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ANTHRAX DECONTAMINATION

HEARING

BEFORE A

SUBCOMMITTEE OF THE

COMMITTEE ON APPROPRIATIONS

UNITED STATES SENATE

ONE HUNDRED SEVENTH CONGRESS

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SPECIAL HEARING

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ANTHRAX DECONTAMINATION

WEDNESDAY, NOVEMBER 28, 2001

U.S. SENATE,
SUBCOMMITTEE ON VA, HUD AND
INDEPENDENT AGENCIES,
COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 3:06 p.m., in room SD–124, Dirksen Senate Office Building, Hon. Barbara A. Mikulski (chairman) presiding.

Present: Senators Mikulski, Bond, Domenici, and Stevens.

STATEMENT OF HON. CHRISTINE TODD WHITMAN, ADMINISTRATOR, ENVIRONMENTAL PROTECTION AGENCY

OPENING STATEMENT OF SENATOR BARBARA A. MIKULSKI

Senator MIKULSKI. The VA–HUD Subcommittee, Appropriations Committee will now come to order, and I wish to welcome the EPA Administrator, Christie Todd Whitman, and the Science Advisor to the President, Dr. John Marburger. First, we would like to say to Administrator Whitman, we welcome her back once again to testifying at this hearing. We know that she made significant effort to be able to testify here today, and we appreciate her courtesies to be able to do this, and also we clearly had an excellent relationship during the past year and look forward——

Ms. WHITMAN. Thank you.

Senator MIKULSKI. Dr. Marburger, we welcome you. We know that you were confirmed on October 21, exactly 6 days after the anthrax event in the Hart Building and the terrible events that occurred 2 days later at Brentwood, and we know that you have got a big job ahead of you, but President Bush has a lot of confidence in you, and we look forward to getting better acquainted with you and also to get your insights and recommendations today.

The VA–HUD Subcommittee wanted to act very quickly to convene this timely hearing to discuss the issues of decontamination of anthrax both at the Hart Building, the Brentwood postal facility, and other private sector buildings that are exposed. This is to discuss the role of EPA and the Office of the Science Advisor to the President in terms of decontamination process.

These two agencies are being asked to take on new and greater homeland security issues, so we have questions to ask, both about the science of decontamination, as well as the status and timetable of implementing them, and then also the science of determining how clean is safe for workers to be able to return to Hart, to Brentwood, et cetera.

We also know that the President is asking you to take on these responsibilities in this great war against terrorism, that you will have additional need for resources, and as your appropriators we want to hear what challenges you are facing, how you are serving the Nation, and how this subcommittee can help you meet that challenge.

Many VA–HUD agencies are now in the forefront of the consequence management of terrorism. This seems to be the Consequence Management Subcommittee. The Federal Emergency Management, of course, has consequence management for the Federal Government Agency. EPA and OSTP have very important roles that they are going to tell us about.

Let us talk about the purpose of the hearing. First, I would like to know really who is in charge in the decontamination effort for the Federal Government, and who is in charge of the Capitol, Brentwood, and other facilities. Who is in charge of the science, to know what is the best methodologies for decontamination? Who is in charge of identifying the decontamination methods? Who is in charge of implementing them, and then who is in charge of telling us the criteria for how clean is safe?

We understand that the goal for cleaning up the Hart Building has been set at zero spores, but we do not know if this is a goal, and we do not know if it is a standard. Also, we are worried about the short-range consequence of buildings being anthrax-free, or meeting the standard for safety, and we are also concerned about the long-term consequences of whatever is the clean-up methodology.

So we are interested in those issues as well as the status of the decontamination, as well as the timetables for achieving it.

We all would like to be back in the Hart Building. We know that the postal workers are deeply troubled about if they should even go back into Brentwood, but we would rather be safe than sorry. This is my position. We feel that you two are enormously conscientious public servants. We are going to turn to you today for your comments. What we also appreciate is your great competence, and we also need your candor about where we are in this process, what are reasonable expectations, and how we can join together in ensuring the safety of the people who work for the Federal Government and therefore also be able to give guidance to the private sector.

I turn now to my esteemed colleague, the Ranking Member, Senator Bond.

STATEMENT OF SENATOR CHRISTOPHER S. "KIT" BOND

Senator BOND. Thank you very much, Madam Chair, and since I am between the microphones I trust that my voice is loud enough to carry. In any event, I welcome Governor Whitman back to make her second appearance, and it is a pleasure to meet Dr. John Marburger and congratulate you on being confirmed as the Science Advisor. I look forward to getting acquainted with you under better circumstances, but I do understand Dr. Marburger brings a lot of experience and expertise on science and technical issues, and be a valuable resource to the administration and to this committee.

My sincere thanks and congratulations to the chair for holding this important hearing, especially since we in the Senate have had first-hand experience with anthrax contamination. While we have received periodic reports from the Capitol Police about the progress of decontamination efforts on the Hill, I think there are a lot of questions that we all have about exactly how the Federal Government is responding to these very unusually difficult circumstances, and how responses will be handled in the future for both the public and private sector.

The day that we came together as a Senate to hear about the contamination, the first thing I raised was, what we do here not only is going to break ground, but it is going to set the standard. The standard that we believe is safe for us is going to be the standard that is adopted, essentially by everybody, and we want to make sure that that is the right standard, that it is based on sound scientific and medical information.

There has been a lot of confusion about public health dangers of anthrax on Capitol Hill and the safety of remediation options. In particular, response to remediation has been handled differently in the Senate Hart than in Senate Russell Office Buildings.

The Hart Building is closed, and the Russell Building remains open, with the exception of certain contaminated areas, and I understand that they have adopted there a standard of medically insignificant as an appropriate standard, and maybe that is the right standard, but I also need to hear from EPA and OSTP how the anthrax remediation efforts are being done on Capitol Hill compared to other parts of the country, such as New York and Florida, and Kansas City, where we had a mail facility contaminated.

If different approaches are being taken in different areas, instead of a uniform approach, I think we need to know why the difference. It is critical that we develop standards that establish if there is a level of anthrax that is not a health hazard, and how clean our buildings need to be to ensure workplace safety. If it is impossible to get every last spore out, do we have to tear the buildings down.

The uniform guidelines need to be developed on how to respond properly to this contamination of anthrax so that our response does not appear to be haphazard. I emphasize the need, because we have to maintain public confidence and avoid unwarranted hysteria.

In the early 1980's, when I served as Governor of Missouri, a small community was found to be contaminated with dioxin, and extremely expensive efforts were made to clean up the area, and the greatest danger came from the hysteria spread by the national media, and we knew we needed to clean it up, but how clean, and the lingering effects had far greater impact than the dioxin ever did, and I do not think we need to fall into that trap. We need to make sure it is safe, but we cannot cause panic, confusion, or shut down the Government because we demand standards that are impossible.

I am not here to criticize any person or any organization, because we have had really no experience outside of our veterinarians, particularly in livestock areas where they deal with anthrax all the time, and how to deal with anthrax contamination in buildings, and here we had literally to reinvent the wheel, but I hope that our

witnesses today can shed more light on what has occurred and what lessons have been learned. I hope the Federal Government can, as I believe we must, develop a uniform approach to respond to anthrax or any other contamination that we may encounter, and I hope the approach will result not only in substantially reduced risk to the public health, which is a must, but also a minimal disruption to either the Government or other private activities.

I am very pleased that the President has addressed this issue by coordinating the Federal Government's efforts through the Office of Homeland Security, and I would like to know how you are working with that. We must also have the best science available, and OSTP has the unique capability to pull together all the scientific expertise and knowledge so that we all understand the implications of biological and chemical agents.

As the chair has noted, a number of Federal agencies are involved in consequence management at the various facilities, and the current lines of authority are beginning to look more like a late unlamented national health plan that looked like a spaghetti bowl gone wild, and sometimes it is easier to get interagency cooperation—it is less easy to get interagency cooperation than to build a bridge to Hawaii, but the time has come when we have to get that done.

We are committed to ensuring that the Federal Government has adequate resources to prevent and respond to terrorist attacks, but we must have a coordinated approach, and I just want to add personally before I conclude a special thanks to two key EPA staffers, Richard Rupert, the on-scene coordinator, and Thomas Voltaggio, the Deputy Administrator of Region 3, so they are under a great deal of pressure, everybody wants to get back in, but we very much appreciate the efforts that these two and the teams they head ensuring that we decontaminate the building the right way, because I certainly would not want to send my chair back into an unsafe building.

I thank you very much.

[The statement follows:]

PREPARED STATEMENT OF CHRISTOPHER S. BOND

Thank you, Chairperson Mikulski. I also welcome Governor Christine Todd Whitman from EPA for making her second appearance before the subcommittee, and Dr. John Marburger, who is making his first appearance. I congratulate you Dr. Marburger on being confirmed as the Science Advisor for the President. I look forward to working with you and your office. Dr. Marburger brings a lot of experience and expertise on science and tech issues and will be a valuable resource to the Administration and this Committee.

I applaud the Chairperson for holding this important hearing especially since we, in the Senate, have had first-hand experience with anthrax contamination. While we have received periodic reports from the Capitol Police about the progress of the decontamination efforts on Capitol Hill, I believe that there are many questions about exactly how the Federal government is responding to these unusual and difficult circumstances, and how responses will be handled in the future, for both the public and private sectors.

For example, there has been some confusion about the public health dangers of anthrax on Capitol Hill and the safety of the remediation options. In particular, response and remediation has been handled differently in the Senate Hart and Russell office buildings where the Hart building is closed and the Russell building remains open with the exception of certain contaminated areas.

I would also like to hear from EPA and OSTP how the anthrax remediation efforts are being done on Capitol Hill compared to other parts of the country such as

New York and Florida. It appears that different approaches have been taken in these different areas instead of a uniform approach. I believe that it is critical that we develop standards that establishes what level of anthrax is considered "safe" and how "clean" our buildings need to be in order to ensure workplace safety. Also, uniform guidelines need to be developed on how to properly respond to anthrax contamination so that our response does not appear to be haphazard. I emphasize this need because we must maintain public confidence and avoid unwarranted hysteria. Without public confidence, the terrorists win and that is unacceptable.

I want to be clear that I am not here to criticize any person or any organization because I recognize that there has been little or no experience in dealing with anthrax contamination. I think that it is accurate to say that we are literally "inventing the wheel" as we respond to the anthrax contamination on Capitol Hill. I hope that EPA and OSTP can shed some more light on what has occurred and what lessons have been learned from the experience on the Hill and other sites across the Nation.

From these lessons learned, I hope that the Federal government develops a systematic and uniform approach to respond to anthrax or any contamination. I am hopeful that any approach will result in substantial reduced risk to public health as well as minimal disruption to business as usual. I also commend President Bush for addressing the importance of coordinating the Federal government's anti-terrorism efforts by establishing the Office of Homeland Security. I would like to hear about EPA and OSTP's experiences in working with this new office.

We must also have the best science available and the Office of Science and Technology Policy should be a key player in coordinating this work. OSTP has the unique mission of being able to pull together the scientific expertise and knowledge from the appropriate Federal agencies to ensure that we understand all of the implications of biological and chemical agents and how to adequately remediate these agents.

As the Chair noted, there are a number of Federal agencies currently involved in the consequence management of the anthrax exposure at the D.C. Brentwood postal facility and the Senate Hart Building. The current lines of authority are beginning to look almost as confusing as the old Clinton health care plan. I know that interagency efforts can sometimes be as easy as building a bridge to Hawaii but the events of September 11 will hopefully break down the old turf battles that too often exist. And while we are committed to ensuring that the Federal government has the adequate resources to prevent, prepare, and respond to terrorist attacks, we must have a well-coordinated approach so that the roles and responsibilities of each appropriate agency is clearly defined.

Before I close, I would like to recognize the hard work and pressure that the EPA staff have been subjected to in dealing with the anthrax problems here on Capitol Hill. Specifically, I want to thank two key EPA staff, Richard Rupert, the On-Scene Coordinator, and Thomas Voltaggio, the Deputy Regional Administrator of Region 3. Many of my colleagues are anxious to get back in their Hart offices so I know that you are under a lot of pressure. But, I want you to know that I appreciate your efforts in ensuring that we decontaminate the building the right way to ensure the maximum workplace safety and not purely for expedience sake.

Thank you.

Senator MIKULSKI. Senator Stevens, would you like to——

Senator STEVENS. No, I do not have any questions. I hope when Senator Bond starts his bridge to Hawaii, though, he starts from the Aleutian Chain. It would be a shorter distance, you know.

Thank you very much. Nice to see you.

Senator MIKULSKI. Having had these opening remarks, then Administrator Whitman, why don't you go first, and then we will hear from Dr. Marburger, and then we will open it up for questions according to our usual rules of engagement.

STATEMENT OF CHRISTINE TODD WHITMAN

Ms. WHITMAN. Fine, and thank you, Madam Chair and members of the subcommittee. I have, with your permission, a lengthier written statement that I would like to submit for the record, and to say that since September 11 the Environmental Protection Agency has seen its longstanding mission to protect the public environ-

ment and public health take on renewed sense of urgency and some new meaning.

Under the provisions of the Presidential decision directive number 62, which was signed back in 1998, EPA is assigned the lead responsibility for cleaning up buildings and other sites contaminated by chemical or biological agents as a result of acts of terrorism. This responsibility draws, obviously, on our decades of experience in cleaning up sites contaminated by toxins through prior practices or accidents. Our role at a site generally begins with the Centers for Disease Control determining the presence of a contaminant that poses an unacceptable risk to human health.

Once the decision is made to decontaminate a building, CDC also has the responsibility of defining how clean is clean. We rely on them to determine the extent to which a building must be clean to make it safe for reoccupancy. The sites themselves, of course, are under the control of the incident commander, usually someone from the local response team.

With respect to the cleanup of those places that have been found to be contaminated by anthrax, several different approaches have been taken as Senator Bond has alluded to. The Postal Service, for example, has hired qualified contractors to perform the cleanup, the decontamination of their facilities, as did several of the media organizations. In these cases, EPA has provided technical assistance to those who are actually doing the cleanup work.

Here on Capitol Hill, we have been asked by the Senate Sergeant at Arms, who is serving as your incident commander, to undertake the cleanup of the Hart Senate Office Building, just as we were asked by the Clerk of the House, who serves as their incident commander, to fulfill that function on the House side.

As you know, the cleanup of the Hart Building poses a far greater challenge, and the most extensive cleanup for anthrax that has ever been undertaken in a building. To meet this unprecedented situation, our cleanup experts have been drawing on their years of expertise and experience, on the talents of scientists and industry, and academia, and on the knowledge available from our Federal partners to devise the right plan for the Hart Building.

As we seek to apply the lessons we have learned from all of the decontamination efforts from the simplest to the most complex, and there always will be that variety in the response, one thing has become quite clear, and that is that one size will not fit all. Each event has to be thoroughly analyzed as a separate case before we can propose an effective solution. For example, decontaminating or cleaning a facility that contains rugged heavy equipment can be accomplished using foams or liquids, methods that the contents of the building can stand up to.

On the other hand, a facility that contains a lot of paper, office furniture, and electronic equipment needs to be cleaned up using a different method, such as fumigation, that will not damage the contents in a way that a liquid or a foam solution would.

Other factors, such as the amount of the contaminant found, the ways and extent to which it can be dispersed throughout the building, the nature of the surrounding area, and the ways in which the building is used, all require added consideration before proceeding with decontamination. That is why it is taking more time to ad-

dress the Hart Building decontamination than any of us, believe me, would like.

Because of the size and scope of this particular challenge, it is vitally important that we use the best science available, that we take the time to do it right, and that we assure that we are advancing our knowledge base as part of our effort. Of course, while we are all hopeful that the information that we are gaining about cleaning larger buildings contaminated by anthrax will never have to be used again—I think we all are certainly praying for that—we must proceed as if it will, and I take the Senator's point on that. That is why there are two specific things that I would ask you to consider in the future as ways that you can help us.

The first concerns indemnifying the contractors that EPA hires to perform the actual cleanup. We spent a great deal of time in recent days, over the Thanksgiving holiday particularly, working to provide the contractors we are hiring to perform the Hart decontamination with sufficient protection from liability should something unexpected occur during the course of that cleanup.

After a lot of hard work, we have now worked that issue out. I believe it was finalized yesterday, but it should not have been as difficult as it became for us. EPA's current indemnification authority under CERCLA is not adequate to meet the needs resulting from acts of terrorism. That is why it would be helpful in the future if EPA's indemnification authority could be extended to meet responses to domestic terrorism activities or acts as a separate category for us.

The second issue where I would like to ask for your help concerns EPA's ability to recover costs from cleanup. Currently, EPA can recover costs from performing the cleanup of a hazardous substance. This authority, however, does not extend to biological agents or various other pollutants that could be used in a terrorist act.

Giving EPA the ability to recover those costs in those instances would remove one more issue from the table, as we enter into the cleanup efforts, and enable us to move forward a little more rapidly, and I want to point out this has not been an issue with the Hart Building. The Senate has indicated that they would pay us for that from the beginning, and we are very grateful for that. We appreciate that.

Madam Chair and members of the subcommittee, I thank you again for the opportunity to meet with you here today, and look forward to answering any questions that you might have on these issues.

[The statement follows:]

PREPARED STATEMENT OF CHRISTINE TODD WHITMAN

Mr. Chairman and Members of the Subcommittee, thank you for the opportunity to describe the Environmental Protection Agency's (EPA) role in combating bioterrorism: specifically, the role in the decontamination of anthrax in buildings as part of the Agency's overall mission to protect human health and the environment. I am pleased to say that EPA's efforts to meet its counterterrorism obligations are consistent with the President's statement that combating terrorism and protecting the nation's critical infrastructures are a high priority for his administration.

There are several Presidential Decision Directives (PDDs) that specify a role for EPA in counter terrorism activities. PDD 39 assigned EPA the task of assisting the FBI during crisis management in threat assessments and determining the type of

hazards associated with releases or potential releases of materials in a terrorist incident. EPA, as the lead agency for Hazardous Materials Response under Emergency Support Function (ESF) 10 of the Federal Response Plan, is also assigned to assist the Federal Emergency Management Agency, during consequence management with environmental monitoring, decontamination, and long-term site cleanup. PDD 62 reinforces our mission to enhance the nation's capabilities to respond to terrorist events. PDD 63 which addresses the protection of America's critical infrastructure, named EPA the lead agency for the Water Supply Sector.

Under the provisions of PDD 62, signed by President Clinton in 1998, the EPA is assigned lead responsibility for cleaning up buildings and other sites contaminated by chemical or biological agents as a result of an act of terrorism. This responsibility draws on our decades of experience in cleaning up sites contaminated by toxins through prior practices or accidents.

Working with our Federal partners, private sector experts, and drawing upon our considerable in-house expertise, EPA has been developing new methods and protocols, and standard operating procedures to deal with this new threat to the health and safety of the American people. And we have been doing so on a real-time basis. The speed of our response, however, has not been at the expense of sound science. Indeed, a team of science experts has been integral to our daily activities.

EPA'S ROLE IN BUILDINGS CONTAMINATED WITH ANTHRAX

Our cleanup experts have been drawing on their years of expertise and experience, on the talents of scientists in industry and academia, and on the knowledge available from our Federal partners. Similar analysis informed the cleanups undertaken at the several postal facilities and media offices, although since they were of a much smaller scope, they were more readily addressed.

Our role at a site generally begins after the Centers for Disease Control and Prevention (CDC) has tested to determine the presence of a threat and the risk that threat poses to human health. Once a decision is made to decontaminate a building, CDC also has the responsibility of defining: "How clean is clean?" They have the medical knowledge and expertise—as well as the responsibility under PDD 62—to determine the levels to which a building must be cleaned before being judged safe for reoccupancy.

EPA staff has provided expert technical advice to facility managers throughout the country on issues such as sampling plans, worker safety and actual site cleanup methods.

This role is a natural fit for EPA's on-scene coordinators, managers who are experienced in assessing contamination in structures, soil, water and air-handling systems. On-scene coordinators have considerable experience at sorting out hazards, quantifying risks, planning and implementing emergency cleanups, and coordinating among other agencies, State and local government, and the private sector.

EPA employees are working at the direction of the incident commanders from other Federal agencies, and report to the U.S. Postal Service and the Sergeant at Arms in the Capitol.

In addition to the activity generated by testing and cleaning, these sites are also being treated as crime scenes. That is why our Criminal Investigative Division has been working closely with the FBI and with local and State law enforcement agencies at the various contaminated sites. We are assisting the FBI in gathering evidence to identify the criminals responsible for terrorist attacks.

As we seek to apply the lessons we're learning from all our decontamination efforts one thing is becoming clear—there's no one size fits all solution. Each event has to be thoroughly analyzed as a separate case before we can propose an effective solution.

For example, cleaning a facility that largely contains rugged, heavy equipment can be accomplished using such methods as foam or liquid chlorine dioxide—methods that the contents of the building can stand up to. On the other hand, a facility that contains lots of paper, office furniture, and electronic equipment needs to be cleaned using another method—such as fumigation—that won't damage the contents in the way a liquid would.

Other factors, such as the amount of contamination found, the ways and extent to which it can be dispersed throughout a building, the nature of the surrounding area, and the ways in which the building is used all require additional consideration before proceeding with decontamination.

The first step in remediating a building is just like the first step in any cleanup operation and that is to determine the potential for risk to human health. Anthrax is a known threat to human health, but the literature is scant on the number of spores that a person must be exposed to before developing inhalational disease.

The health team that has come together to help us establish the parameters for defining the extent of contamination and providing direct health advice to affected individuals has involved a wide array of experts. The Congress's own Office of the Attending Physician has played a central role in providing direct medical advice to the people who work in the affected buildings. The CDC in the Department of Health and Human Services (in particular the National Institute for Occupational Safety and Health (NIOSH) within CDC) have provided world-class expertise. The Department of Defense, including the U.S. Army's CHPPM group has special expertise because of the potential that anthrax would be used as a biological weapon in a war setting. OSHA has been helpful in determining appropriate safety measures both for the people who work in the buildings and also for the extensive remediation crews that are at work here. The District of Columbia's Department of Health as well as their State counterparts, Maryland's Department of Health and Mental Hygiene, have been consulted regularly. And EPA's own in-house expertise including toxicologists from as far away as our Denver office and safety officers from our own nearby Ft. Meade laboratory have also played a vital role.

Together this group of experts has reached consensus on when cleanup activities are warranted, and they have also formed a team to review final cleanup data to make a determination that the buildings will be safe to reoccupy.

REMEDIATION STRATEGIES

While we have developed extraordinarily strong working relationships with numerous partners in developing the appropriate health and safety standards and in conducting our sampling work, it is in the area of actual remediation efforts that our collaborations have been the most broad-based.

The full array of Federal agencies with expertise in remediation strategies has been involved in helping develop the tools we need to deal with anthrax contamination. These include, of course, the various components of the Department of Defense and a number of health agencies out of the Department of Health and Human Services. We have consulted with the White House's Office of Science Technology Policy. Indeed, the President's science advisor has been at the Incident Command Center, providing a key link to this Federal government-wide response.

At EPA, our Office of Solid Waste and Emergency Response, the Office of Pesticides, our Emergency Response Team out of Edison, NJ, the Emergency Operations Center here in Washington, and the legion of responders from across the country led by our folks from Region III, have all played important roles in the cleanup effort.

A number of liquid and foam applications are effective at actually killing spores. Sandia Foam is a patented product, developed by the Sandia Labs, that we have been able to use on a number of surfaces. Similarly, chlorine dioxide in a liquid form, has been an extremely effective sporocide. We know these techniques work because we have used them in a number of areas. To address airborne particles, HEPA (high efficiency particulate air) filter vacuums are able to capture particles down to less than one-half micron in size. After the remediation effort is complete, we have resampled these areas and they have come back clean.

The tools in our toolbox are growing rapidly. Each method, though, will have to prove its effectiveness before we add it to our Standard Operating Procedures. And that proof will come from confirmation samples that are taken after remediation is complete and come back demonstrating no threat to human health.

EPA'S COUNTERTERRORISM INCIDENT RESPONSE ACTIVITIES

As EPA continues to strengthen its counter-terrorism (CT) program by building on the existing national response system for hazardous materials (hazmat) prevention, preparedness, and response, the Agency is involved in a variety of activities with Federal, State, and local officials that include: responding to terrorism threats; pre-deploying for special events; planning, coordination, and outreach; and training and exercises. Most recently, EPA was asked to chair the Security and Safety of U.S. Facilities Group of the National Security Council's Policy Coordinating Committee for Counterterrorism and National Preparedness.

EPA established and maintains a National Incident Coordination Team (NICT) to assure full agency coordination of all emergency preparedness and response activities including counter terrorism. In the regions, the Agency's first responders are the On-Scene Coordinators (or OSCs). The OSCs have been actively involved with local, State, and Federal authorities in preparing for and responding to threats of terrorism. EPA's OSCs, located throughout the United

States, have broad response authority and a proven record of success in responding rapidly to emergency situations.

REGISTRATION OF PRODUCTS

Another principal responsibility of EPA's in anthrax decontamination is to ensure that the chemicals used to treat anthrax spores are efficacious and safe. EPA is responsible for registering pesticides, including these antimicrobial products used to treat anthrax spores, prior to their marketing in the U.S.

Before issuing a pesticide registration, the Agency reviews a significant body of data to determine whether use of that pesticide will result in unreasonable adverse effects to humans or the environment. These data can include information on short- and long-term toxic effects and examine the potential for exposure under expected application scenarios. For pesticides that have public health uses, such as those used on anthrax spores, EPA also critically evaluates their efficacy. Under emergency conditions, EPA may allow a new use of a previously registered pesticide or use of an unregistered pesticide where the Agency has sufficient data to make a safety finding. These decisions can often be made quickly, based on the data that EPA receives and reviews.

Responding to the anthrax contamination has presented some unique challenges to our pesticides program. For example, currently there are no registered pesticides approved for use against anthrax. Since the beginning of the anthrax-contamination events, EPA has been working hard to identify and evaluate existing pesticide products that are sporicidal, that is, those that kill spore-forming bacteria, even though such products may not have been tested on anthrax per se. Since October, the Agency has approved two pesticides for treating anthrax spores under emergency exemption provisions of existing pesticide laws—the aqueous solution of chlorine dioxide and a foam used to treat anthrax-contaminated surfaces. We have identified several potential chemicals and new technologies which may be effective against anthrax. The Agency continues to work closely with other Federal agencies, emergency response teams, and independent experts to develop effective remediation tools. On the basis of site specific information, EPA recommends proper methods of decontamination including which antimicrobial or other substances will be used. EPA has also established a hotline for venders who believe they have products that could effectively treat anthrax and has begun daily briefings to establish routine communication between on-site personnel and key centers within the Agency who oversee and/or support them. EPA laboratories are assisting in testing samples from potentially contaminated sites and the evaluation of antimicrobial products for effectiveness against anthrax has been made a top priority. In addition, EPA is using its experience in this situation to develop approaches to handling future biological and chemical exposures should they occur.

CONCLUSION

September 11 has changed the world in which we live. EPA continues to rely on sound science and effective treatment techniques to address the threat of anthrax contamination in some of our nation's buildings. We are proud to be a part of a massive public-private effort to meet the challenges of this new world.

Thank you for the opportunity to appear before you today. I would be happy to answer any questions that you may have.

Senator MIKULSKI. Well, thank you very much. That was a lot in a very short time.

Dr. Marburger, would you please proceed, and again you have covered a wonderful scientific background. We can see why the President has chosen you. Of course, you grew up in Maryland.

A degree from Princeton, applied physics at Stanford, you have been the Director of the Brookhaven National Lab, you are the third president of SUNY at Stonybrook, you had many distinguished scientific awards, your peers have high regard for you, you are recognized for your own scientific research, and then of course you headed up a Federal lab, so we welcome you and look forward to your comments.

STATEMENT OF HON. JOHN H. MARBURGER, III, DIRECTOR, OFFICE OF SCIENCE AND TECHNOLOGY POLICY, EXECUTIVE OFFICE OF THE PRESIDENT

Dr. MARBURGER. Thank you very much, Madam Chair. It is a delight for me to be here, because I think the actions that have occurred in the aftermath of these terrible incidents have demonstrated the capabilities of the Federal agencies to respond quickly and effectively. Despite the occasional appearance of spaghetti organization charts we communicate frequently, and effectively, and I think we have a good story to tell.

The contamination problem has two parts. One is the decontamination of buildings, and the other is the sanitization of the mail itself, which is the source of the contamination, of course, and whereas EPA has focused on the building issue, which is extremely difficult, we have been providing support for the U.S. Postal Service and others regarding the mail.

I have a fairly long statement that I leave with you, but I would like to go through parts of it because I think it shows as a case study, as it were, just how the process works.

First, the charge from homeland security. At the end of October I was called by Governor Ridge to take charge of technical issues surrounding the treatment of the mail that was contaminated in the Brentwood facilities, and the next day, the day following his call, I managed to convene an interagency meeting with chief science officials and the Postal Service, and there were dozens of agencies that responded, to ascertain the technical issues that the Postal Service was encountering. It was a roundtable sort of discussion, and through this process a technical task force on mail security was established.

The U.S. Postal Service did welcome the technical advice of OSTP, as they had been previously interacting with multiple individual agencies on an ad hoc basis, so on October 30, the next day after the phone call, I convened the task force meeting and determined during the discussion that we simply did not have all the information needed to make a decision about the irradiation process in the Lima, Ohio, facility.

Despite the fact that the U.S. Postal Service already had contracted for exclusive use of this facility for 6 months, I recommended the formation of an interagency technical team, a subset of the agencies that responded to the initial call, to go to the facility in Ohio in order to test whether this process was sufficient to rid the mail of bacterial contamination.

A team was formed that day, and consisted of scientific experts from the Armed Forces Radiobiology Research Institute, AFRRI, an exceptional small but effective institute, National Institutes of Standards and Technology, NIST, United States Department of Agriculture, Food and Drug Administration, and we had others on call as needed.

The team met the following day and assembled two test boxes that would be used to measure the amount of radiation received, and whether it would kill the bacterial contaminants, and I describe those boxes in detail in my statement.

The first box was taken with the team to Lima, and the second box was loaded at Brentwood and sent to Lima by one of the mail

trailers that was in the stream. It was marked so that we could identify it later.

A representative from the Postal Service was there, accompanied the technical team on their November 1 trip. This facility uses electron beam of radiation. The test revealed that the radiation dosage was in a range that exceeded, far exceeded the minimum needed to kill bacillus spores. These spores have similar characteristics as far as their response to radiation is concerned, so we did not feel it was necessary to use live anthrax in order to perform this test. It would have exposed the workers in that facility to hazard at any rate.

The simulant of the bacillus globigii was cultured over a standard 2-week period. The only way that you can tell whether you have killed it or not is to try to grow it in a broth, as it were. There is another, faster method for detecting anthrax, which is so-called polymerase chain reaction, but it can respond to dead anthrax as well as to live anthrax, possibly important to know that, so the only way that you can tell if you have killed it is by culturing it over a period of time.

The same process was used for the second test box with the same results. That is, after 2 weeks, no bacterial colonies were grown. There was no bacteria there to produce, and that is how you tell if you have killed it. This demonstrated that the Lima facility was using an irradiation protocol capable of delivering a dose of radiation lethal to bacteria.

The unanimous recommendation of the technical team—which, by the way, examined the entire process, from delivery into the plant through the detailed circulation of the boxes under the e-beams. They were rotated in several directions, they measured the pattern of radiation within the boxes, and various means. The unanimous recommendation of the team that did that was to release the letters that had been irradiated at the Lima facility, and based on this recommendation, the Postal Service did initiate the delivery of the letters quarantined at the Brentwood facility and processed through Lima.

Irradiation was chosen in the first place by the U.S. Postal Service because it is a proven technology, it has been used in the food industry to sanitize—and also to sanitize medical equipment, and prosthetic devices that are implanted in the human body. It has been used for decades. There is a regulatory history of the process. There are standards for the equipment that is used and, of course, other technologies may be promising for the future, but currently irradiation appears to be the best immediate option.

There are some side effects. One has to understand that the radiation not only kills anthrax, but it also may alter specimens used for medical diagnoses that might be sent through the mail. Film would be exposed, certain other substances are affected. It is unlikely that these items would be contained in the type of letters that are currently being delivered first class mail, but they may be contained in the packages that are yet to be irradiated.

There are other technologies that have been proposed and could be used in the future. I indicate them in the next paragraph of my statement. I will pass over those to make this shorter.

At the same time that we formed the team and sent it to the Lima facility and sent it to other facilities, we established three interagency working groups under OSTP to continue the work started by the technical task force. They include an irradiation process and quality assurance group, detection and monitoring group, and a group on long-term issues. The first includes scientific experts representing DOD, AFRRI, the previous facility that I mentioned, NIST, FDA, and USDA, and this team has presented numerous interagency briefings to assure dissemination of their test results and their approach.

I might add that we have had excellent cooperation from all the agencies that have been contacted. They work with us well, and I am very pleased at the speed of the response.

The detection and monitoring group is chaired by the DOD DARPA agency, and includes CIA, Office of the Vice President, Department of Energy, U.S. Postal Service, the Armed Forces Radiological Research Institute, NIOSH, Department of Defense, and so forth, and also consults with outside experts. They are collecting information on the efficacy and utility of existing technology for detecting microorganisms as they might be encountered in the mail-handling process.

The third group will take findings from the first two and determine whether any issues have been overlooked.

OSTP is also working closely with the National Academies of Science, which has graciously volunteered the extensive knowledge base of its membership in evaluating options for ensuring mail security.

An overarching goal for all of the initiatives I have described is coordination of the activities of all of those who can contribute to ensuring that our mail is safe, drawing upon the technical expertise housed in our science and technology agencies, making sure that relevant information and test results are disseminated to the appropriate parties, and preventing duplication of effort.

I have been very impressed during this period with the breadth and the depth of scientific and technical resources available within the Federal Government to address these major challenges, great as they are, but I am just as certain that those resources cannot be used to their greatest effect unless we join forces and resolve the technical issues together, and at this point I see no evidence of resistance or turf battles that might impede this effort.

I might add, finally, that our interaction with the Office of Homeland Security, their staff, Governor Ridge, has been absolutely first-rate. I regard these activities as having been performed in support of the Office of Homeland Security, and the actions that we have taken are taken on their behalf.

Thank you.

[The statement follows:]

PREPARED STATEMENT OF JOHN H. MARBURGER

Good afternoon Madame Chair and Members of the Subcommittee. It is a pleasure to be here today to testify on the issue of anthrax decontamination. OSTP has played significant role in the mail security issue and I am happy to detail those efforts for you.

CHARGE FROM HOMELAND SECURITY

In the fourth week of October, I was called by Governor Ridge to take charge of the technical issues surrounding treatment of the mail contaminated at the Brentwood, D.C., and Trenton, N.J., postal facilities. The next day I convened an interagency meeting with chief science officials and the Postal Service to ascertain the technical issues that the Postal Service was encountering. Through this process a technical task force on mail security was established.

FORMATION OF TECHNICAL TEAM

The U.S. Postal Service welcomed the technical advice of OSTP as they had been interacting with multiple individual agencies on an ad hoc basis. On October 30, I convened an interagency task force meeting regarding the issue of mail security. I determined during the discussion that we did not have all the information needed to make a decision about the irradiation process at the Lima, Ohio facility. Despite the fact that the U.S. Postal Service already had contracted for exclusive use of this facility for six months, I recommended the formation of an interagency technical team to go to the Lima facility in order to test whether the irradiation process was sufficient to rid the mail of bacterial contamination.

A team was formed that day and consisted of scientific experts from the Armed Forces Radiobiology Research Institute (AFRRI), National Institute of Standards and Technology (NIST), United States Department of Agriculture, and Food and Drug Administration (FDA). The team met the following day and assembled two test boxes that would be used to measure the amount of radiation received and the killing of bacterial contaminants.

The test boxes consisted of a mail package identical to the ones packed at the Brentwood post office and sent to the Lima, Ohio facility. It contained non-disease causing dry bacterial spore powder of Bacillus globigii (glo-bee-gee-I), very similar to the Bacillus anthracis that was found in the "Daschle" letter, and dosimeters that measure the dose of irradiation. The first test box consisted mainly of paper and lightweight materials with nothing that would perturb the radiation dose distribution. A second box was prepared and loaded with many irregular objects—metal, CDs, coins—in addition to spores and dosimeters, to see if they have an effect on the killing of bacterial spores.

The first test box was taken with the technical team to Lima and the second test box was loaded at Brentwood and sent to Lima by one of the mail trailers. It was discreetly marked so it could be identified and tested after the irradiation process.

TESTING OF IRRADIATION FACILITIES

A representative from the U.S. Postal Service accompanied the technical team on the November 1 trip to Lima. The Lima facility uses electronic beam irradiation and the test revealed that the radiation dosage was in a range that exceeded the minimum needed to kill Bacillus—spores. The simulant, Bacillus globigii, was cultured over a standard two-week period and no bacterial colonies were grown. The same process was used for the second test box with the same results. This demonstrated that the Lima facility was using an irradiation protocol capable of delivering a dose of radiation lethal to bacteria. The unanimous recommendation of the technical team was to release the letters that had been irradiated at the Lima facility. Based upon this recommendation, the U.S. Postal Service initiated delivery of the letters quarantined at the Brentwood facility and processed through Lima.

The U.S. Postal Service contracted with another irradiation company, IBA, to use its facility in Bridgeport, New Jersey. This facility contains electronic beam (e-beam) irradiation equipment as well as x-ray irradiation equipment. At this time only the e-beam technology is operational. On November 16, the technical team drove to Bridgeport to test a box of letters in much the same way that the Lima facility was tested. It is important to test these facilities separately as their processes differ.

On November 21, the technical team went back to the Lima facility in order to test "flats" which are the typical 8½ × 11 envelopes. It is anticipated that by the first of the year the x-ray equipment at Bridgeport should be operational. At that time, the technical team will be able to test the irradiation of packages. X-ray irradiation may prove to be the preferred option for packages because x-rays penetrate better than e-beam irradiation.

Irradiation was chosen because it is a proven technology and has been used in the food industry and to sanitize medical equipment for decades. Other technologies may be promising for the future but irradiation is the best immediate option.

SIDE EFFECTS OF IRRADIATION

The contaminated mail from Brentwood and Trenton must be treated prior to delivery. This mail includes letters, flats, and packages. Several items will be adversely affected by the dose of radiation that is needed to kill bacteria. These include: medical specimens, including fecal and blood; drugs; test kits; electronic equipment; film; food; eyeglasses and contact lenses. Although it is unlikely that these items would be contained in the letters that are currently being delivered, they may be contained in the packages that are yet to be irradiated.

OTHER TECHNOLOGIES

Other technologies have been proposed as alternatives or supplements to irradiation, include heat treatment and chemical fumigation. Heat treatment seems unlikely to provide a solution for large amounts of mail, since the target temperature is well over 300 degrees Fahrenheit, which could result in damage to many mailed items. Within the realm of chemical treatment, OSTP is coordinating with the Environmental Protection Agency (EPA) and Department of Justice (DoJ) to explore the use of chlorine dioxide and ethylene oxide as alternatives or supplements to irradiation. These technologies have promise but need more extensive research and testing before they can become a viable option for treating mail. Specifically, we need to know more about how well these chemicals penetrate the mail and kill dangerous organisms, the speed at which this treatment can occur, and the safety of these chemicals both during treatment and during subsequent handling of the mail. These treatments probably will not solve the problem of routine bulk mail treatment, but may be useful in certain specific situations.

MAIL SECURITY WORKING GROUPS

OSTP established three interagency working groups to continue the work started by the technical task force. The working groups include: (1) Irradiation Process and Quality Assurance; (2) Detection and Monitoring; and (3) Long-term Issues. The first group includes scientific experts representing DOD/AFRRI, NIST, FDA and USDA. This is the team that has site-visited the irradiation facilities, consulted frequently with the U.S. Postal Service, and presented numerous interagency briefings to ensure dissemination of their test results.

The Detection and Monitoring group is chaired by the DOD Defense Advanced Research Projects Agency (DARPA) and includes CIA, Office of the Vice President, Department of Energy, USPS, AFRRI, NIOSH, DOD/JPBIO and consults with outside experts. They are collecting information on the efficacy and utility of existing technology for detection of microorganisms as they might be encountered in the mail handling process. The third group will take the findings from the first two groups and determine whether any issues have been overlooked. Membership will draw from the experts in the first two groups, as well as agencies responsible for worker and environmental health and safety, including EPA and the Occupational Safety and Health Administration. This group will take into account the benefits and limitations of existing technology for detecting pathogens that might enter the mail system and processes for mail sanitization and facility decontamination. Recommendations will be based also on new technologies in the pipeline that may have additional benefits over currently available methods. All of these groups will report technical findings and recommendations to OSTP and I will then forward relevant information to the Office of Homeland Security.

CONCLUSION

OSTP is also working closely with the National Academies of Science, which has graciously volunteered the extensive knowledge base of membership in evaluating options for ensuring mail security.

An overarching goal for all of the initiatives I have described is coordination of the activities of all those who can contribute to ensuring that our mail is safe—drawing upon the technical expertise housed in our science and technology agencies, making sure that relevant information and test results are disseminated to the appropriate parties, and preventing duplication of effort.

In the short time I have been in this position, I've been impressed with the breadth and depth of scientific and technological resources available within the Federal government to address the major challenges we are facing today—great as they are. But I'm just as certain that those resources can't be used to their greatest effect unless we join forces and resolve the technical issues together.

RESPONSIBILITY FOR DECONTAMINATION

Senator MIKULSKI. Thank you very much, Dr. Marburger. I know you can go on more extensively about it, but we appreciate that, and let me go to my first round of questions, and we are going to follow generally the 5-minute rule, but I would like to inquire of the chair of the full committee, Senator Stevens, do you have to get back to a conference or anything, Senator?

Senator BOND. Hope springs eternal.

Senator STEVENS. Thank you very much, Senator.

Senator MIKULSKI. Let me move on, then, to the questions, and thank you for your testimony. As has been indicated, there are a number of Federal agencies that have been involved in the consequence management of anthrax exposure both to the Hart Building, the Brentwood Building, and then even other facilities that were impacted upon the mail. Initially, I counted 10 from the FBI and DOD and FEMA, as well as to EPA and OSTP. Then there is CDC, the National Institutes of Occupational Safety, and I could list even more. Then we followed long-term consequence evaluations. The CIA, the Office of the Vice President.

Here is my first question, and perhaps you have covered it in your testimony, Ms. Whitman. Who really is in charge of overseeing the decontamination effort for the President, and therefore the Nation? Who does the President turn to when something has to be decontaminated or he wants to talk to that person? Is that you?

Ms. WHITMAN. It is the site or incident commander. Here on the Hill it is the Sergeant of Arms, for the post office buildings it is the Post Office. It is generally the local or State first responder, it is the person who has the primary responsibility and makes the determinations. We act in support of that. Obviously, we coordinate everything through the Office of Homeland Security and Governor Ridge.

Senator MIKULSKI. Let me back up. When the President of the United States needs to turn to crisis management, and let us say, like the terrible thing that happened in New York, FEMA is in charge of the consequence management, the FBI in terms of the crisis management in law enforcement. When you say, who is in charge of decontamination, and you say it is the incident responder, well, that could be 100.

In other words, thank God this happened in very limited, but nevertheless significant institutions, but this could have happened in 100 different places. 100 different people cannot be in charge. Who is in charge for the United States of America in overseeing the decontamination effort, the best science, the best methodologies, the coordination of determining the criteria on how clean is safe?

Ms. WHITMAN. Well, the coordinator of the overall responder, the person with the overall responsibility would be the Office of Homeland Security. Governor Ridge would be who we would work with, but on-site, it is the site coordinator, it is the first responder. That is the way that FEMA is set up, that is the way that emergency response has been set up in this country, that it is the State or local government, or the local on-site coordinator, as I say. For the Hill here it has been the Sergeant at Arms at either the Senate or

the House. They have been the ones who have called in the responders, and to whom we provide information and support.

EPA DECONTAMINATION RESPONSIBILITY

Senator MIKULSKI. So who does—I understand from your testimony on page 2 that you said under the Presidential decision directive 62 of President Clinton, you have been assigned the lead responsibility for cleaning up buildings and other sites contaminated by chemical or biological agents as a result of terrorism, right? Does that mean that you are in charge?

Ms. WHITMAN. That means that we are responsible for overseeing that cleanup, but the building itself is still the responsibility of the incident coordinator on-scene. They have control of the building.

Senator MIKULSKI. Who is in charge of the process, not the building? Who is in charge of the process?

Ms. WHITMAN. Again, what happens is that we will provide the incident coordinator with the recommendations as to what processes are to be used, unless and until they turn the building over to us for the decontamination.

OSTP RESPONSIBILITY

Senator MIKULSKI. Well, Dr. Marburger, my understanding of PDD 62 is that Governor Whitman is in charge, but I was somewhat surprised the day that we listened to testimony from John Potter, the Postmaster General, when I said who is in charge of decontamination, he named you. So you see, this is part of my point, that we have essentially what looks like a very fragmented system that—both of you tried to respond as ably as you can, but we have an enormously fragmented system.

What were you in charge of? Were you in charge of the mail as directed, and then Potter said—I said, well, who put Marburger in charge, with all due respect, and he said, Tom Ridge, so—and I wondered, well, what did that mean for Christie Todd Whitman, so what were you in charge of? Were you in charge of the mail?

Dr. MARBURGER. Yes. Let me explain how I interpret Mr. Potter's remarks. The Office of Science and Technology Policy is not an agency that has line responsibility. We are a coordinating agency. We provide technical support to agencies, and interagency coordination of programs that may cut across agencies, and in general we do not become involved in organizations that have the scientific expertise of their own to do their missions, but we primarily focus on cross-cutting issues.

In this case, it is my understanding that the U.S. Postal Service, as a quasi government agency, did not have direct access to scientific expertise that was necessary to evaluate the effectiveness of the specific sanitization process that they were planning to use on the mail, and Governor Ridge, who was coordinating the response to the mail incidents, called on us, OSTP, to arrange to provide technical support to the U.S. Postal Service. He did that as part of his responsibility, and as part of my responsibility I got the people together, contacted the appropriate agencies and provided advice only. I was not in charge. I provided advice to the U.S. Postal Service. They could take that advice or ignore it.

STANDARDS FOR ANTHRAX DECONTAMINATION

Senator MIKULSKI. I appreciate that. Let me go, then—because you see, this is part of, I think the confusion that we face. Let us go now to the science, because again I am talking about who oversees the process? Governor Whitman on many occasions has espoused her allegiance to sound science, and we really thank her for that. We have been through some tough issues.

But who is in charge of determining what is the best science for both the cleanup, and then also for determining the standard by which we can talk about the reentry of buildings, meaning, how clean is safe, and Governor Whitman, would you respond to that, and then of course there are the long-term issues.

Ms. WHITMAN. Ultimately, on the determination of when a building is safe to reoccupy, is the responsibility of the CDC. That is who we look to. We will go in and do testing after the decontamination, and share our results with them. We share our results with them all the way through and work with them, obviously all the way through, but that would be their decision as to what is safe, when it is safe to reoccupy a building.

Senator MIKULSKI. Have they established a criteria?

Ms. WHITMAN. We are looking at this point at a criteria that would have no anthrax, no viable anthrax spores. You will have the spores if you decontaminate appropriately, but they will be dead. The DNA will be killed, and that is what we want to ascertain, that the DNA is killed, and that is up to them.

Senator MIKULSKI. Let me be clear, is this a goal of kind of zero tolerance for anthrax spores, or is this a standard?

Ms. WHITMAN. This is a goal. It is my understanding with CDC, that this is a goal. At this point in time, I do not know of any science that tells us there is a background level for anthrax in urban areas or in buildings. On the farm, in the land, yes, there is. We know there is anthrax occurring, but not at a background level. One should not expect a background level.

Senator MIKULSKI. Let me reaffirm this. In order for Federal employees to return to either the Hart Building or our postal workers to return to Brentwood—remember, we want to have the same rigor, and stand sentry over these buildings not only for those at the Capitol, but for those postal workers, that every single aspect of those buildings will have zero anthrax.

Ms. WHITMAN. That is what we are hoping to achieve.

Senator MIKULSKI. And if you do not, does that mean we cannot go back, and that they cannot go back?

Ms. WHITMAN. That, again, is going to be the determination of the CDC. That is their responsibility to decide.

Senator MIKULSKI. Have they, then, determined that?

Ms. WHITMAN. The Centers for Disease Control, do we have anything new beyond what they have said originally?

Senator MIKULSKI. And I know Dr. Copland is not here, but——

Ms. WHITMAN. At the moment, it is zero.

Senator MIKULSKI. But you see, again, I am coming back——

Ms. WHITMAN. There has been some discussion, I have heard some discussion earlier, or heard it said that there might be a feeling that in fact there are levels at which it does not pose a signifi-

cant human health risk, but that is not our determination to make. We rely on the Center for Disease Control.

Senator MIKULSKI. You rely on the Centers for Disease Control.

Ms. WHITMAN. To make that determination.

Senator MIKULSKI. First of all, what you are saying is, they do not have a standard. They have a goal.

Ms. WHITMAN. Well, right now it is zero.

Senator MIKULSKI. They have a goal, and they have a feeling. They have a goal, and they have a feeling, which I think presents enormous problems.

Ms. WHITMAN. Well, it is not—Senator, with all respect, I just want to be very clear. I really cannot speak for them. We are operating now with the understanding from them and with them that we are seeking zero levels of anthrax as a result of the cleanup.

Senator MIKULSKI. Bear with me. In other words, their people are saying, oh, you are going to be back in the Hart after Christmas. You are going to be back in the Hart on New Year's Eve. You are going to be—and then if we are talking about zero, and we are saying that is the goal, that is the current goal, because there seems to be a lack of certainty about whether that is the appropriate goal, and I am not arguing.

Ms. WHITMAN. No, I hear what you are saying.

Senator MIKULSKI. I am just saying that. I think that presents very serious issues. I am not saying go back and for it not to be zero, but there is a strong difference between goals and very clear standards. When you have to clean up Superfund sites, when you have to clean up brownfield sites, when you set standards for indoor air quality, you have standards and criteria as well as goals and objectives. They are two different things, so I am troubled by the absence of criteria, knowing that we are uncharted territory and breaking new ground, but is that not part of the problem?

Ms. WHITMAN. Well, I think that is it. You have absolutely hit on it. This is something new. We have not had to deal with it in this kind of a situation before. It was never anticipated, so I can only assume that that is why there is not a clear standard, but we are shooting for the goal of zero live anthrax or DNA, viable DNA, after the cleanup.

Senator MIKULSKI. So if I said to you, what would it take for us to be able to return to either Hart or the Postal Office workers to return to Brentwood, you would say a zero presence of anthrax.

Ms. WHITMAN. Of viable DNA, yes, anthrax.

Senator MIKULSKI. My time is up. Senator Bond.

ANTHRAX IN RUSSELL BUILDING

Senator BOND. I am very disturbed by the answers we just had, because this looks to me like a real disaster. I do not know anything in nature that is absolutely perfect, and when we have dealt with cleanup in the past, I thought we have always had established a standard of what is dangerous and what is not harmful, and is it your understanding, Governor Whitman, that there was some incidental anthrax found in the Russell Building but we were permitted to stay open because it was found to be medically insignificant?

Ms. WHITMAN. The determination to stay open would have been the incident commander's determination, and I know in those buildings we were able to get in. The surfaces to be cleaned were much less complicated than what we are facing in the Hart Building, and those areas were cleaned and were determined to be safe, but I know there was that discussion. That is where I am answering the other Senator's——

Senator BOND. Could you assure anybody that there was not a single live anthrax spore left in Russell?

Ms. WHITMAN. After the final cleanup we have not found any, but we could assure them, yes, that there were no live spores. We did not find any after the cleanup. We went in, cleaned up, retested and cleaned up.

MAIL IRRADIATION

Senator BOND. Now, what little I have read about anthrax, it appears that for the average person you need something like 4,000 to 5,000 airborne spores to contract inhalation anthrax. I might ask Dr. Marburger——

Dr. MARBURGER. That is consistent with numbers that I have seen.

Senator BOND. So is it consistent to assume that you could have—that a building which somebody had walked through a cattle ranch, through the building, perhaps with anthrax on his or her shoes from having walked through an area where there was livestock, cattle or sheep, is it possible that there are backgrounds of anthrax throughout the country?

Dr. MARBURGER. If I could answer that question, perhaps go to the conclusion, I am uncomfortable with having anthrax spores in the environment, because anthrax bacillus can multiply, unlike, let us say, chemical contamination. That is the bad news. The good news is that it can be killed, unlike chemical contamination, and I believe that the goal of zero spores is under some conditions a feasible goal, because they can be killed. They are killed in sunlight, for example, and they are certainly—although they have not been completely validated in all conditions, there are chemical treatments that can kill spores.

Certainly our expectation in the mail irradiation verification was that all spores would be killed in the irradiated mail. The time of radiation, the amount of the radiation to which the mail that we studied was exposed was virtually certain to kill all the spores.

Senator BOND. How long a time was that?

Dr. MARBURGER. It varies with the facility, the amount of mail, the type of irradiation. I cannot recall specifically, but I am sure—in the types of beams that are available in the Lima facility, several minutes of exposure would suffice.

Senator BOND. For how big a batch?

Dr. MARBURGER. These are for a tray of, let us say, first class mail, about so long and so wide, about 6 inches thick.

Senator BOND. You are describing a process that could only affect an infinitesimal amount of the mail that is shipped through the U.S. Postal Service on a daily basis, are you not?

Dr. MARBURGER. It is important to understand that there are different types of mail, some of which pose essentially no risk. It is

the anonymous part of the mail stream that is particularly vulnerable here—the anonymous part. That is to say, which is not picked up at a known facility and transported under constant surveillance to the processing facility.

So I prefer not to get into exactly which part of the mail stream is being treated in which way, but in fact I believe that a significant fraction of the vulnerable mail could be treated in this way.

Senator BOND. I am concerned about how we are going to deal with this in future efforts, future actions, if this—if a similar occurrence affects another building, and I know there are private facilities that have been affected. Is it your understanding, Governor Whitman, would you have an oversight role in determining whether a facility is clean, or would this be the CDC that would deal with a private facility?

Ms. WHITMAN. A private facility would hire their own contractor. We could serve as, and we do serve as advisors to them, and we can check the work that is being done. It would only be under the circumstances where we felt they absolutely were not performing, or they felt that they were overwhelmed, that we would take a more active role there.

INDEMNIFICATION FOR CONTRACTORS, TRAINING, CHLORINE DIOXIDE TREATMENT

Senator BOND. You described the problems that the contractor for the Hart Building has had, and you indicated that we need to refine or expand the CERCLA indemnification for private contractors. I trust you will be providing us the legislative language that you wish the EPW and other committees to consider.

Ms. WHITMAN. Yes. We ran into this situation with the subcontractor of our contractor. We were able to provide the primary contractor with indemnification. It was extending the indemnification to a subcontractor that became problematic, and that is where we had a lot of negotiations to do.

Senator BOND. Well, there is an article in the local paper today that areas which have contamination of anthrax are having difficulty finding contractors willing to clean up anthrax contamination. If any private contractor is asked to go in to apply a process that is still unproven, or dealing with a biological agent that is potentially fatal, and they do not have any assurance of any limitation on liability, I would imagine that there would be very few contractors who would take that on.

What kind of structure—and I would ask you and Dr. Marburger—must we set up so that we will have private contractors who are qualified, who understand the standards, who would be willing to compete on a basis, knowing that there is a reasonable standard, reasonable procedure set up, and some form of insuring against horrendous liability if something goes on? What do we need to do to make sure not only that we get the governmental facilities clean, but we have private entities that are able to take this job on for other areas where there may be anthrax contamination?

Ms. WHITMAN. Well, Senator, first of all I think we will know a lot more about what is going to be required when we are finished with the decontamination of the Hart Building, and when we have

done the fumigation of the Daschle suite and determine the effectiveness of that. It will give us even a better understanding beyond what we have already determined with the Sandia foam and the chlorine dioxide wipe, the liquid, and we will have a better idea of what we are talking about.

We need to train contractors, we need to make sure that we have contractors who have been through a process that gives us a level of comfort that they have the skills and ability to address these issues, but this is one where I think as we go through this process, we are writing the book, as you have pointed out before.

We have never faced this kind of contamination from this sort of a biological agent in these types of facilities, so we are writing the book as we go along, and part of that is going to be what we need to do to ensure that we have enough private contractors out there, because you are right, there has been a concern about getting enough private contractors willing to take on the risk, who have the expertise to be able to do the job right, and that is the most important thing here, getting the job done right.

Senator BOND. Dr. Marburger, I would like you just to close my question asking you to comment on that, and then the chlorine dioxide sounds powerful. Is it dangerous? What is the hazard from the cleanup?

Dr. MARBURGER. Let me answer the first question first. I am optimistic about contractors. If we can learn enough from the incidents that we have now to establish clear standards for the contractors to follow and train to, and appropriate indemnification, I believe that contractors will come forward.

For example, in the facilities that are being used for the mail irradiation, those facilities were designed originally for food and medical supply irradiation, where the standards are very clear and rigorous, and the equipment is appropriately calibrated according to NIST standards. We do have contractors that are capable of performing to those standards.

For the mail, we have two contractors currently that build the equipment for irradiation. They know the process. We have been able to assist the U.S. Postal Service to verify that it works, and I am sure that more contractors will be willing to come forward and sell machines to the mail service providers, so that is a good case study.

We are very fortunate in the mail case to have the example of the food, and the spice industry, for example, uses this, and the medical industry, as sort of a case study, so I think we can be optimistic about that.

Regarding the chlorine dioxide, it is a very interesting substance. I do not think we know enough about its application under conditions. I certainly agree with Governor Whitman on this point, that we do need to have more experience, and study the effectiveness under different conditions under which it is now being contemplated to be used, but there is certainly much promise in the chemical treatments that are being investigated.

Senator MIKULSKI. Senator Stevens.

HART BUILDING CLEANUP

Senator STEVENS. Thank you very much.

Well, Doctor, following up on that, as we go back into our building, which I hope we do soon, and our staff wants to clean off, if they take a Chlorox solution and clean off their desks, are they helping themselves?

Dr. MARBURGER. Chlorox does kill living things.

Senator STEVENS. It gets rid of anthrax, right?

Dr. MARBURGER. Yes. Well, actually——

Ms. WHITMAN. I do not know that I would encourage that in and of itself. I think the important thing to know——

Senator STEVENS. They have been told it is cleaned up. They want to make sure.

Ms. WHITMAN. Oh, okay, they want to do extra things, that is fine. They are not going to hurt anything doing that.

Senator STEVENS. I am not one to criticize what is going on, although I have to tell you—it is not a bad sort of thing, but we lived in the Hart Building for 3 days after those people opened the envelope, and I compliment them and every one associated with the discovery.

During that period of time, this anthrax had the chance of circulating, right? That is the fear, right, and we were trying to figure out the level, the area of its possible migration.

Ms. WHITMAN. Right.

Senator STEVENS. Now, Senator Daschle's office is on the southwest, fifth and sixth floor, I am on the fifth and sixth floor on the northeast. We circulate through that whole place. My staff and I, 40 some odd people, went through there for all that time. Is there a way to find out the area that this stuff can expand to from a source like the Daschle letter? Is there a parameter?

Ms. WHITMAN. We have now tested every one of the suites in the Hart Office Building.

Senator STEVENS. I understand that, but do we know how far it can expand itself, and how rapidly?

Ms. WHITMAN. It is a question of who picks it up. I mean, we followed the mail trail, and that is how we were able to determine the other hot spots, and you were able to see cross-contamination from the letters going through.

Senator STEVENS. With the air system, does it circulate any known distance? Is it known the distance it would travel a day, for instance?

Dr. MARBURGER. You can attempt to model this, but I am not aware of any model that has been exercised to this extent. That would be a subject of a very detailed investigation.

Senator STEVENS. I am compelled to tell you that a friend of mine from ranch country asked me if I had thrown out our plants, and said that in his opinion the first place that stuff would go would be to the dirt. Is that right?

Dr. MARBURGER. Well, it sounds logical to me, Senator.

Senator STEVENS. Have we destroyed all the plants?

Ms. WHITMAN. No, sir. We are watering them.

Senator STEVENS. My rancher friend says they ought to be thrown away, or burned or something.

Ms. WHITMAN. We would be happy to throw them away, but we have a contractor who is watering them and feeding the fish.

Senator STEVENS. That is an aside.

Dr. MARBURGER. I believe we have to leave it up to the experts to determine how to detect—I mean, they think of things like this. We need to leave it up to them to determine the most likely places to take samples, and how to detect the existence of these spores in a building.

You know, we do have expertise distributed throughout the Federal agencies, and while you might be disturbed by the fact that there are so many agencies involved, I am reassured by that fact, because it means that the people responsible are reaching out to people that have the knowledge. And that is the way it should work. Fortunately Congress, in its wisdom, has set up a number of coordinating mechanisms, including the Office of Science and Technology Policy and other responsibilities that are built into the agencies, EPA and FDA and so forth, and it is intricate. It really is intricate, but we are charged with the responsibilities of learning those intricacies and calling upon the appropriate places where necessary, and I believe that that is happening in this case.

MEASURES TAKEN TO ENSURE SAFETY OF HART BUILDING

Senator STEVENS. Well, our job is a little different. We are going to have here, soon, the opportunity to go back into our offices, I hope, and we are going to have to look our staff in the eye and tell them that they are safe, all right.

The chair was talking about a level of contamination. If you determine that a level of contamination above zero is safe, are there people out there that might be compromised who have immune systems—for instance, I have one staffer who is just completing radiation and chemotherapy, and there have been some known HIV patients in, not my staff, but in the building. Are there other people there that have to be considered, even if we go to a level above zero?

Dr. MARBURGER. Senator, safe to me means safe for all, so if there is a determination that the building is safe to reoccupy, I would presume that it would be safe for anyone to reoccupy.

Senator STEVENS. It is going to be safe for public access?

Dr. MARBURGER. Absolutely.

Ms. WHITMAN. Senator, do not forget, the CDC is the one that will make that determination, and they are collecting all the health data now to make sure that when they make that determination, that it is one based on the best-known science that can assure that everyone, no matter what their individual health conditions, can safely reoccupy the buildings.

Senator STEVENS. That worries me, because as the ex-chair of the Appropriations Committee, it seems to me we are going to be looking for money to build some more buildings, because I do not know who can give an assurance that something is zero. It is one of those things that there are so many permutations, combinations of how this stuff could be transported.

Currently we followed the trail of the mail truck, right?

Ms. WHITMAN. We did the mail, yes, the mail handling.

Senator STEVENS. And we followed the air circulation.

Ms. WHITMAN. Yes. Actually, we did the entire building now. We have gone into all the suites, even where we did not get an initial hit we have tested all the suites and then all the offices in those

suites where there was any indication that there might have been some contamination, and those that were served by that particular HVAC system in Senator Daschle's office.

Senator STEVENS. Well, now tell me this. One of the announcements was that there had been a trace, there had been a presence of anthrax in an office, but no spores found. Can you explain that, Doctor?

Dr. MARBURGER. No. I do not know how that would be determined.

Senator STEVENS. Can anthrax go through a room and leave a trace, without being there after it goes through?

Dr. MARBURGER. Not that I am aware.

Senator STEVENS. So the spores were either there or not there, and as you said, Ms. Whitman, they are all right if they are dead.

Ms. WHITMAN. Right.

Senator STEVENS. I know they can travel.

Ms. WHITMAN. Well, that is why we tested throughout the building.

Senator STEVENS. How about my books, when I go back? My staff, if they reach into my library and pull out a book, are they going to be subject to something—you cannot have looked at every one of the books in my office, and all the other offices.

Ms. WHITMAN. What we have done is, we have put the Petri dishes to take the samples throughout the office. There has been a real discussion as to whether you open—for instance, filing drawers, and if they were closed and have been closed right along, are you risking contamination by opening them before you have decontaminated the office entirely? We have been as comprehensive as we believe is necessary in order to anticipate any place that spores might have reached, and again, in any office where we got any indication that there had been some contamination, we did a much more thorough testing throughout the entire suite, in every office, on shelves—we have gone back into offices and moved things around to see what kind of resuspension there might be from the spores, and retested.

So what will happen after the decontamination is, we will go back in and retest those places where we had contamination, where we cleaned, to make sure that we are not seeing any contamination left. Again, we want to see the spores, but we would like to see them hollow. We would like to see them with dead DNA, so that we know we have gotten them, and then the determination will be made for reentry after that.

Senator STEVENS. Well, so far we have had this very sad exposure to a series of letters. No one in our community here, the Senate or the House community, has gotten sick. No one has tested positive. Was there any——

Ms. WHITMAN. There were some staff that had positive, in the Daschle suite anyway.

Senator STEVENS. They have been exposed, but not positive for having——

Ms. WHITMAN. Right, but being exposed.

Senator STEVENS. So what is the standard? Should we test our people, Doctor, periodically? How are we going to set up any kind of standard of monitoring these people when they come back and

are working for me in these rooms, and opening those drawers, and opening those books, and picking up those papers that have been there all this time?

Dr. MARBURGER. Well, I would presume that there would be testing of the facility before the people went in and there should not be a presumption that they will be contaminated.

Senator STEVENS. Maybe I am missing something, but that tests things that are in the air or exposed. No one has gone inside the books. No one has gone into the drawers. No one has gone into the papers. How do we know they are not there?

Dr. MARBURGER. I cannot answer that question.

Ms. WHITMAN. All I can tell you, Senator, is that in those offices—and Mary Ann, correct me if I am wrong—in those offices where there has been any indication of contamination, we have made an effort—we have not opened drawers. We have not gone into drawers, but we have gone onto the shelves, and we have done swipes—what we do is not just leave Petri dishes, we also do the swipe test, which means we have swiped the front of books, we have swiped some of the books, the shelves, the cases where you have your file cabinets, your file cabinets, to see if there were any spores.

If there were, then we would open the drawers and do the test. If not, there is no reason to assume that anything is in the drawers if it is not on the outside.

Senator STEVENS. My time is up, but Doctor, I wish we could take some of these critters and turn them loose in a room and see where they go.

Senator MIKULSKI. I would like to, if I could, just give two questions to follow on to Senator Stevens, because he is talking about actually going back, gassing the Daschle office, but then offices like mine, which are part of those others where traces have—which is, how will you know about the upholstery? How will you know about—hello. Who are you? Hello.

Ms. WHITMAN. This is our on-scene coordinator. I thought it might be interesting for you to hear exactly how we do the testing.

Senator STEVENS. Senator, I have been called to that meeting you thought I might be called to. Thank you, though.

Senator DOMENICI. Senator, before we have him explain, could I ask a few questions?

Senator MIKULSKI. Yes, absolutely. Then I will come back to him.

Senator DOMENICI. I appreciate.

Senator MIKULSKI. No, I just had the one item here, but that is okay. It is your turn.

Senator DOMENICI. I have to be somewhere in 10 minutes.

Senator MIKULSKI. You take all 10, sir. That is your prerogative.

Senator DOMENICI. Thank you. First let me say to you, Madam Chairperson, I think calling this hearing is very good leadership on your part, and one thing I think we will find, and our staff will find, is that we need a little bit more expertise on our side of this in order to ask intelligent questions, and in order to make sure that what we are getting is, indeed, the right thing.

So let me just do a little bit, then I will perhaps follow up on my own. Somebody can educate me so that I will be a better member of your subcommittee the next time we will have a hearing.

First let me say to you good Doctor, I know a lot about you. I have not worked with you, but I was very complimentary when you got appointed. I remain that, and from the admiration that those working in the larger arena that we are engaged with, their admiration for you, and using your office to give them advice, turns out to indicate that you are in the right place at the right time.

Dr. MARBURGER. Thank you.

Senator DOMENICI. I think you hit it right on the head when you said there are many experts in the United States, and there are. I am very proud, because two of those expert institutions happen to be in New Mexico.

It is not accidental that Sandia National Laboratory and Los Alamos, by history and by what we have asked them to do, happen to have a very embedded and large biological department, believe it or not, and in that they have some huge expertise in this field, and I am very grateful that they were called in before the final plans were implemented, and I know not whose plan it was, but there was certainly a plan to clean that building that was voted down by everybody that the Environmental Protection Agency called in to ask about it. In fact I think 20 different peer review people said, let us not do that plan.

That was the plan to encapsulate the building in a balloon, and the balloon would then be filled with hydrochloric air, and then it would filtrate all through the building and get the spores with it. The only problem is, it had a high propensity for exploding, and therefore static electricity could cause it to blow up, and I am so glad that somebody told you all that before you did it, which leads me to believe that the Environmental Protection Agency does not have very much expertise on this subject, and I am not so sure that they would not admit that, but I do not think we need to have an argument about it now, I do not.

And they need it. They need experts. The problem is, somebody has got to decide which experts we are going to use. We cannot always go out there and ask all 68 institutions and/or centers of study to contribute, and they are out there.

So I am pleased that we are migrating in the direction of the Centers for Disease Control in terms of helping with some standardization, drawing some conclusions as to danger, fitting in with that, costs, and all kinds of things we are using across the land when we try to define natural background of various pollutants. This is another new pollutant of high and serious consequence.

So let me just ask, has anybody asked you, Madam Administrator, when we might get back into the Hart Building? Has that question been asked?

Senator MIKULSKI. No. That was going to be one of the wrap-ups, but you go ahead.

Senator DOMENICI. Oh, excuse me. Do you want to do it?

Senator MIKULSKI. No, sir.

Senator DOMENICI. When are we going to be back in the building, and under what circumstances?

Ms. WHITMAN. As soon as it is safe, and you know, we are starting the fumigation of the Daschle suite. Our intent is to do that this weekend. We still are on track for doing that this weekend. We are continuing at the same time to do the cleanup of those other

offices that have had lesser levels of contamination. There are a few others that we believe need to be fumigated just because of the nature of the contamination, and we want to wait until we have the results back from the Daschle suite before we move ahead with those.

We are looking to see if it is going to be possible to have a partial reoccupation of the building, but at this point in time I cannot promise you that, simply to say that we will do everything we can to get you back as soon as we can.

Senator DOMENICI. Well, you may think that is a good answer. I do not, when you say, we will let you back in as soon as it is safe.

Ms. WHITMAN. Well, actually, the determination will be the Sergeant at Arms, Senator. He will make the final determination.

Senator DOMENICI. Well, you do not even have even a guess as to whether it is going to be a month, 2 months, or 6 months?

Ms. WHITMAN. I could certainly tell you that I think it is going to be a lot shorter than 6 months or 2 months, but one of the things we have found as we have been going through this is that it changes, just as we talk about what CDC determines is a safe level has been a—there is no—there has been no standard set for biological agents. That is not something we do. That is something the CDC would do. That has not happened.

They are in the process of doing that in this instance to see what is safe, but that is changing, so as we deal with changing circumstances, as we find additional contamination from the additional testing that we are doing, then that leads to more action that needs to be taken to ensure everyone's safety.

Senator DOMENICI. Well, that is the case, and the sooner we decide what is safe means that you may, in fact, be able to put the circle around that last conclusion on your part sooner. If we do not know what the standard is yet—and it clearly is not going to be zero, as a standard. It will be something else, but it will not be zero.

Unless and until we know what it is, it would seem to me that you will wake up every day with something else to research and study, and you will not have anything to measure it against, and we will be back here wondering if the time is yet arrived, so I would urge that part of the time be dedicated and devoted to getting some answers as to how to determine when my suite and other suites is actually safe, not that we are going to find something new all the time, but what is going to be safe.

My last observation, since I have to leave, is to thank you for all the hard work. I do not know how many hundreds of people you must have on this project, but I assume you have a lot of them.

Ms. WHITMAN. I do. Senator, let me just say that the determination of whether or not people can go back into the building is going to be a health-based decision, and it will be made by the Senate Sergeant at Arms based on recommendations they receive from the Assistant Physician to the Capitol.

Senator DOMENICI. Good.

Ms. WHITMAN. Based again on the tests that we do after the cleanup, the decontamination has taken place, whether that shows—what that shows as far as the success in killing the anthrax.

Senator DOMENICI. I think that is a very positive kind of statement, and we can look to that as some kind of a point in time in any group that we can start inquiring of.

You know, we had a situation, Madam Chairperson, when we had standards set for a pollutant that you have become very familiar with, where there was real reason to have a different standard in the West than there was in the East.

Senator MIKULSKI. Yes.

Senator DOMENICI. I do not want to raise——

Senator MIKULSKI. It is another word that begins with A.

Ms. WHITMAN. Another one of those A words.

Senator DOMENICI. All the words I ever want to speak to an Environmental Protection Agency Administrator have been spoken about it, so I do not choose to do that. I choose to smile, where I really had difficulty smiling for quite some time, but now I would ask that we be understanding of the fact that there is a lot of this in the western States that is not present in the eastern States, and there are a lot of it present that is not so dangerous as we have been led to believe because of what we found here.

I think it is very, very important that we be fair, and that as a matter of not just curiosity, but real necessity for knowledge, that we do try to find out the difference between the safety, the health hazards in the West versus the East. As everybody out there will tell you, right now out in the West you surely would not want to test the cowboy boots that came in from a week's work around the corrals and around cows and what cows put on the ground.

You sure would not want to be out there for a week and come in and say, let's see if there is anthrax out here that is dangerous enough that we ought to be worried about. Nobody has been worried about it for a long, long time, but it is there, and nobody seems to have gotten sick over it, but it is there.

So I would hope that between the Administrator and you good Doctor, that you will at least keep in your mind that there is a difference, and maybe the difference is insignificant, and I am wrong, that it is the same everywhere, but I would ask that you be serious about that issue as you move through.

With that, let me just say I am very proud of the expertise that houses itself in New Mexico, and of their help to you thus far, and I believe in many ways they have been very technically sound.

Ms. WHITMAN. They are very helpful.

Senator DOMENICI. They know a lot, and they are pretty good at it, and we will continue to inquire of them, and if we think that at some point we ought to bring a few of them by to talk with you and your staff, that will be—if you are interested, we will volunteer that at some point.

Senator MIKULSKI. And Senator, we will be happy to convene anything that you would ask us to do.

Senator DOMENICI. Thank you.

Senator MIKULSKI. Either a roundtable, informal, or an official hearing. We will enjoy working with you.

Senator DOMENICI. Thank you very much. Thank you.

Senator MIKULSKI. Your expertise in energy, as a senior member of the Energy Committee, and your knowledge of truly the Federal laboratories and their role, is really very much appreciated.

Senator DOMENICI. Thank you. Thank you very much.

Senator MIKULSKI. I want to ask, I want to continue the conversation about decontamination for a few more questions, one about the Hart Building, and the other about Brentwood, because I must center on Brentwood, and then talk with you, both of you about the resources you need to do, really be able to honor the responsibility given you now, additional responsibility, actual, operational responsibility, and your role in counterterrorism.

You have had public directives before, but we are in the first war of the 21st Century, and we are all soldiers in that war, and we want to make sure that you have the resources.

But I want to go to first the Hart Building, and then continue on the decontamination issues, and then about Brentwood, because it goes to the mail in the facility. We understand that the Senate is, in many ways, the experimental site, and Brentwood will be for a manufacturing facility, because we are an office building and they essentially, and I will put it in quotes, but because it is a lot of gear and processing and so on, it functions like a factory.

Could you tell us what technologies were explored, to expunge, if you will, anthrax from the Hart Building, and how did you reach those decisions on what were the best technologies to use on the Hart Building?

Ms. WHITMAN. Senator, we looked at a number of different technologies that are out there. There were three primary ones that we decided to work with, and we had a facility set up at Brentwood, a trailer, where we used those to determine what was going to be the most effective on the type of cleanup that was required in the different rooms.

Again, as I indicated in my testimony, if you are dealing with just hard desks, metal casings, flat surfaces, then the Sandia foam is very effective and the chlorine dioxide liquid is also effective. The envirofoam is two products, an ammonia product and hydrogen peroxide, and it is a wipe-down process that is used.

What we looked for is what was going to kill the spores, and then what provided us the best ability to get into every part of it.

Senator MIKULSKI. You did all this in a trailer in Brentwood?

Ms. WHITMAN. No. We have had—I mean, there has been testing done outside of this, as far as these—nothing had been licensed prior to these events of the 14th and 15th, the letters coming in to actually deal with anthrax.

Senator MIKULSKI. Particularly anthrax, yes.

Ms. WHITMAN. And we have had to go through the emergency process actually to license the chlorine dioxide and the Sandia for this use.

As the Doctor pointed out, there are other spores that have the same characteristics as anthrax, that have been used to determine the effectiveness of these as cleanup methodologies, and they have proven their effectiveness.

The difference in the Hart building and the Daschle suite is the cubic footage that is required.

Senator MIKULSKI. That takes me to my question. First of all, what I understood is that most anthrax research in the last part of the 20th Century was done really to protect a military that could be exposed as combatants, and it was based on the military belief

that an aerial attack could occur on our military, but it would be primarily an out-of-doors event, and it would be done on a population primarily between the ages of 18 and 30 that could be immediately treated, removed from the scene, and the scene itself would be evacuated, never, ever to return. In other words, get the heck out of there.

There was no experience in the view that it could happen in the civilian sector, and also to a great office building with 10 million cubic feet, 50 Senators, 1,000 staff, as well as a postal facility that employs hundreds and even thousands of people, so my question was, did your information come from the military? Were these standard procedures that have been used in cleanup, and do we know the consequence, the long-term public health or personal health consequences of the cleanup itself?

In other words, if we go back, and one day I am sure we will, are we going to be inhaling fumes? Do we know it is out of the upholstery? What about soft surfaces? Rugs are different than hard surfaces, and I am not trying to make the job more difficult. I would like, again—is this not the magnitude that you are facing, that you have to ponder and probe?

Ms. WHITMAN. Yes, Senator, absolutely. These are the very questions that we have had to ask, and these are the questions that we are reaching out to a number, not just the labs that Senator Domenici, to which he referred. The Army, Department of Defense has done a lot of work in this. We work closely with them, Centers for Disease Control, all of our Federal partners we are very close contact with, and the private sector. We have been talking with the various companies that produce these kinds of decontaminants.

I think it is important to remember that with the chlorine dioxide, that is a substance that actually the liquid was first registered by the Environmental Protection Agency as an antimicrobial pesticide back in 1967. It is used on municipal water supplies. You see it used for washing fruits and vegetables. You are absolutely right we have never had to use it in these concentrations.

Senator MIKULSKI. We are not carrots.

Ms. WHITMAN. No, but the point is——

Senator MIKULSKI. Maybe we act like cucumbers, but—no, really——

Ms. WHITMAN. Your point is very well taken. It is used to sterilize manufacturing equipment, factory equipment, so it has been used—the foam and the spray have both been used in instances where there has been subsequent human exposure, and that subsequent human exposure has been found to be of minimal negative consequence, if any. It has been determined to be safe, which is why it is a process that we feel relatively comfortable using.

Having said that, that is why we are not letting people back in the building. We do not want people in the building when we do the fumigation, even though we are going to seal off the suite. We are just taking every precaution possible to make sure——

Senator MIKULSKI. Also to people outside the building.

Ms. WHITMAN. Yes, exactly—make sure that no one has any kind of health risk exposure that we can avoid.

Senator MIKULSKI. So that is the fumigation. Now, I am part of this kind of Daschle 13 that was in the air vent system, and traces

found among others. According to a Washington Post article you are going to use chlorine dioxide in Senator Daschle's office, but then also what you are going to do is spot clean the 10 Senators' suites. What does spot clean mean?

Ms. WHITMAN. That is using——

Senator MIKULSKI. Only the mailroom, or——

Ms. WHITMAN. That means using the chlorine dioxide liquid and the Sandia foam in those areas that showed concentrations, or gave us anthrax hits, as it were, where we found evidence of anthrax, and those offices will be cleaned. The surfaces will be wiped down.

Senator MIKULSKI. Do we know the consequence or the best things for upholstered furniture, or rugs? You see, there is a great concern among staff, and I must say I share part of it, which is that just the walking around on—we do not know what spores are on these rungs, and again you have got quite a bit of square footage. Are you going to be foaming rugs, and foaming furniture?

Ms. WHITMAN. The wipe-down is going to occur on those areas where we have found evidence of anthrax, and we have tested throughout the suites. I think it might be helpful, if it is all right with you, if I asked Rich Rupert, who is the on-scene coordinator, to perhaps walk you through the testing that we did.

Senator MIKULSKI. Well, why don't we do that, because then I am going to ask the same thing for Brentwood, and then I would like to know about——

Ms. WHITMAN. It would be the same.

Senator MIKULSKI [continuing]. The consequences that you think might occur to respiratory systems, and how we are going to do the monitoring, because you are going to continue to monitor the mail.

Would you state for the record your name and your title?

Mr. RUPERT. My name is Rich Rupert, and I am on-scene coordinator.

The approach that we are going to take——

Senator MIKULSKI. Are you an employee of FDA?

Mr. RUPERT. No, ma'am, I am sorry. I am with the Environmental Protection Agency.

Senator MIKULSKI. Okay. Go ahead.

Mr. RUPERT. In the 11—it is actually 11 suites in the Hart Building, and the approach that we are taking is, there were very localized areas where mail was handled, where we found—you might even consider residual contamination in most cases, something that was obviously cross-contamination from perhaps the Daschle letter, and in those areas we are using the Sandia foam, or the chlorine dioxide liquid, where we apply it liberally all over the area, wipe the surfaces down. Upholstered furniture will be decontaminated with it, but we are not leaving the seats that are in the immediate area there. We are taking them out. Carpet in the immediate area also will be treated with the chlorine dioxide liquid or the Sandia foam, and then that carpet in the immediate area will be taken out also.

Senator MIKULSKI. So you are going to take out carpet and furniture that you think might be fertile hidden caves for these.

Ms. WHITMAN. Yes.

Mr. RUPERT. We believe that we are going to be able to have an effective decontamination of it, but because there is some unknown, we are not taking any chances. It just does not make sense.

And I might add—I kind of skipped a step—after we find with our initial examination the anthrax detection we go in and we do an extensive amount of sampling, maybe 20 or 30 samples in a 10 by 10 foot area.

Senator MIKULSKI. Well, first of all that is a pretty rigorous undertaking in, again, 10 million cubic feet.

Let me ask, then, again, and then I will move to Brentwood, and then a resource question, you are using foam, chlorine dioxide wipes, spot cleanings. What is the science and the research and your degree of certitude related to the public health consequences of the cleanup. Let us assume that the goal is zero anthrax spores, and that you have achieved the goal. Then, at the same time, you have used these methods that have been used in other circumstances affecting people, but not quite like this.

Ms. WHITMAN. Right.

Senator MIKULSKI. What then—what is the data, or the source of the data to ensure that there will not be long-term consequences to the methodology used for decontamination on those of us who work in the Hart Building and those who work in Brentwood or other postal facilities?

Ms. WHITMAN. Do you want to respond to that, Rich?

Mr. RUPERT. You are talking about the threats from the chlorine dioxide?

Senator MIKULSKI. Yes—from anything.

Mr. RUPERT. The detection equipment that we have measures well below the levels that are recognized by NIOSH and other agencies to present a health risk.

Senator MIKULSKI. Have they ever been used in a building like this?

Mr. RUPERT. Chlorine dioxide is used for disinfection of water, drinking water, particularly out West and in Europe, it is trickled over fruits and vegetables——

Senator MIKULSKI. But I am talking about working in essentially a contained building with a rather mediocre heating and air conditioning system before the anthrax attack.

Mr. RUPERT. Yes, ma'am. On the basis of exposures that have been measured and assumed, with people taking showers in water that has been treated with chlorine dioxide, which is residual—you are breathing it when you are taking a shower.

Senator MIKULSKI. People do not live in their shower, and if they do, they belong in another kind of facility.

Mr. RUPERT. Yes, ma'am.

Senator MIKULSKI. I mean, really.

Mr. RUPERT. Yes, ma'am.

Senator MIKULSKI. I am not being picky here.

Mr. RUPERT. No, ma'am, I understand, and I am probably not answering your question properly.

Senator MIKULSKI. We are extrapolating from other circumstances, is that correct?

Mr. RUPERT. Yes.

Ms. WHITMAN. Thresholds have been established. Human safety thresholds have been established, and subsequent to the decontamination we will be going back in and measuring for the residual dioxin, chlorine dioxin as well.

Senator MIKULSKI. Will you be part of the ongoing monitoring team?

Ms. WHITMAN. Yes, until it has been determined that it is safe for you to go back in, yes.

Senator MIKULSKI. But once we go back in, who is going to be in charge of monitoring to make sure of continuing safety?

Mr. RUPERT. We will not release it until we are sure that it is safe to inhabit from the standpoint of the chlorine.

Senator MIKULSKI. I am talking about a longitudinal study. Dr. Marburger, the CIA has a long-term task force, and he has got CIA and the Army and lots of other agencies involved looking at the long-term consequences of the mail. I am worried about the long-term consequences to the mail, but I am worried about the long-term consequences of the 50 Senators, 1,000 people who work there, as well as the people who come in there.

Ms. WHITMAN. Well, Senator, I think the best answer to that is that if you want to have an ongoing monitoring system established, that can be established. What we would do would be to determine——

Senator MIKULSKI. So the Sergeant at Arms is the one to determine that.

Ms. WHITMAN. The Sergeant at Arms would be the one to work with on that.

Senator MIKULSKI. Right now you see your responsibility ending the day we walk into the door.

Ms. WHITMAN. When you go back in, when it is determined to be safe, because we will as well—besides the anthrax, and determining zero anthrax, we will be looking to ensure that there is no residual chlorine dioxide above levels that have been determined by CDC and NIOSH to be safe levels in those offices.

Senator MIKULSKI. Well, this is going to be a pretty big undertaking. I know everybody says maybe 2 weeks or whatever, but I think to achieve the standard, the goals that have been set, is going to be an ongoing challenge.

Let me go to Brentwood. Who is in charge of choosing the method of decontaminating Brentwood? Are you overseeing the Brentwood cleanup?

Ms. WHITMAN. No. We are offering advice to the Postal Service. They are making the determination there as to how to go forward.

Senator MIKULSKI. And they chose the methodologies for cleanup?

Ms. WHITMAN. Yes. They will be choosing that.

Senator MIKULSKI. But they have not yet chosen them?

Ms. WHITMAN. Nothing is happening with that facility, the building itself, I do not think at the moment.

Senator MIKULSKI. Dr. Marburger, could you fill us in on Brentwood?

Dr. MARBURGER. Yes, that is correct. However, there have been tests and fumigations of trailers, which of course are much smaller,

on the order of, at most, 50 to 60 feet long, by let us say, 10 feet wide.

Senator MIKULSKI. What about Brentwood itself?

Dr. MARBURGER. Brentwood facility itself has not yet been subject, as far as I know, to fumigation.

Ms. WHITMAN. It is closed indefinitely at this point.

Senator MIKULSKI. So Brentwood is closed indefinitely, but Mr. Potter functions the way the Sergeant at Arms functions here.

Dr. MARBURGER. Correct.

Ms. WHITMAN. Right.

Senator MIKULSKI. But then for Mr. Potter you assembled the technical advisory team for the mail. Have you assembled the technical advisory team for Mr. Potter in terms of his decontamination?

Ms. WHITMAN. We have provided the support that he has asked for, yes. We are there providing support to him, recommending different methodologies for cleanup that can be used, and we stand ready to continue in that role.

Senator MIKULSKI. And then Mr. Potter is also turning to the CDC as well.

Ms. WHITMAN. Yes.

Senator MIKULSKI. So essentially what you are doing at Hart, Potter is doing at Brentwood, but he can turn to both of you for advice and technical assistance. The decisionmaking on methodologies will be there, but again, for the standard of how clean is safe, Mr. Potter would ben turning to the CDC.

Ms. WHITMAN. That is right.

Senator MIKULSKI. Am I correct, and that there would be the ongoing testing of Brentwood and other postal facilities, but Brentwood is indefinitely closed.

Ms. WHITMAN. Yes.

Senator MIKULSKI. That is essentially the way it is working?

Ms. WHITMAN. Right, correct.

Senator MIKULSKI. Well, I know we spent a lot of time on Hart, because I think Hart in some ways is the model. Am I correct in that?

Ms. WHITMAN. It is the biggest challenge we have ever faced, yes.

Senator MIKULSKI. It is the biggest challenge, not that Brentwood is not, but that the lessons learned from us, here at the Capitol, will then be applicable for Brentwood and other, including private sector facilities.

Well, this has been illuminating in terms of what all you had to do, but this had to be very expensive from the standpoint of both finances and staff, I believe, Administrator Whitman, on the Environmental Protection Agency. I happen to believe that you have more expertise than sometimes EPA is given credit for.

Ms. WHITMAN. I think we do, Senator.

Senator MIKULSKI. And you have the availability to turn to other scientific endeavors. Could you tell me now, with your new—and also, Dr. Marburger, I believe that you will be called upon for other responsibilities, for assembling technical assistance, or even given insights and recommendations to the President on where we should be deploying some of our resources for what we are going to need from the scientific community. Could you share with us what new

jobs you think you are going to have, or new roles, and what resources do you need?

I know you are going to—quote, you want authority to recapture costs, but— and that is an excellent authority, along with the contractors. We are not disputing that.

Ms. WHITMAN. No, no. I understand.

Senator MIKULSKI. But what funding do you think EPA and OSTP need in the short term, and looking ahead to next year's budget cycle?

Ms. WHITMAN. Well, Senator, as far as the anthrax decontamination is concerned, we have spent about $7.5 million thus far, and anticipating looking to the future for all things, not just Capitol Hill, but the rest of D.C. and the rest of the country in cleanup, it could be upwards of $20 million.

There also is obviously the need, we believe, to do training and get additional equipment so that we are prepared to be able to respond to these kinds of things if they occur again in greater numbers for criminal investigation and emergency response, and again we are in the process of determining what those numbers will be, because we are learning as we go along.

Senator MIKULSKI. Is this the training of your own, of other environmental EPA staff, or is this the training you referred to with my colleagues for the private sector?

Ms. WHITMAN. It is both—both, and that could be, you know, upwards of another $55 million, but those are not hard and fast numbers at this point. We are, as I say, learning as we go along. Those are what we anticipate at this point.

Senator MIKULSKI. Well, I want to also ask the same question of Dr. Marburger. You see, I think those are valid requests. Our VA–HUD bill, which funds you for the fiscal year of 2002, has already passed, so my question is, do you need help in the supplemental?

Ms. WHITMAN. There is already, as I understand what has been done in the supplemental in the House, there has been some money set aside for the Environmental Protection Agency. Obviously, we would welcome it.

Senator MIKULSKI. I do not want to get you into trouble with OMB.

Ms. WHITMAN. Thank you, Senator.

Senator MIKULSKI. But if we gave you help——

Ms. WHITMAN. We could use it.

Senator MIKULSKI. Okay, and these are current estimates, and I will be working with the head of OMB for the President's budget, and I would really urge you in the strongest way to identify these as really needed resources, because it is in the President's budget. We could work with you and even grant a supplemental that will come in the spring.

Dr. Marburger, what about you?

Dr. MARBURGER. OSTP is a coordinating agency, and the work that we do comes from Governor Whitman's budget, so indeed the agencies have been very generous with the time and people that we have called upon to help, and those agency budgets certainly need to be sustained. So we are a small office. We still have uncommitted vacancies available to us. We are staffing up. As you know, in the transition process a number of terms expired and we have

openings that we still can fill to add our staff, and we certainly need those people.

Senator MIKULSKI. You need additional expertise?

Dr. MARBURGER. In these areas we have the ability to hire the expertise that we need for the coordination process, but we do call upon, and heavily, upon the agencies for the expertise, and that is where the money is. They have the responsibility for the programs.

Senator MIKULSKI. So that you are operating off of what we would call detailees.

Dr. MARBURGER. That is correct, detailees, and more than that, remember these expert teams are not even detailees. They are actually employees, actively working at their jobs in the agencies like EPA or FDA, USDA, and they are performing their jobs in those agencies as they help on these cross-cutting teams, so they are coming together. I would say it is part of their job responsibility within their agency to provide the service to the other agencies in a team fashion, and it works well.

Senator MIKULSKI. Well, I know that in 1994 the Office of Technology Assessment that was under the Science Advisor was disbanded, then both your predecessors, Drs. Gibbons and Lane, functioned along the lines that you have talked about. I am not interested in helping you create a new Office of Technology Assessment, though my own view is it should not ever have been disbanded. I think we could have used it, perhaps scaled down.

But as you move ahead, I really do believe that as we get more involved in our issues, in protecting our country, that the Science Advisor's role will only be enhanced, and we look forward to working with you.

We would also ask you, because we know you have the ear of the President and his top team, to really be an advocate for these agencies through the OMB process so that they are not misunderstood to look like they are building bureaucracies or empires. Really, Administrator Whitman has a big job ahead. We think of Dr. Copland at FDA—not FDA, excuse me, CDC. CDC has always had to forage for funds. They are in several out-of-date buildings that need to be renovated so that the scientists can work really with the best available technology. they need help.

So we are really going to need you to be an advocate so that we do not look like we are big spenders, but that we are wise spenders, because really I believe that it is in our scientific community that this has worked so well.

And you know, first of all I want to thank you again for all the hard work you have been doing on this, and we would like to thank your staffs and all the hours, because I know there were days and weeks when you were going 24–7, so I want to express my appreciation.

But you know, it is really an incredible country. When you listen to the agencies that were involved, where both the civilian and military community could come together, their appropriate roles constitutionally were maintained, and yet we all kind of pulled together, and in other countries the military is so suspect. Their information is so secret. There is nothing that they would share with the civilian population, and in fact they are often feared by their own civilian population.

So this is a great country, and we have got a big job ahead of us, and remember, we are all soldiers, that we serve in different platoons, so we look forward to working with you.

CONCLUSION OF HEARING

This subcommittee stands in recess, subject to the call of the Chair.

[Whereupon, at 4:49 p.m., Wednesday, November 28, the hearing was concluded, and the subcommittee was recessed, to reconvene subject to the call of the Chair.]

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