNDO) is developing the next generation of radiation detection devices called Advanced Spectroscopic Portals (ASPs). ASPs have the potential to distinguish possible threats from innocent cargo, and thereby reduce the number of nuisance alarms that have to be investigated by CBP. This ability to better differentiate threats from benign materials is helpful in high volume locations to speed up the inspection process.

In October 2006, the Government Accountability Office (GAO) found that the DNDO's cost benefit analysis did not justify DHS's plan to spend \$1.2 billion for purchasing and deploying ASPs. The GAO recommended that DNDO conduct further testing of ASP systems.

In response to GAO's critical review, Congress restricted DNDO from expending funds for full scale procurement of ASPs until the Secretary of Homeland Security certifies that ASPs will provide a "significant increase in operational effectiveness".

In January 2007, I, along with Chairman Dingell and Ranking Members Barton and Whitfield, asked the GAO to review DNDO's testing. DNDO did their Phase 1 testing at the Nevada Test Site in late February through early March. Phase 2 was report writing and then DNDO then did additional Phase 3 testing in late March through early April. Today we will hear that the GAO has significant concerns about DNDO's tests.

First, GAO reports that DNDO gave the three ASP vendors access to many of the packages that would be tested. This allowed the vendors to calibrate their machines to many of the radioactive sources prior to the tests. GAO has expressed concerns that this may have biased the ASP test results.

Second, GAO raised concerns that the tests did not assess the detection limits of these new ASP machines. Nearly a year ago, even before the DNDO commenced testing, the Department of Energy asked DNDO to conduct special tests to determine the limits of detection for these ASP machines based on masking material they routinely encounter in international commerce. Unfortunately, DNDO did not conduct these outer limit tests. Instead, DNDO is doing computer simulations--also referred to as "injection studies" -- which may be informative, but also need to be validated. However, GAO believes these injection studies "should not be considered a substitute for actual testing."

It is critical to know the level at which ASPs can detect masked radioactive material. If DNDO doesn't know the outer detection limits of these new ASP machines, dangerous material could possibly slip through our borders without CBP officers' knowledge. Federal officials need to be absolutely sure they understand exactly how these machines will perform before they are deployed to keep us safe. After all, DHS has well

functioning radiation portal monitors in place today, so there is not an urgent need to rush certification of the ASPs.

DNDO officials have told the Committee staff and GAO that they do not intend to wait for the results of the injection studies before they issue a certification this fall. It is hard to fathom how DNDO can credibly certify ASPs as “significantly increased operational effectiveness” without completing the injection studies and subjecting them to external validation review. I look forward to hearing DNDO’s explanation on why it is rushing certification yet again.

By all appearances, the arbitrary certification deadline appears to be driving the testing, rather than testing driving the certification. Why isn’t DNDO driven by a desire to obtain valid, unbiased and complete test results prior to any certification?

Just one week after the Nevada Test Campaign was completed, and even before the data was analyzed, the Director of DNDO was declaring that he believed the DHS Secretary would approve full scale procurement by July. A June 26 certification deadline was the target. Then the certification date was pushed to July 28. After a decision was made to conduct injection studies, it was moved to September 21. Then on August 30, DHS advised Congress that it CBP was conducting two more months of field testing with new software, and the date would be extended further.

Not only is the schedule shifting, but the data to be used in certification is shifting. Originally Phase 1 data would be used for certification. Now, we learned that two additional sets of tests which were not designed for certification and may lack sufficient statistical power are going to be used for certification.

Just prior to the GAO finalizing its assessment in late July, Under Secretary for Management Paul Schneider announced an independent review of the DNDO’s basis for certification. On the one hand, we were pleased to see DHS initiate an independent review that was separate from the DNDO. On the other hand, we were disappointed to see public statements from DHS disparaging the GAO’s qualifications to assess the testing plans carried out by DNDO. This created the appearance that DHS was seeking to organize a review panel to insulate DHS from what they anticipated would be a critical assessment by GAO.

On August 3, the Under Secretary requested Dr Peter Nanos of the Defense Threat Reduction Agency to head up the review effort and directed him to complete the review by September 17. Last week we learned that John Higbee of the Defense Acquisition University replaced Dr. Nanos. Then last Friday afternoon the Committee was informed that Mr. Higbee has now been removed and instead, Mr. George Thompson of the Homeland Security Institute will head the review team. I look forward to hearing why it is that Under Secretary Schneider has appointed 3 different people to head up the “Independent” Review in 6 weeks time. I’m also curious to learn why Mr. Schneider believes that his latest appointee Mr. Thompson is “independent,” given the fact that his organization receives its funding from DHS.

I look forward to hearing the answers to several questions today. What events have caused DNDO to delay certification three times? Did DNDO test the limitations of the ASP machines in its tests at the Nevada Test Site, and if not why not? Were the Phase 1 tests potentially biased? Is DNDO relying on computer simulations to make up for weaknesses in the testing plan? Should DNDO certify performance leading to a \$1.2 billion purchase based merely on computer simulations? Or should there be validation in the field first? How can DNDO certify these ASPs before it completes and fully reviews the injection studies? After certification has been submitted to Congress, how many ASPs does DNDO plan to purchase and will these be deployed for primary or secondary screening? Has DNDO been moving the goal posts on both deadlines and the elements it was using to develop its certification?

In summation, the ASP technology looks promising, but there are enough questions about the testing that I cannot be comfortable with a possible DHS certification of the ASPs. As is frequently said, we need to be right 100% of the time, and the terrorists only need to be right once. Given all that I have learned thus far, I think it would be cheap insurance for DNDO to do a new and truly blind set of tests, using comprehensive test protocols which would give us accurate data regarding the capabilities and limitations of the ASP machines. We need to be sure our technology can be right 100% of the time.

After all, CBP says the technology we have today works, so it is not imperative that we rush ASP machines into full scale deployment.

