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Congress of the United States  
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November 18, 2010

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The Honorable John S. Pistole  
Administrator  
Transportation Security Administration  
TSA-1  
601 South 12<sup>th</sup> Street  
Arlington, VA 20598

Dear Administrator Pistole:

As we approach the holiday travel season, I write to you with concern about the safety and health risks associated with the use of Advanced Imaging Technology (AIT) units. Like you I believe we must take a risk-based and multi-layered approach to security at our airports to prevent future terrorist attacks. However, I do not believe security measures like AIT units should be rushed into use without a full and thorough examination on the impact of their use on human health.

The 15<sup>th</sup> Congressional District, which I represent, is home to Detroit Metro Airport (DTW) one of the largest and most active airports in our country. DTW also happens to be one of many airports in the United States that has actively been using AIT units to screen passengers, thousands of which are residents of my district. It is my understanding that the Food and Drug Administration, which regulates the manufacturing of all radiation-emitting products sold in our country, has found that that "[t]he dose from one screening with a general-use X-ray security screening system is so low that it presents an extremely small risk to any individual."<sup>1</sup>

As you know, the Transportation Security Administration (TSA) also requested a third party radiation safety assessment conducted by Johns Hopkins University Applied Physics Laboratory (APL). This report, released in October 2009, found:

The assessment results reveal that if an individual receives less than 16,129 screenings in a twelve-month period, equivalent to 44 screenings per day (365 days per year), that individual will not reach the annual effective dose limit of 25 mrem (0.25 mSv) per year as established in the national radiation safety standard.<sup>2</sup>

<sup>1</sup> U.S. Food and Drug Administration, "Very Low Health Risks from Full-Body X-Ray Scanners," accessed 16 November 2010: <http://www.fda.gov/ForConsumers/ConsumerUpdates/ucm231758.htm>.

<sup>2</sup> U.S. Transportation Security Administration Memo entitled: "Implementation of Johns Hopkins University Applied Physics Laboratory Recommendations for Rapiscan Secure 1000 Single Pose Advanced Imaging Technology," 7 October 2010.

The assessment by APL also found that the recommended dose limit for bystanders, operators or other employees is always met, and could only be exceeded if an individual were to be present full-time for 2,000 hours and 180 screenings per hour. My concern about this assessment is that it does not address the question of the potential long-term health impact would be for those who have prolonged exposure to screenings either through frequent travel, by nature of their employment, or are vulnerable to radiation exposure due to immune system deficiencies.

Therefore, I would respectfully request that you answer the following questions:

1. TSA has invested in advanced imaging technology units that use both backscatter technology and millimeter-wave technology. Many health and security experts have suggested millimeter-wave scanners as an alternative to backscatter scanners because there are no known radiation risks associated with their use. What priority, if any, was given to minimizing any health risks associated with full-body scanning when TSA was selecting screening technologies?
2. It is my understanding that there are 385 AIT units in operation at 68 airports in the United States. According to the Bureau of Transportation Statistics, as of August 2010, 423 million people have been passengers on domestic flights in the United States. Does TSA have a record of how many of the 423 million passengers in 2010 were screened using AIT units at these 68 airports? If so, please provide this information. If not, please explain why.
3. FDA has repeatedly stated that screenings from an AIT unit present a very low health risk to individuals. However, when considering the high number of passengers who fly each year, as well as the number of operators who screen passengers with AIT units and employees of the airlines, it is clear that the risk of screenings is spread among a significant population. Does TSA consider exposing millions of people in the United States to such a risk to be a public health concern? If so, please explain why. If not, please explain why.
4. As you know from correspondence with scientists at the University of California, San Francisco, concerns have been raised that link the use of ionizing radiation in AIT units to human chromosome damage, possibly causing cancer. Further, Dr. David Brenner, Director of Columbia University's Center for Radiological Research, called basal cell carcinoma one of the most likely risks from airport screenings during a briefing hosted by the Congressional Biomedical Research Caucus.<sup>3</sup> Does TSA provide individuals with a list of health risks, such as those mentioned above, prior to being screened? If so, please explain when this information is provided. If not, please explain why.
5. Some populations of passengers – older travelers, pregnant women, children, and HIV or cancer patients, among others – may be more vulnerable to radiation exposure than the general population. Does TSA offer these types populations of passengers alternative

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<sup>3</sup> Congressional Biomedical Research Caucus Briefing, "Airport Screening: The Science and Risks of Backscatter Imaging," 17 March 2010.

of screening? If so, please describe the screening methods offered to these passengers. If no, please explain why.

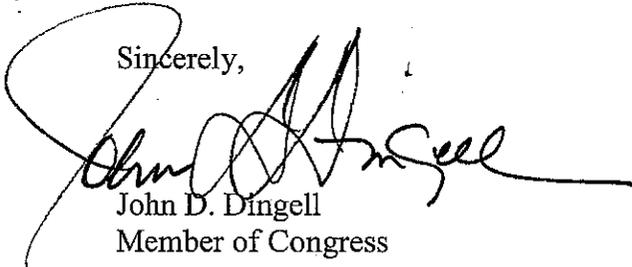
6. Some medical experts and scientists have raised concerns about the dose of radiation deposited onto the skin as potentially being higher than estimated by the FDA. In the FDA's analysis modeling results found that the radiation dose to the skin is "approximately twice the effective dose."<sup>4</sup> Further, the FDA found that individuals would have to be screened more than 1000 times in order to reach the annual limit. Has TSA requested that the FDA or another party conduct a long term health study of individuals to determine any and all health risks associated with repeated exposures to AIT screenings? If so, when was this request made? If not, please explain why.

As the federal representative the 15<sup>th</sup> Congressional District, home to DTW and the location of the attempted terrorist attack aboard Delta flight 253 on December 25<sup>th</sup>, I agree with and take seriously the need to increase security measures at our airports, ports, and border crossings. However, I also think that it is the responsibility of the federal government to ensure security technology implementation is done only after a thorough examination. It is imperative that all security measures also take into consideration the individual health risks and public health risks associated with using AIT units as a primary screening measure for all flights.

Given the sensitive nature of this issue, I would respectfully request that you please email a response to Kimberlee Trzeciak of my Washington, DC office at [Kimberlee.trzeciak@mail.house.gov](mailto:Kimberlee.trzeciak@mail.house.gov) no later than November 24, 2010. Should you or your staff have any questions, please do not hesitate to contact me or Kimberlee Trzeciak at (202) 225-4071.

With every good wish,

Sincerely,



John D. Dingell  
Member of Congress

cc: The Honorable Janet Napolitano, Secretary  
U.S. Department of Homeland Security

The Honorable Margaret Hamburg, Commissioner  
U.S. Food and Drug Administration

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<sup>4</sup> U.S. Food and Drug Administration, "Response to University of California – San Francisco Regarding Their Letter of Concern, October 12, 2010."

The Honorable Henry Waxman, Chairman  
Committee on Energy and Commerce

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

The Honorable Frank Pallone, Chairman  
Committee on Energy and Commerce  
Subcommittee on Health

The Honorable John Shimkus, Ranking Member  
Committee on Energy and Commerce  
Subcommittee on Health

The Honorable Bart Stupak, Chairman  
Committee on Energy and Commerce  
Subcommittee on Oversight and Investigations

The Honorable Michael C. Burgess, Ranking Member  
Committee on Energy and Commerce  
Subcommittee on Oversight and Investigations