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**U.S. House of Representatives**  
**Committee on Energy and Commerce**  
**Washington, DC 20515-6115**

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September 21, 2007

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The Honorable Michael Chertoff  
Secretary  
U.S. Department of Homeland Security  
1300 Pennsylvania Avenue, N.W.  
Washington, D.C. 20229

Dear Secretary Chertoff:

As a result of a Government Accountability Office (GAO) assessment and a September 18, 2007, hearing before the Subcommittee on Oversight and Investigations of the Committee on Energy and Commerce, we are writing to urge you to delay certification of Advanced Spectroscopic Portals (ASPs) and instruct the Domestic Nuclear Detection Office (DNDO) to immediately commence a set of genuinely blind tests of ASPs in order to determine the precision, capability, and detection limits of these radiation portal monitors.

Earlier this year, DNDO conducted tests of ASPs at the Nevada Test Site (NTS), which according to an assessment by GAO, were biased and fundamentally flawed. DNDO has awarded three development and production contracts, and is planning to deploy ASPs at seaports and border crossings. Expenditures may not, however, be made on full-scale production of these new machines until the Secretary certifies, pursuant to a requirement in the fiscal year 2007 Homeland Security Appropriations Act (Public Law 109-699), that ASPs provide a "significant increase in operational effectiveness" relative to the current generation of detection equipment.

GAO's review, which was requested by the Committee on Energy and Commerce, found:

- During Phase 1 tests, which were designed to support certification and subsequent deployment, DNDO used biased test methods that enhanced the performance of ASPs. Specifically, DNDO conducted numerous preliminary runs of almost all of the materials and combinations of materials that were used in the formal tests and then allowed ASP contractors to collect test data and adjust their systems to identify these materials. It is

highly unlikely that such favorable circumstances would exist under real world conditions;

- DNDO's NTS tests were not designed to test the limitations of the detection capabilities of the ASPs—a critical oversight in DNDO's original test plan. DNDO did not use a sufficient amount of the type of materials that would mask or hide dangerous sources that ASPs would likely encounter at ports of entry. The Department of Energy (DOE) and national laboratory officials raised these concerns with DNDO in November 2006. DNDO officials, however, rejected their suggestion of including additional and more challenging masking materials because, according to DNDO, there would not be sufficient time based on DNDO's self-imposed June 26, 2007, certification deadline. By not collaborating with DOE until late in the test planning process, DNDO missed an important opportunity to procure a broader, more representative set of well-vetted and characterized masking materials; and
- Because of concerns that DNDO did not sufficiently test the limitations of ASPs, DNDO is attempting to compensate for weaknesses in the original test plan by conducting "injection" studies—essentially computer simulations. In GAO's view, and those of other experts, computer simulations may provide additional useful information; however, they must be validated with real world testing with nuclear and masking materials.

Although DNDO also conducted a small number of "blind tests" and additional developmental tests (known as Phase 3), neither of these were designed to support Secretarial certification nor a production decision. For example, the sample sizes in these tests were small and lack statistical power to prove the probability of detection with a high degree of confidence. Nonetheless, DNDO has informed this Committee that it intends to use blind test and Phase 3 data in its recommendation for certification.

GAO recommended that DHS delay certification until all studies are completed and validated, until key stakeholders and independent experts have reviewed these data, and until additional studies have been completed.

In response to GAO's assessment, the Committee received testimony on September 18, 2007, from two Department of Homeland Security officials. Vayl Oxford, DNDO Director, conceded that further tests are required to understand the detection limits of ASPs. Nonetheless, he rejected GAO's recommendation to delay "certification," which, if approved, would allow funds to be expended on full-scale deployment. He indicated that DNDO plans to deploy ASPs in secondary screening, but does not intend to deploy ASPs for primary screening at this time. Oxford affirmed that DNDO intends to use blind and Phase 3 test data even though these data lack statistical power, and he rejected GAO's finding that Phase 1 tests were biased. DNDO's position amounts to stonewalling in the face of patently flawed testing results that cannot credibly support a Secretarial certification.

Mr. Paul A. Schneider, DHS Under Secretary for Management, testified that he commissioned an independent program review. While we support his effort to conduct an independent review, we were troubled to learn that he had recently selected an entity, which receives 100 percent of its funding from DHS—the Homeland Security Institute. This extensive and intimate working relationship appears to lack the requisite independence that, for example, might be found with the National Academy of Sciences.

ASPs hold out potential for improving the flow of commerce and reducing nuisance alarms, while reducing uncertainties associated with secondary screening; however, they are not ready for deployment. We respectfully urge you to direct DNDO to take the following steps prior to providing you with any recommendations for certification:

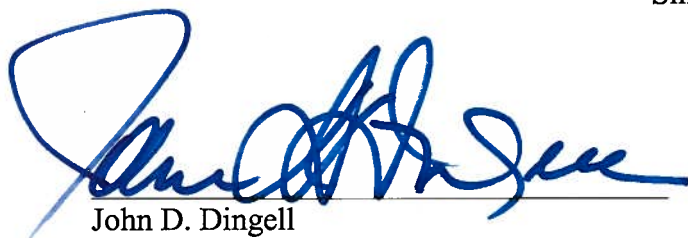
- (1) Promptly plan and implement genuinely blind tests to determine the precision, capabilities, and detection limits of ASPs with a full range of threat, masking, and shielding materials. DNDO should only proceed with its tests after it receives concurrence from CBP and DOE regarding test plans. DNDO should ensure quality control through red teaming;
- (2) Vendors should be instructed to set up their machines and leave the test site. Vendors should not be provided with a copy of the test plan, nor be advised what threat, masking, or shielding material will be used. ASP software and algorithms should not be adjusted or otherwise modified in connection with dry runs and dress rehearsals or as part of the blind tests;
- (3) Permit GAO to review test plans in advance, observe all tests, and evaluate these data; and
- (4) While testing is proceeding, we support CBP continuing field evaluation with ASPs under a variety of environmental conditions and exposure to the full range of cargo types found at different ports of entry and border crossings.

Nothing is more important than preventing terrorists from smuggling radioactive materials or a nuclear device into the U.S. We have to be right 100 percent of the time, whereas terrorists only have to be right once. Given this shared goal, we respectfully urge you to ensure that there is credible, unbiased testing under real world conditions to make sure that Federal officials fully understand the capability, precision, and detection limits of ASPs.

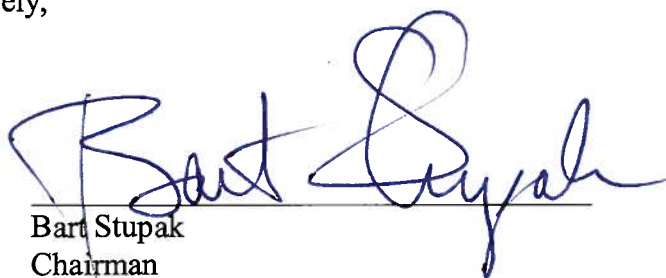
The Honorable Michael Chertoff  
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If you have any questions, please contact us or have your staff contact Richard Miller or Chris Knauer with the Committee on Energy and Commerce staff at (202) 226-2424.

Sincerely,



John D. Dingell  
Chairman



Bart Stupak  
Chairman  
Subcommittee on Oversight and Investigations

cc: The Honorable Joe Barton, Ranking Member  
Committee on Energy and Commerce

The Honorable Ed Whitfield, Ranking Member  
Subcommittee on Oversight and Investigations

The Honorable Paul A. Schneider, Under Secretary for Management  
U.S. Department of Homeland Security

The Honorable Samuel W. Bodman, Secretary  
U.S. Department of Energy

The Honorable Vayl Oxford, Director  
Domestic Nuclear Detection Office  
U.S. Department of Homeland Security

Mr. Jayson P. Ahern, Deputy Commissioner  
U.S. Customs and Border Protection  
U.S. Department of Homeland Security