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OVERSIGHT HEARING ON CLEANUP EFFORTS AT FEDERAL FACILITIES

HEARING

BEFORE THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS UNITED STATES SENATE

ONE HUNDRED TENTH CONGRESS

SECOND SESSION

SEPTEMBER 18, 2008

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COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

ONE HUNDRED TENTH CONGRESS
SECOND SESSION

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C O N T E N T S

OVERSIGHT HEARING ON CLEANUP EFFORTS AT FEDERAL FACILITIES

THURSDAY, SEPTEMBER 18, 2008

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
Washington, DC.

The full committee met, pursuant to notice, at 10 a.m. in room 406, Dirksen Senate Office Building, Hon. Barbara Boxer (chairman of the full committee) presiding.

Present: Senators Boxer, Inhofe, Lautenberg, Craig, Cardin, Barrasso.

OPENING STATEMENT OF HON. BARBARA BOXER, U.S. SENATOR FROM THE STATE OF CALIFORNIA

Senator BOXER. The hearing will come to order.

We are here today to conduct oversight on the cleanup of toxic wastes at Federal facilities.

Federal facility sites are some of the most heavily contaminated sites in our Nation. They can be polluted with radioactive waste or dangerous chemicals such as arsenic, lead, benzine, which are known to cause cancer or harm the reproductive and nervous systems. Some Federal facilities have old, unexploded bombs or other ordnance that if not addressed could threaten human life with dangerous explosions or by slowly releasing toxins into the environment.

The men and women who are serving their Country and living on bases, and in some cases their children, can be at greatest risk. These threats are not distant or in the future. They are here today and they must be addressed. In my own State of California, there are many Federal sites with serious contamination problems. I will highlight just two of them.

The first is the Santa Susanna Federal Lab in Simi Valley, in the Los Angeles area. Since the 1950's, Federal agencies, including DOE, and private contractors, did testing of experimental nuclear reactors and rockets and processing of nuclear fuel at the site. A partial reactor meltdown occurred there in 1959. The site is contaminated with radioactive and other toxic substances that can cause cancer, endanger the health of pregnant women and infants. Cleanup activities are ongoing, but a full-site investigation has yet to be completed for all radioactive and chemical contamination.

I have worked for a long time with the community to intervene when DOE has failed to properly perform the work, which has happened over and over again. Today, we will hear from one of the

amazing leaders in the effort to ensure that this site is properly addressed.

Another California site of concern is Lawrence Livermore National Labs, the Department of Energy Superfund site in Alameda County. This site has groundwater polluted with various contaminants including TCE and perchlorate. While cleanup at this site has been conducted for some time, almost 100 wells pumped groundwater from the site to remove underground contamination, and treatment facilities continue to remove contaminants.

In March of this year, EPA raised serious concerns with DOE after a transfer of the site from one arm of DOE to another, and proceeded to shut down toxic waste treatment wells because the program to which cleanup responsibility was transferred claimed it did not have enough money to pay for all the needed cleanups. DOE finally reprogrammed money to help get the toxic waste cleanup wells at the site back on line, but DOE is planning on moving more sites into the same troubled and under-funded program next fiscal year, and I am very concerned about similar problems in the future.

Several of my colleagues requested this hearing, one of them here now, Senator Lautenberg, because unfortunately this Administration has allowed Federal facilities to resist following cleanup orders. No Federal agency is above the law. DOD and DOE facilities must abide by cleanup standards that protect communities from toxic threats, and they cannot be allowed to escape their responsibilities.

The DOD should not be able to place itself above the law by asking the White House Office of Management and Budget to tell EPA to back off. That is unacceptable in any circumstance, but especially when the health of our families are at risk. DOD, we all support it so strongly because they are our protectors, they are our protectors, and we praise them, but if they are endangering our people here at home because of toxics on their site, and they walk away from their responsibility, this is immoral and it cannot be allowed to continue.

We need to ensure that Federal facilities live up to their obligation to clean up toxic sites that they have created in our communities. I look forward to hearing from my colleagues and I look forward to hearing from all of our witnesses.

Senator Inhofe.

OPENINT STATEMENT OF HON. JAMES M. INHOFE, U.S. SENATOR FROM THE STATE OF OKLAHOMA

Senator INHOFE. Thank you, Madam Chairman.

First of all, let me say that I have to leave briefly after my opening statement to serve on an energy panel, and then I will come right back.

I believe we need to work together to have effective oversight, but I think what we are doing today is putting the cart before the horse. The result will be an incomplete and inconclusive attempt at oversight. This does not serve the American people in an effective and productive manner.

The process that this Administration has put in place from its early days has continuously followed is that if there is an inter-

agency dispute, then the two agencies need to work out their differences. This oversight hearing is attempting to circumvent the process by becoming the jury, judge and executioner, rather than letting the agencies go through the correct process to negotiate a compromise. I believe when that is done, we should hold an oversight hearing. Hearing before that resolution doesn't help the situation. It hurts it.

I know we are coming up against the end of the year and we will be leaving here, so I know we are trying to get a lot of things done. I believe the EPA has done and will continue to do a fine job of cleaning up sites on the national priorities list. Of the 1,587 final and deleted sites on the Superfund national priority list, 95 percent have undergone construction activity, have been completed, or have been deleted from the NPL.

I want to commend the Department of Defense for their cleanup efforts to date. DOD has 140 installations on the NPL, and 129 have signed Federal facilities agreements, and 11 of the installations on the NPL have not reached an agreement with EPA and do not have an FFA. Through Fiscal Year 2000, DOD has spent over $650 million on cleanup efforts at these 11 installations, which have an aggregate estimated cost in excess of $1.3 billion. As we conduct this hearing today, DOD's cleanup efforts at these sites are ongoing.

I believe that the FFA is an important part of the cleanup process. However, I do not believe that it is an accurate tool to measure the pace of progress of cleanup at the NPL sites. I say this for two reasons. First, not all of NPL sites' cleanup needs are captured by the FFA. Cleanup efforts at DOD sites without an FFA are ongoing and there are areas that require cleanup measures that are outside the FFA. Second, as we have done in DOE's situation, an FFA lacks the flexibility to address changing circumstances, so the FFA needs to be redrafted instead of amended.

The Department of Energy has done an outstanding job of cleaning up 83 of the 108 sites. All of the DOE NPL sites have their FFAs. However, most of these have been renegotiated recently due to the fact that DOE either did not request enough money originally when they signed the FFA, or they had unforeseen technical problems at the site. DOE sites are focused on the cleanup of radioactive waste and contamination generated by nuclear energy research and nuclear weapons production. DOE has been and is performing first of its kind cleanup tasks in highly hazardous working environments.

It is important to note that comparing DOE sites to DOD sites is like comparing apples to oranges. That is not to say that DOE should not be commended for their cleanup efforts and progress to date.

So I believe that there are some positive stories to tell in regards to the DOD and DOE. I believe that there is always room for improvement, but DOD and DOE have taken on larger and more costly sites and have been making positive strides. I do believe that should have waited until after these agencies have negotiated their differences with each other before getting into the oversight hearing, but perhaps there wasn't time to do that.

Thank you, and I look forward to the hearing.

[The prepared statement of Senator Inhofe follows:]

STATEMENT OF HON. JAMES M. INHOFE, U.S. SENATOR
FROM THE STATE OF OKLAHOMA

Good morning. Thank you, Chairman Boxer. Today's hearing is an oversight hearing on clean-up efforts at Federal facilities. I believe we need to work together to have effective oversight. What we are doing today is putting the cart in front of the horse and the result will be an incomplete and inconclusive attempt at oversight. This does not serve the American people in an effective and productive manner.

The process that this administration has put in place from its early days and has continuously followed is if there is an interagency dispute, then the two agencies need to work out their differences. This oversight hearing is attempting to circumvent the process by becoming the jury, judge, and executioner, rather than letting the agencies go through the correct process to negotiate a compromise. I believe when that is done then we should hold an oversight hearing. A hearing before resolution doesn't help the situation; it hurts it.

I believe that EPA has done and will continue to do a fine job of cleaning up sites on the National Priorities List. Of the 1,587 final or deleted sites on the Superfund National Priorities List (NPL), 95 percent have undergone construction activity, have been completed, or have been deleted from the NPL.

I want to commend the Department of Defense for their cleanup efforts to date. DOD has 140 installations on the NPL. 129 have signed Federal Facilities Agreements (FFA's). 11 of the installations on the NPL have not reached an agreement with EPA and do not have an FFA. Through fiscal year 2007, DOD has spent over $650 million on clean-up efforts at these 11 installations which have an aggregate estimated cost in excess of $1.3 billion. As we conduct this hearing today, DOD's clean-up efforts at these sites are ongoing.

I believe that an FFA is an important part of the clean-up process. However, I do not believe that it is an accurate tool to measure the pace or progress of clean-up at NPL sites. I say this for two reasons. First, not all of an NPL site's clean-up needs are captured by an FFA. Clean-up efforts at DOD sites without an FFA are ongoing and there are areas that require clean-up measures that are outside of an FFA. Second, as we have seen in DOE's situation, an FFA lacks the flexibility to address changing circumstances. So FFA's need to be redrafted instead of amended.

The Department of Energy has done an outstanding job of cleaning up 83 of their 108 sites. All of the DOE NPL sites have FFA's. However, most of these have been renegotiated recently due to the fact that DOE either did not request enough money originally when they signed the FFA's, or they had unforeseen technical problems at the site. DOE sites are focused on the clean-up of radioactive waste and contamination generated by nuclear energy research and nuclear weapons production. DOE has been and is performing first-of-a-kind clean-up tasks in highly hazardous work environments. It is important to note that comparing DOE sites to DOD sites is like comparing apples to oranges. That's not to say that DOE should not be commended for their clean-up efforts and progress to date.

I believe that there are some positive stories to tell in regards to DOD and DOE. I believe that there is always room for improvement, but DOD and DOE have taken on larger and more costly sites and have been making positive strides. I do believe that we should have waited until after these agencies have negotiated their differences to have an oversight hearing on this topic. I also believe that using FFA's to measure clean-up progress and pace is inaccurate.

I look forward to hearing from our witnesses.

Senator BOXER. Thank you, Senator.

Senator Lautenberg.

OPENING STATEMENT OF HON. FRANK R. LAUTENBERG, U.S. SENATOR FROM THE STATE OF NEW JERSEY

Senator LAUTENBERG. Thank you for calling this hearing. We are looking at a serious problem that exists throughout the Country and particularly in our State. We have a site——

Senator BOXER.

[Remarks made off microphone.]

Senator LAUTENBERG. Unfortunately, yes. Thank you.

Anyway, Madam Chairman, we thank you very much for calling this hearing. There has been considerable neglect on the part of the Defense Department in dealing with this issue. Frankly, I am disappointed that it was necessary to call this hearing, but it is necessary. The EPA issued an order to the Pentagon, cleanup the Superfund sites where the Defense Department's work put people and the environment in jeopardy.

Now, I am concerned about the risks that are posed. The EPA was forced to take action after the Pentagon refused to take this action to reach an agreement between the agencies on a cleanup plan.

Now, one of the Superfund sites, McGuire Air Force Base, is in my State of New Jersey. Instead of making an actual commitment to clean up the chemicals that are found throughout the base, the Defense Department has refused to do what EPA ordered. Now, I am concerned about the risks that it could pose for employees and military personnel at Fort McGuire and New Jersey's nearby communities. In fact, EPA has found several pollutants which, I quote, "present an imminent and substantial danger to the public health or welfare at these sites."

At McGuire Air Force Base, for instance, the ground and water have been found to contain pesticides, volatile compounds of petroleum and jet fuel. TCE has also been found on the site. When TCE seeps into drinking water, it can cause cancer, according to the National Academy of Sciences.

While the Pentagon claims that it will cleanup the site, but on its own time line, we know the Pentagon is not doing enough. Even the EPA was quick to realize the Pentagon's voluntary cleanup was simply a delaying tactic. We know that these are not new problems that require more study and more discussions. The Pentagon has known about these problems for more than 20 years. These sites have been listed as Superfund sites for almost 10 years.

I remind you that out of 1,255 Superfund sites across the Country, that 129, 10 percent, are on DOD property. As soon as the news broke of the Pentagon's defiance, Senator Menendez, my colleagues Senators Mikulski, Cardin and Nelson and I demanded answers from the DOD, but we haven't received adequate response to our questions.

We are also working with the GAO to investigate the Pentagon's lack of action. But what concerns me more is the Pentagon's attitude, that it should be above the laws that protect the health and well-being of Americans. Now, think about it. Last night, we passed authorization for the Pentagon for $612 billion, more than a half-trillion dollars. Not to be able to accelerate the pace of cleanup when in fact the Pentagon's existence is to protect the health and well being of our citizens, and we are willing to do it in places far afield, places that put people in harm's way.

We ought to think about the people who live near these bases or the people who occupy these bases as part of their responsibilities. We think that their well being ought to be considered.

So we are working with GAO to review the Pentagon's lack of action. It is just not right to put the communities that surround these military bases at risk by ignoring longstanding environmental laws. The Pentagon needs to answer for its actions, and when we

talk about actions that bring about a solution in 25 years, that is not very comforting, I can tell you.

Thank you, Madam Chairman.

Senator BOXER. Senator Lautenberg, thank you.

Senator Barrasso.

OPENING STATEMENT OF HON. JOHN BARRASSO, U.S. SENATOR FROM THE STATE OF WYOMING

Senator BARRASSO. Thank you, Madam Chairman.

We all support environmental restoration of Federal facilities. We support protecting our communities from harmful toxic chemicals and other pollutants. Some have been expressing concern about the pace of the cleanup at the Department of Defense facilities and the lack of a Federal facility agreement, an FFA, with the Environmental Protection Agency on 11 sites. Well, the men and women of the armed forces are the people who protect us from harm. They do it protecting us from harm overseas and they also protect us from harm here at home. They have taken an oath to protect us and the facts bear this out.

The Department of Defense has done a commendable job in cleaning up their sites. According to the nonpartisan congressional Research Service, 69 percent of all of the Department of Defense sites have completed response actions. Certainly, more needs to be done, but these reports show that the Department of Defense is proceeding at a good pace and continues to clean up sites despite Federal facility agreements, FFAs, not being put into place.

The fact is that the FFAs are not good indicators that a site is being cleaned up at all. Our goal should be completing the cleanups, not completing bureaucratic agreements. The Department of Energy has Federal facility agreements, FFAs, in place at all of their sites. However, the nonpartisan CRS states that the completion of an agreement alone is not necessarily an indicator of cleanup progress. Agreements have been revised multiple times as assumptions about the feasibility of cleanup actions changes over time, resulting in repeated extensions of regulatory deadlines.

So to tell families with children across America that they are protected because a Federal agreement is in place is just giving them a false sense of security. That puts people's lives at risk and that puts people's children's lives at risk. The best way we can give our communities the security they deserve is to clean up Federal facilities. I felt it was necessary to have the bipartisan congressional Research Service look at the numbers across the Department of Defense and see what the facts are with the progress of cleanups. The nonpartisan CRS study states in a recent memo that the absence of a final agreement for an entire installation does not preclude individual cleanup activities from proceeding at discrete sites within the boundary of that installation, and those cleanups have taken place.

Cleanup is proceeding at all the 11 facilities that do not yet have an FFA in place. Some have proceeded at a relatively advanced stage. Over 51 percent of the sites on these 11 locations already have cleanup responses in place, despite no Federal facility agreement yet in place. Eight of the 11 locations are over 60 percent completed, factoring in the sites where no cleanup response is

needed. About 70 percent of the current inventory of contaminated sites at Department of Defense is complete and the money already spent on this is $28 billion.

Finally, there are those who want to draw a comparison between the Department of Energy and the Department of Defense in their cleanup success rates by stating that the Department of Defense has not signed off on all of their Federal facility agreements, but the Department of Energy has. Whether intended or not, this comparison implies that our men and women in uniform are shirking their cleanup duties. Comparing Department of Defense's cleanup to the Department of Energy's cleanup is comparing apples to oranges. The nonpartisan CRS study states that "the technical challenges in cleanup of their respective facilities are quite different, making the efforts of the each department not well suited for comparison."

Further, the congressional Research Service states that comparing the Department of Energy's signing all of their Federal facility agreements is not necessarily a measure of cleanup progress. For example, CRS states that the Department of Defense must cleanup former facilities over which it no longer has jurisdiction, requiring coordination with the current property owners just to gain access to the land. The Department of Energy still has jurisdiction over all of its facilities and does not face a similar problem. The Department of Defense facilities contain mostly non-radioactive waste. The Department of Energy contains wastes that are radiologic in nature.

What families in Wyoming and the rest of the Country need to know is that the sites are being cleaned up. They do not need political posturing. They don't need interagency squabbles. They don't need bureaucratic red tape agreements, and they don't need false hope. Let's bring the facts to the table.

Thank you, Madam Chairman.

Senator BOXER. Thank you. Of course, that is what we want to do.

I wanted to send a message to America's children: 69 percent is not a good grade. It is a D-minus. So it is all in the eye of the beholder.

Before I call on Senator Craig for his opening statement, and then we will get right to the panel, I want to ask unanimous consent to enter into the record a report by the Environmental Council of the States on DOD's actions to restrict State enforcement; two, documents describing instances of DOD threatening to retaliate when State's seek to enforce public health and environmental safeguards; three, a description of threats at Superfund sites where EPA has issued DOD cleanup orders; four, a list of DOD Federal facilities Superfund sites that do not have Federal facility agreements; and five, a National Governors Association policy position on Federal facilities.

Without objection.

[The referenced documents were not received at time of print.]

Senator BOXER. Senator Craig.

OPENING STATEMENT OF HON. LARRY E. CRAIG, U.S. SENATOR FROM THE STATE OF IDAHO

Senator CRAIG. Well, thank you very much, Madam Chair. I will be brief.

I do not have prepared opening remarks, but I do want to react to my experiences over the last 28 years in dealing with one of the Nation's largest Superfund sites, the Coeur d'Alene mining district in North Idaho that had a legacy of substantial lead and lead materials as a result of old smelting that had gone on there for a near-century. Second, we have a national DOE laboratory in our State that has buried waste, most of it light radioactive transuranic waste, but still critically important to Idaho and to DOE because, Madam Chair, it was positioned over a very active and major aquifer for Idaho and one of Idaho's primary water sources. The method by which it was put in the ground based on the technologies we know today certainly demanded that it be exhumed and treated appropriately.

Having said that, what I have found in this period of time I think are two very important keys that I hope this Congress will attempt to implement and become involved in in the future, and that is with the States in which these problems exist or where they reside. Tragically enough, when you approach a cleanup in an adversarial way, when DOE comes in with muscles flexing or another agency comes in with muscles flexing, and they go after private sector or State interests, it becomes very adversarial and very litigious. Years and years and money and money is spent in a way that is, in my opinion, phenomenally nonproductive.

Yes, there are winners and losers, and certainly the bad guys need to be found. But we also have had a significant change in public policy and public attitude over the last 30 years, and legacy wastes today which were once innocently placed, as we know, are now substantial problems. And we have to be honest and fair about it, and we ought to be realistic.

In Idaho to resolve the Superfund site in the Coeur d'Alene basin that had gone on and on and on, and had cost hundreds of millions of dollars, I and the Idaho delegation insisted that we bring this to some degree of finality and understanding. I am very fearful, and I saw it happening. In fact, one time there was an EPA person on the ground who joked, if I can keep this going long enough, I can stay in this beautiful area of Idaho and put my kids through college. Now, while that was not intended, that was the expression.

We developed a cooperative relationship between the environmental agencies of our State and EPA, and we began a process of State and Federal cooperation that brought this to conclusion, and is bringing it to conclusion. We feel the cleanup has gone on very well. We think it can be completed and will be completed. Why should a cleanup take 30 years or 20 years? Who loses? Attorneys don't lose. Taxpayers lose. Some companies may lose. The State may lose, but the citizens of the area are oftentimes the dramatic losers.

The blight, the economic blight that was placed over this beautiful region of Idaho is largely being lifted today because we brought it to conclusion. We changed an adversarial relationship into a cooperative relationship and it worked. Down at our labora-

tory where the wastes were as I have expressed them, we brought Idaho into the picture. Idaho and DOE became cooperating agencies setting the milestones, making those milestones, and completing the process, and it moves very, very well today, to the great satisfaction of nearly all of the critics.

Change the adversarial relationship where at all possible and create cooperative entities. There are dual roles to be played here. When you have the satisfaction of State agencies looking over the shoulder of Federal agencies, in my opinion, Madam Chair, you oftentimes gain the confidence of the public who thinks that in the end, if all are watching everything, that the job gets done right.

But we do have these legacy problems, whether they are DOD, whether they are DOE, or whether they are industrial in character, and the name of the game for so long has been turn it to the attorneys and you will solve the problem. No, you waste a hell of a lot of money and the problems simply go on year after year after year, and the citizen is the loser.

Thank you for holding this hearing.

Senator BOXER. Thank you so much.

And you know, it is worth noting that there is a lot of litigation surrounding that site. Many times, courts rule that the U.S. was right and that the private sector, the polluters, had to come to the table. It is unfortunate, you are so right, that we sometimes have to do that, but eventually I think right does prevail. I mean, the easiest thing is for us to all say, well, let's just have taxpayers cleanup the mess. But you know what?

Senator CRAIG. Oh, no.

Senator BOXER. Most of us believe polluters pay.

Senator CRAIG. Well, they should, Madam Chair. That was not my point. My point was if we had started in a cooperative environment earlier instead of muscling in an adversarial relationship, 10 years ago it would have been cleaned up.

Senator BOXER. Of course. Unfortunately, there are parties, sometimes the Government, sometimes the private sector, sometimes the States, we don't know, who don't want to cooperate for one reason or another and it drags on. And you are so right. If we could do one thing in this Committee, it would be to say let's have everyone sit down and do the right thing. You are so right. Then we wouldn't be here today.

Unfortunately in my State, I can't tell so many pretty stories, so that is the purpose of the hearing, to focus on moments when this doesn't happen.

Senator CRAIG. Thank you.

Senator BOXER. So it is my pleasure to introduce our first panel. We will start off with Susan Bodine, Assistant Administrator, Office of Solid Waste and Emergency Response. We will start with you and then we will move to our other witnesses.

STATEMENT OF SUSAN BODINE, ASSISTANT ADMINISTRATOR, OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, U.S. ENVIRONMENTAL PROTECTION AGENCY

Ms. BODINE. Thank you, Madam Chair and members of the Committee. I am Susan Parker Bodine, Assistant Administrator for EPA's Office of Solid Waste and Emergency Response. I would like

to thank you for inviting me here today to talk about EPA's role in the cleanup and restoration of contaminated Federal facilities under CERCLA, the Comprehensive Environmental Response, Compensation and Liability Act.

I am going to summarize my testimony, and I ask that my entire statement be put in the record.

Senator BOXER. Without objection, so ordered.

Ms. BODINE. EPA leads the Federal effort to reduce risks posed by contaminated property and takes other activities to protect human health and the environment and allow land to be returned to beneficial use. That is true at private sites. It is also true at Federal facilities. In fact, at Federal facilities across the country, EPA's Federal Facilities Program has helped other Federal agencies return over 325,000 acres of land to beneficial use; we have taken action to help make that property available for its anticipated use.

The statute sets up a unique relationship for Federal facilities. This is CERCLA section 120. It provides the framework for identifying contaminated sites that might pose risk to human health and the environment, and then assuring the cleanup and the other actions that need to be taken to protect human health and the environment.

There are some provisions in there that apply to Federal facilities only. One of those is the requirement that EPA and agencies enter into an interagency agreement, which we commonly refer to as an FFA. In fact, I want to point out that Senator Craig's remarks were a very compelling argument for why FFAs are so important. They in fact bring all the parties to the table. Typically, States also sign them. And when you have all of the entities at the table, you get cooperation, so you get the cleanup in a comprehensive and often expedited way.

Federal facilities are charged with cleaning up the contamination that they cause. Trust Fund money is not available for cleanup of Federal facilities. Under the Executive Order 12580, Federal agencies are the lead agency for carrying out many CERCLA responsibilities at their own facilities, but at Federal facilities listed on the NPL, EPA by statute is given the final decision authority over cleanup.

Specifically, section 120(e)(4) says that the Administrator and the head of the other Federal agency pick the remedy, but in the case of a dispute, the Agency, the EPA Administrator, is the final decisionmaker.

So this sets up a situation where Federal agencies and EPA are partners, but ultimately Federal agencies are also regulated entities under the statute, under this 120 framework. It is a shared responsibility for implementation of the program. In many cases, in the majority of cases, that has worked very well. In fact, at the field level, the staff relationships are strong and the points that have been made about progress are right. We have made tremendous progress working cooperatively. There are 172 Federal sites that are listed on the NPL; 81 percent of these are DOD component sites. All but 11 have signed Federal facility agreements in place, which of course is required under section 120 of CERCLA.

As I said, Federal facility agreements provide a framework to ensure that there is proper oversight by EPA and in many instances

the States sign, so you have everybody at the table in a cooperative way. But they are enforceable agreements, and that is important because we do treat Federal agencies under the statute the same as we treat private parties. So you need an enforceable mechanism to ensure that the cleanup happens.

Again, this is what the statute calls for, but it has also proven very effective at sites across the Country to ensure cleanups take place that protect human health and the environment.

I know statements have been made about progress. I want to reiterate that. Again, we have made tremendous progress. Most of these sites are under Federal facility agreements. Federal agencies are on pace across the board to reach construction completion at about 50 percent of the sites. Within these frameworks, we can work cooperatively and try and accelerate the process. We are also working cooperatively with DOD to develop tools to assist field staff in assessment, for example, reducing risks related to munitions. We are working with DOD to increase State involvement. In fact, we have a cooperative agreement with ECOS to re-start the Federal and State dialog with DOD on munitions issues.

Again, I think the track record here is that when there is a framework, and what the statute requires is the FFA, an enforceable framework, that brings everyone to the table, then that is where you get success and that is where you are able to ensure that the cleanup is in fact going to be protective over the long term.

I know that I have gone a little bit over time. I apologize, Madam Chair. I would be pleased to answer any questions.

[The prepared statement of Ms. Bodine follows:]

TESTIMONY OF
SUSAN PARKER BODINE
ASSISTANT ADMINISTRATOR
OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE
U.S. ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE COMMITTEE ON
ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE

SEPTEMBER 18, 2008

Madam Chairwoman and members of the Committee, I am Susan Parker Bodine, Assistant Administrator for the Office of Solid Waste and Emergency Response at the U.S. Environmental Protection Agency. Thank you for inviting me to appear today to discuss EPA's role in the cleanup and restoration of contaminated federal facilities under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

CLEAN UP PROGRESS UNDER CERCLA

Protection and restoration of our land is an important component in EPA's mission to protect human health and the environment. EPA leads the federal effort to reduce risks posed by contaminated land, undertaking cleanup and other activities that allow land to be returned to beneficial use. Since the enactment of CERCLA (or "Superfund"), EPA and federal agencies, as well as States and Tribes, have made significant progress toward this goal. Under the Superfund program, EPA and its state and Tribal partners have assessed 47,820 sites; the removal program has conducted 10,046 removals at 7,273 sites; and 1,650 sites

have either been proposed to, listed on, or deleted from the Superfund National Priorities List (NPL). Of the 1,587 final or deleted sites, 95 percent have undergone construction activity, have been completed, or have been deleted from the NPL.

FEDERAL FACILITY CLEANUP AND REUSE

CERCLA Section 120 provides a framework for identifying contaminated federal facility sites, assessing actual or potential environmental risks from these sites, and assuring cleanup and other actions to protect human health and the environment. Under CERCLA, EPA and its federal and state partners address releases of hazardous substances that may or do pose current or future threats to human health and the environment. The federal facility restoration and reuse program is an important component of the broader Superfund program. Under CERCLA Section 120, federal facilities are required to comply with CERCLA in the same manner, both substantively and procedurally, as private entities.

Section 120 includes some unique provisions and timetables that apply to federal facilities only, including creation by EPA of the federal agency hazardous waste docket, completion of a preliminary assessment/site investigation by a federal facility after docket listing, commencement of a remedial investigation/feasibility study by a federal facility within 6 months of listing on the NPL, and the requirement that EPA and the federal facility enter into an

Interagency Agreement (commonly referred to as a "Federal Facility Agreement", or FFA at NPL sites.) Also, special provisions govern the transfer of federal property to private entities. Finally, CERCLA restricts the use of Superfund Trust Fund monies at federal facilities.

Instead, federal departments and agencies pay for the cleanup of facilities under their jurisdiction, custody or control. Under Executive Order 12580, federal agencies are designated as the "lead agency" for carrying out many CERCLA statutory requirements at their facilities. However, EPA retains the final decision authority over selection of a remedial action at sites listed on the NPL. CERCLA Section 120(e)(4) specifies that an IAG must include the review of alternative remedial actions, with the selection of remedial action by the head of the federal agency *and* EPA. The Administrator of EPA makes the final selection of the remedial action if an agreement is not reached. Thus, in some respects, DoD, DOE, and other federal agencies are EPA's partners - - as well as regulated entities - - under the CERCLA framework. At federal facilities, unlike non-federal Superfund sites, the federal agencies responsible for cleanup generally write Records of Decision (RODs), with EPA review and concurrence. In addition, federal agencies assume the lead responsibility for carrying out NPL 5 year reviews to determine if the remedy remains protective at federal facility sites, again with EPA review and concurrence.

The shared responsibility for program implementation under CERCLA has

posed unique challenges for EPA and other federal agencies, but has generally worked effectively. At most federal facility NPL sites, field staff relationships are strong, and the program has made significant progress since the 1990s. Currently there are 172 final and deleted federal sites listed on the NPL. Approximately 81% of these are DoD Component sites, and all but 11 of those military facilities have in place signed Federal Facility Agreements, as required by CERCLA Section 120. The FFAs negotiated with DoD, DOE and other agencies are enforceable agreements, that govern the cleanup at Federal Superfund sites, and are comparable to consent decrees which govern cleanups at private sites. FFAs often include a state as a signatory, and provide a formal mechanism for state involvement in the remedial action. Tribal governments also are often involved in the cleanup process and participate in the decision making process.

PROGRESS THROUGH EFFECTIVE PARTNERSHIPS

The CERCLA process and FFAs have worked effectively for ensuring appropriate oversight of clean ups for more than 20 years, with a proven track record for achieving consistent, protective cleanup results at the nation's federal facility NPL sites. FFA's provide a consistent framework for EPA and federal agencies to cooperate in the field. Moreover, because states are often parties to the agreements, the FFA provides the opportunity for states and EPA to work together to help ensure NPL cleanups meet statutory requirements. Further, FFA's help ensure that EPA and state regulators avoid duplicative or inconsistent directions at

federal facility sites. Finally, FFA's provide the flexibility for innovative and accelerated cleanup approaches. For example, at Fort Ord and McClellan Air Force Base in California, effective team work and innovation resulted in the nation's first privatized cleanup agreements for federal facility NPL sites. At Dover Air Force Base in Delaware, accelerated cleanup saved $1.5 million in staff time, and construction completion was reached in 2006. At Rocky Flats, cleanup was completed in 10 years and saved the federal government more than $500 million. At Alameda Naval Air Station, innovative technologies and expedited cleanup actions paved the way for 100 percent leasing of available buildings, new housing, and the creation of hundreds of jobs. Last year, the Air Force highlighted the role of EPA and the State of California when announcing the final transfer of the former Castle Air Force Base property to private ownership. This year we anticipate achieving two construction completions at the Joliet Army Ammunition Plant near Joliet, Illinois.

Overall, in the last five years alone, construction completion has been reached at 22 federal sites, including 14 DoD sites and 6 DOE sites. Since the Superfund program's inception, construction completion has been reached at 59 of the 172 federal sites on the NPL, including 46 (out of 140) military sites, and 8 (out of 21) DOE sites. Federal agencies are on pace to achieve construction completion at 50 percent of federal NPL sites within the next three to four years.

BASE REALIGNMENT AND CLOSURE ACT (BRAC) SITES

EPA also works in close partnership with DoD to address contamination on properties slated for transfer and conversion to other purposes under the Base Realignment and Closure Act (BRAC). Early this year I signed a Memorandum of Understanding (MOU) with DoD that addresses how EPA intends to support the military's cleanup and transfer of property under the BRAC program for the next three years. The MOU provides a mechanism for DoD to provide funding to EPA to support accelerated environmental restoration and cleanup decisions in support of reuse at selected DoD BRAC installations. On an annual basis, DoD provides approximately $7 million to EPA to provide environmental review, personnel, and other technical support to assure that BRAC properties are environmentally acceptable for transfer, while protecting human health and the environment. Between 40 to 50 EPA full time equivalent employees (FTE) are supporting DoD's BRAC program, and EPA has been involved at 107 BRAC installations associated with the first four BRAC rounds.

RECENT INITIATIVES

EPA is engaging with other federal departments and agencies on a range of activities to maintain and accelerate cleanup progress at federal facilities. EPA is working with DOE to formulate funding priorities for future cleanup activities affecting cleanup at DOE's NPL sites. We are working collaboratively with DoD

on tools to assist field staff in assessing alternative risk reduction options at munitions sites, improving site level data quality, and resolving technical issues associated with emerging contaminants. We have also initiated a project to harmonize EPA and DoD internal progress measures and GPRA goals with the aim of better measuring and reporting cleanup progress. Finally, I just announced funding for a cooperative agreement with the Environmental Council of the States to lead a federal-state dialogue, including DoD, on munitions response issues, and to foster state research on tools and practices to address munitions. These new initiatives build upon a range of longstanding partnerships for exchanging information and training on remediation technologies, monitoring and chemical testing methods, and data quality practices.

CONCLUSION

I appreciate the Committee's interest in the cleanup of NPL federal facility sites. In partnership with other federal departments and agencies, States, Tribes and local communities, we will continue our efforts to help ensure the cleanup of contaminated federal facility sites to protect human health and the environment.

Senator BOXER. Thank you very much.

Wayne Arny, Deputy Under Secretary of Defense for Installation and Environment, United States Department of Defense, welcome, sir.

STATEMENT OF WAYNE ARNY, DEPUTY UNDER SECRETARY OF DEFENSE FOR INSTALLATION AND ENVIRONMENT, U.S. DEPARTMENT OF DEFENSE

Mr. ARNY. Thank you, ma'am.

Madam Chair, Senator Inhofe, distinguished members of the Committee, I am honored to appear before you today to address your interest and concerns. I also have behind me representatives of our environmental restoration and compliance team from OSD, and the Navy, the Army, the Air Force, and of course the Navy representing the Marine Corps.

With your permission, I will submit my written remarks for the record and make an oral statement.

Senator BOXER. Without objection.

Mr. ARNY. DOD has been conducting environmental cleanup efforts formally for more than 22 years. In that time, we have spent $28 billion at approximately 31,000 cleanup sites located on more than 1,600 active facilities, 200 BRAC facilities, and almost 10,000 formerly used defense sites. We conduct environmental cleanup activities at these sites with the cooperation and assistance of Federal and State agencies, and with the involvement of and input from the public.

The cleanup process reflects the requirements of CERCLA to include CERCLA's implementing regulations, the NCP, and the DERP. EPA and State regulators are fully involved in cleanup investigations and remedy selection at our facilities at every step along the way. Annually, the department spends almost $2 billion in investigation and cleanup activities. We assess our performance by measuring progress in protecting human health and the environment, reducing risk to acceptable levels, and achieving remedy in place and response complete.

We accomplish this while balancing our responsibility to be good stewards of the taxpayers' dollars. Of DOD's 31,000 cleanup sites on roughly 4,600 facilities, only 140 facilities are currently listed on the NPL. This represents 3 percent of our facilities, but they account for almost 50 percent of our annual expenditures. We manage our restoration program by prioritizing our efforts and resources on the most critical sites first, regardless of whether a site is on the NPL or not.

At the local level, EPA and/or the State regulators are involved in our site selections and cleanup investigations, and they actively participate in remedy selection. DOD and EPA jointly select remedial actions with DOD facilities on the NPL, and by law, EPA makes the final selection if there is a disagreement between the two of us.

We also actively seek State acceptance of the proposed remedy. The best measure of a successful program is achieving remedy in place or completing cleanup, or as we call it, response complete. As a result of our efforts, by the end of 2007, 69 percent of all out sites have achieved their cleanup objectives and are at response com-

plete, and another 9 percent have remedy in place and approaching response complete for 78 percent. All of these sites are protective of human health and environment.

The department will continue its longstanding commitment to perform environmental restoration at our facilities. We will continue our cleanup efforts using the statutory and regulatory cleanup framework provided by Congress and pushed forward with implementing final remedies in coordination with our regulatory partners. Be assured the safety and health of our uniformed men and women, their families, and the surrounding community is of the utmost importance to DOD. For me, this is also personal. I spent 17 years on active duty and 13 years in the Reserves as a Navy fighter pilot, and both my sons are Naval aviators in fighters who fly from and live on military bases. Because of my older son—we won't discuss my younger son—I have three beautiful grandchildren who live on-base at Naval Air Station Lemoore, California.

Not only am I and all of the staff in DOD and the services concerned about the welfare of all our service members and their dependents, but as citizens we are equally concerned about the health and welfare of our fellow citizens and the environment. We especially understand the risks better than the people we serve. We take the responsibility extremely seriously to ensure that the department provides a safe and healthy environment for all our military families and our surrounding neighbors.

Last, Madam Chair and Senator Inhofe, I encourage you and your fellow Senators, or any of your staffs, to please tour any of our facilities across the Nation. We would be happy for you to meet the dedicated environmental personnel who oversee this great enterprise and see personally what they are doing not only to clean up all of facilities, but also to ensure that our ongoing activities are conducted in an environmentally sensitive and responsible manner.

Thank you again, Madam Chair, members. I am pleased to answer your questions.

[The prepared statement of Mr. Arny follows:]

HOLD UNTIL RELEASED

BY THE COMMITTEE

STATEMENT OF

MR. WAYNE ARNY

DEPUTY UNDER SECRETARY OF DEFENSE

(INSTALLATIONS AND ENVIRONMENT)

BEFORE THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

OF THE UNITED STATES SENATE

SEPTEMBER 18, 2008

INTRODUCTION

DoD has been formally conducting environmental restoration for more than 22 years. Since 1986, when Congress established the Defense Environmental Restoration Program (DERP), DoD has invested over $28 billion on environmental restoration at over 31,000 sites located on more than 1,600 active facilities, 200 Base Realignment and Closure (BRAC) facilities, and 9,900 Formerly Used Defense Sites (FUDS) properties. As of the end of fiscal year 2007, over 21,600 sites, sixty-nine percent, have met their cleanup objectives and are response complete.

DoD conducts environmental restoration at these sites with the cooperation and assistance of other Federal agencies, State and Tribal governments, and the public. The cleanup process reflects the requirements of DERP, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and CERCLA's implementing regulation, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP).

DoD is proud of the cleanup progress to date, and remains committed to completing environmental restoration.

PROGRAM OVERVIEW

The Cleanup Process

The Department's environmental restoration program follows the long-established and well-documented process for conducting environmental restoration under CERCLA and the NCP, as shown in the figure below. While some phases may overlap or occur concurrently, environmental activities at DoD sites are generally conducted in the order shown. In addition, actions in the DERP comply with Resource Conservation and Recovery Act and other legal requirements, DoD regulations such as the Restoration Advisory Board (RAB) regulations (32 CFR Part 202), and DoD Directives, Instructions, policies, and guidance.

Environmental restoration begins with identification of a site where release of contamination posing a known or potential hazard to human health or the environment may have occurred.

In the second phase, called the preliminary assessment and site inspection, basic information about the site is collected, such as determining if there has been a release of hazardous substances, pollutants, and contaminants, identification of populations and environmental

receptors potentially affected by the release, and a determination of whether further action is warranted.

For those sites requiring further action, DoD applies either a relative-risk or a prioritization protocol to assign a relative priority for action at each site. The Department's fundamental premise in site prioritization is "worst first," meaning that sites with a potential for greater hazard to human health or the environment are addressed before sites posing a lesser hazard. Combining information on site conditions, the relative priority, and information on other issues such as community redevelopment needs at BRAC facilities and input from Federal and state regulators and the community, DoD determines the sequence in which sites will be worked. In general, as DoD finishes addressing the highest relative-risk sites, funding will shift to medium relative-risk sites, and then to the lowest relative-risk sites. Using the information from the PA/SI, the Environmental Protection Agency (EPA) may also evaluate the facility for inclusion on the CERCLA's National Priorities List (NPL) (40 CFR Part 300, Appendix B).

For sites warranting further action, a detailed investigation under CERCLA is performed. This process includes assessing the nature and extent of contamination, performing a baseline risk assessment, and evaluating various alternatives for restoration of the site. Thereafter, a Record of Decision (ROD) presents the formal selection of a remedial action that ensures protection of human health and the environment.

After a cleanup decision has been made, sites move to the design, construction, and operation of the selected remedial alternative. Once the remedy construction is complete, the site achieves remedy-in-place. Depending on the complexity of the site, the remedy may operate for an extended period of time. When the remedy achieves the remedial action objectives laid out in the cleanup decision document, the site achieves response complete.

The final portion of the restoration process involves long-term management (LTM), typically at those sites where the remedy does not allow for unrestricted use and unrestricted exposure. This phase, which includes environmental monitoring, maintenance of a remedial action, 5-year reviews and/or land use control maintenance, continues until the site is deleted from the NPL (if listed) and/or formally closed.

PERFORMANCE MEASUREMENT

To measure and manage progress, DoD developed a comprehensive set of program goals and performance metrics. DoD works to achieve these goals by leveraging regulatory partnerships and developing aggressive, detailed plans to ensure the required resources are available to support restoration efforts.

When assessing DERP performance, DoD examines progress-to-date against goals. The most important goals are protecting human health and the environment, reducing risk to acceptable levels, and achieving remedy-in-place and response complete. The evaluation of cost-to-complete (CTC) estimates provides a means to evaluate program planning and the veracity of those estimates.

PROGRAM STATUS

The DERP is a large, complex national program with over 31,000 environmental restoration sites spread across 30 million acres that are presently or were under DoD control. For example, the former Lowry Bombing Range covers approximately 92 square miles (approximately 60,000 acres). The DERP also reflects the need to address the consequences of actions as far back as the Civil War. For example, the 661-acre Spring Valley Site, in Washington, D.C. involves responses to address sites where munitions and other materials were used or disposed of between 1916 and 1920.

As of the end of fiscal year 2007, there are 31,487 sites located on 4,624 DoD properties, with less than thirty percent of these sites listed on the NPL. The status of these sites is depicted in the chart below. As you can see, this is a mature program, as sixty-nine percent of the sites have met their cleanup objectives and are response complete. An additional 9 percent have a remedy in place, continue to operate remedial systems, and are approaching response complete. Thus the

remedy is in place or the response is complete at seventy-eight percent of DoD's currently known sites.

	Total	NPL	Non-NPL
Total Facilities/Properties	4,624	140	4,484
Total Sites	31,487	8,736	22,751
Sites Remedy-in-Place	2,796 (9%)	1,517	1,279
Sites Response Complete	21,635 (69%)	5,287	16,348

FUNDING

Since 1986, DoD has expended about $28 billion on restoration efforts. This funding is provided from a variety of sources, including the Component Environmental Restoration (ER) accounts established by statute under 10 USC § 2703 and various appropriations related to the BRAC rounds. The CTC as of the end of fiscal year 2007 was approximately $12.2 billion for active facilities, $3.9 billion for BRAC facilities, and $16.3 billion for FUDS properties.

For the last 8 years, average annual DoD expenditures on environmental restoration have been about $2 billion. For example, in fiscal year 2007, the Components obligated approximately $1.1 billion at active facilities, $492.7 million at BRAC facilities, and $262.8 million at FUDS properties, for environmental restoration activities. The Department invests the largest portion of annual funding on higher relative-risk sites, continuing its commitment to implement remedies at all of these sites as soon as possible. The majority of the funding was used for actual cleanup activities, with lesser amounts used to complete site investigations, LTM, and program management.

REGULATORY AGENCY INVOLVEMENT

DoD conducts its environmental restoration program in coordination with the U.S. Environmental Protection Agency (EPA) and states. EPA and /or the state environmental representative, is involved in cleanup investigations and remedy selection at DoD facilities. For example, DoD and EPA jointly select remedial actions at DoD facilities on the NPL, and by law EPA makes the selection if there is a disagreement. State input is also actively sought, and state acceptance of a proposed remedy is a criterion considered in remedy selection.

Defense and State Memorandum of Agreement Program

DoD established the Defense and State Memorandum of Agreement (DSMOA) Program to expedite environmental restoration at DoD facilities (both NPL and non-NPL) by improving coordination and communication between DoD and the states. A DSMOA begins a partnership between DoD and a state. To date, DoD has signed 53 DSMOAs with 48 states, 4 territories, and the District of Columbia. The most recent DSMOA is with the State of Iowa, and was signed in 2008. Arkansas, North Dakota, and the U.S. Virgin Islands have not entered into a DSMOA.

Under the DSMOA Program, DoD reimburses states for their costs associated with oversight of environmental restoration activities at DoD's active and BRAC facilities and FUDS properties. For fiscal year 2007, DoD reimbursed states over $30 million for environmental restoration support, with the average reimbursement for a state being $585K. The Department is currently working with state and territorial governments through the Environmental Council of States (ECOS) and the Association of State and Territorial Solid Waste Management Officials (ASTSWMO) to establish an advisory committee to be tasked with identifying ways to improve the DSMOA Program.

After establishing a DSMOA, DoD and the state enter into a Cooperative Agreement (CA) that outlines the planning and funding structure for the environmental restoration support the state will carry out at DoD facilities for the 2-year period covered by the CA. For the 2008-2010 CA period, DoD signed CAs with 52 state and territorial governments (American Samoa did not submit CA for the 2008–2010 CA period). DoD is currently working to automate and streamline the process for the states to prepare and submit their CA applications. The facility and the state regulator collaborate to develop the Joint Execution Plan, which identifies environmental restoration activities and state services to be conducted during the 2-year CA.

Inter-Agency and Federal Facility Agreements

Under CERCLA § 120(e), at each Federal Facility listed on the NPL, DoD and EPA are required to "... enter into an interagency agreement... for the expeditious completion of all necessary remedial action at such facility." Interagency agreements are required before the remedy is selected (i.e., within 180 days after completion of the remedial investigation/feasibility study). CERCLA section 120(e)(4) states:

Each interagency agreement under this subsection shall include, but shall not be limited to, each of the following:

(A) A review of the remedial action alternatives and selection of the remedial action by the head of the relevant department, agency or instrumentality and the Administrator, or, if unable to reach agreement on selection of a remedial action, selection by the Administrator.

(B) A schedule for the completion of each such remedial action.

(C) Arrangements for long-term operation and maintenance of the facility.

An agency that has not entered into an interagency agreement with EPA must report to Congress "an explanation of the reasons why no agreement was reached." DoD includes information on the status of its interagency agreements in the Defense Environmental Programs Annual Report to Congress.

In 1988, and supplemented in 1999, DoD and EPA agreed to a Model Federal Facility Agreement (Model FFA) to implement this interagency agreement requirement. The Model FFA addresses more topics than the three minimum provisions specifically identified in CERCLA section 120(e)(4), and contains standardized language on a number of additional issues, including cleanup schedules, dispute resolution, and stipulated penalties. In addition, an FFA is normally signed towards the beginning of the remedial investigation stage while an interagency agreement is only required after the investigation stage is completed.

As stated in the Model FFA, the purposes of the FFA are: 1) to ensure that the environmental impacts associated with past and present activities at the Site are thoroughly investigated and appropriate remedial action taken as necessary to protect the public health, welfare, and the environment, 2) to establish a *procedural* framework and schedule for response actions, and 3) to facilitate cooperation and exchange of information between the agencies. In summary, the FFA identifies the roles and responsibilities of DoD, EPA, and the State if the State is a signatory.

The FFA does not identify or select individual cleanup actions. Instead, the cleanup decision document, called the Record of Decision, documents the remedy selection for a specific site. The remedy normally is selected by DoD and concurred in by EPA at NPL sites; if there is a

disagreement, EPA selects the remedy. Remedy selection is also fully coordinated with the State and the community.

DoD, through issuance of formal policies and practice, has adhered to the Model FFA, while allowing the DoD Components to include mutually agreed additional provisions on a site-specific basis. At present, DoD has entered into Federal Facility Agreements (FFAs) at 129 of the 140 DoD facilities currently on the NPL. At the remaining 11 DoD facilities, an FFA has not been signed. These include: Fort Meade and Redstone Arsenal (Army); AF Plant 44, Andrews, Hanscom, Langley, McGuire, and Tyndall Air Force Bases, and the Brandywine Defense Reutilization site (Air Force); and Whiting Field Naval Air Station and Naval Computer & Telecommunications Area Master Station, Pacific (Navy). DoD has been working toward reaching agreement on terms at the 11 remaining NPL facilities.

PUBLIC PARTICIPATION

Involving the Public in the Restoration Process

DoD conducts its environmental restoration program with input and assistance from the public. There are requirements for involving the community in the environmental restoration program under CERCLA and the NCP, such as public review and comment on proposed remedies, and developing and implementing a Community Involvement Plan as part of each remedial investigation/feasibility study. Another example is that each DoD facility establishes an information repository as a single source of publicly accessible information concerning ongoing cleanup actions at the facility which includes documents that form the basis or selection of response actions, and other pertinent data.

Restoration Advisory Boards (RABs)

In addition to CERCLA's requirement for public participation, one of DoD's mechanisms for exchange of information between government officials and members of the local community on restoration activities at a DoD facility is the establishment of Restoration Advisory Boards (RABs). RABs also fulfill the statutory requirement for Technical Review Committees (TRCs) where possible and practical. Each facility or FUDS is required to establish a RAB where there is sufficient and sustained community interest. Even where initially there is insufficient interest

in forming a RAB, facilities are required to reassess community interest at least every 24 months. DoD currently participates in 296 RABs.

RABs are typically comprised of local residents, representatives of the business community, representatives from EPA, state, tribal, and local government officials, and members of local environmental interest groups and the DoD facility. Ideally, RABs reflect the diverse interests of the community and help identify local concerns associated with a facility's environmental restoration program. The RABs are co-chaired by a DoD representative and a community member.

RABs complement other community involvement activities, such as holding public meetings, distributing informative mailings to the public on facility cleanup activities, and establishing local information repositories. RABs meet regularly to provide input on environmental cleanup issues at DoD facilities. RAB meetings are open to the public, and some facilities make their meeting minutes available at an information repository or over the Internet. RAB activities include reviewing and commenting on cleanup plans and reports, participating in application of the relative-risk or prioritization protocol, reviewing the schedule for restoration activities, and providing input on cleanup issues key to the decision process. RABs are also conduits of information between the facility and the community at large. In this capacity, they assist DoD in keeping the community informed of facility cleanup activities, and for relaying the community's views and concerns to DoD. In addition to regular RAB meetings, a combination of activities may be conducted to enhance the involvement of the local community. Such activities may include coordinating facility site tours or providing interactive presentations with the use of cleanup technology models.

DoD provides funding to support certain RAB activities; in fiscal year 2007, DoD provided about $2.5 million to support RABs.

SUMMARY

The Department will continue its long-standing commitment to performing environmental restoration at those facilities where an actual or potential release of hazardous substances, pollutants, and contaminations does or may pose a threat to human health and the environment. To date, DoD has made significant progress toward addressing those sites posing the greatest relative risks. This is partly a result of the fiscal and manpower resources applied to fulfilling

these requirements, and partly a result of the partnerships forged with EPA and other federal agencies, state and tribal agencies, and the public. A significant body of work remains ahead of the Department, but we remain committed to completing these efforts and ensuring that protective, permanent solutions address any remaining environmental restoration requirements.

CHARRTS No.: SEPW-01-001
Hearing Date: September 18, 2008
Committee: SEPW
Member: Senator Boxer
Witness: Mr. Army
Question: #1

Question: The press has reported that EPA issued three cleanup orders to DOD to address serious contamination at three different Superfund sites, Fort Meade, Maryland, McQuire Air Force Base, in New Jersey, and Tyndall and Force Base in Florida. But, the Department of Defense has asked the White House Office of Management and Budget and the Department of Justice to intervene and stop the EPA from enforcing these orders.

A: Describe the exact legal or factual issues that OMB and DOJ are reviewing, the status of their review, and the timeline for the end of their intervention.

Answer: DoD requested that the Office of Management and Budget (OMB) facilitate discussions on the terms of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) interagency cleanup agreements under Executive Order 12580, Superfund Implementation (January 23, 1987) and Executive Order 12088, Federal Compliance with Pollution Control Standards (October 13, 1978). DoD had identified legal concerns with the Environmental Protection Agency (EPA) orders, and has raised legal issues to the Department of Justice, as provided by Executive Order 12146, Management of Federal Legal Resources (July 18, 1979).

It would not be appropriate for DoD to comment on an internal Executive Branch dispute resolution process. Any communications between Executive Branch agencies on this matter constitute internal Executive Branch deliberations, disclosure of which could undermine the process for resolving such disputes. Please be assured that this matter is important to the Department and we hope to achieve a resolution as soon as possible.

CHARRTS No.: SEPW-01-002
Hearing Date: September 18, 2008
Committee: SEPW
Member: Senator Boxer
Witness: Mr. Army
Question: #2

Question: A. Does DOD agree that states have the authority to enforce public health and environmental safeguards at DOD facilities?

Answer: States clearly have authority to enforce various public health and environmental laws on DoD installations. The Congress has waived the sovereign immunity of the United States, including that of Federal agencies such as the Department of Defense, for some provisions, in some Federal environmental laws. These include certain provisions in, the Clean Air Act, the Solid Waste Disposal Act (aka, the Resource Conservation and Recovery Act), and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980. There are also other acts with waivers of sovereign immunity. There are some laws that do not contain waivers of sovereign immunity. This means that DoD is not subject to penalty authority under some of these statutes.

B. Does DOD agree that the Defense Environmental Restoration Program, including the Department of Defense and State Memorandum of Agreement program, provides for DOD reimbursement of state oversight costs related to cleaning up DOD facilities?

Answer: Yes, DoD has the authority to enter into reimbursable agreements with states and territories in order to assist in conducting the Defense Environmental Restoration Program (DERP). Currently, all states have Defense and State Memorandum of Agreements (DSMOAs) except for Arkansas and North Dakota. DoD does not use the DSMOA to pay state oversight costs, rather the DSMOA program reimburses state costs for providing various services. These eligible services range from expedited review of documents to participating in public meetings required as part of the cleanup program. The eligible services are established in the authorizing law, the DSMOA agreements, governing laws, regulations and circulars, and upon agreement of the State and the DoD Component on a site specific basis.

C. Does DOD agree that state officials can seek to enforce or enforce public health or environmental safeguards at DOD facilities, while still receiving reimbursements under the Department of Defense and State Memorandum of Agreement program for oversight costs related to cleanups, but not related to potential or actual enforcement actions against DOD?

Answer: Yes. The DSMOA is intended to provide a partnership framework between DoD and states to support the DoD cleanup process. Enforcement should be always used as a method of last resort to resolve disputes. States and DoD agreed to language in the DSMOA that states would first exhaust the DSMOA dispute resolution process prior to seeking enforcement. States also reaffirm DSMOA participation in signing a Cooperative Agreement every 2 years. During a

dispute resolution process, states continue to be reimbursed for services and are entitled to receive reimbursement for its expenses associated with the dispute resolution process. If the issue cannot be resolved following the dispute resolution, states are free to then proceed with enforcement without jeopardizing payments under the DSMOA program. DoD is not permitted to pay the costs of a state's regulatory enforcement action for activities under a DSMOA. State officials can seek to enforce or enforce public health or environmental safeguards at DoD facilities for any dispute not covered by the DSMOA. Examples would include disputes over air, waste, or water permits that are not part of the cleanup. The state may proceed with an enforcement action in accordance with applicable laws without regard to the DSMOA and continue to receive DSMOA reimbursement payments.

CHARRTS No.: SEPW-01-003
Hearing Date: September 18, 2008
Committee: SEPW
Member: Senator Boxer
Witness: Mr. Arny
Question: #3

Question: Does the Defense Environmental Restoration Program authorize DOD to reimburse states for work to address threats at DOD facilities, including site-specific cleanup activities and programmatic cleanup activities, such as developing policies or gaining familiarity with emerging technologies used to protect public health and the environment from unexploded ordinance?

Answer: DoD reimburses eligible state services related to cleanup activities using Defense and State Memorandum of Agreements (DSMOA). The terms of the DSMOA require that those services be related to specific sites, as opposed to general expenses. The state and DoD installation negotiate a list of these reimbursable services in a Joint Execution Plan under the DSMOA. This process allows the state to identify its projected workload and revenue and enables DoD to identify its projected schedule and determine DSMOA costs. DoD worked with several states to develop and issue the DSMOA Cooperative Agreement Interim Guide in July 2006, which provides a specific list of eligible and ineligible activities. An example would be when DoD decides that a state should send a representative to attend a DoD meeting related to cleanup (e.g., unexploded ordnance) on several installations. Programmatic activities could also be eligible. DoD does reimburse states for activities in furtherance of negotiation and administration of the DSMOA and its implementing biennial Cooperative Agreements (CA). Although there is some flexibility in the process, the most important factor is that the state and appropriate DoD representatives have a mutual understanding in advance as to which activities are eligible for reimbursement.

CHARRTS No.: SEPW-01-004
Hearing Date: September 18, 2008
Committee: SEPW
Member: Senator Boxer
Witness: Mr. Army
Question: #4

Question: Does the Defense Environmental Restoration Program authorize DOD to provide grant funds to nonprofit conservation organizations, which are defined as "any non-governmental nonprofit organizations whose primary purpose is conservation of open space or natural resources?"

Answer: DoD may enter into cooperative agreements with nonprofit conservation organizations to obtain services in furtherance of the Secretary of Defense's responsibilities under the Defense Environmental Restoration Program in 10 U.S.C. Â§ 2701(d).

A. The Environmental Council of the States (ECOS) is a "national non-profit, non-partisan association of state and territorial environmental agency leaders. The purpose of ECOS is to improve the capability of state environmental agencies and their leaden to protect and improve human health and the environment of the United States of America." ECOS includes state officials who work to address threats under the Defense Environment Restoration Program, including developing national policies and guidance that states use to implement cleanups at DOD facilities. DOD has provided ECOS with grants in the past, but information before the Committee indicates that DOD is interpreting the law to not allow grants to ECOS.

Answer: DoD has worked with ECOS on issues related to the Defense Environmental Restoration Program (DERP). However DoD does not consider ECOS to be a "non-governmental nonprofit organization whose primary purpose is conservation of open space or natural resources." See 10 U.S.C. Â§ 2701(d)(4). As noted in the question, the primary purpose of ECOS is not the conservation of open space or natural resources. There are organizations whose primary purpose is the conservation of open space or natural resources, e.g., the Nature Conservancy. ECOS is an organization designed to allow state government officials to engage in discussions of policy. It may be that those policies will eventually have an impact upon conservation of open space or natural resources, but that is remote and does not represent the "primary purpose" of the organization. Consequently, ECOS does not qualify for a cooperative agreement under 10 U.S.C. Â§ 2701(d).

1. Does DOD interpret the law to allow ECOS to receive grants under the Defense Environmental Restoration Program?

Answer: No. ECOS does not qualify to receive grants under 10 U.S.C. Â§ 2701(d). Section 2701(d) is not a grant authority nor is ECOS an "organization whose primary purpose is conservation of open space or natural resources."

2. Does DOD intend to provide ECOS with grant funds in the current fiscal year, and does the department's budget request include sufficient finds to provide ECOS with a grant the following fiscal year?

Answer: No; however DoD will continue its cooperative relationship with ECOS.

CHARRTS No.: SEPW-01-005
Hearing Date: September 18, 2008
Committee: SEPW
Member: Senator Boxer
Witness: Mr. Amy
Question: #5

Question: Since 2003, has DOD received any requests from states to reopen their Department of Defense and State Memorandum of Agreements? If DOD has received any such request:

1. provide the document from the state containing the request;
2. the actions that DOD has taken to respond to the request; and
3. a timeline for completing all actions needed to respond to the request.

Answer: DoD has received formal requests to reopen DSMOAs from Colorado and California.

Colorado:
1. May 18, 2007 letter from James B. Martin, Colorado Department of Public Health and Environment (CDPHE), to Alex A. Beehler, Assistant Deputy Under Secretary of Defense, Environment, Safety, and Occupational Health (enclosure).

2. DoD responded to CDPHE on July 27, 2007 (enclosure) indicating that the DoD planned to review the DSMOA program with interested state partners to identify opportunities for improvement to DSMOA rather than re-opening the DSMOA agreement which is based on a nationwide model template. DoD has been reviewing issues of concern to states such as eligibility of state activities and intends to re-establish the DSMOA Steering Committee with DoD and state representatives. Colorado representatives have been invited to participate in the DSMOA Steering Committee.

California:
1. August 8, 2007 letter from Linda S. Adams, California Environmental Protection Agency (EPA), to Alex A. Beehler, Assistant Deputy Under Secretary of Defense, Environment, Safety, and Occupational Health (enclosure).

2. DoD responded to the California EPA on August 27, 2007 (enclosure) indicating DoD's preference to retain a consistent, nationwide DSMOA agreement rather than modify California's agreement. OSD requested more information on California EPA's concerns, which were provided and discussed informally. California representatives have been invited to participate in the DSMOA Steering Committee.

CHARRTS No.: SEPW-01-006
Hearing Date: September 18, 2008
Committee: SEPW
Member: Senator Boxer
Witness: Mr. Army
Question: #6

Question: Please answer the following questions concerning information on DOD's Formally Used Defense Sites program contained in the Department's annual report to Congress:

A. Whether DOD includes only projects that are eligible for work under the program as completed projects?

Answer: Yes.

B. Whether DOD conducted cleanup activities at each site that the department describes as a completed project?

Answer: DoD conducted response actions at sites identified as completed in the Defense Environmental Program Annual Report to Congress. Response actions may include: a search of historical records to determine that DoD activities did not result in releases of hazardous substances or munitions, field studies to characterize contamination, or removal or remedial actions.

C. What is the total number and percentage of sites in the program that require on-the-ground cleanup work?

Answer: Out of the 4,684 sites reported in the 2007 Defense Environmental Programs Annual Report to Congress, initial screening studies (Preliminary Assessment (PA)) determined that 4,263 projects (91%) required some form of response action. As of the end of Fiscal Year 2007, the Department of Defense had completed response actions at 2449 of these sites (57 percent requiring response actions), ensuring that there is no DoD contamination that might pose a risk to human health and the environment.

D. A description of each site in the program that includes the site's name, location (city, county, and state), the known or potential threats at the site (including any potential chemical agents), the status of any investigation or clean up activities, the anticipated date of completing all clean up activities, and whether activities on site may be restricted due to potential threats that remain on the site after cleanup. Please provide this information in a searchable electronic format and on paper.

Answer: The internet address provided below is from the FY2007 Defense Environmental Programs Annual Report to Congress (DEP ARC), available for electronic download/search: https://www.denix.osd.mil/portal/page/portal/denix/environment/ARC/FY2007. The following link provides additional resources related to the DEP ARC, including installation level data and

customized reports at http://deparc.xservices.com/do/home. The attached spreadsheet provides additional information from the database used to populate the DEP ARC. Note: Formerly Used Defense Sites (FUDS) properties/sites cleanup levels are based on the current land use.

E. Does DOD have a complete range survey that includes all formally used defense sites that contain or may contain unexploded ordnance?

E. Yes.

1. If so, please provide this range survey to the Committee in a searchable electronic format and on paper.

1. DoD provides Congress a complete survey of former ranges and other munitions response sites, which includes all formerly used defense sites that are known or suspected to contain unexploded ordnance (UXO) in its Defense Environmental Programs (DEP) Annual Report to Congress (see http://deparc.xservices.com/do/mmrp). DoD, which updates this report annually, is currently working with the states and other stakeholders to apply the Munitions Response Site Prioritization Protocol, 32 C.F.R., Part 179, to assign each site a relative priority for response actions. These relative priorities or alternative ratings will be included in the ARC.

The survey has been completed. Federal and state regulators and other federal agencies (collectively stakeholders) participated in the development of the inventory using a DoD web site. DoD posted its initial inventory and stakeholders compared their inventory to DoD's. The appropriate DoD personnel reconciled discrepancies noted on the web site. This was an iterative process over several years. DoD posts the updated inventory on the web site and publishes it annually in the DEP ARC (see http://deparc.xservices.com/do/mmrp).

2. If not, describe the status of any effort to complete such a survey and the needed actions and a timeline for completing such a survey.

2. See above.

CHARRTS No.: SEPW-01-007
Hearing Date: September 18, 2008
Committee: SEPW
Member: Senator Boxer
Witness: Mr. Army
Question: #7

Question: A. With respect to perchlorate, please describe the role that the White House Office of Management and Budget (OMB) and the Department of Defense (DoD) have played in EPA's decision-making process, and please provide copies of any records reflecting the input of OMB or DOD, regarding:

1. the level at which EPA should set the reference dose, no observable effect level, no observable adverse effect level, drinking water equivalent level, preliminary remediation goal, Cr other cleanup or health advisory or health reference level for perchlorate;

Answer: DoD participated on the Perchlorate Inter-agency Working Group that discussed the science issues and available data on perchlorate. Along with other federal agencies, DoD scientists reviewed the Environmental Protection Agency's (EPA) 2002 draft chemical risk assessment. DoD and other agencies raised legitimate science questions regarding the assessment. The federal agencies wanted to ensure that the latest peer-reviewed science was considered in the risk assessment. EPA and the federal agencies agreed that it would be valuable to have the National Academy of Sciences (NAS) review the underlying science. The NAS provided EPA with valuable opinions from the nation's top scientists. The NAS, not DoD, recommended a "reference dose" for perchlorate that led EPA to expeditiously post values for perchlorate in their Integrated Risk Information System (IRIS). DoD has not played a role in any EPA decisions on health advisories, or health reference levels. DOD is not privy to details of OMB involvement in these issues, and recommends contacting the primary federal Agencies directly for information on their activities.

2. whether to make a regulatory determination to regulate perchlorate in drinking water standard pursuant to section 1412 of the Safe Drinking Water Act;

Answer: DoD provided no opinions as to whether perchlorate should be regulated. DoD, along with other federal agencies such as HHS, FDA, USDA, NASA, and DOE, received a draft for EO12866 review and provided comments on August 25, 2008, DoD made minor comments on the determination text for clarification purposes; those comments are attached. The determination itself – as whether to regulate or not -- is for the regulatory agency to make and DoD deferred to EPA's judgment.

3. studies, risk assessments, or potential risk management decisions regarding perchlorate.

Answer: DoD reviews EPA risk assessments for chemicals of interest to DoD during the interagency review process. These reviews provide scientific data and opinions only. EPA

retains decision-making authority regarding the content of the final risk assessment and any toxicity values posted in IRIS. When requested, DoD, university, and industry scientists review toxicity studies as part of the peer review process. Again, these are scientific opinions only and EPA retains decision-making authority as to the conclusions of these studies. Site specific studies, risk assessments and risk management decisions are developed in accordance with Comprehensive Environmental Compensation, Response and Liability Act (CERCLA) and thus in consultation with local state and federal regulatory agencies.

B. Has OMB or DoD made specific edits or given EPA direction, input, or comments on what scientific analyses to conduct, or how to evaluate and review the science in deciding whether to set a drinking water standard for perchlorate or what cleanup level or safety level to set for perchlorate? If so, provide any records reflecting such edits, directives, input, or comments.

Answer: DoD played no role in EPA's recent proposed regulatory determination, except to make minor comments on the determination text for clarification purposes when asked as part of the interagency review in August 2008; DoD's comments are attached. DoD was not involved in discussions about what scientific studies or models should be used by EPA in making their decision, nor was DoD involved with EPA's decision on whether and how to refine those models, nor did DoD provide an opinion as to whether perchlorate should be regulated.

C. Please provide all records that EPA has pertaining to OMB or DoD involvement in EPA's decision-making process concerning whether to regulate perchlorate under the Safe Drinking Water Actor concerning what cleanup level or safety level to set for perchlorate.

Answer: EPA is the agency that can best respond concerning EPA records. DoD's only role in EPA's recent regulatory determination decision was limited to EO 12866 interagency review where DoD provided no opinions as to whether perchlorate should be regulated or at what levels.

It is also important to clear up a misperception related to the regulatory determination. Establishment of a national drinking water standard is not necessary for DoD to take response actions for any perchlorate releases at our installations. DoD conducts site-specific risk assessments and any cleanup needed under the CERCLA not under the Safe Drinking Water Act.

More specifically, DoD follows procedures in the National Contingency Plan (40 CFR 300) using the toxicity values posted in EPA's Integrated Risk Information System or "IRIS." If EPA were to promulgate a Maximum Contaminant Level (MCL), the MCL would be considered an "Applicable or Relevant and Appropriate Requirement" (ARAR) for any remedies related to drinking water sources.

DoD has taken almost 50,000 samples at over 200 installations and former properties. Our nation-wide sampling in all media, and the results of the California Perchlorate Site Prioritization Protocol developed in collaboration with California regulators, show that we are taking appropriate response actions in coordination with regulators. State-by-state sampling summaries are posted and annually updated on our public web site:
http://www.denix.osd.mil/portal/page/portal/denix/environment/MERIT/EC/ECAL/Perchlorate/StateSum

D. Did DoD provide any comments or suggestions, oral or written, to EPA or OMB regarding whether EPA should regulate perchlorate under the Safe Drinking Water Act? If so, what were those comments?

Answer: DoD played no role in EPA's recent proposed regulatory determination, except to make minor comments on the determination text for clarification purposes when asked as part of the interagency review in August 2008; the comments are attached. DoD provided no opinions as to whether perchlorate should be regulated.

CHARRTS No.: SEPW-01-008
Hearing Date: September 18, 2008
Committee: SEPW
Member: Senator Boxer
Witness: Mr. Army
Question: #8

Question: Recent press reports indicate that, after lobbying from DOD and the White House Office of Management and Budget, EPA may decide not to protect the public from perchlorate in tap water. Some reports note EPA use of a risk assessment model developed by the Chemical Industry Institute of Toxicology.

A. Please describe whether DOD:
1. owns a copy of this computer model;
2. has ever used this computer model;
3. has recommended or otherwise urged EPA or OMB to use this model; and
4. has urged OMB to recommend that EPA use this model.

Answer: Since shortly after the NAS released its perchlorate report, DoD has not communicated with nor "lobbied" the Environmental Protection Agency (EPA) regarding whether to regulate perchlorate.

The Air Force developed a number of physiologically based pharmacokinetic (PBPK) models which are not risk assessment models but can be used to inform risk assessments.

The model we believe you are referring to is a modified version of a PBPK model developed by Dr. David Mattie and Rebecca Clewell and others while at the Wright-Patterson AFB. EPA, after discussions with the Dr. Clewell, modified this model to inform its perchlorate risk assessment activities. Dr. Clewell now works at the Hamner Institutes for Health Sciences, formerly known as the Chemical Industry Institute of Toxicology. DoD did not participate in these discussions. As such, DoD did "own" and "use" an earlier version of the model, but not the version used to inform EPA's perchlorate regulatory determination decision. Further, DoD did not recommend or otherwise urge EPA or OMB to use the model, nor did DoD urge OMB to recommend that EPA use the model.

CHARRTS No.: SEPW-01-009
Hearing Date: September 18, 2008
Committee: SEPW
Member: Senator Boxer
Witness: Mr. Army
Question: #9

Question: The Government Accountability Office (GAO) recently reported that EPA's controversial new policy for conducting risk assessments under the Integrated Risk information System creates a "black box" that reduces the credibility of such assessments, in part because interagency comments on such assessments are kept secrete from the public. The GAO specifically referenced DOD's involvement in EPA's assessment of perchlorate's risks as a key action in the development of this new policy. Provide all records, including memos, letters, meeting notes, handwritten notes, emails, and other records that relate to DOD's review of EPA's risk assessments, including draft assessments, under the Integrated Risk Information System since 2001.

Answer: A number of federal agencies have interests, experience, and vital scientific information regarding chemicals being assessed by the Environmental Protection Agency (EPA). The new Integrated Risk Information System (IRIS) process allows federal agencies to identify scientific questions earlier in the process so that EPA's independent peer review process can directly address the issues. This should help resolve issues earlier and lessen the need for National Academy of Science reviews late in the risk assessment process.

DoD and other federal agencies participated in discussions with EPA on how to make the IRIS process more transparent and how to gain earlier scientific input. The new IRIS process allows research to be initiated earlier and provides a more informed risk assessment process. EPA established a more efficient inter-agency review process to ensure that the best available data and knowledge is considered and integrated early into the risk assessment process. DoD and other federal agencies usually only get 30-60 days to review and comment on draft risk assessments out of a 4-6 year process. These reviews can provide EPA with valuable information as agencies have unpublished research/studies and experience with some of these chemicals. The process also allows for agencies to conduct further peer-reviewed research, in consultation with EPA, where it is believed that additional data can be fairly rapidly developed to reduce reliance on uncertainty factors and default assumptions.

DoD will require additional time to respond to your request for related records. We will keep Committee staff updated as to our progress in responding to the request.

CHARRTS No.: SEPW-01-010
Hearing Date: September 18, 2008
Committee: SEPW
Member: Senator Boxer
Witness: Mr. Army
Question: #10

Question: During the hearing, I read from documents that described DoD threatening not to reimburse states under the DoD-State Memoranda of Agreements if states tried to enforce public health or environmental safeguards at DoD facilities. You stated: "We don't threaten States. If we do, I will stop it....If we threaten States, I will stop that" I then asked you to get back to me, in writing, and describe the steps that you have taken to address state complaints that DoD is threatening to cut off state reimbursements if state agencies seek to enforce protections, and you said "We would be happy to." However, I have not yet received any written response from DoD on these issues. Please respond to each of the following:

A. Describe, in detail, the steps that DoD has taken to address state concerns that if states seek to enforce public health or environmental protections, then DoD may withhold reimbursement funds for state cleanup oversight activities that are unrelated to state enforcement actions.

Answer: There appears to be a misunderstanding by a few states as to their authority to take enforcement actions. My predecessor responded in letter to Environmental Council of the States (ECOS) clearly reiterating the DoD position in July 2007 (enclosure). As noted above, the limited qualification imposed by the Defense and State Memorandum of Agreement (DSMOA) program only applies to timing of enforcement actions and only to those activities actually covered by the DSMOA, i.e., cleanup activities. The limitation does not prevent a state from engaging in enforcement action, even for activities covered by the DSMOA. In fact, the DSMOA explicitly recognizes the right of a state to engage in enforcement action after engaging in the dispute resolution process. The most the DSMOA does is require a state to engage in dispute resolution before taking an enforcement action. States agreed to these procedures when the state signed its DSMOA. Engaging in the dispute resolution process would take less than a couple months if strictly enforced by the state. This is not an issue of state authority or of the Department of Defense attempting to prevent state enforcement. It is a question of process and timing.

My staff has been working to convene a work group to enhance the dialog with states to resolve this and other issues.

B. Confirm that if a state seeks to enforce public health or environmental protections that DoD will not withhold or threaten to withhold reimbursement fluids for state cleanup oversight activities that are unrelated to state enforcement actions.

Answer: DoD will not withhold payments from states where a state has acted in accordance with the procedures of the DSMOA and Cooperative Agreement. These procedures were agreed upon by each state when it signed its DSMOA. If a state takes an enforcement action with regard to an

environmental permit not related to an environmental restoration/cleanup project, it will have no effect on its DSMOA and the enforcement action is not subject to the DSMOA dispute resolution process.

C. Confirm that DoD will facilitate and expedite reimbursements of costs from state cleanup oversight activities rather than inhibiting such reimbursements by creating new procedural or substantive requirements.

Answer: DoD will continue to facilitate and expedite reimbursements to states as this fully supports the Secretary's goals in the Defense Environmental Restoration Program (DERP). DoD has the regulations in place to facilitate quick payment for state services provided within the DSMOA. The DoD Grants Officer authorizes DSMOA reimbursements under both the DoD Grant and Agreement Regulations (32 CFR 22.810) and the DoD Financial Management Regulation 7000.14-R. These regulations require payment for services within 7 days of billing upon verification of services. DoD, in cooperation with the states, continues to develop web-based systems to expedite, facilitate and streamline DSMOA communications, planning, budgeting and transactions. When this effort is fully in place and states have been provided the necessary training, it should eliminate much of the previous paperwork burden and expedite state payments. It should also provide substantially more transparency and accountability in the process.

1. Please describe in detail that steps that DoD has taken or plans to take to enforce this commitment. For any planned future actions, please include a timeline for the completion of each planned activity.

Answer: Establishment of a DoD and state workgroup to facilitate communication and better understand state concerns -- Timeline: March 2009. Steps:

1. Re-establishment of the DSMOA Steering Committee comprised of DoD and state representatives -- Timeline: early 2009.
2. Continued communication with states through the web based DSMOA Portal and notification e-mails -- Timeline: ongoing.
3. Streamlining business processes and practices through improvements to the DSMOA web-based automated system -- Timeline: ongoing. A revision to the website aimed at improving the user experience is currently underway and will allow more electronic submittals and communication enhancements. This effort is to be completed within the next 9-18 months.

CHARRTS No.: SEPW-01-011
Hearing Date: September 18, 2008
Committee: SEPW
Member: Senator Inhofe
Witness: Mr. Army
Question: #11

Question: Can cleanup activities occur without Federal Facilities Agreements?

Answer:

While cleanup activities can occur without Federal Facilities Agreements, an enforceable interagency agreement under Comprehensive Environmental Response, Compensation and Liability Act's (CERCLA) Section 120 is a statutory requirement for sites on the NPL. The selection of remedial action at facilities identified on CERCLA's National Priority List (NPL) occurs jointly between EPA and DoD. Under CERCLA, EPA selects the remedial action at these NPL sites if there is a disagreement with DoD. Proposed cleanup decisions at DoD facilities are also coordinated with State regulators as well as the public.

CHARRTS No.: SEPW-01-012
Hearing Date: September 18, 2008
Committee: SEPW
Member: Senator Inhofe
Witness: Mr. Army
Question: #12

Question: Has the Department of Defense slowed down the cleanup at any of the eleven sites that currently do not have a Federal Facilities Agreements in place?

Answer:

No, DoD continues to make progress in cleanup at sites without FFAs.

CHARRTS No.: SEPW-01-013
Hearing Date: September 18, 2008
Committee: SEPW
Member: Senator Barrasso
Witness: Mr. Army
Question: #13

Question: What are the reasons why DOD has not signed federal facility agreements?

Answer:

Several site-specific issues have delayed progress on finalizing an interagency agreement at the remaining 11 DoD facilities. However, since this issue is currently being discussed within the Administration, it would not be appropriate for DoD to provide details on an internal Executive Branch dispute resolution process, particularly where that process is ongoing. Please be assured that this matter is important to the Department and we hope to achieve a resolution as soon as possible.

CHARRTS No.: SEPW-01-014
Hearing Date: September 18, 2008
Committee: SEPW
Member: Senator Barrasso
Witness: Mr. Army
Question: #14

Question: Is the public at risk if a federal facility agreement is not signed at a DOD installation?

Answer: No. An interagency agreement is a procedural document concerning agency roles and responsibilities. Cleanup decisions are made independent of whether an interagency agreement exists. The selection of remedial action at facilities identified on the Comprehensive Environmental Response, Compensation and Liability Act's (CERCLA) National Priority List (NPL) occurs jointly between the Environmental Protection Agency (EPA) and DoD. Under CERCLA, EPA selects the remedial action at these NPL sites if there is a disagreement with DoD. All proposed cleanup decisions at DoD facilities are also coordinated with State regulators as well as the public.

Based on our studies to date, there is no indication of any immediate threat to public health at a DoD installation without a signed FFA.

CHARRTS No.: SEPW-01-015
Hearing Date: September 18, 2008
Committee: SEPW
Member: Senator Barrasso
Witness: Mr. Army
Question: #15

Question: According to the Congressional Research Service, only 7 percent of the cleanup responses have been completed at McGuire Air Force Base, while 93 percent of the responses are pending. Could you elaborate on the reasons why the cleanup of the Superfund site at McGuire Air Force Base has taken as long as it has? Are there any factors or other health threats at McGuire that may have led to this delay? If so, could you elaborate on what those were?

Answer:

McGuire AFB was listed on the Environmental Protection Agency (EPA) National Priorities List (NPL) in October 1999. The priority site for McGuire's local community stakeholders and regulators has been the non-NPL Boeing Michigan Aeronautical Research Center (BOMARC) facility due to radiological contamination at the site. The cleanup of the BOMARC facility has progressed well with New Jersey Department of Environmental Protection as the lead regulator. The Air Force had invested over $28M at the BOMARC site for cleanup of a 1960's missile accident (radiological), and as of 2008 the site is within one year of construction completion of the final remedy.

In 2002, the Air Force, the New Jersey Department of Environmental Protection, and EPA agreed that the existing investigative data older than three years was too old to use, and that more recent data would be required. McGuire AFB reassessed and reprogrammed its cleanup plan. Since 2005, McGuire has been pursuing characterizing the nature and extent of contamination. In September 2008, McGuire AFB awarded a Performance-Based Contract addressing the 24 investigation sites to ensure remedies are in place at all sites at McGuire AFB by the end of Fiscal Year 2012. As of the end of Fiscal Year 2007, 42 environmental sites have been studied under the McGuire AFB restoration program: (1) 24 sites are under active investigation; (2) 14 sites are currently scheduled for environmental Records of Decision in Fiscal Year 2009; and (3) of the remaining four sites, one is in remedial design/construction phase, and three have met cleanup objectives and are response complete. The Air Force is firmly committed to have remedies constructed at all its cleanup sites at active installations by the end of Fiscal Year 2012.

Senator BOXER. Thank you, so much. We are so grateful for your service and your family's service. I absolutely believe that you want to clean it up. Unfortunately, the record is replete with information that just doesn't square with what you said, so I am going to ask you questions specifically on those items.

Last, but certainly not least: Frank Marcinowski, Deputy Assistant Secretary for Regulatory Compliance, Office of Environmental Management, U.S. Department of Energy.

STATEMENT OF FRANK MARCINOWSKI, DEPUTY ASSISTANT SECRETARY FOR REGULATORY COMPLIANCE, OFFICE OF ENVIRONMENTAL MANAGEMENT, U.S. DEPARTMENT OF ENERGY

Mr. MARCINOWSKI. Thank you. Good morning, Madam Chairman and members of the Committee. I am Frank Marcinowski, Deputy Assistant Secretary of Energy for Regulatory Compliance in the Office of Environmental Management. I am pleased to be here today to discuss how our program conducts cleanup at Federal facilities.

First of all, I want to thank you for your support for the cleanup effort at Santa Susanna Field Laboratory outside L.A. You and your staff have been instrumental in bringing together the Department of Energy and the EPA to coordinate our work, and I can tell you that this work is proceeding expeditiously.

The year 2009 will mark 20 years since the EM program was first established to clean up the legacy nuclear waste left by nearly 30 years of nuclear weapons production and energy research. Our program has responsibility for cleanup at those federally owned facilities and others like Santa Susanna, where federally directed research-related activities have taken place.

This is an enormous and complex responsibility. Funded at more than $5 billion annually, EM represents the largest environmental cleanup program in the world. We manage sites that together cover an area the size of Rhode Island and Delaware combined.

Since our work began, we have closed 86 of more than 100 physical sites nationwide. The national footprint of DOE's nuclear complex and its accompanying risks has been drastically reduced and eliminated altogether from 31 States. We have pioneered new technologies to allow us to retrieve and treat millions of gallons of liquid radioactive waste, stored in more than 200 underground tanks. We have opened the world's only deep geologic repository in Carlsbad, New Mexico, to safely dispose of transuranic waste, materials contaminated with plutonium and similar elements, and we have consolidated and safely stored the Nation's entire excess plutonium inventory.

The work at many of our sites is governed by Federal Facility Agreements, or FFAs. An FFA sets forth schedules and processes for site cleanup under CERCLA, including enforcement provisions for noncompliance. The enforceable milestones contained in these FFAs have played a major role in EM's planning, budgeting and the setting of priorities. Of EM's currently active 19 cleanup sites, 16 are Federal facilities. DOE now has in place FFAs for all nine of our sites that are listed by EPA on the national priority list.

DOE considers stakeholder involvement to be a key component of the cleanup decisionmaking process, including the development

of FFAs. Thus, for example, stakeholder input during renegotiation of the Hanford FFA in the late 1990's led DOE to change several critical aspects of that agreement. I mentioned the importance of milestones in planning and executing our work at sites where FFAs are in place. In fact, our program is responsible for meeting a total of more than 500 major enforceable future milestones. Of those, we estimate that only about 4 percent are considered to be at risk of being missed.

However, not all milestones are created equal in terms of their value to advancing cleanup. There are hundreds of additional milestones that are routine, recurring or purely administrative, such as reports. At the Hanford site alone, we are responsible for more than 200 separate milestones of all types each year.

I mentioned our success with closure sites. One in which we take great pride is the Rocky Flats site in Colorado. Rocky Flats was once responsible for manufacturing the plutonium triggers for the Nation's entire nuclear arsenal. It is significant to note that while Rocky Flats was an exceptionally complicated cleanup challenge, it was governed by fewer than 20 milestones. This provided all parties with enough guidance to keep the cleanup on track, but also permitted crucial flexibility for us to direct resources most efficiently. The result was that we were able to close the site in 2005, a full 10 years earlier than planned. Today, Rocky Flats is a national wildlife preserve.

In planning our cleanup, we seek to focus on the work that will produce the greatest environmental benefit at the earliest possible time, to the largest number of people. As I have said, in determining these priorities DOE works closely with regulators and seeks their active cooperation, particularly where doing so necessitates modification of cleanup milestones embodied in prior agreements.

Madam Chairman, I am proud of the progress the EM program has made in recent years in terms of meeting the Nation's cleanup priorities, working closely with stakeholders and building the foundation for future cleanup efforts.

I appreciate your interest in our program and am pleased to answer your questions.

[The prepared statement of Mr. Marcinowski follows:]

Statement of Frank Marcinowski
Deputy Assistant Secretary for Regulatory Compliance
Office of Environmental Management
U.S. Department of Energy
Before the Committee on Environment and Public Works
U.S. Senate

September 18, 2008

Good morning, Madame Chairman and Members of the Committee. I am pleased to be here today to discuss how the Department of Energy's (DOE's) Office of Environmental Management (EM) conducts environmental cleanup at federal facilities. I appreciate the opportunity to share our experiences with you.

The year 2009 will mark 20 years since the EM program was first established to take responsibility for cleaning up the legacy nuclear waste left by nearly 50 years of nuclear weapons production and energy research. At that time, the extent of the risk to our citizens and communities was literally unknown, and certainly many of the processes and technologies to reduce that risk had not yet been invented.

This is an enormous and complex responsibility. Funded at more than $5 billion annually, EM represents the largest environmental cleanup program in the world. Even today, after 20 years of measurable progress, the estimated cost of the remaining nuclear cleanup work in this country ranks behind only the national debt and pensions owed to military and federal retirees among the government's future potential obligations.

Allow me to describe the progress that we have made. Since our work began, we have closed 86 of more than 100 sites nationwide. The national "footprint" of the DOE's nuclear complex and its accompanying risks has been drastically reduced, and eliminated altogether from 31 states. We have packaged and safely stored the nation's entire excess plutonium inventory. We have pioneered new technologies that have allowed us to make progress retrieving millions of gallons of tank waste, and to safely dispose tens of thousands of cubic meters of transuranic waste (materials contaminated with plutonium and other elements above uranium on the periodic table). In FY 2006 and FY 2007 alone, we demolished approximately 500 buildings (nuclear, radioactive, and industrial) as part of our decontamination and decommissioning (D&D) projects. And finally, we have made great strides in protecting groundwater using innovative treatment systems.

HOW WE CONDUCT OUR CLEANUP WORK

Our program's 1,400 federal employees do not accomplish this work alone. More than 30,000 experienced contractor workers – skilled scientists, technologists, engineers, managers, and cleanup workers – play crucial day-to-day roles in the cleanup. In addition, we work closely with local stakeholders, state regulators, and the Environmental Protection Agency (EPA) to plan, execute, and evaluate how cleanup is conducted at individual sites. At nine of our largest sites, we consult formally with stakeholders through boards chartered under the Federal

Advisory Committee Act (FACA). The work at most of our sites is governed by federal facility agreements (FFAs), legal agreements that include DOE, the EPA and state regulators.

An FFA sets forth schedules and processes for site cleanup under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), including enforcement provisions for non-compliance. Some FFAs that include the state as a party also incorporate compliance requirements found in the Resource Conservation and Recovery Act (RCRA), as well as state hazardous waste law requirements that flow from that Act. The enforceable milestones contained in these FFAs have played a major role in EM's planning, budgeting and the setting of priorities.

Of EM's currently active 19 cleanup sites, 16 are federal facilities. (The non-federal sites, which are not owned by the government but where government work was conducted, include the Energy Technology Engineering Center (ETEC) in California, the Moab uranium mill tailings site in Utah, and the West Valley site in upstate New York.) With the 2007 completion of the FFA for the Pantex site in Texas, DOE now has in place FFAs for all nine of its sites on the EPA's National Priorities List (NPL). One additional site, the Nevada Test Site, is not on the NPL but has an FFA in place.

Development of each of these FFAs has been a multi-step process. First, DOE has worked closely with EPA and the respective state regulators to develop the terms of a draft agreement. Once the parties reach agreement, they develop a letter of intent to execute it. As voluntarily agreed to by DOE, EPA then releases the draft agreement for public comment, after which it is either finalized or renegotiated to address comments received. Only after all public comments are addressed and the parties reach consensus on all terms, does an FFA become final.

DOE considers stakeholder involvement to be a key component of the cleanup decision-making process, including the development and modification of FFAs. Thus, for example, stakeholder input during renegotiation of the Hanford FFA in the late 1990s led DOE to change several critical aspects of that agreement. DOE has worked to ensure similar public participation in the development and modification of other FFAs since that time.

EM PROGRAM PLANNING FOR FY 2009

We manage our program on the principle of prioritizing risk reduction across the *entire* complex for which EM is responsible, supported by our four guiding tenets of safety, performance, cleanup and closure. Our FY 2009 budget request totals $5.528 billion. With 90 percent of our budget addressing mission activities at our cleanup sites, more than half of FY 2009 funding will go towards our highest-risk activities of stabilizing tank waste, nuclear materials and spent nuclear fuel; another one-quarter of the budget will be devoted to cleaning up contaminated soil, groundwater, and excess facilities, and about 14 percent will go to manage wastes streams related to those cleanup activities. The remaining 10 percent covers mission activity support, including costs for program oversight provided by our federal personnel, and technology development.

Madame Chairman, I mentioned the importance of milestones in planning and executing our work and let me relate that to our funding. We recognize that our budget is based on, and would implement, an environmental management approach under which some of the milestones and obligations contained in the environmental agreements would not be met. It is also important to recognize that some upcoming milestones will be missed regardless of the approach that is chosen and its associated level of funding.

Moreover, some of the relevant agreements were negotiated many years ago, with incomplete knowledge by any of the parties of the technical complexity and magnitude of costs that would be involved in attempting to meet the requirements. This incomplete knowledge, coupled with other issues including contractor performance, overly optimistic planning assumptions, and emerging technical barriers, also have impeded DOE in meeting all milestones and obligations contained in the environmental compliance agreements.

In planning its environmental cleanup efforts and developing the budget for those activities, the Department seeks to focus on work that will produce the greatest environmental benefit and the largest amount of risk reduction. DOE strongly believes that setting priorities and establishing work plans in this way is the most effective use of taxpayer funds and will have the greatest benefit, at the earliest possible time, to the largest number of people.

As I have said, in determining these priorities, DOE works closely with the federal and state regulators, and will seek the cooperation of those entities in helping evaluate needs and focus work on the highest environmental priorities based on current knowledge, particularly where doing so necessitates modification of cleanup milestones embodied in prior agreements with DOE.

MANAGING OUR PRIORITIES

Next, let me address a number of issues that guide our work at every site, whether governed by an FFA or not. First, all workers deserve to go home as healthy as they were when they arrived at the job in the morning. No milestone is worth any injury to our workforce. I am pleased to say that EM's safety performance continues to be outstanding. As a result of collaborative efforts by DOE and our contractors, worker injuries have been reduced by 50 percent during the past three years. Currently EM's injury rate is less than 10 percent of comparable commercial waste disposal and construction industries.

Another priority is our goal of making EM a high-performing organization by every measure. This goal has required us to look critically at every aspect of how we plan, procure, execute and manage every project under our jurisdiction, and how we align every dollar the taxpayers provide to achieving environmental cleanup goals.

In September 2005, Congress asked the National Academy of Public Administration (NAPA) to undertake a management review of EM, including an assessment of EM's human capital. NAPA's study, conducted over a period of 18 months, was very interactive; we opened our operations to NAPA for scrutiny and in turn have embraced and implemented nearly all of NAPA's proposals. Most of all, we were gratified that NAPA concluded in its final report issued

this past December that EM, "is on a solid path to becoming a high-performing organization." We know we have much remaining to be accomplished, but we take NAPA's conclusion as a sign that we are, in fact, headed in the right direction with regard to how we function as an organization.

Third, we recognize that our ability to accomplish our work and perform under our agreements is only as good as our planning basis. We develop our budget from our project baselines defining the scope, cost, and schedule for each project. In past years, baselines for many of our projects were unrealistic, due to overly aggressive assumptions in the technical and regulatory arenas, increasing costs of materials and simple underperformance.

Since that time, our sites have undergone an independent review to verify the reasonableness of the scope, cost, and schedule for each project. As a result, all near-term baselines up to five years have now been independently reviewed and certified by Logistics Management Institute, a non-profit consultant to the DOE's Office of Engineering and Construction, while long-term cost ranges have been determined to be reasonable. Accurate project planning is essential to our ability to meet our commitments at our facilities.

Fourth, as an "acquisition" organization, EM accomplishes its mission through procurement and execution of our projects. To oversee this process, about 18 months ago, we implemented a new organizational structure, including the creation of a Deputy Assistant Secretary for Acquisition and Project Management. This position integrates the two functions of procurement planning and project management, helping us to professionalize the procurement process so that we learn from, and improve upon, each contract experience. Moreover, it provides us with strong management oversight after the contract is awarded. We are striving to make EM nothing short of a "Best-in-Class" organization for project and contract management and engineering and technology.

Fifth, the EM program has always required a strong technology component to accomplish its mission, one that is focused on developing and deploying technologies to enhance safety, effectiveness, and efficiency. As we look ahead to our cleanup work, we face the ongoing challenge of maturing and integrating technology into first-of-a-kind solutions. An Engineering and Technology Roadmap has been developed to address this need. The Roadmap identifies the technical risks the EM program faces over the next ten years, and strategies to address the risks. EM's validated baselines are a powerful tool that allows EM managers to identify the points at which new knowledge and technology can be efficiently inserted into EM cleanup projects to address risks.

EM'S CLEANUP PROGRESS

Finally, allow me to draw attention to the significant cleanup progress achieved recently. We have:

- Completed stabilization and packaging for all plutonium residues, metals, and oxides and begun consolidation of all of these materials at the Savannah River Site (SRS);

- Produced for disposition more than 2,500 cans of vitrified high-level waste from highly radioactive liquid wastes;
- Completed retrieval and packaging for disposal of more than 2,100 metric tons of spent nuclear fuel from K-basins at Hanford to protect the Columbia River;
- Shipped more than 50,000 cubic meters of transuranic (TRU) waste from numerous sites to the Waste Isolation Pilot Plant (WIPP) for permanent disposal, including 25,000 out of a planned 30,000 drums from SRS;
- Disposed of nearly one million cubic meters of legacy low-level waste and mixed low-level waste;
- Eliminated 11 of 13 high-risk material access areas through material consolidation and cleanup;
- Cleaned up the Melton Valley area at the Oak Ridge Reservation and continued decontamination and decommissioning of three gaseous diffusion buildings at Oak Ridge; and
- Disposed of more than 8,500 tons of scrap metal from Portsmouth.

The program has made significant progress in shifting focus from risk management to risk reduction. To strike the balance that allows EM to continue achieve risk reduction and pursue cleanup goals, we propose funding the following risk reduction and regulatory activities in priority order:

- Stabilizing radioactive tank waste in preparation for treatment (about 32 percent of the FY 2009 request);
- Storing, stabilizing, and safeguarding nuclear materials and spent nuclear fuel (about 18 percent of the FY 2009 request);
- Disposing of transuranic, low-level, and other solid wastes (about 14 percent of the FY 2009 request); and
- Remediating major areas of EM sites, and decontaminating and decommissioning facilities (about 26 percent of the FY 2009 request).

Madame Chairman, I am proud of the progress the EM program has made in recent years in terms of meeting the nation's cleanup priorities, working closely with stakeholders, and building the foundation for future efforts. I appreciate your interest in our program and am pleased to answer your questions.

QUESTION FROM CHAIRMAN BOXER

Q1a. On September 25, 2008, EPA wrote the Department of Energy (DOE) a letter concerning the "continued shut down of CERCLA Groundwater Remedy and Fiscal Year 2009 Funding Impacts". EPA wrote this letter to "express [its] continuing concern about the shut down of groundwater and soil vapor treatment facilities and associated wells as the Lawrence Livermore National laboratory (LLNL), Livermore Site, a Superfund Site" located in California.

EPA's letter notes that it expressed "concerns to [DOE] in a letter dated June 17, 2008...[that DOE] had shut down 14 treatment facilities and wells in response to a budget shortfall...which provided only approximately 50% of the annual funding required for ongoing cleanup of the Site." EPA acknowledged that DOE has reprogrammed funds for 2008, but that "it has been difficult for DOE to restart the shuttered systems and even more treatment systems have failed due to the lack of maintenance, bringing the total number of shuttered systems to 25. The shut down of treatment facilities means that it is possible that uncontrolled contaminant plumes will migrate further, increasing site risks and making cleanup more difficult, costly and time-consuming."

EPA's letter raises extremely serious concerns about DOE's management of this Superfund site.

Please provide the status of each treatment and associated well on the Lawrence Livermore National Laboratory, Livermore site, including:

A1a. **Background**

The Consolidated Appropriations Act, 2008, signed in late December 2007, appropriated $8,591,591 of the total NNSA request of $17,518,000 for Environmental Projects and Operations/LTS activities. The request included $12,521,000 for the Lawrence Livermore National Laboratory; Livermore Site received only $6,092,000 under the reduced appropriation. Based on this reduction, DOE directed that LLNL adjust program expenditures in March 2008 to meet the appropriated budget of $6,092,000. This required LLNL to significantly reduce staffing and procurements, which in turn resulted in shut downs and less maintenance of the remaining operating ground water and vapor

treatment facilities, as well as reduced compliance activities. The staffing shortage hampered the process of repairing treatment facilities that had not been maintained [and may have failed during this time], but LLNL now plans to implement measures to speed the repair of these facilities (see the response to Q1,B). Late in FY 2008 (July), a reprogramming action approved by the Congress provided additional funds to the Livermore Site to begin to restart and repair treatment facilities, acquire key skills, and resume compliance activities to levels prior the funding reduction.

QUESTION FROM CHAIRMAN BOXER

Q1b. On September 25, 2008, EPA wrote the Department of Energy (DOE) a letter concerning the "continued shut down of CERCLA Groundwater Remedy and Fiscal Year 2009 Funding Impacts". EPA wrote this letter to "express [its] continuing concern about the shut down of groundwater and soil vapor treatment facilities and associated wells as the Lawrence Livermore National laboratory (LLNL), Livermore Site, a Superfund Site" located in California.

EPA's letter notes that it expressed "concerns to [DOE] in a letter dated June 17, 2008...[that DOE] had shut down 14 treatment facilities and wells in response to a budget shortfall...which provided only approximately 50% of the annual funding required for ongoing cleanup of the Site." EPA acknowledged that DOE has reprogrammed funds for 2008, but that "it has been difficult for DOE to restart the shuttered systems and even more treatment systems have failed due to the lack of maintenance, bringing the total number of shuttered systems to 25. The shut down of treatment facilities means that it is possible that uncontrolled contaminant plumes will migrate further, increasing site risks and making cleanup more difficult, costly and time-consuming."

EPA's letter raises extremely serious concerns about DOE's management of this Superfund site.

Whether the well is operating or not operating.

A1b. The status of each of the 38 treatment facilities is presented in Table 1. Currently 28 treatment facilities are shut down, of which 15 treatment facilities were shut down due to funding. The remaining 13 treatment facilities were not directly shut down when the FY 2008 budget shortfall occurred but also had technical issue, as discussed below:

- Treatment Facility A (TFA) West was shut down January 14, 2008, at the request of the regulatory agencies and is not planned to operate in the foreseeable future. Based on agreement with the regulators, this facility was operating under a one year treatability test which ended when operations were ceased in January 2008. The regulators were notified that

a rebound test would be performed to see what happened to the concentrations once the facility was shut down. There was a slight rebound, but that may also be due to TFA being down this year, thus further evaluation is needed to see if there is a source area near this facility.

- Treatment Facility D (TFD) Helipad was shut down October 11, 2007, for scientific data gathering related to a planned implementation of a technology to expedite cleanup of a source area. Due to the FY 2008 budget shortfall, this cleanup technology was not deployed and the facility remains shut down.

- TFD Helipad Vapor Treatment Facility was shut down September 28, 2007, for scientific data gathering related to a planned implementation of a technology to expedite cleanup of a source area. Due to the FY 2008 budget shortfall, this cleanup technology was not deployed and the facility remains shut down.

- TFD East Traffic Circle (ETC) South Vapor Treatment Facility was shut down August 11, 2007, due to a failed blower. The issue is currently being contested with the vendor and is pending resolution; however, plans are in progress to implement an alternative fix to this issue to ensure long-term reliability (see response to A.1(c).

- TFD Hotspot Vapor Treatment Facility was shut down June 7, 2007, due to a failed blower. The issue is currently being contested with the vendor and is pending resolution; however, plans are in progress to implement an alternative fix to this issue to ensure long-term reliability (see response to A.1(c)).

- Treatment Facility E (TFE) Eastern Landing Mat (ELM) Vapor Treatment Facility was shut down February 5, 2008, due to a failed blower. The issue is currently being contested with the vendor and is pending resolution; however, plans are in progress to implement an alternative fix to this issue to ensure long-term reliability (see response to A.1(c)).

- TFE Hotspot Vapor Treatment Facility was shut down March 10, 2008, due to a failed blower. The issue is currently being contested with the vendor and is pending resolution; however, plans are in progress to implement an alternative fix to this issue to ensure long-term reliability (see response to A.1(c).

- Vapor Treatment Facility 511 was shut down August 18, 2008, due to suspected blower issues similar to the other blowers listed above. Instead of burning out the blower, the facility was shut down pending review of the power needs and availability at all the facilities with this type of blower.

- Treatment Facility 518 (TF518) was shut down February 27, 2008. This facility serves as a collection station for ground water that is extracted during soil vapor extraction operations. Because the corresponding soil vapor system was shut down due to the budget shortfall, this facility was also shut down.

- Treatment Facility 5475-1 (TF5475-1) was shut down July 26, 2007, due to the high cost to dispose of mixed waste (tritium and solvents) on granular activated carbon. This treatment process is being reviewed to look for ways to eliminate/minimize generation of this type of waste and to find a more economical method to manage existing waste. Until this is resolved, this facility may remain shut down.

- Treatment Facility 5475-3 (TF5475-3) was shut down August 21, 2007, due to the high cost to dispose of mixed waste (tritium and solvents) on granular activated carbon. This treatment process is being reviewed to look for ways to eliminate/minimize generation of this type of waste and to find a more economical method to manage existing waste. Until this is resolved, this facility will remain shut down.

- Vapor Treatment Facility 5475 (VTF5475) was shut down October 12, 2007, due to the high cost to dispose of mixed waste (tritium and solvents) on granular activated carbon. This treatment process is being reviewed to look for ways to eliminate/minimize generation of this type of waste and to find a more economical method to manage existing waste. Until this is

resolved, this facility will remain shut down.

- Treatment Facility 518 North was shut down February 20, 2008, due to the high cost to dispose of mixed waste (tritium and solvents) on granular activated carbon. This treatment process is being reviewed to look for ways to eliminate/minimize generation of this type of waste and to find a more economical method to manage existing waste. Until this is resolved, this facility will remain shut down.

QUESTION FROM CHAIRMAN BOXER

Q1c. On September 25, 2008, EPA wrote the Department of Energy (DOE) a letter concerning the "continued shut down of CERCLA Groundwater Remedy and Fiscal Year 2009 Funding Impacts". EPA wrote this letter to "express [its] continuing concern about the shut down of groundwater and soil vapor treatment facilities and associated wells as the Lawrence Livermore National laboratory (LLNL), Livermore Site, a Superfund Site" located in California.

EPA's letter notes that it expressed "concerns to [DOE] in a letter dated June 17, 2008...[that DOE] had shut down 14 treatment facilities and wells in response to a budget shortfall...which provided only approximately 50% of the annual funding required for ongoing cleanup of the Site." EPA acknowledged that DOE has reprogrammed funds for 2008, but that "it has been difficult for DOE to restart the shuttered systems and even more treatment systems have failed due to the lack of maintenance, bringing the total number of shuttered systems to 25. The shut down of treatment facilities means that it is possible that uncontrolled contaminant plumes will migrate further, increasing site risks and making cleanup more difficult, costly and time-consuming."

EPA's letter raises extremely serious concerns about DOE's management of this Superfund site.

For every non-operational well, the amount of time that the well has not be operating.

A1c. Table 2 provides a list of extraction wells that are currently connected to each of the treatment facilities and indicates which wells are currently operational and the number of days since the wells last operated as of October 15, 2008. The numbers of wells associated with each treatment facility range from one to 22 depending upon the particular size and design of each treatment facility and how difficult it is to extract the contaminated soil vapor or ground water.

QUESTION FROM CHAIRMAN BOXER

Q1d. On September 25, 2008, EPA wrote the Department of Energy (DOE) a letter concerning the "continued shut down of CERCLA Groundwater Remedy and Fiscal Year 2009 Funding Impacts". EPA wrote this letter to "express [its] continuing concern about the shut down of groundwater and soil vapor treatment facilities and associated wells as the Lawrence Livermore National laboratory (LLNL), Livermore Site, a Superfund Site" located in California.

EPA's letter notes that it expressed "concerns to [DOE] in a letter dated June 17, 2008...[that DOE] had shut down 14 treatment facilities and wells in response to a budget shortfall...which provided only approximately 50% of the annual funding required for ongoing cleanup of the Site." EPA acknowledged that DOE has reprogrammed funds for 2008, but that "it has been difficult for DOE to restart the shuttered systems and even more treatment systems have failed due to the lack of maintenance, bringing the total number of shuttered systems to 25. The shut down of treatment facilities means that it is possible that uncontrolled contaminant plumes will migrate further, increasing site risks and making cleanup more difficult, costly and time-consuming."

EPA's letter raises extremely serious concerns about DOE's management of this Superfund site.

For every non-operational well, the steps that DOE has taken to make the well operational and the steps that DOE will take to make the well operational, including a timeline for completing these actions.

A1d. Soil vapor and ground water treatment facilities and associated extraction wells are operated as systems rather than discrete pieces of equipment. Therefore, a process is required to carefully and systematically restart the shut down extraction wells and treatment facilities together ensuring that each system works in a safe and optimal manner to remove and treat contamination and ultimately accomplish cleanup of the subsurface.

DOE/LLNL have a robust process in place for evaluating and restarting the soil vapor and ground water treatment facilities and associated wells called the Remediation Evaluation (REVAL) Process, as presented in Attachment A,

Figure 1. This process uses project management tools to evaluate and restart facilities in a deliberate safe manner and to maximize the use of sparse resources by prioritizing work scope and schedules. Although some facilities could potentially be re-started more quickly without this thorough evaluation, they would likely not operate in an optimum fashion or may fail due to latent unidentified problems and ultimately be more costly to the project over time. This restart process began slowly following restoration of funding due to (1) acquisition and training of additional staff (2) the need to evaluate each facility for issues and repairs, and (3) procurement of replacement components.

It is important to note that LLNL has made good progress in obtaining necessary staff to initiate evaluation of 18 facilities, well over half of the shut down facilities. The first set of 13 ground water treatment systems were selected based on risk to the spread of ground water contamination and offsite migration of the plume offsite and other critical factors. The prevention of spread and offsite migration of contaminants is the highest DOE priority for the treatment facility restart program. One of these is already undergoing startup testing required by regulatory agencies and is expected to be fully operational within approximately two weeks barring any unexpected problems. Additional review and preliminary design work is underway to restart and improve reliability of five soil vapor treatment systems. Four of the five vapor treatment facilities shut down due to blower failure and the fifth was shut down due to impending failure of the same model blower.

More detailed schedules for re-start of these facilities will be determined once a full understanding of the issues, repair needs, ordering lag times, and staffing availability are known. Pre-start testing, including rebound tests, will be included, as required or requested by the regulatory agencies to aid in understanding the status of the cleanup.

The remaining nine facilities that are currently shut down will be reviewed using the REVAL process after the initial 18 systems are further along in the process. It should be noted that four of the nine facilities still have mixed waste generation and disposal issues that may not be resolved this fiscal year.

Progress on facility restart is impacted by the following issues:

- Purchases — A detailed evaluation of each treatment facility and associated wells to determine what equipment has failed or needs maintenance before necessary replacement parts can be ordered. In the past LLNL has stocked replacement parts for routine maintenance but this has been significantly diminished over time as the Laboratory has moved to a just-in-time delivery model for procurements compounded with the reduced FY 2008 budget. Thus, there is a lag time from the facility review to being able to repair and restart the facility.

- Employment — Over a 63% loss of staff occurred in FY 2008 due to the budget reduction. Many of these people found other employment and are no longer available to work on the Livermore Site project. To date we have been able to acquire one full-time equivalent (FTE) designer,

1.5 FTE additional electronic engineering support, 1.5 FTE to sample the wells, two FTE engineering support, and one FTE hydrogeologic support. Over 50% of the replaced staff physically responsible for facility restart have no prior experience on the Livermore Site Environmental Restoration project and require time for training and to develop an understanding of the project needs.

QUESTION FROM CHAIRMAN BOXER

Q1e. On September 25, 2008, EPA wrote the Department of Energy (DOE) a letter concerning the "continued shut down of CERCLA Groundwater Remedy and Fiscal Year 2009 Funding Impacts". EPA wrote this letter to "express [its] continuing concern about the shut down of groundwater and soil vapor treatment facilities and associated wells as the Lawrence Livermore National laboratory (LLNL), Livermore Site, a Superfund Site" located in California.

EPA's letter notes that it expressed "concerns to [DOE] in a letter dated June 17, 2008...[that DOE] had shut down 14 treatment facilities and wells in response to a budget shortfall...which provided only approximately 50% of the annual funding required for ongoing cleanup of the Site." EPA acknowledged that DOE has reprogrammed funds for 2008, but that "it has been difficult for DOE to restart the shuttered systems and even more treatment systems have failed due to the lack of maintenance, bringing the total number of shuttered systems to 25. The shut down of treatment facilities means that it is possible that uncontrolled contaminant plumes will migrate further, increasing site risks and making cleanup more difficult, costly and time-consuming."

EPA's letter raises extremely serious concerns about DOE's management of this Superfund site.

The number of full-time equivalent (FTE) DOE resources at the Lawrence Livermore National Laboratory, Livermore site maintaining or otherwise working on treatment and associated wells each of the last five fiscal years, and the number of FTEs requested for the 2009 fiscal year.

A1e. The number of Lawrence Livermore National Security (LLNS) Contractor FTEs (primarily engineering an d field staff) maintaining or working on treatment facilities and facility performance over the last five years is listed below and is a subset of the total number of staff supporting the Livermore Site Project. Note that after FY 2006, build out of regulatory required treatment facilities was complete and employment decreased accordingly for ongoing operation and maintenance.

Also the FY 2009 LLNS FTE levels shown are as planned in the FY 2009 Site Execution Plan. Due to the desire to expedite treatment facility

startup, additional FTEs have been brought onto the project above the number requested for FY 2009 (as discussed in A.1(c)).

FY 2004: 25.1

FY 2005: 22.8

FY 2006: 27

FY 2007: 14.4

FY 2008: 9.9

FY 2009: 14.2

QUESTION FROM CHAIRMAN BOXER

Q1f. On September 25, 2008, EPA wrote the Department of Energy (DOE) a letter concerning the "continued shut down of CERCLA Groundwater Remedy and Fiscal Year 2009 Funding Impacts". EPA wrote this letter to "express [its] continuing concern about the shut down of groundwater and soil vapor treatment facilities and associated wells as the Lawrence Livermore National laboratory (LLNL), Livermore Site, a Superfund Site" located in California.

EPA's letter notes that it expressed "concerns to [DOE] in a letter dated June 17, 2008...[that DOE] had shut down 14 treatment facilities and wells in response to a budget shortfall...which provided only approximately 50% of the annual funding required for ongoing cleanup of the Site." EPA acknowledged that DOE has reprogrammed funds for 2008, but that "it has been difficult for DOE to restart the shuttered systems and even more treatment systems have failed due to the lack of maintenance, bringing the total number of shuttered systems to 25. The shut down of treatment facilities means that it is possible that uncontrolled contaminant plumes will migrate further, increasing site risks and making cleanup more difficult, costly and time-consuming."

EPA's letter raises extremely serious concerns about DOE's management of this Superfund site.

The maintenance history for each treatment and associated well at the Lawrence Livermore National Laboratory, Livermore site for the last three years.

A1f. The maintenance history for the treatment facilities and wells are recorded in facility logbooks that are kept at each facility. All maintenance activities over the last three years are documented in about 9,000 pages of logbooks. Due to the volume of this data and the resource requirements, we did not copy these logbooks for this submission, but will work with your office if you need this additional information.

QUESTION FROM CHAIRMAN BOXER

Q1g. On September 25, 2008, EPA wrote the Department of Energy (DOE) a letter concerning the "continued shut down of CERCLA Groundwater Remedy and Fiscal Year 2009 Funding Impacts". EPA wrote this letter to "express [its] continuing concern about the shut down of groundwater and soil vapor treatment facilities and associated wells as the Lawrence Livermore National laboratory (LLNL), Livermore Site, a Superfund Site" located in California.

EPA's letter notes that it expressed "concerns to [DOE] in a letter dated June 17, 2008...[that DOE] had shut down 14 treatment facilities and wells in response to a budget shortfall...which provided only approximately 50% of the annual funding required for ongoing cleanup of the Site." EPA acknowledged that DOE has reprogrammed funds for 2008, but that "it has been difficult for DOE to restart the shuttered systems and even more treatment systems have failed due to the lack of maintenance, bringing the total number of shuttered systems to 25. The shut down of treatment facilities means that it is possible that uncontrolled contaminant plumes will migrate further, increasing site risks and making cleanup more difficult, costly and time-consuming."

EPA's letter raises extremely serious concerns about DOE's management of this Superfund site.

Does DOE commit to ensure that all treatment and associated wells are the Lawrence Livermore National Laboratory, Livermore site are operational by December 1, 2008?

A1g. No. We cannot commit to making all facilities operational by December 1, 2008. The loss of funding and associated staffing during FY 2008 has created a lack of resources that will prevent a rapid restart of the treatment facilities. Receipt of the reprogrammed funds at the end of July 2008 cannot compensate for the lost personnel, the majority of which cannot be rehired. In addition, the potential FY 2009 budget reduction indicated in the Senate's FY 2009 mark has further constrained operations until appropriations are enacted, per the provisions of the Continuing Resolution.

Table 1 gives projected restart dates, or determination not to restart, for the 28 facilities currently not operating. Please note that based on regulatory direction, TFA West is not anticipated to operate in the future. As such, there are only 27 facilities that we are focusing on for restart. Projected restart dates and notes are on the table (see columns with blue headers), and the information is also summarized below:

FY 2009 Activities

All projected facility restart dates are based on the assumption that we receive the FY 2009 President's Request. Activities include:

- Treatment Facility C, although currently operating, needs to be shut down and reworked this year due to the aging control system and computer security concerns. This is a time intensive, but risk-driven project to prevent from spreading the western plume margin adjacent to the City of Livermore. As such, this work is factored into how it affects the projected restart dates of the other facilities.

- All 12 facilities that are currently in the REVAL process will be operational by the end of FY 2009 (September 30, 2009). This assumes that all focus is placed on facility restarts and not Enhanced Source Area Remediation activities. The exact order of the FY 2009

facility restarts is not shown in the attached table because as we thoroughly review each facility, we will have a better understanding of the repair needs caused by running them to failure. However, we anticipate restarting two facilities the first quarter, three more in the second quarter, three additional in the third quarter, and the remaining four facilities will be restarted in the last quarter of FY 2009.

- By the end of FY 2009, we will decide whether bioremediation will be tested at the TFD Helipad area in FY 2010. This will determine how we proceed with the Helipad vapor and ground water facility restarts in FY 2010.

FY 2010 Activities

All projected facility restart dates are based on the assumption that we receive President's Request in FY 2009 once the CR ends in March 2009 and our current planning level in FY 2010 and that LLNL has the authority to spend the FY 2010 funds at the start of the fiscal year. If there is a year-long Continuing Resolution in FY 2009, then there will not be sufficient funds in FY 2010 to complete these activities. Activities include:

- By the first quarter of FY 2010, one shut down facility will be restarted. If we have a satisfactory solution for mixed waste disposal, then one

other facility will also be restarted, for a total of two in the first quarter of FY 2010.

- By third quarter of FY 2010, four additional facilities will be restarted (or configured to support the bioremediation study in the case of the Helipad vapor and ground water facilities).

- By the end of FY 2010, one additional facility will be restarted. If we have a satisfactory solution for mixed waste disposal, then one other facility will also be restarted, for a total of two in the fourth quarter of FY 2010. Also, if we have a satisfactory solution for mixed waste disposal, the two remaining facilities will be starting the REVAL process by the end of FY 2010, but will not be fully operational until FY 2011.

Table 1. Treatment Facility Status at the Livermore Site

Treatment Facility	Operating?	Date stopped	Started REVAL process	Evaluating power issues prior to REVAL Process	Will use REVAL in the future for restart	Don't plan to use REVAL process	Don't plan to restart	Can't restart until resolve mixed waste issues	Projected restart date as of 10/23/08	Notes/caveats for restart dates (10/23/08)
Treatment Facility B	Yes									
Treatment Facility C	Yes		Yes							This facility will be reworked due to risk and operating system issues
Treatment Facility D East	Yes									
Treatment Facility D Southeast	Yes									
Treatment Facility D Southshore	Yes									
Treatment Facility D West	Yes									
Treatment Facility E Southwest	Yes									
Treatment Facility E West	Yes									
Treatment Facility E Northwest	Yes									
Treatment Facility G-1	Yes									
Vapor Treatment Facility D Hotspot	No	6/7/2007		Yes					By 3/31/10	If receive full funding in FY09
Treatment Facility 5475-1	No	7/26/2007			Yes			Yes	In FY 2011	Work will start in FY 2010 if there is a satisfactory solution for mixed waste disposal
Vapor Treatment Facility D East Traffic Circle South	No	8/11/2007		Yes					By 3/31/10	If receive full funding in FY09
Treatment Facility 5475-3	No	8/21/2007			Yes			Yes	In FY 2011	Work will start in FY 2010 if there is a satisfactory solution for mixed waste disposal
Vapor Treatment Facility D Helipad	No	9/28/2007			Yes				By 6/30/10	Either operational or configured to support the bioremediation study
Treatment Facility D Helipad	No	10/11/2007			Yes				By 6/30/10	Either operational or configured to support the bioremediation study
Vapor Treatment Facility 5475	No	10/12/2007			Yes			Yes	By 9/30/10	If there is a satisfactory solution for mixed waste disposal
Treatment Facility A West	No	1/14/2008					Yes			Will not be restarted
Vapor Treatment Facility E Eastern Landing Mat	No	2/5/2008		Yes					By 3/31/10	If receive full funding in FY09
Treatment Facility 406 Northwest	No	2/19/2008	Yes						By 9/30/09	If receive full funding in FY09
Treatment Facility 518 North	No	2/20/2008			Yes			Yes	By 12/31/09	If there is a satisfactory solution for mixed waste disposal
Treatment Facility C East	No	2/27/2008	Yes						By 9/30/09	If receive full funding in FY09
Vapor Treatment Facility 518-PZ	No	2/27/2008			Yes				By 6/30/10	
Treatment Facility 518	No	2/27/2008				Yes			By 6/30/10	
Treatment Facility 5475-2	No	2/27/2008			Yes				By 9/30/10	
Vapor Treatment Facility E Hotspot	No	3/10/2008		Yes					By 3/31/10	If receive full funding in FY09
Treatment Facility 406	No	3/17/2008	Yes						By 9/30/09	If receive full funding in FY09
Treatment Facility E Southeast	No	4/2/2008	Yes						By 9/30/09	If receive full funding in FY09
Treatment Facility C Southeast	No	5/1/2008	Yes						By 9/30/09	If receive full funding in FY09
Treatment Facility D South	No	5/8/2008	Yes						By 9/30/09	If receive full funding in FY09
Treatment Facility E East	No	6/2/2008	Yes						By 9/30/09	If receive full funding in FY09
Treatment Facility E Hotspot	No	6/10/2008	Yes						By 9/30/09	If receive full funding in FY09
Treatment Facility G North	No	6/20/2008	Yes						By 9/30/09	If receive full funding in FY09
Vapor Treatment Facility 406 Hotspot	No	6/26/2008			Yes				By 12/31/09	
Treatment Facility D	No	7/25/2008	Yes						By 9/30/09	If receive full funding in FY09
Treatment Facility A	No	8/12/2008	Yes						By 9/30/09	If receive full funding in FY09
Vapor Treatment Facility 511	No	8/18/2008		Yes					By 3/31/10	If receive full funding in FY09
Treatment Facility A East	No	9/4/2008	Yes						By 9/30/09	If receive full funding in FY09

*Facility shut down at regulatory request

TABLE 2: LLNL Livermore Site Treatment Facilities and Associated Extraction Wells

Treatment Facility and associated wells	Operational well?	Days since last operated (as of 10/15/08)	Notes
Ground Water Treatment Facility A (TFA)			
W-1001	N	65	
W-1004	N	65	
W-1009	N	65	
W-109	N	65	
W-262	N	65	
W-408	N	162	Flow meter failure
W-415	N	162	Flow meter failure
W-457	N	65	
W-518	N	65	
W-520	N	76	Removed from service
W-522	N	65	
W-601	N	76	Removed from service
W-602	N	76	Removed from service
W-603	N	76	Removed from service
W-605	N	65	
W-609	N	76	Removed from service
W-614	N	162	Pump failure
W-712	N	65	
W-714	N	65	
W-903	N	209	Pump failure
W-904	N	65	
Ground Water Treatment Facility A East (TFA-E)			
W-254	N	41	
Ground Water Treatment Facility A West (TFA-W)			
W-404	Y	275	Shutdown per regulatory direction
Ground Water Treatment Facility B (TFB)			
W-1423	Y	0	
W-357	Y	0	
W-610	Y	0	
W-620	Y	0	
W-621	Y	0	
W-655	Y	0	
W-704	Y	0	
Ground Water Treatment Facility C (TFC)			
W-1015	Y	0	
W-1102	Y	0	
W-1103	Y	0	
W-1104	Y	0	
W-1116	Y	0	
W-701	Y	0	

TABLE 2: LLNL Livermore Site Treatment Facilities and Associated Extraction Wells

Treatment Facility and associated wells	Operational well?	Days since last operated (as of 10/15/08)	Notes
Ground Water Treatment Facility C East (TFC-E)			
W-368	N	231	
W-413	N	231	
Ground Water Treatment Facility C-Southeast (TFC-SE)			
W-1213	N	159	
W-2201	N	159	
Ground Water Treatment Facility D (TFD)			
W-1206	N	82	
W-1208	N	82	
W-2011	N	82	
W-2101	N	82	
W-2102	N	82	
W-351	N	82	
W-653	N	82	
W-906	N	172	Pump failure
W-907-2	N	82	
Ground Water Treatment Facility D East (TFD-E)			
W-1253	Y	0	Not activated yet
W-1255	Y	0	Not activated yet
W-1301	Y	0	
W-1303	Y	0	
W-1306	Y	0	
W-1307	Y	0	
W-1404	Y	0	
W-1550	Y	0	
W-2006	Y	0	
W-2203	Y	0	
Ground Water Treatment Facility D Helipad (TFD-HPD)			
W-1254	Y	370	ESAR In-situ bioremediation test
W-1551	Y	370	ESAR In-situ bioremediation test
W-1552	Y	370	ESAR In-situ bioremediation test
W-1650	Y	370	ESAR In-situ bioremediation test
W-1651	Y	370	ESAR In-situ bioremediation test
W-1652	Y	370	ESAR In-situ bioremediation test
W-1653	Y	370	ESAR In-situ bioremediation test
W-1654	Y	370	ESAR In-situ bioremediation test
W-1655	Y	370	ESAR In-situ bioremediation test
W-1656	Y	370	ESAR In-situ bioremediation test
W-1657	Y	370	ESAR In-situ bioremediation test

TABLE 2: LLNL Livermore Site Treatment Facilities and Associated Extraction Wells

Treatment Facility and associated wells	Operational well?	Days since last operated (as of 10/15/08)	Notes
Ground Water Treatment Facility D South (TFD-S)			
W-1503	N	162	Pressure transducer failure
W-1504	N	162	Pressure transducer failure
W-1510	N	162	Pressure transducer failure
Ground Water Treatment Facility D Southeast (TFD-SE)			
SIP-ETC-201	Y	0	
W-1308	Y	0	
W-1403	N	105	Totalizer failure
W-1904	Y	243	Dry well
W-2005	Y	0	
W-314	N	243	Pump failure
Ground Water Treatment Facility D Southshore (TFD-SS)			
W-1523	Y	0	
W-1601	Y	0	
W-1602	Y	0	
W-1603	N	92	Pump failure
Ground Water Treatment Facility D West (TFD-W)			
W-1215	Y	0	
W-1216	Y	0	
W-1902	Y	0	
Vapor Treatment Facility D Eastern Traffic Circle South (VTFD-ETCS)			
SIP-ETC-201	N	431	
W-1904	N	431	
W-ETC-2003	N	431	
W-ETC-2004A	N	431	
W-ETC-2004B	N	431	
Vapor Treatment Facility D Helipad (VTFD-HPD)			
W-1552	N	383	
W-1650	N	383	
W-1651	N	383	
W-1652	N	383	
W-1653	N	383	
W-1654	N	383	
W-1655	N	383	
W-1656	N	383	
W-1657	N	383	
W-HPA-002A	N	383	
W-HPA-002B	N	383	

TABLE 2: LLNL Livermore Site Treatment Facilities and Associated Extraction Wells

Treatment Facility and associated wells	Operational well?	Days since last operated (as of 10/15/08)	Notes
Vapor Treatment Facility D Hotspot (VTFD-HS)			
W-2011	N	496	
W-2101	N	496	
W-2102	N	496	
W-653	N	496	
Ground Water Treatment Facility E (TFE-E)			
W-1109	N	135	
W-1903	N	135	
W-2305	N	135	
W-566	N	135	
Ground Water Treatment Facility E Hotspot (TFE-HS)			
W-2012	N	127	
W-2105	N	127	
Ground Water Treatment Facility E Northwest (TFE-NW)			
W-1211	Y	0	
W-1409	N	169	Pump failure
Ground Water Treatment Facility E Southeast (TFE-SE)			
W-359	N	196	
Ground Water Treatment Facility E Southwest (TFE-SW)			
W-1518	N	27	Pump failure
W-1520	N	287	High tritium levels
W-1522	Y	0	
Ground Water Treatment Facility E West (TFE-W)			
W-292	Y	0	
W-305	Y	0	
Vapor Treatment Facility E Eastern Landing Mat (VTFE-ELM)			
W-1903	N	253	ESAR test facility
W-1909	N	253	ESAR test facility
W-2305	N	253	ESAR test facility
W-543-001	N	253	ESAR test facility
W-543-003	N	253	ESAR test facility
W-543-1908	N	253	ESAR test facility

TABLE 2: LLNL Livermore Site Treatment Facilities and Associated Extraction Wells

Treatment Facility and associated wells	Operational well?	Days since last operated (as of 10/15/08)	Notes
Vapor Treatment Facility E Hotspot (VTFE-HS)			
W-2105	N	219	
W-ETS-2008A	N	219	
W-ETS-2008B	N	219	
W-ETS-2009	N	219	
W-ETS-2010A	N	219	
W-ETS-2010B	N	219	
Ground Water Treatment Facility G-1 (TFG-1)			
W-1111	Y	0	
Ground Water Treatment Facility G North (TFG-N)			
W-1806	N	117	
W-1807	N	117	
Ground Water Treatment Facility 406 (TF406)			
GSW-445	N	127	Removed from service
W-1309	N	127	Removed from service
W-1310	N	127	
Ground Water Treatment Facility 406 Northwest (TF406-NW)			
W-1801	N	170	
Ground Water Treatment Facility 518 North (TF518-N)			
W-1410	N	238	
Ground Water Treatment Facility 518 Perched Zone (TF518-PZ)			
SVB-518-201	N	231	
SVB-518-204	N	231	
W-1615	N	231	
W-518-1913	N	231	
W-518-1914	N	231	
W-518-1915	N	231	
Ground Water Treatment Facility 5475-1 (TF5475-1)			
W-1302-2	N	447	
Ground Water Treatment Facility 5475-2 (TF5475-2)			
W-1108	N	231	
W-1415	N	231	

TABLE 2: LLNL Livermore Site Treatment Facilities and Associated Extraction Wells

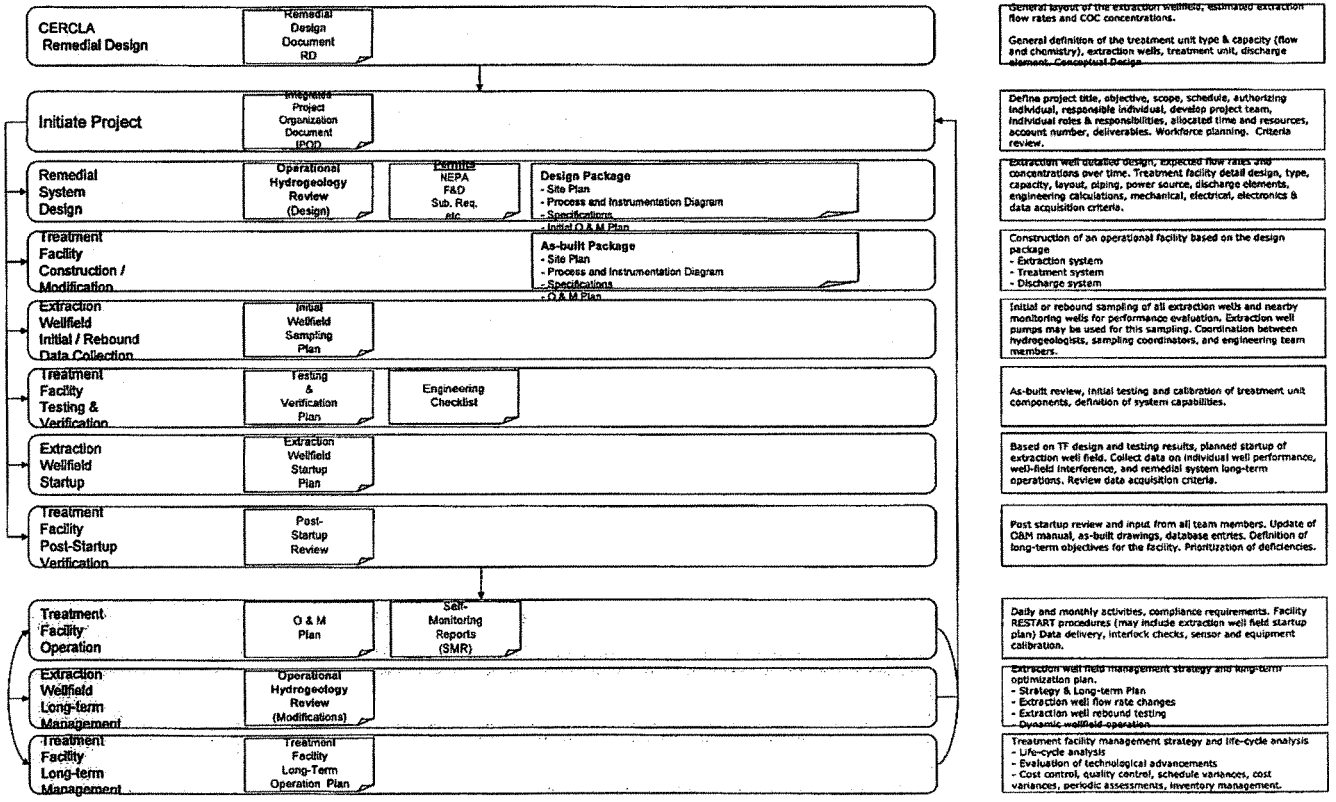
Treatment Facility and associated wells	Operational well?	Days since last operated (as of 10/15/08)	Notes
Ground Water Treatment Facility 5475-3 (TF5475-3)			
W-1604	N	421	
W-1605	N	421	
W-1608	N	421	
W-1609	N	421	
Vapor Treatment Facility 406 Hotspot (VTF406-HS)			
W-217	N	111	
W-514-2007A	N	111	
W-514-2007B	N	111	
Vapor Treatment Facility 511 (VTF511)			
W-1517	N	61	Not activated yet
W-2204	N	61	Not activated yet
W-2205	N	61	Not activated yet
W-2206	N	61	Not activated yet
W-2207A	N	61	
W-2207B	N	61	
W-2208A	N	61	
W-2208B	N	61	
W-274	N	61	Not activated yet
Vapor Treatment Facility 518 Perched Zone (VTF518-PZ)			
SVB-518-201	N	231	
SVB-518-204	N	231	
W-1615	N	231	
W-518-1913	N	231	
W-518-1914	N	231	
W-518-1915	N	231	
Vapor Treatment Facility 5475 (VTF5475)			
SVI-ETS-504	N	369	
W-1605	N	369	
W-1606	N	369	
W-1607	N	369	
W-1608	N	369	
W-2211	N	369	
W-2212	N	369	
W-2302	N	369	
W-2303	N	369	
W-ETS-507	N	369	

Attachment A
Remediation Evaluation Process (REVAL)

DOE/LLNL have a robust Remediation Evaluation Process (REVAL) in place for evaluating and restarting the soil vapor and ground water treatment facilities and associated wells. Part of the REVAL process requires a detailed evaluation of each treatment facility and associated wells to determine what equipment has failed and scaled due to running to failure. This process includes the following steps related to the treatment facility restart (tan boxes on Figure 1):

1. Define project title, objective, scope, schedule, authorizing individual, responsible individual, develop project team, individual roles & responsibilities, allocated time and resources, account number, deliverables. Initiate workforce and safety planning.
2. Review extraction well detailed design, expected flow rates and concentrations. Treatment facility detail design, type, capacity, layout, piping, power source, discharge elements, engineering calculations, mechanical, electrical, electronics & data acquisition criteria.
3. Review as-built packages for extraction, treatment, and discharge systems.
4. Conduct rebound sampling of all extraction wells and nearby monitoring wells for performance evaluation and regulatory reporting.
5. Evaluate each facility and associated wells. Conduct initial testing and calibration of treatment unit components, order parts as needed, identify and repair components that failed due to shutdown, and maintain remaining components (lube, remove calcification removal, and other general maintenance). Once the repair and maintenance work is completed, conduct an initial test of the facility for leaks and other issues that may cause noncompliance when the facility restarts operation.
6. Startup the extraction wellfield. Collect data on individual well performance, wellfield interference, and remedial system long-term operations. Review data acquisition criteria.
7. Post startup review and input from all team members on operations and safety. Update O&M manual, as-built drawings, and database entries. Ensure treatment facility is operating in compliance.

Figure A1. Remediation Evaluation (REVAL) Process



QUESTION FROM CHAIRMAN BOXER

Q2a. The lack of funding to operate and maintain treatment and associated wells at the Lawrence Livermore National Laboratory, Livermore Site appears to be related to DOE's transfer of Long-Term Stewardship responsibility over the site from DOE's Environmental Management Program to the National Nuclear Security Administration (NNSA). DOE budget documents indicates that the department has transferred other sites to NNSA and intends to transfer other sites to the NNSA in the next fiscal year, including Lawrence Livermore National Laboratory, Site 300. Please provide the following information regarding these transfer activities:

List all sites that DOE has transferred from the Department's Environmental Management Program to the NNSA.

A2a. The Office of Environmental Management (EM) completed its legacy cleanup mission at Sandia National Laboratories (SNL) in California in FY 1999.

EM completed two more sites in FY 2006 - Kansas City Plant (KCP) and Lawrence Livermore National Laboratory (LLNL) Livermore Site. The National Nuclear Security Administration (NNSA) Long-Term Stewardship (LTS) activities were scheduled to begin at these two sites in FY 2007. This change was termed a functional transfer for these sites from EM to NNSA. However, EM continued to fund the LTS activities at these sites through FY 2007 due to a year-long Continuing Resolution (CR) which did not allow for the functional transfers included in the President's Request.

QUESTION FROM CHAIRMAN BOXER

Q2b. The lack of funding to operate and maintain treatment and associated wells at the Lawrence Livermore National Laboratory, Livermore Site appears to be related to DOE's transfer of Long-Term Stewardship responsibility over the site from DOE's Environmental Management Program to the National Nuclear Security Administration (NNSA). DOE budget documents indicates that the department has transferred other sites to NNSA and intends to transfer other sites to the NNSA in the next fiscal year, including Lawrence Livermore National Laboratory, Site 300. Please provide the following information regarding these transfer activities:

List all sites that DOE intends to transfer from the Department's Environmental Management Program to the NNSA in Fiscal Year 2009 through 2015.

A2b. The FY 2009 Congressional Budget reflects the completion of the EM legacy cleanup mission at the LLNL - Site 300 and Pantex Plant, and requests funds for the start of the NNSA LTS activities at these sites. EM baselines project completion of its cleanup mission at Sandia National Laboratories (SNL) in New Mexico in FY 2009, the Separations Process Research Unit (SPRU) in FY 2014 and Los Alamos National Laboratory by FY 2015. Inclusion of these sites to the NNSA LTS program occurs the year following completion of EM Cleanup.

QUESTION FROM CHAIRMAN BOXER

Q2c. The lack of funding to operate and maintain treatment and associated wells at the Lawrence Livermore National Laboratory, Livermore Site appears to be related to DOE's transfer of Long-Term Stewardship responsibility over the site from DOE's Environmental Management Program to the National Nuclear Security Administration (NNSA). DOE budget documents indicates that the department has transferred other sites to NNSA and intends to transfer other sites to the NNSA in the next fiscal year, including Lawrence Livermore National Laboratory, Site 300. Please provide the following information regarding these transfer activities:

The anticipated number of FTEs and funding needed to maintain all cleanup actions at each site in Fiscal Year 2009 and the requested amount of FTEs and funding for each site in Fiscal Year 2009.

A2c. The number of Federal FTEs requested in the FY 2009 President's Budget for the LTS program is shown below and is the same as the number identified as needed by the sites to maintain LTS cleanup activities.

Site	Federal FTEs	Funding
Kansas City Plant	1	$2,800,000
Lawrence Livermore National Laboratory (Livermore Site and Site 300)	6	$22,274,000
Pantex	2	$8,262,000
SNL	2	$7,251,000

QUESTION FROM CHAIRMAN BOXER

Q3. DOE is responsible for cleaning up contamination at the Santa Susanna Federal Laboratory in Simi Valley, California. As part of the cleanup process, DOE must ensure that a full investigation of existing contamination at the site is conducted. DOE is currently paying EPA to conduct an investigation of radiological contamination on part of the site. Would DOE approve of EPA conducting a radiological investigation on the entire site?

A3. DOE has no objections to the Environmental Protection Agency conducting a radiological investigation of the entire Santa Susana Field Laboratory (SSFL) site.

QUESTION FROM RANKING MEMBER INHOFE

Q1. During the September 18, 2008 EPW hearing you gave your pledge to Senator Boxer, after she requested it, that the Department of Energy would comply with California law and federal law in relation to the cleanup activities at the ETEC site. Could you explain your answer in more detail?

A1. Development of a comprehensive characterization of the site is essential to a full understanding of the nature and extent of residual contamination at SSFL. DOE's operations at the SSFL site took place on the 90 acres of the Energy Technology Engineering Center (ETEC) within the 290 acre Area IV of SSFL. Thus, DOE is responsible for cleaning up contamination associated with its operations at ETEC. DOE is preparing an Environmental Impact Statement for Area IV pursuant to a federal district court order and is meeting its responsibilities under a Resource Conservation and Recovery Act Consent Order entered into with the State of California and SSFL landowners, The Boeing Company and National Aeronautics and Space Administration.

In the September 18, 2008, Senate Committee on the Environment and Public Works hearing, Senator Boxer asked if DOE would pledge to comply with California and federal laws in relation to its cleanup efforts at ETEC. DOE supports a comprehensive cleanup at the SSFL and will comply with all applicable requirements of state and federal law.

Senator BOXER. Thank you very much.

I am going to start off the question period, and I have some questions for Mr. Arny.

Mr. Arny, I am going to ask you about DOD using economic coercion in my State. Information provided to the Committee shows that in 2004, California's Department of Toxic Substances Control issued DOD an enforcement order related to contamination at the Naval Information Research Foundation. Did DOD tell California to "revoke, withdraw, declare the order void, or offer another procedure that is equivalent to revocation, or else it would end DOD's agreement to reimburse California for work related to cleaning up the department's toxic waste sites in the State"?

Mr. ARNY. I don't have any information on that. I will have to get it.

Senator BOXER. Well, I have the information.

Mr. ARNY. OK.

Senator BOXER. And I have the information here from Rick Moss, Assistant Deputy Director of California's Department of Toxics. He says the State was forced to revoke its enforcement order at the site. His is outrageous and you don't know anything about it.

Mr. ARNY. Ma'am, I have no idea.

Senator BOXER. You don't know anything about it. OK.

Mr. ARNY. I will say, because I worked for the Navy for 6 years doing BRAC and installations, and we had a very, very good relationship with DTSR, and also with our DSMOA. As a matter of fact, we have gone beyond our DSMOA.

Senator BOXER. Well, I am not asking you for generalizations. I am asking you, I have the document.

Mr. ARNY. I will get you the answer.

Senator BOXER. From my State, and it is very, very clear that they said they were threatened that you would pull out of the site. So why don't we just put this aside, and you will look into it and get back to me within a week.

Mr. ARNY. Absolutely, yes.

Senator BOXER. And we have heard this from others.

Now, Mr. Arny, do you believe that a Federal agency should immediately investigate and cleanup contamination from a Federal facility if combustible gas is detected just 100 feet away from a school, toxic gas threatens to seep into school rooms, and chemicals pollute a potential future drinking water source. Do you believe that a Federal agency should immediately investigate and cleanup such contamination that threatens children in a school?

Mr. ARNY. Yes, ma'am.

Senator BOXER. Then DOD should comply with EPA's cleanup order at Fort Meade in Maryland and stop asking the White House to intervene in enforcement of the order. Now, why has DOD asked the White House to intervene in enforcement of this order?

Mr. ARNY. There is a difference between the substance and the form of what is happening here. The site at Fort Meade was a site near the school and near housing. We went in when it was identified. It was identified during the construction of the housing. We went in an did immediate removals, put barriers around, and put up sensors and have done all the things that are required to. When EPA issued their order under RCRA, as opposed to CERCLA, there

was no—when you issue that order, you are supposed to identify some immediate and substantial endangerment. There was no immediate and substantial endangerment other than what we had seen years before, and we have been complying with that.

Senator BOXER. OK.

Mr. ARNY. I will explain why we have gone to OMB. When I took this job 6 months ago, and I did Navy and some similar stuff, the department in 2003 made a decision on FFAs to go down a dual track. The Air Force was looking to do streamlined——

Senator BOXER. Sir, excuse me. I don't have much time, and the reason I am stopping you here is you are giving me a very bureaucratic answer. I am going to leave this Fort Meade for the Senator from Maryland. I am going to leave that. He will stew on what you said.

Mr. ARNY. OK.

Senator BOXER. I am going to go to my next question.

Mr. Arny, do you believe that a Federal agency should immediately investigate and cleanup contamination from a Federal facility if high levels of DDT, a chemical that causes cancer and harm to the developmental and reproductive system, are found in areas that people use for fishing and recreation?

Mr. ARNY. Yes, I do.

Senator BOXER. Then DOD should comply with EPA's cleanup order at Tyndall Air Force Base in Florida and stop asking the White House to intervene. DOD isn't above the law. The department is legally required to protect public health, not delay or try to block safeguarding public health. So, I don't understand. I mean, your answer is right. We should clean this up immediately when there are high levels of DDT. But then we find out at Tyndall Air Force Base in Florida, you are asking the White House to intervene again and not clean it up.

Mr. ARNY. Not on the cleanup levels, ma'am. Absolutely not on the cleanup levels.

Senator BOXER. Why are you asking them to intervene?

Mr. ARNY. The procedures are in place. The citizens are protected from that. That is ongoing. We have gone to OMB because there was a dispute between DOD and EPA on procedures within the FFA. I worked at OMB in the 1980's for two and a half years. If there is a dispute between two—and I got this dispute. It was laid in my lap. And I said, this is ridiculous. We can't negotiate it. One department is not negotiating. They are not talking to each other. OMB is the avenue and DOJ to resolve disputes between agencies. And that is all it is. It is procedural. It is not substantive.

Senator BOXER. Procedural, but meanwhile people are exposed to DDT.

Mr. ARNY. No, they are not, ma'am. No, they are not.

Senator BOXER. Let me just say something here. EPA is in charge of this, not OMB.

Mr. ARNY. We agree.

Senator BOXER. It is EPA's job. They issue the order. You are not following it.

Mr. ARNY. The order is under RCRA.

Senator BOXER. DOD and OMB and EPA.

Mr. ARNY. Yes, ma'am. I understand that.

Senator BOXER. So then why are you interfering and not doing it and going to the White House?

Mr. ARNY. We are responding. At Tyndall, they asked us to test water. We went out and tested it. We found nothing. They agree with that.

Senator BOXER. Well, the fact of the matter is, I can go on with example after example, where the DOD is trying to run away from its responsibility.

Mr. ARNY. Absolutely not.

Senator BOXER. Well, I will give you another one. I will give you another one.

Mr. ARNY. OK.

Senator BOXER. And then I have to stop because my time is running out.

Mr. Arny, information given to EPA states that Alaska's Department of Environmental Protection has withheld enforcement actions against DOD out of fear that DOD would withhold funding for State cleanup oversight work at DOD facilities. This information describes DOD contractors failing to report toxic chemical releases, failing to correctly characterize waste, improper waste disposal, and failing to properly address leaking storage tanks.

This is another example. Are you familiar with the Alaska situation?

Mr. ARNY. I find that incredible. I have no idea of what it is about. I will check into it.

Senator BOXER. OK. We will give you all the information from Alaska, from Florida, from Maryland, from California, because is it one thing to sit here and say—and I believe you—you want to do everything right, but then you have these circumstances where EPA has been very clear and you are trying to run and get the OMB to——

Mr. ARNY. No, ma'am. That is a mischaracterization.

Senator BOXER. Well, we will continue with this.

Go ahead, Senator Inhofe.

Senator INHOFE. All right. Let's start with Ms. Bodine. I would like to have you kind of explain why the EPA has filed a lawsuit against Tronox to recoup $280 million for the site in New Jersey, and what impact has an ongoing Department of Justice corruption probe had on the $280 million figure? I guess what I am really asking here is, isn't this premature to go ahead and do that before some of these determinations are made?

Ms. BODINE. Senator, it is my understanding that EPA's suit for cost recovery against Tronox is entirely separate from whatever investigation that DOJ may have with respect to contractors or bids on the Federal Creosote site, that they are completely separate.

Of course, at Federal Creosote, the site is complete. It is now protective of human health and the environment. It is in a residential area. It has been cleaned up to residential standards.

Senator INHOFE. It was cleaned up by the EPA.

Ms. BODINE. EPA spent the money, but again as we all agree, responsible parties should pay for cleanup and there are responsible parties at the site, and EPA is now seeking cost recovery from those parties.

Senator INHOFE. What we are getting at now, I think, Ms. Bodine, is a rerun of some of the things we have been dealing with now for at least the years that I have been serving on this Committee, and that is that I have seen estimates that that cleanup could have been done for about 10 percent of what the cost is. Do you disagree with those estimates?

Ms. BODINE. I haven't seen those estimates, but you raised this issue a matter of months ago.

Senator INHOFE. Yes.

Ms. BODINE. After you raised it, I went back and I asked my staff about it because I was concerned about the issues you were raising. It is my understanding that because of the location of this site, because it is in a highly populated area, because it is a residential property use, that the alternatives that were being presented by the prps, who by the way didn't step up to actually do the work, but those alternatives were not feasible at this site because you can't leave the waste in place when it is a residential property.

So yes, this site involved removing material, taking it offsite and treating it. It did not involve leaving it in place, but that is because it's a highly populated residential area. In a different location, a different remedy might have been possible, but not at this location.

Senator INHOFE. Yes. And I understand that. I anticipated that would be your answer, but you will remember, when you had a different position, and I remember sitting up here when we went through the same thing at a site down in Louisiana. In that case, we were able to let the responsible party go ahead and do it, and they cleaned it up, and the estimate of the EPA was again much, much greater than that.

My concern is this, you have a company that is now I think in serious trouble. I have read some things. I haven't talked to any of the principals of the company, but there has been some talk about going into chapter 11 and all that, just because of this. If it could have been done—and I have seen very responsible parties analyzing what could have been done and how they could have cleaned up the mess that they were responsible for—for something like $30 million. Then you come along and it just seems like there is no lid on this thing. I know you will say it is a unique situation, but it keeps coming up again and again.

This is what does concern me. I know that this is ongoing. I know that there are serious problems in a corporation as a result of this. I think it is just another example of not handling it properly and allowing people in the private sector to take care of these things, as opposed to the Federal Government coming in through the EPA and just spending money that doesn't really have to be spent. I suspect that is the case, but I don't know that is the case. But I am concerned over what the result is in some of these companies.

Secretary Arny, in my opening statement I talked a little bit about, let me go back and re-read it here. DOD has 140 installations on NPL, and 129 have signed Federal facilities agreements, 11 of the installations on the NPL have not reached an agreement with EPA and do not have an FFA. Through Fiscal Year 2007,

DOD has spent over $650 million in cleanup at the 11 installations, which have aggregate total cost in excess of $1.3 billion.

It sounds to me like when we look at what you have been doing, it has been a pretty good job in terms of the efforts that have been made by DOD.

Mr. ARNY. We work very cooperatively, we believe, with the States and with EPA. Indeed, at Fort Meade, EPA is on our site. They have an office there. We have set the levels. We have worked with them. As I said, the sites that don't have FFAs, we are working to——

Senator INHOFE. Are those the 11 sites?

Mr. ARNY. Those are the 11 sites. Ironically, one of the sites is closed out at Hanscom. We have reached closure on all of the sites——

Senator INHOFE. But you are continuing this process in spite of the fact that FFAs were not in place?

Mr. ARNY. Absolutely. And as I said before, when I took this job, we had a problem in that policy personnel and legal personnel on DOD staff felt that what was being required in the FFAs exceeded the law and regulation. I felt they had good reason. I can't tell which side is right or wrong in it. There have been no negotiations of any meaningful stature with EPA for over a year. I said let's break the logjam. As a former OMBer, OMB, one of their charges is to resolve interagency disputes. So I said, let's take this up to get it resolved. Whatever OMB and DOJ tell us to do, we will comply with exactly.

Senator INHOFE. Yes, I remember you used the term "when I took this job." I remember when you took this job, and we had this discussion as to the difficulties it was. And quite frankly, I think it has to be said by someone on this Committee that I think you are doing a good job.

Thank you, Madam Chairman.

Senator BOXER. Thank you so much, Senator.

Senator Lautenberg.

Senator LAUTENBERG. Thank you, Madam Chairman.

I want to ask a question of Mr. Arny. We know that other Federal agencies have signed cleanup agreements without protest, but the Air Force in particular has not signed cleanup agreements for its Superfund sites, and I include reference to McGuire Air Force Base particularly. Why is that?

Mr. ARNY. There are a number of reasons. The Air Force, like I said, I spent the last previous 6 years working Navy issues and worked with my Air Force counterparts.

Senator LAUTENBERG. Right, but your responsibility includes Air Force.

Mr. ARNY. Right. It does not. I mentioned that just to say that I did see from the side, more or less. They were trying to reach a more streamlined process, rightfully or wrongfully, and there were some personality issues which we could go into. And so when this——

Senator LAUTENBERG. As brief as you can be, please.

Mr. ARNY. The department chose to go down two paths. When it came to me, those two paths weren't working. We needed to combine in a single——

Senator LAUTENBERG. That we know. OK, so please, why is that happening? Just laziness on the part——

Mr. ARNY. Oh, no. Again, cleanup was being done heavily at all the facilities, and as you know, at McGuire, we all decided, EPA and Navy, that the BOMARC site was far more critical, even though it wasn't part of the NPL designation, so that is where the Air Force has been putting their work at McGuire on the BOMARC site.

Senator LAUTENBERG. So they don't multi-task when it comes to these things?

Mr. ARNY. No, they have protection in place at all the sites at McGuire. It is just that the actual cleanup efforts have been expended at BOMARC more than the others.

Senator LAUTENBERG. McGuire has been on the top priority Superfund cleanup list since 1999. The Pentagon has reported that it won't be cleaned up until 2032. Why must it take over 30 years to clean up a site that has been listed for a long time as a potential threat to the adjacent communities?

Mr. ARNY. Sir, the groundwater there is not used. If there is any imminent danger, we go in and stop that instantly. This is a groundwater plume that is not used by us or the outside. Now, a lot of those long dates that you see, the 2030's, 2040's, most of those are long after we have a remedy in place. Those involve long-term monitoring for many years.

Senator LAUTENBERG. But are they safe at that point?

Mr. ARNY. They are safe before that. The population——

Senator LAUTENBERG. So your challenge is to whether or not it is a threat to the population?

Mr. ARNY. Absolutely. We isolate it and then go in and clean it up. I am very frustrated at the fact that it takes sometimes many years to get these investigations done to decide what to do.

Senator LAUTENBERG. Yes. The McGuire Air Force Base, located above the Atlantic coastal plain aquifer, and discrepancies in the levels of fuel stored in above-ground storage tanks there. The groundwater flow may be in the direction of a child care center. I mean, these things exist there, but it has not been characterized to determine whether children and day care workers are potentially exposed to contaminated groundwater or vapor intrusion.

Mr. ARNY. Sir, I don't know the specifics of that site, but I would be dumbfounded if we haven't gone in to protect——

Senator LAUTENBERG. Well, I would like an answer.

Mr. ARNY. Absolutely. And I encourage you to visit, because it is also——

Senator LAUTENBERG. I visit often, but I would ask you please to get me an answer to that question.

Mr. ARNY. Yes, sir.

Senator LAUTENBERG. When we think about a 30-year timetable, it is impossible to contemplate. Once again, we are spending $3 billion a week-plus appropriations on the war in Iraq, and we have to be able to protect our citizens who are on the ground in this Country, as well as our efforts to protect ourselves in places far away.

Mr. ARNY. I agree with you completely, and if we had any imminent danger, we would instantly go in.

Senator LAUTENBERG. All right. I will look for your answer, Mr. Arny.

Administrator Bodine, in 2001 the Defense Department challenged and brought to a halt EPA's plans for stronger drinking water standards for trichloroethylene. In 2006, the National Research Council found the strongest evidence to date that TCE is linked to cancer. Now, given that evidence, does the Pentagon still claim that TCE doesn't really present an imminent threat?

Ms. BODINE. Was that directed to me?

Senator LAUTENBERG. To you or Mr. Arny.

Mr. ARNY. Yes, sir. TCE is one of our chemicals of great concern. We do believe that poses a hazard. As somebody who is old enough to have been using it when I was younger, we agree. I mean, it wasn't back in the old days. We used it in great quantities as degreasers, and we are now paying the penalty going in and cleaning that up.

Senator LAUTENBERG. So then the Defense Department is no longer challenging safeguards, and worked to rid ourselves of the exposure to TCE.

Mr. ARNY. Absolutely not. We are not challenging. It is a danger and we need to take care of it.

Senator LAUTENBERG. All right.

Madam Chairman, I have——

Senator BOXER.

[Remarks made off microphone.]

Senator LAUTENBERG. OK. But the record, I assume, will be kept open.

Senator BOXER. It will be kept open.

Senator LAUTENBERG. Because there are questions that have to be answered that were not asked today. Thank you.

Senator BOXER. Absolutely.

Senator Barrasso.

Senator BARRASSO. Thank you, Madam Chairman.

Mr. Arny, I mentioned in my opening statement about this congressional Research Service report that has come up to take a look at the efforts that have been done by the Department of Defense. Look at this statement from the report. It says the Department of Defense has completed planned response actions with the concurrence of Federal and State regulators at 69 percent of the contaminated sites it has identified as being eligible for cleanup. That was given a low grade by Madam Chairman.

But to re-grade the paper, if you look on this next chart, and the next line in the CRS report says further assessments indicated that no response action were expected or required at 12 percent of the sites because the potential risks of exposure were within an acceptable range based on applicable standards and other relevant criteria. So now you are up to an 81 percent in terms of what needs to be done.

It goes on to say response actions were pending at the remaining 19 percent of the site inventory, but there were varying stages of progress among those sites already completed, ranging from the assessment phase to the construction of cleanup remedies.

So as we kind of re-grade this paper, getting now from 69 percent to 81 percent, and now we are looking at these last 19 percent,

I assume that you are along the line of progress at those. Those aren't 19 percent where nothing has been done. From the report, it says you have been making progress.

Would you like to speak to that to see what we really ought to get this grade up to?

Mr. ARNY. As someone who has come to this late in his life, I think what you have to look at is where we know of something, we go in instantly. Let me give you a case at Fort Meade where we were constructing a building and dug in and found drums of hazardous material. So that was something that was not on anybody's radar scope. So when we go in and we find it, we do immediate action. We work with EPA, what needs to be done to protect human life and the environment.

But with all of our sites that we do know, we characterize them as what is the most critical, what is moving, what is not moving, what can we protect through other means to keep people off of it—doing things like that. Then we go through this long and sometimes painful work with EPA and our contractors to analyze what is there and decide what has to happen.

But again, we go back to characterizing it. Just because something doesn't have a remedy in place doesn't mean we haven't looked at it and made sure that the public and the environment is protected from that. If it starts to spread, if something changes, then we go in and move it up on our priority list.

Senator BARRASSO. So looking at this, then, in addition to that, you are now at 69 percent plus 12 percent plus another 9 percent, and a number of these places you already have work being done on as well.

Mr. ARNY. All of our places we have work being done or we have it on our list, and 100 percent of it we believe that the public and the environment is protected for now. We may have to go in and do something later, but for the meantime we are putting our money, again in cooperation with EPA and the State, we all decide what is the most hazardous, what do we need to address first, and we work out our priority.

Senator BARRASSO. So in terms of re-grading the paper, we are now at 90 percent in terms of work being done.

Mr. ARNY. Well, 100 percent in terms of what we have looked at. Now, you put a shovel in the ground and you dig something up, then, bam, that number may change.

Senator BARRASSO. Great. In spite of FFAs not being in place, because my next statement is going to be: However, the absence of a final agreement for an entire installation does not preclude individual cleanup actions from proceeding at discrete sites within the boundary of that installation. So there are reasons that you wouldn't want to sign a Federal facility agreement.

Mr. ARNY. We would like to sign it, but there were what w believe substantive disagreements on policy between ourselves and EPA that we could not, apparently, get resolved, so we pushed those up. But in terms of the substance of the agreement—and I point to Hanscom up in Massachusetts, and I forget why, but there was no FFA signed and yet we have completed that site, in cooperation with EPA.

Senator BARRASSO. So the bottom line is you have two sons who are serving our Nation who are living on bases, three grandchildren living on bases, it would seem to me that you would be the perfect man to be in charge of this.

Thank you. My time has expired.

Thank you, Madam Chairman.

Senator BOXER. I love having the student grade himself. I wish I had a teacher like that in school. Teacher, I deserve an A-plus.

[Laughter.]

Senator BOXER. We will go on.

Senator BARRASSO. Yes, you do, Madam Chairman.

Senator BOXER. Thank you. That was very sweet of you to say.

[Laughter.]

Senator BOXER. And I would suggest, I hope you can stay because we are going to go into how the States grade the DOD, and I think that is key. Let's just put it this way, in some cases, some very red States giving very failing grades.

But let's get to our friend, Senator Cardin, because he really has a lot of questions.

Go ahead, Senator.

OPENING STATEMENT OF HON. BENJAMIN CARDIN, U.S. SENATOR FROM THE STATE OF MARYLAND

Senator CARDIN. Thank you, Madam Chair.

Before I begin, I would ask unanimous consent that my opening statement, Senator Mikulski's opening statement, Senator Nelson's statement, and the documents relating to clean up of Fort Meade and Fort Detrick that I have here be included in the record. I ask unanimous consent that the record fact sheets from the Department of Health and Human Services Agency for Toxic Substances and Disease Registry detailing the health risks of some of the contaminants of these Superfund sites all be included in our record.

Senator BOXER. Without objection.

[The referenced documents follow:]

STATEMENT OF HON BENJAMIN L. CARDIN, U.S. SENATOR FROM THE STATE OF MARYLAND

Thank you, Madame Chair, for holding this hearing.

Today, less than 30 miles north of here, soils and groundwater are contaminated with

- metals,
- chlorinated solvents, including TCE and PCE,
- volatile organic compounds,
- explosive compounds and
- other pollutants

all at levels above safe drinking water standards. Several of these contaminants are known or are suspected of causing cancer.

This pollution is from historic activities at the Fort George G. Meade Army Base. And it is not new. The pollution dates back in some cases to decades ago.

The Army, the Environmental Protection Agency, and the State of Maryland have been working to clean up the site since 1993. Because of the severity of the contamination, EPA listed Fort Meade on the National Priority List of Superfund sites in 1998. Much clean-up work has occurred on the site, especially in the early years. But the pace of the cleanup has slowed. In recent years it has been especially difficult to get the Army to commit to additional actions.

A Federal Facilities Agreement between EPA and DoD governing the cleanup of the site is required by Superfund law. In fact, it must, according to law, be signed within 180 days of the site being listed on the National Priorities List.

It is more than 9 years since Fort Meade was put on the Superfund list and there is still no Federal Facilities Agreement in place.

The law is quite clear on this issue. In fact, in their written testimony, witnesses from EPA, the Department of Defense, and the Department of Energy all plainly say that under Section 120 of the Superfund statute, Federal facilities are required to comply with the law in the same manner, both substantively and procedurally, as private entities.

The same holds true for the other major law governing waste, the Resource Conservation and Recovery Act, or RCRA.

Madame Chairman, today soil and groundwater pollution remain at the site. Pollution is migrating offsite, too, through groundwater.

Residential drinking water wells in Odenton, Maryland, show detectable levels of several of these pollutants.

The Department of Defense has delayed taking the actions necessary to protect the health and welfare of my constituents. They include the brave men and women who serve our nation on the Fort Meade base and the Fort's neighbors outside the gate.

This situation is not confined to one military installation. This same refusal to comply with the Superfund statute has also occurred at McGuire Air Force Base in New Jersey and Tyndall Air Force Base in Florida.

EPA decided it could wait no longer and issued a Unilateral Administrative Order 1 year ago to the officials at Fort Meade, McGuire and Tyndall.

The order requires the Army to conduct additional investigation and to take interim measures to protect human health.

Astonishingly, at Fort Meade the Department of Defense remains unwilling to either comply with the cleanup requirements in the Unilateral Order or to commit to a specific timeline for entering into a Federal Facility Agreement with EPA.

On May 15th of this year, the Department of Defense went so far as to ask the Department of Justice to find them a legal loophole so they would not have to comply with EPA's order.

Madame Chairman, the time for further delays is long over. Today, I want to hear from the Department of Defense that they will abide by the law.

For the sake of those who work at Fort Meade, and McGuire Air Force Base and Tyndall Air Force Base and all their neighbors, we have one clear message for Secretary Arny: Clean it up and do it now.

I look forward to the testimony of all our witnesses today and the opportunity to find out why the early years of progress at these Federal facilities has been replaced by a record of obstruction and non-compliance.

Thank you, Madam Chairman.

STATEMENT OF HON. BARBARA MIKULSKI, U.S. SENATOR
FROM THE STATE OF MARYLAND

Chairwoman Boxer I would like to express my gratitude for calling this important hearing today. In late June, the Washington Post ran an article describing the Department of Defense's (DOD) neglect in cleaning up military bases around the country. The DOD has been negotiating unsuccessfully with the Environmental Protection Agency (EPA) on how this cleanup should progress. In 1988, EPA placed one of the bases mentioned in this article, Fort Meade, on its annual Superfund list. Fort Meade happens to be in my home State of Maryland and it is home to thousands of military officers and families.

I am disappointed with DOD's lack of response on this issue and would like DOD to take extra effort steps to cooperate with the EPA. The EPA issued an order to DOD last August setting a more aggressive timetable for the cleanup process and establishing fines for missed deadlines. This order asked Army to clean up 17 hazardous-waste sites at Fort Meade and the nearby Patuxent Research Refuge. DOD refused to sign EPA's order and has argued there is 'no imminent and substantial danger to health and human safety'.

Well we know that there are all sorts of dangers when chemicals are involved. And sometimes you can't see them. Spills and wastes from Army sites have leaked into groundwater into the past, contaminating water supplies for local communities. This issue affects not only Fort Meade, McGuire Air Force Base and Tyndall Air Force Base—but the thousands of people living, working, praying and playing on base and in nearby communities. We need to cut through the red tape and make sure that this cleanup is conducted in the sunshine. DOD should remove the chokepoints holding up this important process.

DOD is not above the law and should follow the same requirements as anyone else. EPA has the regulatory authority to oversee the cleanup of toxic spills and

waste. If private companies and individuals must comply with EPA's rules, then DOD should be no exception. If DOD is self-regulating its own pollution and cleanup efforts then this is a slap in the face to the law and the clear intent of Congress.

I am grateful that Secretary Wilson from the Maryland Department of the Environment is also hear to discuss the work that Maryland has done on prioritizing and overseeing cleanup efforts at Fort Meade. It is important for DOD to work with EPA and start acting on this order immediately. Our military families make all sorts of sacrifices in the name of this country and we must make their health and safety a higher priority. I know that my colleagues care deeply about this issue. I look forward to working on this important issue with the Chairwoman, Senator Cardin, and my other colleagues. Thank you.

Senator CARDIN. Thank you, Madam Chair.

Mr. Arny, you have been spared some opening statements that were not, quite frankly, complimentary of DOD.

Let me first start with Fort Detrick. Fort Detrick site B is well known. There is a process to start listing Fort Detrick on the national priority list under Superfund. I have a very simple question for you, and that is, will you commit to this committee today that the Department of Defense will comply with the 180-day time limit in the law for entering into a Federal facilities agreement as it relates to Fort Detrick?

Mr. ARNY. I am not sure I understand, sir.

Senator CARDIN. As I understand it, Fort Detrick site B is currently in the process of being listed on the national priority list under Superfund. That triggers the process for a Federal facilities agreement to be entered into between the Department of Defense and the Environmental Protection Agency. My question is pretty simple. Will you agree here today that you will enter into on behalf of the Department of Defense with the Environmental Protection Agency within that 180-day limit a Federal facilities agreement?

Mr. ARNY. We will comply with the law, sir. We are glad to enter into an interagency agreement and we will comply with that.

Senator CARDIN. Then why have you not complied with the law as it relates to Fort Meade? Fort Meade was listed on the national priority list in 1998, and we still do not have a Federal facilities agreement between EPA and DOD.

Mr. ARNY. Sir, we are complying with the substance of CERCLA and the law of CERCLA.

Senator CARDIN. Have you entered into an agreement?

Mr. ARNY. No, we have not, sir.

Senator CARDIN. Does the law require 180 days?

Mr. ARNY. The law requires we enter into an interagency agreement and a ROD. It doesn't require it from the time we start an investigation. It requires us to do an interagency agreement. It requires three things, and also a record of decision can be the equivalent of an interagency agreement. Our dispute is, we have no dispute over the substance of either Fort Detrick or Fort Meade of the cleanup, and we have worked very closely with EPA on both cleanup methods and cleanup schedules. Where we have a dispute is over what——

Senator CARDIN. Let me get Ms. Bodine in here for a second. Do you agree that there is a requirement in the 180 days to enter into an agreement?

Ms. BODINE. The statute in section 120(e)(2) provides that the Administrator shall review the results of each investigation and study conducted, and then 180 days thereafter the head of the de-

partment, agency or instrumentality concerned shall enter into an interagency agreement with the Administrator for the expeditious completion of the remedial action.

Senator CARDIN. Do we have an agreement entered into with DOD in regards to Fort Meade?

Mr. ARNY. No, we do not.

Senator CARDIN. And has it been more than 180 days? Has it been more than 9 years?

Mr. ARNY. Not since the investigations were complete.

Senator CARDIN. Well, let me tell you what we understand, that the DOD is in an argument as to whether the land that was operated by the Department of Defense that is now part of the Patuxent Wildlife, that the DOD does not want to accept its responsibility in that regard, despite the findings.

Mr. ARNY. That is not true, sir.

Senator CARDIN. Then why haven't you entered into an agreement?

Mr. ARNY. That is different from that question on whether we——

Senator CARDIN. Why have you not entered into an agreement for 9 years, when the law says it should be within 180 days? And let me tell you something, you make broad statements about the safety of a community. In Maryland, we have a community known as Odenton. They are very concerned because there has been results shown that the pollutants from Fort Meade are coming down there. They are not only affecting the health of the people in Fort Meade, the military, but the surrounding communities.

Mr. ARNY. Again I say, sir, we take that responsibility very sincerely and very seriously, and we believe that Odenton is protected. If we find that it is not, again working with EPA and the State, we will take other actions to stop that flow.

Senator CARDIN. Madam Chairman, let me just point out, in response to Senator Lautenberg, you were talking about the monitoring that you are doing. At Fort Detrick, you didn't do that.

Senator BOXER. I am going to give you an additional 5 minutes because you didn't have an opening statement. So continue.

Senator CARDIN. I appreciate that.

You didn't do that. You only responded as a result of the efforts of other agencies. DOD was slow coming to the table in monitoring the risks at Fort Detrick. Do you dispute that?

Mr. ARNY. I don't know that. Let me check. Sir, I will have to get back to you on the specifics, but I know at Fort Detrick, where we did find that it was moving into the water system, we supplied drinking water and connected——

Senator CARDIN. Let me get the full record by Mrs. Bodine here, if I could, in regards to Fort Detrick and the DOD's monitoring.

Ms. BODINE. First of all, we have proposed Fort Detrick to the NPL. It was in the September listing package. It is Fort Detrick area B groundwater. The concern was to make sure that cleanup of the groundwater was under EPA's oversight. Specifically, the contamination of TCE and PCE had been found in drinking water. The Army did provide alternative water supplies. The concern that EPA had, shared by the State of Maryland, was appropriate characterization of the groundwater. Again, as part of EPA's oversight

responsibilities, we make sure that there is a full investigation and characterization of the site so that when we say we are done, we truly are done in protecting human health and the environment.

So you don't look at just TCE if you have a facility that was a former biological weapons facility, and you have disposal in unlined pits.

Senator CARDIN. My point is that clearly DOD is making statements here that they do these monitoring things in order to protect the community, and they have not done that at Fort Detrick. It was as a result of the efforts of EPA and our State officials to try to get some remedial action.

Mr. Arny, let me just ask you one more question about Fort Meade for a moment. Can you explain why on the RCRA order, the Army has missed six deadlines in regards to that order issued by the EPA regional director? I am going to quote from a letter dated May 22, where the regional director, Donald Welsh, says EPA's views are unattainable under the Army's attempt to establish the conditions under which the regulator can regulate. The Army seeks to dictate not only the circumstances under which it will comply with validly issued RCRA orders, but also the circumstances under which it will enter into CERCLA section 120 Federal facility agreements.

My question to you is, I will go through the six States if you want me to, where the DOD did not respond to the RCRA order on the deadlines that were imposed.

Mr. ARNY. So the RCRA order, when you issue that order, as I have learned, the EPA is required to list an imminent substantial danger and a remedy to put in place. Those orders were procedural orders. They did not do that. In one case at Tyndall, where they asked us to test——

Senator CARDIN. I am talking about Fort Meade.

Mr. ARNY. I am talking about all of them. At Fort Meade, we——

Senator CARDIN. There are six States that you did not comply with—six specific starts of the order.

Mr. ARNY. No, we have complied with that substantively under CERCLA, absolutely.

Senator CARDIN. You have missed the deadlines under RCRA. Let me just read one more sentence from the Administrator's findings: As a result of the Army's noncompliance with the order, violations of the order may be enforced by citizens or States under RCRA section 7002.

Do you disagree with that?

Mr. ARNY. That is part of the dispute, sir. That is why we have gone to DOJ and to OMB to resolve this.

Senator CARDIN. So I understand——

Mr. ARNY. We believe that substantively we have complied, working with EPA and the State, substantively complied to the issues that we have been under CERCLA there for years.

Senator CARDIN. So you believe DOD has the authority to pick and choose which cleanup actions it takes at a site?

Mr. ARNY. We are taking—there were no——

Senator CARDIN. Who makes the decision? If EPA says you have to do it, you say you don't have to do it.

Mr. ARNY. EPA makes the decision. There were no extra cleanup actions requested in that order.

Senator CARDIN. Well, the record will speak for itself.

Mr. ARNY. Yes, sir. I agree.

Senator CARDIN. The record will speak for itself. You know, we have an Environmental Protection Agency for a specific purpose. The Department of Defense has expertise. The Environmental Protection Agency has expertise. And the Superfund law is pretty clear as to who has the responsibility here to make determinations and DOD must comply. And when you wait 9 years to enter into a facility agreement, and you haven't still done it, and you start picking and choosing what you are going to do, it doesn't give me comfort that the men and women who are serving in our military and the surrounding community are safe.

Thank you, Madam Chair.

Senator BOXER. Thank you.

What we are going to do is finish up, and I will hold to a 4-minute timeframe for the second round.

Mr. Marcinowski, I have worked to make certain that the Santa Susanna field lab site in California is appropriately cleaned up. I have often been frustrated by DOE actions that go against this goal. Do I have DOE's commitment today that it will strictly comply with California law and the Federal laws, including Superfund, in all of its cleanup actions at the site?

Mr. MARCINOWSKI. Yes, you do, Madam Chair.

Senator BOXER. That is a good answer, and I will hold you to it.

Mr. MARCINOWSKI. OK.

Senator BOXER. Do I also have DOE's commitment that EPA can conduct in conjunction with DOE a comprehensive investigation of radioactive and chemical contamination at the site?

Mr. MARCINOWSKI. Well, right now we have entered into an agreement with EPA that EPA would conduct the radiological assessment on area four of the site, which is not the entire site.

Senator BOXER. Well, I am asking you a comprehensive investigation of radioactive and chemical contamination at the site. Do I have your commitment that EPA can conduct that investigation?

Mr. MARCINOWSKI. The difficulty we have is that outside of area four, we don't have responsibility for any of that site.

Senator BOXER. Well, obviously only in the area you are responsible for.

Mr. MARCINOWSKI. In the area we are responsible for, absolutely.

Senator BOXER. Fine.

And then, Ms. Bodine, I assume that you would take charge of the rest of the site and conduct those investigations?

Ms. BODINE. The State has the lead currently on the rest of the site.

Senator BOXER. Do you work with them on it at all?

Ms. BODINE. We do work with them.

Senator BOXER. Yes, and you will work cooperatively with them on it?

Ms. BODINE. We will continue our practice of working cooperatively with the State at this site.

Senator BOXER. OK.

Mr. Marcinowski, in 2008 did DOE temporarily shut down 13 wells—and we are talking about Lawrence Livermore now—used to clean up contaminated groundwater at the Lawrence Livermore Superfund site in California and reduced staff because DOE moved management of the site to an under-funded program. Did you temporarily shut down 13 wells and reduce staff because you moved management of the site to an under-funded program?

Mr. MARCINOWSKI. The site was transferred to the NNSA, and my understanding is that it was not funded this past year. I would have to take that for the record and get back to the NNSA and get an appropriate answer.

Senator BOXER. Well, can I count on getting an answer, because I want to have your commitment that this gets done as well. We will work with you on that.

Mr. MARCINOWSKI. We will work with the other part of the agency to get you an answer.

Senator BOXER. OK.

I am going to talk to the DOD right now, just from the heart, no questions.

You know, your opening statement couldn't have been more beautiful. But unfortunately, what is happening on the ground, and I thought Senator Cardin's questioning proved it, does match your rhetoric. DOD is not above the law, and I don't know if you are aware, so I am going to give you so you can study, the States have gotten together and, through a nonpartisan organization, they are complaining. I don't care what grade you give yourself or what grade Senator Barrasso gives you, that is great. The two of you have a nice relationship.

To me, I care about what the States are saying. I care about what Alabama is saying about DOD. I care about what Alaska is saying about DOD. California—I care a lot about that, 37 million people and they are my people. We are talking about Colorado, Ohio, South Carolina, Maine, Massachusetts, Montana, Michigan and Nebraska—all cited, and basically all saying that DOD has put themselves above the law.

And when Senator Cardin questioned you on this point—180 days—you just danced around it and conferred with your staff. There is a pattern here, and that pattern is documented in that study that I put into the record.

What I would like to do is make sure, Mr. Arny, that you read that report from these States and you get back to me.

Mr. ARNY. Absolutely, because we are not above the law.

Senator BOXER. Good. I don't think anyone is, not even the President, not a Senator——

Mr. ARNY. Absolutely. I agree with you entirely.

Senator BOXER. Good. So I am really——

Mr. ARNY. We do have some disputes with the States over the DSMOA, which we are working out, if that is the issue.

Senator BOXER. Well, it is one of the issues, but we want to see. Because here is the point, we know what the law says and we know that EPA is in charge. Look, I don't want——

Mr. ARNY. We agree with you.

Senator BOXER. Let me finish. I don't want EPA making decisions on war strategy. Trust me, that would not be Ms. Bodine's

expertise. I don't want you making decisions on environmental cleanup because you have an interest in an easier way out. Let's face it, you are a responsible party. That is life. That is truth. That is fact.

Mr. ARNY. And Senator Boxer, we agree with you. When it comes——

Senator BOXER. You may agree with me——

Mr. ARNY. When it comes to remedy selection, EPA trumps us completely.

Senator BOXER. Yes, well, it is not just about selection. It is follow-through. It is running around to the White House. It is threatening States.

Mr. ARNY. We don't threaten States. If we do, I will stop it.

Senator BOXER. I have proof from my——

Mr. ARNY. If we threaten States, I will stop that.

Senator BOXER. Fine, because you talked to my State and I have it in writing that they were threatened specifically if they didn't back off, you would pull money out. Unacceptable. And you can, you know, give yourself any grade you want, but the fact is it is unacceptable. Abuse of power is unacceptable.

Mr. ARNY. I agree with you entirely.

Senator BOXER. Taking on powers of other agencies is unacceptable. But most of all what is unacceptable is delaying cleanup that affects children, pregnant women, the most vulnerable in our society.

Mr. ARNY. We are not delaying cleanup.

Senator BOXER. Well, I could say I think you are.

Mr. ARNY. OK.

Senator BOXER. And it has been proven by the States who are very articulate in this document that you will see. I hope you think in the next 10 days you can get back to me on each of those States' complaints. Would you do that?

Mr. ARNY. We would be happy to.

Senator BOXER. Would you do that in writing?

Mr. ARNY. Yes, ma'am.

Senator BOXER. Good.

OK, we will move to Senator Barrasso and see if he has any questions, and then we will move to Senator Cardin.

Senator BARRASSO. Thank you very much, Madam Chairman.

Getting back a little bit, we were talking about Federal facility agreements, Mr. Arny. I imagine there are some pretty good reasons why these are not a good measure of environmental cleanup at Department of Defense sites. Could you share some of those with us?

Mr. ARNY. We believe that they contribute to it, but also we want to get a schedule, a document that is meaningful. Again, I am not the absolute judge, but our policy staff and our legal staff felt that what was being requested in the FFAs were improper legally and procedurally. They have been trying to negotiate that for a couple of years. We had a model agreement signed in I believe 1999 between EPA and DOD, and we have been willing to go back and sign any FFA that was in that format. But we were told no, that that format was null and void and we were not able to negotiate.

So consequently because of the experiences I had had, this wasn't going to get resolved without an adjudication process, and that process, we are not going to OMB trying to seek to go around the law. We comply with the law. That is our requirement. But where there are lawyers on each side that disagree, as in many cases, you need to have somebody resolve that, where you have policy issues to decide.

So we went to OMB and said, look, you guys and DOJ, you figure out who is right. You tell us, because again, the argument that was brought to me looked right, but I am not the final arbiter. So you tell us what it is; we will go in; we will comply with whatever you tell us to do.

But as far as the substantive cleanup, in terms of determining the remedies that go in place, we have never debated that issue. This has nothing to do with the substance of the cleanup. This has to do with the form of an FFA.

Senator BARRASSO. Mr. Marcinowski, if I could, you mentioned in your testimony that the Department of Energy often has to renegotiate the FFAs, this is following what we just heard on how FFAs work.

Mr. MARCINOWSKI. Yes.

Senator BARRASSO. But you are renegotiating an FFA, and I think you said some of the reasons are that milestones and obligations couldn't be met, whether because of overly optimistic planning assumptions; whether because of contractor performance or even technological barriers. So do you think that the Federal facility agreements really are a full measure of someone's success as an agency to be able to clean up sites and protect the public?

Mr. MARCINOWSKI. Well, they are, in my opinion, living documents in that we do need to renegotiate them because some of these have been put in place a decade go, when we didn't fully understand the highly complex technical work that the department is doing. So as we become more knowledgeable about those issues, sometimes that will bring changes about in the deadlines for when things have to be completed. The utility of these is that most of our agreements are tri-party agreements, that is, it is us, EPA, and the State regulators who negotiate these agreements. Among those three parties, there is an agreement about what the cleanup milestones are and a schedule for meeting those. Those agreements then go out for public comment.

So what you are doing is you are socializing an agreement about what needs to be done on a particular site in order to facilitate cleanup.

Senator BARRASSO. OK. But you described it as a living document, subject to change.

Mr. MARCINOWSKI. Right.

Senator BARRASSO. And Mr. Arny, a final question, in my earlier statement, I said there really are differences in terms of comparing Department of Defense from Department of Energy in terms of a cleanup process. Do you agree with that?

Mr. ARNY. Yes. They have far different problems than we do.

Senator BARRASSO. Thank you, Madam Chairman.

Senator BOXER. Thank you so much.

Senator Cardin.

Senator CARDIN. Administrator Bodine, what prompted EPA's decision to use the Resource Conservation Recovery Act, RCRA, authority to issue cleanup at Fort Meade, Maryland?

Ms. BODINE. As I mentioned in my opening statement, it is important, and I think it is acknowledged by everyone today, it is important to have a framework in place for EPA oversight of these cleanups at Federal facilities listed on the NPL. It is required by law, but it also is important for the confidence that Senator Craig was talking about, how bringing everyone to the table in agreement adds to the confidence.

But it is also critically important substantively. There are disagreements over cleanups.

Senator CARDIN. But in order to issue the order, there has to be an imminent and substantial endangerment to public health. What conditions existed at Fort Meade?

Ms. BODINE. The statutory standard may present an imminent and substantial endangerment to public health or the environment.

Senator CARDIN. And what were those conditions at Fort Meade?

Ms. BODINE. At Fort Meade, it was the conditions that you described as well as those recorded in the order itself. The presence of the solvents, the presence of the PCBs, the presence of the VOCs, the vapor intrusion pathways that are there all meet the standard of may present imminent and substantial endangerment. You can cutoff a pathway in the short term, for example, at the Manor View parcel at Fort Meade. They relocated people. The school is still there. There is a system in place to blow out the vapor, but that is not a permanent solution. And so, vapor is an imminent and substantial endangerment and may present—it doesn't have to be today, but the conditions are all there for that imminent substantial endangerment. That vapor intrusion is there.

Senator CARDIN. Can you tell us in your view why the Department of Defense may not have wanted to enter into a facilities agreement? And why the law you pointed out in my first round of questions, the 180 days, this is now 9 years? I want to know from your position why this has not happened.

Ms. BODINE. I would have to defer to the Assistant Secretary. I would point out that——

Senator CARDIN. I think your hesitation is a good enough answer for me. There is no reason why, other than trying to drag their feet on a specific cleanup plan. They have used band-aids, as you have pointed out, to perhaps deal with an immediate risk that is on the surface, but have not taken the actions necessary to provide the permanent cleanup that is envisioned under the Superfund law, that is envisioned under the RCRA statute, to protect the public. I think that is the concern.

You spelled out very clearly the imminent risks, and they are very much contaminants that affect the public health, whether it is drinking water or the environment. They are present and at risk at Fort Meade, and they have been there for a substantial period of time. EPA took the right action to get the remedial plans in place, and the Department of Defense has done everything it can to deny its responsibility. If it was operating in good faith, it would have signed an agreement years ago and started a course to permanently fix it. But instead, they don what some businesses do at

times, put off maintenance, put off repair, because they would rather spend the money elsewhere.

Thank you, Madam Chair.

Senator BOXER. We thank our panel. We have a lot of work to do in the next 10 days getting back your answers.

I would ask the second panel to come up quickly because I am due at another hearing 10 minutes ago, so Shari Wilson, Bonnie Buthker, Elizabeth Limbrick and Dan Hirsch.

What we are going to do is, I am going to have Dan Hirsch go first because he is talking about a very important California site. I am going to ask him a couple of questions, and then I am going to hand the gavel over to Senator Cardin and he is going to hold the rest of the hearing.

Thank you very much, panel one.

So I am very proud that Dan Hirsch is here. He is the President of Committee to Bridge the Gap, and he has been on this Santa Susana site for as long as he and I know each other, and I don't even want to tell you how long that is because it would—but it is interesting because Dan turned gray and I turned blond.

[Laughter.]

Senator BOXER. But I think it is just a miracle, isn't it? But in any event, Dan, we welcome you. So I am going to use the personal privilege of the Chair to ask you to go first. I will ask you a couple of questions for the record, and then we will turn over the gavel to Senator Cardin.

Please go ahead, Dan.

STATEMENT OF DAN HIRSCH, PRESIDENT, COMMITTEE TO BRIDGE THE GAP

Mr. HIRSCH. Thank you, Madam Chair and members of the Committee. I am very glad to be here, and particularly glad to be here because of you.

We have heard a lot today about how great the agencies are. I am going to talk to you from the ground, from what people are really experiencing in these——

Senator BOXER. Is your mic on, just to make sure?

Mr. HIRSCH. Maybe I should speak closer. Does that work?

Senator BOXER. Is it turned on? The red light?

Mr. HIRSCH. Oh, sorry. OK. I thought red means not.

So I am very, very grateful to be here, because you have protected our community, whereas these agencies have been working at cross-purposes to the interests of this community. What we are talking about are cancers. We are talking about genetic effects, birth defects-these are very, very toxic materials, and they didn't just get there by accident. It is not like all of a sudden these agencies are trying to clean something up that just got there by an act of God. It is because of misconduct by these very agencies that the contamination was produced in the first place.

So I have a written statement. With your permission, I would just like to summarize it and then include it in the record.

Senator BOXER. Without objection.

Mr. HIRSCH. The Santa Susana Field Laboratory is a facility established in the late 1940's, supposedly to get as far from populated areas as possible for this dangerous work. In the years since then,

we have now had Los Angeles mushroom all around it, so we have more than a half-million people living within 10 miles of the site. Over the years, the facility had 10 nuclear reactors, a plutonium fuel fabrication facility, a hot lab to cut up irradiated nuclear fuel, as well as 20,000 rocket tests, plus Star Wars laser work and munitions development. All of that resulted in an incredible legacy of contamination because of constant violation of the basic environmental rules by these agencies.

Back in 1957, AEC promoted the fact that one of these reactors was the first reactor to light a town, the town of Moorpark, then about 3,000 people. They had Edward R. Murrow come out and do an hour special on television. Less than 2 years later, that reactor suffered a partial meltdown-one of the worst nuclear accidents in history. The AEC never got around to telling Murrow or anybody else about this accident. They covered it up. That accident involved one-third of the fuel experiencing melting, and they intentionally vented the radioactive gases for weeks into the atmosphere.

This was an accident that occurred because they had huge amounts of radioactivity and other signs that something was going wrong and they kept operating the reactor anyway. When they eventually decided to shut it down, they found one-third of the core had experienced melting.

They had three other reactors that experienced similar kinds of accidents. They ended up taking the radioactive waste and dumping it in the ocean off of Los Angeles. One-third of the barrels imploded before even hitting the bottom, the radioactivity getting out. They decided that was too much trouble, so they began to simply burn the contaminated waste onsite, taking barrels and barrels and barrels every month and igniting them by shooting at them with rifles. Sometimes they would explode and go high in the air and land on and crush a pickup truck. Huge plumes of contamination were released into the Los Angeles air basin by this.

On the rocket tests, they washed off the rocket test stands with TCE, and 500,000 gallons of TCE have made their way into the groundwater and the soil at the site. We measure permissible concentrations in five parts per billion. They have a pump-and-treat program that has been getting 10 gallons out a year. At that rate, it will be 50,000 years before they are able to clean up the TCE, except they have stopped the pumping for the last decade.

This is a site that because of all those activities ended up very, very contaminated. Dozens and dozens of violations of the pollution discharge requirements resulted in polluted surface water leaving the site into the neighboring communities in violation of the Clean Water Act as cited by our Water Board.

This is a facility that ended up having a sodium burn pit where they took sodium-contaminated reactor components, put them in open pits, and let them bubble and bubble right over the town of Simi Valley. And then they pumped the contaminated water down onto a children's camp, which ended up contaminated.

So that is a history of how we got there. You would think that that was a long time ago and the agencies are behaving differently now. But they are not, they are behaving in exactly the same way. Twenty years ago they announced they were going to clean up the site, and 20 years later the chemical cleanup has not even begun.

They have done a few interim measures, but the final remedy is still years and years and years away.

On the radioactive cleanup, the Department of Energy decided that they were going to leave 99 percent of the radioactively contaminated soil in place, and just walk away, without even an environmental impact statement. Senator, you urged them to do a full EIS, and they refused to do it. We, the city of Los Angeles, and NRDC had to go to Federal court and the judge has now ordered them to comply with the law to do an EIS.

But we are still with the situation where that radioactively contaminated material is onsite, and no promise in fact to remove it or clean it up. You will recall that we found that they were taking radioactively contaminated building debris and taking it to three municipal landfills in Los Angeles to dump it in places where radioactive material is not licensed or permitted to go. They actually took contaminated trailers and sold them to a school. You had intervened to get those back and end up disposed of in a hazardous landfill. They took contaminated metals from the reactors and sold them as scrap, so the radioactive metals got melted down into the consumer metal supply.

So that is our problem. It has not been getting cleaned up. And now we have a problem where the Department of Energy has said, and EPA have also indicated to the State that they are making strong signals that they will not comply with the State law. I was very glad that you were able to get a commitment from DOE that they will. I would like to see it. If not, we need congressional action to make sure they do, because they have indicated they intend to ignore that State law.

EPA has now said they don't want to do a full cleanup, that they want to simply look at surface soil, and not sub-surface soil, not the groundwater, not areas outside of Area Four. The radioactive material went far beyond Area Four. It is DOE's responsibility and one needs to look at the whole thing.

Let me end by saying that this is a microcosm of the problems throughout the whole DOE complex. We have created hundreds of billions of dollars of contamination through sloppy practices, reprocessing waste at Hanford in Washington State and Savannah River, meltdowns in Idaho, accident after accident throughout the complex. The agencies have by and large walked away. They have tried to accelerate cleanup by simply refusing to do the cleanup they are supposed to do.

At the same time, we are now faced with a situation where there is a push to revive all things nuclear, without any memory of the mess that we made before and of the broken promises that have not been fulfilled. I have to remind us that those who forget the lessons of the past, repeat them and repeat them and repeat them. And we have to look very hard at the absolute disaster that was created the last time, and the failure of the government to live up to its promises to clean up the mess that it made.

Thank you.

[The prepared statement of Mr. Hirsch follows:]

Statement of
Daniel Hirsch
President
Committee to Bridge the Gap[1]

Before the
Committee on Environment and Public Works
United States Senate

Oversight Hearing on
Cleanup Efforts at Federal Facilities

Washington, D.C.
18 September 2008

Chairman Boxer, Ranking Member Inhofe, Members of the Committee,

Thank you for your invitation to appear before you today on this important issue.

I am President of the Committee to Bridge the Gap, a 38-year-old nonprofit organization focused on nuclear policy matters. For twenty-nine of those years, we have been involved in trying to redress serious safety and environmental problems associated with the Santa Susana Field Laboratory (SSFL), a heavily contaminated federal nuclear reactor and rocket testing facility in the Los Angeles area.[2] I also serve as co-chair of the SSFL Advisory Panel, which oversaw health studies of the workers and of potential impacts to the neighboring offsite population, funded initially by the Department of Energy and then through the California Legislature. I serve as a community representative on the SSFL Inter-Agency Work Group, established to help coordinate cleanup activities regarding the site. And I am a Lecturer teaching nuclear policy at the University of California at Santa Cruz, where I founded and was the first Director of the Stevenson Program on Nuclear Policy. The views presented here today are solely those of the Committee to Bridge the Gap.

In the late 1940s, the Atomic Energy Commission commenced a search for a remote site in Southern California for nuclear work too dangerous to perform near populated areas.[3] In the decades since SSFL was established, the Southern California population mushroomed, so that now more than half a million people live within ten miles of the site. Over the years, SSFL was home to ten nuclear reactors, a plutonium fuel fabrication facility, and a "hot lab" for cutting up irradiated nuclear fuel shipped in from around the country, plus over 20,000 rocket tests, as well as munitions development and "Star Wars" laser work.[4] Sloppy controls, an indifference to environmental rules, and a history of spills and accidents have created a legacy of radioactive and chemical contamination. A history of broken cleanup promises has left the vast majority of that contamination still in place. The SSFL tragedy is a microcosm of the problems across the extraordinarily contaminated Department of Energy (DOE) nuclear complex nationally and a powerful warning of the risks of proceeding with a nuclear revival that threatens to repeat over and over again the atomic fiascos of the past.

The Partial Meltdown of the Sodium Reactor Experiment

The SSFL saga began, as seems the case with many things nuclear, with a lot of hype. In November of 1957, the AEC's Sodium Reactor Experiment, or SRE, at Santa Susana was connected to the electric grid and briefly provided power to the 3000 people of Moorpark, largely as a publicity stunt.[5] The Atomic Energy Commission prevailed upon the dean of American television journalism, Edward R. Murrow, to devote an hour special of his show "See It Now" to the event. In the broadcast Murrow intoned:

> The Susana reactor started producing power early in November, and our cameras were focused on the town at 7:30 p.m. on November 12, 1957, when, for the first time in the United States, an entire community was illuminated with electricity generated by an atomic reactor. Enrico Fermi once looked at a reactor and said, "Wouldn't it be wonderful if it could cure the common cold?" Here at Moorpark, a chain reaction that started with him washed the dishes and lit a book for a small boy to read.[6]

Less than two years later, the reactor suffered one of the worst accidents in nuclear history. A third of the fuel experienced melting, and radioactivity from the damaged reactor was intentionally vented into the atmosphere for weeks. The AEC does not appear to have reapproached Mr. Murrow with the news that the reactor whose connection to the electrical grid he had helped trumpet had just a short time later experienced a partial meltdown; certainly there was no Murrow follow-up story, "Meltdown in Los Angeles."

Nor was the AEC candid with the news media at large. The AEC kept quiet about the accident for five weeks, then issued–embargoed for Saturday morning papers—an extraordinarily misleading news release.[7] Whereas a third of the fuel had been damaged, and that damage involved melting, the lead sentence in the release stated merely that during inspection of fuel on July 26, "a parted fuel element had been observed."

The news release went on to say, "The fuel element damage is not an indication of unsafe reactor conditions" and that the occurence was important merely "from a technical standpoint." That was the public stance taken. Here, however, is what the AEC concluded about the SRE event in its comprehensive review of nuclear accidents for the nuclear community[8]:

> The circumstances which eventually led to this accident began as early as spring, 1958, when the first Tetralin leak occurred. A second leak occurred in Run 8 on November 29, 1958, and problems continued until July 24, 1959. During that time so many difficulties were encountered that, at least in retrospect, it is quite clear that the reactor should have been shut down and the problems solved properly. *Continuing to run in the face of a known Tetralin leak, repeated scrams, equipment failures, rising radioactivity releases, and unexplained transient effects is difficult to justify. Such emphasis on continued operation can and often does have serious effects on safety and can create an atmosphere*

leading to serious accidents. It is dangerous, as well as being false economy, to run a reactor that clearly is not functioning as it was designed to function.

(emphasis added)

The news release also asserted, "No release of radioactive materials to the plant or its environs occurred and operating personnel were not exposed to harmful conditions." In fact, the reactor operators had been deliberately venting radioactive gases from the damaged reactor to the atmosphere for weeks, radiation levels had gone off-scale (were too high to read), and workers were getting significant exposures.

In short, the AEC covered up the seriousness of the accident. No reporter would ever have known from that news release that one of the most serious nuclear accidents in history had just occurred in the Los Angeles area. The public at large did not learn of it until twenty years later when students at UCLA, where I was then teaching, uncovered AEC records and we released them to the news media.[9]

So what actually happened? The reactor was cooled by sodium, which explodes in the presence of water and burns in the presence of air, so an organic material known as Tetralin was used to cool the pump seals. Tetralin leaked into the coolant, decomposed into a tarry substance that clogged the coolant channels, causing the fuel to overheat. At those elevated temperatures the cladding and uranium fuel formed a "eutectic"—an alloy of uranium and steel that melts at a lower temperature than either does individually. About a third of the fuel elements ended up with melting.

In previous runs, it was clear Tetralin had been leaking into the sodium coolant. The AEC kept on restarting the reactor without resolving the problem.

Within hours of beginning Run 14, "reactor room air monitors showed a sharp increase in [radioactivity]," as did air filter and stack activities.[10] The reactor operators kept on running it nonetheless.

Then the coolant disruption and fuel damage caused a "power excursion," in which reactor power goes up exponentially in an uncontrolled and fast fashion. If the exponential period is very short, the reactor can blow up in a power excursion, as happened at the SL-1 reactor in Idaho and the Chernobyl reactor in the Ukraine. At the SRE, the operators tried desperately to quickly shut the reactor down, but the power was still rising as they jammed the control rods into the core. The automatic safety features failed, but eventually, the operators were able to succeed in manually "scramming" the reactor.

And then the inexplicable happened. Unable to determine the cause of the power excursion, and faced with rising radiation readings and evidence of Tetralin leaks, just a couple of hours later they started the reactor up again – and kept it running for nearly another two weeks. Radiation monitors went off-scale. The radioactive core cover gas was repeatedly purged from the reactor vessel, pumped into tanks outside the reactor, and released into the atmosphere. No one knows precisely how much radioactivity was released, because the first

sample of the core cover gas was itself so intensely radioactive it was unsafe for any worker to approach it to measure it, and the radioactivity in the tank to which it was pumped prior to release to the environment was so intensely radioactive that its concentration was so high that the radiation monitor couldn't read it. The radiation graph from the time of the accident shows the level just shooting off the top of the page, to a level above the highest level that could be measured. One nuclear physicist who has examined the matter, Dr. Arjun Makhijani of the Institute for Energy and Environmental Research, has estimated that the releases from the SRE accident were potentially hundreds of times more serious than the Three Mile Island accident, in that he estimates that up to 260 times more radioactive iodine (I-131) may have been released from the SRE than the official estimates for the TMI release.[11]

Other Reactor Accidents

The SRE partial meltdown was, unfortunately, not the only reactor accident at SSFL:

- **The AE-6 Reactor:** Earlier the same year, the AE-6 suffered a release of fission gas, contaminating the reactor room and several members of the operating staff.

- **The SNAP8ER Reactor:** At the SNAP8ER, indications of unsafe operating conditions were ignored or misinterpreted, original design limits were overridden, and according to former workers, a worker who expressed concerns about the reactor's safety was transferred. The reactor operated with a damaged core throughout 1964-5 despite various indications of trouble. When finally shut down, it was determined that 80% of the reactor's fuel was damaged.

- **The SNAP8DR Reactor:** A few years later, the SNAP8DR reactor suffered an almost identical accident. Despite evidence of core damage, the reactor was permitted to keep operating for a significant period of time. When the run was finally terminated in late 1969, it was found that about 30% of the fuel was damaged.

Nuclear Fires, Spills, Releases, Irresponsible and Illegal Waste Disposal, FBI Raid, Felony Convictions

Over the years, a number of radioactive fires occurred at the SSFL Hot Lab, said to be the largest such facility in the country. Irradiated reactor fuel from various parts of the AEC/DOE nuclear complex was shipped to Santa Susana, where it was declad and cut apart in the Hot Lab, in part as preparation for reprocessing. Some radioactive materials caught fire, resulting in release of contamination.

For some years, SSFL radioactive wastes were trucked to Long Beach, loaded on a Navy sea-going tug and transported north and dumped in the Santa Cruz Basin, about halfway between Los Angeles and Santa Barbara, near what is now the Channel Islands National Park.[12] Wastes included mixed fission products and plutonium. When weather was inclement, a process known as "short-dumping" was employed, whereby the wastes were dumped overboard long before reaching the specified ocean dumpsite. Subsequent studies found that initial assumptions of the safety of the procedure were unfounded: despite initial claims the site was devoid of sea life,

investigations found abundant biological activity on the sea floor where the waste was dumped, and the waste barrels were breached and radioactivity apparently leaking out and being taken up in the food chain. Chemical wastes from SSFL were similarly dumped in the ocean.

In the late 1950s, even this irresponsible form of waste disposal became too much trouble for the operators of the SSFL and they decided to dig a pit and just burn the wastes in the open air onsite. Noting that offsite disposal of hazardous wastes was expensive and required time-consuming paperwork, an internal memorandum[13] stated:

> Several months ago...the writer had a large earthen pit constructed... This was,, and has since been, used to dispose of dangerous chemicals, fuels, oxidizers, explosives, etc. These are burned with quantities of ordinary contaminated fuels. This procedure eliminated the costly method in use at that time, of trucking them from the facility an dumping in the ocean; or by other complicated ways of disposal requiring permits from various official agencies, etc.

Every month, large numbers of barrels and other containers of hazardous wastes were brought to the SSFL Area I burnpit. Workers with rifles then shot at the barrels to ignite them. They would catch fire or explode; one explosion reportedly sent the barrel high in the air, crushing a pickup truck when it landed. Huge plumes of contaminated smoke arose from the burning wastes, falling out on wide areas both on and offsite. The soil of the burnpit became heavily contaminated as well.

In the nuclear area (Area IV), a similar burnpit was constructed to dispose of sodium-contaminated reactor components. No items with radioactive or hazardous chemical contamination were supposed to be burned in this burnpit, but the rules were consistently ignored for decades, resulting in extensive chemical and radioactive contamination. The Area IV sodium burnpit consisted of shallow water-filled pools in which the sodium-coated reactor components were placed, reacting violently with the water, burning and boiling for days in the open air, overlooking Simi Valley below. Immediately below the sodium burnpit was the Brandeis Bardin Camp Institute, a camp for children and college students.

Some years ago, an SSFL worker who had been assigned to work at the sodium burnpit asked, with his wife, to meet with me. He was dying of cancer, had only weeks left to live, and wanted to unburden himself of a great regret. His assignment at SSFL – without radiation badge or respirator – was to pump the vile, polluted water out of the burnpit pools and dump it in the ravine leading from the burnpit to the children's camp below. He was dying of a cancer he presumed he had gotten from his exposures to the contaminants, but all he could think of was his feelings of guilt having potentially exposed children to the same carcinogens. He hadn't known about the danger at the time, hadn't been informed by his employers what he was really doing, and was racked with guilt. In the mid-1990s, an extensive radiation survey supervised by Gregg Dempsey of EPA found radioactive and chemical contamination had indeed migrated onto the camp property. A lawsuit resulted, which was eventually settled, reportedly with the camp receiving money and the SSFL operators buying some of the contaminated land, so that the contamination could be said, by having moved the boundary line, to be no longer offsite.

In the mid-1990s, long after the open-air burning of hazardous materials was supposed to have stopped at the site, an explosion killed two workers. The SSFL operators denied to government investigators that they had been involved in illegal burning of such wastes, claiming instead they were involved in legitimate research. The FBI raided the site, carting off many boxes of documents. The U.S. Attorney issued felony charges; the SSFL operators eventually conceded they had not been involved in legitimate research but rather illegal burning of hazardous wastes for unpermitted disposal purposes and pled guilty to three environmental felonies, paying what was said to be the largest environmental fines in California history to that date.

Radioactively contaminated reactor building debris was shipped to three municipal landfills in the Los Angeles area, dumps neither licensed nor designed to dispose of radioactive wastes. Concrete blocks from the reactors were transferred to a nearby farm. Radioactively contaminated reactor metals were sold to a metal recycler in San Pedro, where they were melted down into the consumer metal supply. Contaminated modular buildings were sold to a children's zoo and a school until Senator Boxer intervened and got them retrieved and disposed of at a hazardous waste facility.

More than 20,000 rocket and missile tests were conducted at the site, for NASA, the Navy and the Air Force. Trichloroethylene (TCE) was used to wash down the rocket test stands after these firings, the way one might wash down one's driveway with water, and the TCE allowed to just run off and percolate into the nearby soil. Half a million gallons of TCE are estimated to have migrated into the groundwater and deep soil; the permissible concentration in water is 5 parts per billion. A pump-and-treat program was instituted in the 1980s, which was removing 10 gallons of TCE per year. At that rate, it would take 50,000 years of pumping to remove the TCE--except that the pumping has been shut down since approximately 2000.

Vast quantities of other toxic materials – perchlorate, PCBs, dioxins, hydrazines, heavy metals, various Volatile and Semi-Volatile Organic Compounds – were used at the site and spilled, released, buried, or otherwise mishandled. Groundwater was badly contaminated, and only belatedly stopped being used for drinking water onsite. Contaminated process water was used for irrigation and similar purposes throughout the site, spreading the contamination, and to quench the rocket test stands, sending massive plumes of contaminated steam into the air and the neighboring communities.

Chernobyl Cracks Open Decades of AEC/DOE Secrecy and Operations Above the Environmental Laws of the Nation; SSFL Contamination Finally Disclosed

At the time of the Chernobyl accident in 1986, I was by chance in the Washington area, having been brought out by the Nuclear Regulatory Commission for a Workshop on Containment Performance Design Objectives. The question quickly arose in many quarters whether such an accident could happen here. I was asked by staff of the House Interior Committee to sit in on a briefing by DOE officials who asserted no such event could happen here because we had no uncontained, unlicensed, graphite reactors.[14] I pointed out that that was not the case—that DOE itself operated graphite reactors with no containment, and that no DOE

reactors were licensed. The reactor most similar to Chernobyl was the "N" reactor at DOE's Hanford Reservation.[15] DOE, until Chernobyl, had operated for decades without independent examination and claimed to be exempted from many of the environmental laws and rules required of all others. Troubled by the lack of independent scrutiny of DOE nuclear facilities, and the similarities between the N-reactor and Chernobyl, the Chairman of the Interior Subcommittee on General Oversight, Northwest Power, and Forest Management asked me to assemble an independent team of experts to review the safety of the N-reactor and accompany him on an inspection of the facility, after which we presented our findings at a hearing.[16]

During our tour, I asked the Hanford officials to see the fire response plan for the N-reactor. They replied they had none. When I asked them how could that be, they asserted that nothing in the reactor could burn. When we pointed to the graphite, they claimed graphite could not burn – while at that very moment, the graphite at Chernobyl was burning!

We found a large number of very serious safety problems at the N-reactor. The National Academy of Sciences was then asked to review it, and confirmed many of our concerns. The N-reactor was shut down, and DOE began a process of allowing some review of its other facilities. Revelation after revelation followed. Eventually, it became SSFL's turn to be subject to such a review. In 1989, the press obtained a report by a DOE contractor on the environmental conditions at SSFL, finding widespread chemical and radioactive contamination. The report was scathing.[17]

Admiral James Watkins was sworn in as DOE Secretary in 1989, promising to change the culture of secrecy and indifference to safety at DOE, and pledging full compliance with state and federal environmental laws and regulations. And thus began a brief period, extending into the next Administration, of some sunlight being shown on the safety problems throughout the DOE nuclear complex.

EPA Finds Highly Questionable Radiation Monitoring at SSFL

Congressman Elton Gallegly (R-Simi Valley) responded to the revelations about SSFL contamination by asking EPA to provide independent oversight. EPA sent Gregg Dempsey from its Las Vegas National Radiation Lab to inspect the radiation monitoring program at the site. What he found was scandalous.[18] SSFL was washing radioactivity off vegetation before monitoring; it was burning the vegetation to an ash, driving off the volatile radioactivity in the vegetation before monitoring; it was similarly heating soil samples to high temperatures to drive off the volatile radioactivity before monitoring. Dempsey asked to see monitoring results for tritium; they had none, as they had done no such monitoring; he asked if he could take a sample for tritium, and when he did, found tritium contamination (which has now been confirmed as a tritium plume in groundwater many times Safe Drinking Water levels). Dempsey concluded that the validity of some if not all the SSFL radiation measurements and the reliability of the site's radiation monitoring program were questionable. He wrote, "If the environmental program stays uncorrected, SSFL cannot guarantee that unforeseen or undetected problems onsite will not impact the offsite environment in the future. It is also clear to me that Rocketdyne does not have a good 'handle' on where radiation has been inadvertently or intentionally dumped onsite."

Dempsey subsequently called into question the site's practice of filtering its groundwater samples and throwing away the radioactivity caught on the filter rather than measuring it, which was undertaken to drive down reported water contamination levels, which before filtering were far above maximum permitted concentration limits. In essence, for two decades SSFL has been filtering radioactivity out of water samples before measuring them, artificially reducing reported values.

Studies Find Elevated Cancer Rates

Local legislators pushed for establishment of an independent advisory panel to oversee health studies, first of the workers at the site and then, if problems were found there, offsite populations. The initial co-chairs were Dr. David Michaels (until his appointment as Assistant Secretary of Energy for Environment, Safety and Health) and myself. A team of epidemiologists from the UCLA School of Public Health – Drs. Hal Morgenstern, Beate Ritz, and John Froines -- was chosen to conduct the worker study. They found that workers with higher radiation exposures at the site had increased death rates from cancers of the lung, blood and lymph systems compared to lower exposed workers, and that death rates increased monotonically with radiation dose. A second study reached similar conclusions about increased cancer death rates associated with chemicals from the rocket test stands.[19]

The federal Agency for Toxic Disease Registry (ATSDR) subsequently contracted with Dr. Morgenstern, by then Chair of Epidemiology at the University of Michigan, and Dr. Yoram Cohen of UCLA, to conduct studies of potential offsite impacts. Dr. Morgenstern found that rates of certain cancers in the nearby population increased with proximity to SSFL. Dr. Cohen's group found that contaminants from SSFL likely exposed people living near the facility to unacceptable concentrations of these pollutants.[20]

The Cleanup Failure

The site is heavily contaminated with radioactivity and toxic chemicals. That contamination includes soil, groundwater, and surface water. The Los Angeles Regional Water Quality Control Board has cited SSFL for scores of violations of NPDES water pollution limits in recent years; i.e., contamination has been migrating offsite in surface runoff whenever it rains. Contaminants have been found at the nearby Brandeis Bardin Camp Institute and the Sage Ranch Park, part of the Santa Monica Mountains Conservancy, as well as two proposed housing developments. A quarter of the water wells in Simi Valley have been found to be contaminated with perchlorate. The TCE plume, which covers a significant portion of the 2850 acres of the site, has migrated offsite as well.

Twenty years after the cleanup was supposed to have commenced, little has been done. The chemical cleanup has not begun, aside from a few "interim measures," and corrective measures are still years away. As to the radioactive contamination, a few years ago DOE announced its decision to leave 99% of the radioactively contaminated soil in place and walk away—without so much as even an Environmental Impact Statement. My organization (the Committee to Bridge the Gap), the City of Los Angeles, and the Natural Resources Defense

Council sued DOE in federal court, resulting in a decision by U.S. District Judge Samuel Conti finding DOE had violated the National Environmental Policy Act and enjoining it from transferring the site until it completes a full EIS.

In 1995, DOE and EPA entered into a Joint Policy in which they committed that all DOE nuclear sites, irrespective of whether they were on the National Priority List (Superfund), would be cleaned up consistent with EPA's CERCLA guidance. DOE promptly broke that promise and violated its own policy, deciding instead to employ cleanup standards that were for many radionuclides orders of magnitude more lax than EPA's primary CERCLA goals. Let me say that again. After committing otherwise, DOE attempted to employ cleanup standards that would permit radioactive concentrations hundreds or thousands of times as high at the EPA guidance would normally mandate.[21]

Throughout the latter part of the 1990s, DOE and EPA promised the local community and the legislators representing it that, given the problems with DOE's radiation monitoring and its lack of credibility, EPA's Gregg Dempsey would conduct an independent radiological characterization of the site. This promise too was repeatedly broken. No such survey has yet taken place.

In the Energy and Water Appropriation for this fiscal year, DOE and EPA were directed to conduct a joint survey of the site. DOE refused to comply, insisting that it do the survey itself; and it went ahead and spent almost all of the appropriation on things other than the survey, making the survey impossible, no matter who would do it. DOE simply thumbed its nose at the Congress.

A few months ago, DOE issued a draft "Gap Analysis," purporting to identify gaps in measurements performed in the past that the new survey was supposed to address. While claiming to base the analysis on the EPA Preliminary Remediation Goals for the rural residential scenario, using EPA default inputs, DOE actually altered nearly every value in the key table, relaxing them by as much as several orders of magnitude. When we caught and exposed this fabrication, a tremendous outcry ensued.[22] EPA reversed course and insisted it be permitted to perform the radiation survey, saying to DOE, "These events demonstrate a significant lack of transparency in DOE's interactions with EPA and the public. These events have damaged DOE's credibility...."[23]

In January, DOE issued a news release announcing it had chosen a company named CDM to prepare the SSFL EIS. It has now been revealed that DOE hid the fact that the central portion of the EIS, that dealing with radioactivity, is not in fact being prepared by CDM but rather by Science Applications International Corporation, which has recently been found guilty by a federal jury of defrauding the federal government and violating conflict of interest requirements in a lawsuit brought against it by the Nuclear Regulatory Commission.[24]

Last year, the California Legislature passed and Governor Schwarzenegger signed into law SB 990, which requires SSFL be cleaned up to the strictest EPA standards, specified in the legislation. DOE and NASA have both given signals that they are contemplating ignoring the state law and moving forward with far less protective cleanup actions. Such an attempt to avoid

compliance would trigger a major conflict between the state and federal governments, and even further reduce public confidence.

And in recent days, EPA has indicated a desire to not perform the comprehensive radiological site characterization long promised, but instead restrict it, at least at this stage, to surface soil, and only for Area IV of the site. Subsurface soil, groundwater, and surface water all need to be taken into account, and it makes no sense to restrict the survey to Area IV, because it is clear that contaminants from Area IV have migrated elsewhere. Radioactive particles do not "see" and obey arbitrary lines on a map. That is the core of the problem here: the contamination has been migrating.

And the role of Mr. Dempsey, long promised to direct the survey and in whom the community has a significant degree of confidence, remains uncertain. EPA seems desirous of outsourcing this work to a contractor, with Dempsey relegated to a consulting stance. The chance for a survey that the community trusts may be on the verge of being lost again.

What Needs to Be Done

This long-suffering community, battered by years of broken promises by the federal government, implores the Congress to enforce the commitments repeatedly made by the various agencies, and repeatedly abrogated. This has gone on way too long.

We ask that the Congress legislatively direct DOE, EPA, and NASA as follows:

1. They shall strictly comply with California law (SB990).
2. EPA shall perform, and DOE pay for, a comprehensive radiological site characterization of all of SSFL (all four Areas plus buffer zones).
3. That site characterization shall include all applicable environmental media, including surface and subsurface soil, groundwater and surface water.
4. EPA's National Radiation and Indoor Environments Laboratory will perform and direct the survey.
5. Funds to carry out the site characterization are spelled out with specificity in the appropriation, so DOE cannot once again divert the money elsewhere as it did this year; and the funds can be carried forward into future years as needed.

SSFL as Microcosm for Problems Throughout the DOE Nuclear Complex

SSFL is a good case study of problems at federal nuclear facilities throughout the country. The AEC/DOE for decades operated these extraordinarily dangerous enterprises with little consideration for environmental regulation or protection of the public. They felt they were above the law, and the affected people nearby simply did not matter. Corners were cut, rules bent, safety restrictions ignored. When accidents resulted, they were covered up. Leaking high level waste tanks at Hanford, contamination from reactor accidents and improper waste disposal at INEEL, reprocessing failures at Savannah River, releases from Paducah and Oak Ridge and so many other nuclear sites—the story is always the same. Sloppy practices, inadequate attention to

safety, lack of concern about the neighboring public, failure to be candid about problems—the result has been contamination that is amongst the biggest environmental insults this country has ever faced.

That was the first round of damage by the federal government to the people living near its nuclear facilities. The second round occurred when, in the wake of Chernobyl, the DOE complex faced independent scrutiny and the immense environmental damage created over the previous decades was finally in part disclosed. Then DOE announced it had seen the light, would be a responsible neighbor, would spend what was necessary to fulfill its responsibility to the affected citizenry, and would now clean up the carcinogenic mess it had created.

But those promises were repeatedly broken. The program to compensate workers from the complex or their survivors for cancers produced has bogged down, with only a small fraction of claims processed. The cleanup commitments have been repeatedly ignored, deadlines missed, and replaced with efforts, in the guise of "accelerated cleanups," to just leave the contamination in place and walk away. Who would have thought, in the midst of the Cold War, that the only American victims of radiation would be caused by our own government? And who would have thought, after all those disclosures of these past sins against our people, that the government would ad insult to injury and fail to meet its commitments to clean up the radioactive witches' brew it created in all these communities?

Nuclear Déjà Vu All Over Again

Lastly, let me end with a brief comment on the lessons of this tragic experience from the last time we as a nation were encouraged to jump headlong onto the nuclear bandwagon. There are some who now argue for a revival of all things nuclear. They want scores more reactors. They want irradiated nuclear fuel to be reprocessed. They want breeder reactors to make even more plutonium.

But to do that, they need the country to experience a kind of nuclear amnesia. They need us to forget the meltdown of the SRE, the explosion of the SL-1, the near-disaster of the N reactor. They need us to forget the immense contamination from the last time we tried reprocessing, the tens of billions of dollars it is costing to try to redress the damage from reprocessing at Hanford, Savannah River, and West Valley. They need us to forget the meltdown of the EBR-1 breeder in Idaho and Fermi I breeder, when we almost lost Detroit.

For those in the impacted communities from the last nuclear era, it all seems like nuclear déjà vu again. We hear echoes of all the old discredited claims again: that nuclear will be "too cheap to meter," even as the industry asks for a hundred billion dollars in taxpayer subsidies and guarantees; that we will somehow find a solution to the radioactive waste problem, even though sixty-six years after the first reactor wastes were created no solution is in sight; that the risk of accident is non-existent, even as industry asks for immunity from liability from such accidents; that proliferation and terrorism risks can be ignored, even as we face a world in which countries are getting nuclear weapons from civil nuclear technology.

We hear the same old claims that nuclear is safe and clean; yet our communities are still trying to get the government to clean up the radioactive contamination from all the past nuclear accidents, spills, and other releases from the last time we tried this.

It is said that those who forget the lessons of the past are condemned to repeat them, and repeat them, and repeat them. A sensible energy policy cannot depend upon collective amnesia. The last time we went down this road, it resulted in an unmitigated disaster for which we are still paying, in billions and billions of dollars of cleanup expenses, but more importantly, in poisoned land and water, and cancers in brothers and sisters, mothers and fathers, cousins and nephews. Let us learn from our mistakes rather than going blindly into repeating them. Otherwise, this deeply troubled nuclear past will indeed be prologue.

Thank you for the opportunity to testify before you today.

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[1] 605 Waldeberg Road, Ben Lomond, CA 95005, (831) 336-8003, cbghirsch@aol.com, http://www.committeetobridgethegap.org

[2] SSFL is located on 2850 acres in the Simi Hills at the boundary between Los Angeles and Ventura Counties, overlooking Simi Valley to the north, the western San Fernando Valley to the east, Woodland Hills to the south and Thousand Oaks to the west.

[3] AEC Report NAA-SR-30, "General Reactor Site Survey of the Los Angeles Area," by R. G. Chalker, 1 June 1949, North American Aviation, Los Angeles. Declassified 6 December 1955. What became the Santa Susana Field Lab was ranked fifth out of six candidate sites for meteorologic characteristics important to public safety, because of uncertain daytime conditions and winds that could transport "radioactive pollutant particles" to the San Fernando Valley at night. Nonetheless it was chosen, in part apparently for convenience of staff, as the driving time to major universities in the area was shorter than for more highly ranked possible sites. Because of the proximity of populated areas nearby, reactor power was supposed to be restricted so as to reduce radiation doses in case of an accident. A few years later, however, the AEC ignored this restriction and approved construction of a reactor at SSFL (the ill-fated SRE) much larger than that limit.

[4] SSFL is divided into four Areas. Area IV conducted nuclear work and is the site of a DOE nuclear facility now known as the Energy Technology and Engineering Center (ETEC). NASA owns all of Area II and a portion of Area I. Aside from the NASA-owned parcels, the rest of the land is owned by Boeing, but the bulk of the work done was as a contractor for the Department of Energy and its predecessor the Atomic Energy Commission, and for NASA and for DOD entities such as the Air Force and Navy (e.g., testing and development work for the MX missile).

[5] The SRE was a 20 megawatt-thermal reactor, constructed without a containment structure.

[6] The Murrow excerpt is quoted from a week-long investigative news piece on the SRE accident by Warren Olney, KNBC television (Los Angeles), November 1979.

[7] The AEC news release includes a note to editors and correspondents stating that a parallel announcement was issued by "Atomics International, a Division of North American Aviation,

Inc." Atomics International was the name of the contractor running the SSFL nuclear site for the AEC.

[8] Theos J. Thompson, "Accidents and Destructive Tests: 'The Past is Prologue," in The Technology of Nuclear Reactor Safety," ed. by T. J. Thompson and J. G. Beckerley, prepared under the auspices of the Division of Technical Information, U.S. Atomic Energy Commission, 1964. Thompson was chair of the AEC's Advisory Committee on Reactor Safeguards and later an AEC Commissioner.

[9] The fuel damage episode was first referenced in a report on various nuclear activities in Los Angeles by Dorothy Boberg, "The Nuclear Presence in Los Angeles County," issued by Another Mother for Peace in 1976, but received little attention until the Three Mile Island accident in 1979 sparked interest by the UCLA students and resulted in acquisition of extensive documentation, including film footage of the inside of the melted core, which was then provided to the news media, triggering extensive coverage. While not informing the public of the seriousness of the accident, the AEC made a training film of the long recovery process thereafter, because such meltdowns were likely to occur again and workers would need to be trained how to deal with the radioactive mess that results.

[10] Thompson and Beckerley.

[11] See declaration of Dr. Arjun Makhijani, in re: O'Connor v. Boeing, U.S. District Court, Central District of California, Western Division, filed February 12, 2004. The case was settled, reportedly with a large payment by Boeing to the plaintiffs, residents nearby SSFL who had allegedly cancer and other injuries from SSFL activities including the SRE partial meltdown. See "Boeing Agrees to Pay $30 Mil," *Los Angeles Daily News*, 11 January 2006.

[12] See Statement by Daniel Hirsch, in *Ocean Dumping of Radioactive Waste Off the Pacific Coast*, Hearing Before a Subcommittee of the Committee on Government Operations, House of Reprsentatives, 7 October 1980; and W. Jackson Davis, John Van Dyke, Daniel Hirsch, Mary Anne Magnier, and Sherry P. Broeder, Evaluation of Oceanic Radioactive Dumping Programs, LDC 7/INF.2, International Maritime Organization, London Dumping Convention, London.

[13] Memorandum from Captain Miller to Chief Ledbetter, "Subject: LOX Spill; Bravo Area and Subsequent Events," 8 September 1958.

[14] At the time, there were initial claims that the Chernobyl reactor had no containment structure. Then-NRC Commissioner James Asselstine shortly disclosed that it did have partial containment, and the Chernobyl containment performance design objectives were similar to ours. As we were discussing at the CPDO Workshop when the accident occurred, U.S. reactor containments are only required to deal with the pressure from the steam from the break of a coolant pipe, not the pressures that could be generated in a meltdown. Virtually no U.S. containment could have withstood the pressures experienced in the Chernobyl accident.

[15] The DOE officials quickly tried to draw a distinction between the N-reactor and Chernobyl, in that the former used uranium metal fuel and the latter used uranium oxide, until I pointed out that this difference was not an advantage all, because metallic fuel melts at a lower temperature than oxide and can burn in the presence of air if hot enough.

[16] "N-Reactor at Hanford Reservation, Washington: Safety and Environmental Concerns," Oversight Hearing, Subcommittee on General Oversight, Northwest Power, and Forest Management of the Committee on Interior and Insular Affairs, U.S> House of Representatives, 19 May 1986, Portland OR

[17] DOE Environment, Safety and Health Office of Environmental Audit, "Environmental Survey Preliminary Report: DOE Activities at Santa Susana Field Laboratories," February 1989
[18] EPA Memorandum, from Gregg Dempsey to Daniel Shane, "Site Visit to Santa Susana Field Laboratory Operated by Rockwell/Rocketdyne," 28 July 1989
[19] Thse studies, and reports by the SSFL Advisory Panel about them, can be found at www.ssflpanel.org. The UCLA team subsequently published their findings in a number of peer-reviewed scientific journals as well.
[20] The ATSDR-funded studies can be found at http://www.ph.ucla.edu/erg/current.html
[21] See "Nuclear Cleanup: The Standards Conflict," by Daniel Hirsch, Emily Churg and Tony Zepeda, November 2004, http://www.committeetobridgethegap.org/pdf/nuclear_cleanup.pdf
[22] See "Statement Regarding DOE Draft 'Gap Analysis' by Daniel Hirsch, 10 June 2008, and "Comments on DOE Draft 'Ggap Analysis'" by Daniel Hirsch, 8 September 2008.
[23] Letter re "Santa Susana Field Laboratory, Ventura County, California, Implementation of H.R. 2764," from Michael M. Montgomery, Chief, Federal Facilities and Site Cleanup Branch, USEPA, to Desi Crouther, Chief, Office of Small Sites Projects, Office of Environmental Management, Department of Energy, 2 July 2008.
[24] See U.S. Nuclear Regulatory Commission news release, "Government Prevails in Conflict-of-Interest Case Against Science Applications International Corporation," 5 August 2008; "Potential for Conflict Grows With Government's Use of Contractors," *Washington Post,* 18 August 2008.

Senator BOXER. Thank you, Dan.

You know, just hearing you put into 5 minutes the nightmare that the community has experienced, and every time you said, and Senator, you came in and said this, it is just over such a long period of time. I guess looking ahead to a brighter future, if after all the experience you have had of working with EPA, with the State, with the DOE, and then we hear today that a certain portion of the site DOE is in charge of. The rest of the site, we thought EPA was, they said it is the State, working with EPA.

How do you think we should, in fact, when we do have a brighter day, reorganize this cleanup in a way that would give the community comfort? Shall we put DOE in charge of the whole thing? Should we take them out, and put EPA? Should we make the State the lead, working with everyone else? What is your sense of it?

Mr. HIRSCH. Well, clearly DOE can't be placed in charge of it. DOE is the entity that made the problem. DOE is the one that was washing its vegetation samples to wash off the radioactivity before measuring and filtering the water, to filter the radioactivity out before measuring it. So you can't trust them, and the community does not trust DOE.

Our problem at the moment is that we had hoped EPA would in fact provide some leadership, but in recent months EPA has been sending signals to the State that if, in fact, they ever listed this as a Superfund site, they would take away the State's authority to clean up the site, the chemicals, and that they would not obey the law that the State legislature passed last year.

Senator BOXER. Do you have proof of that?

Mr. HIRSCH. Yes. I will provide that to you, if you would like.

Senator BOXER. So what you are saying is EPA is threatening the State not to list this as Superfund, or request it be listed?

Mr. HIRSCH. They are telling the State that if the State concurs on listing, EPA would likely clean the site up to a standard much lower than the State law that was passed, and that EPA will not treat the State law as what is called an ARAR, an applicable requirement.

Senator BOXER. Well, if you would send me that, I am going to send that to Ms. Bodine, because that is a pattern that we are seeing from the other agencies.

Well, let me just say, we do have a new day coming. I want to send a message of hope to the people, because we are not only going to pursue this oversight for whether it is Fort Meade or Santa Susanna or the Lawrence Livermore Labs, or all these problems that we have in these States. We are going to pursue that. But we also are hoping and working toward a day that the new EPA understands that its mission is to protect the people, not to make matters worse, and not to work to the lowest common denominator.

I just want to thank you publicly in this setting, in this room, in which our predecessors passed the Clean Water Act, the Safe Drinking Water Act, the Clean Air Act, the Endangered Species Act, Superfund—all of the landmark laws. As long as I am in this chair, and I have colleagues like Senator Cardin and many others, we are going to turn this thing around.

So just tell the folks back there that a new day is coming one way or the other, and we are going to not stand by silently as people in communities are just ignored.

You have just been so eloquent. Thank you so much for being here.

Mr. HIRSCH. Thank you. You are one of the few little bits of hope for this long-suffering community.

Senator BOXER. Little bits of hope.

[Laughter.]

Mr. HIRSCH. You have large obstacles, as we do.

Senator BOXER. Thank you so much.

Senator, you are in charge. I thank you so much.

Senator CARDIN.

[Presiding.] Thank you.

Let me thank Chairman Boxer. She is a great inspiration to all of us here, and we have seen over this Congress that she has taken the leadership on so many environmental issues that are going to be important for our Country and I think for the entire world.

Senator BOXER. Thank you so much.

Senator CARDIN. We thank you very much.

We have made a lot of progress. We have a lot further to do. There is no question about that.

We will now proceed with this full panel.

I am first very pleased to welcome to the Committee my fellow Marylander, the Secretary of the Environment of the Maryland Department of the Environment. Shari Wilson is well known to those of us in Maryland for her continued fight for our environment. She also serves on the Governor's cabinet, the BRAC sub-cabinet, the Chesapeake Bay sub-cabinet, the Smart Growth sub-cabinet. She comes from the City Solicitor's Office in Baltimore where she was known for fighting for the right type of planning for our community.

We also welcome Bonnie Buthker, the Program Manager, Office of Federal Facilities Oversight, Ohio Environmental Protection Agency, and Elizabeth Limbrick, who is the Associate Project Manager, Langan Engineering and Environmental Services. She serves the Greater New York City area as a Projects Manager in the environmental services industry.

We welcome all of you. Your entire statements will be made part of the record. We will start with Secretary Wilson.

STATEMENT OF SHARI T. WILSON, SECRETARY OF THE ENVIRONMENT, MARYLAND DEPARTMENT OF THE ENVIRONMENT

Ms. WILSON. Thank you, Senator Cardin, and good morning. It is a pleasure to be here. We appreciate the opportunity to share Maryland's perspective on environmental cleanups at DOD sites.

Maryland enjoys many benefits from our 24 active DOD military installations. As you know, we are aggressively and enthusiastically preparing for base realignment and closure. We also have nine closed DOD facilities and, significantly, 114 sites previously owned by the Department of Defense, now transferred to private parties.

While we are a small State geographically, we have extensive experience in regulating cleanups at Federal facilities due to the long and varied history of activities at military bases in Maryland.

At the outset, I must emphasize that over the past decade, Maryland has had a very positive and a very successful relationship with our DOD facilities. Maryland's experience that I will discuss today related to two sites is decidedly not characteristic of our overall experience. At these two sites, Fort Detrick and Fort Meade, over the past 2 years we have encountered resistance. As you have already mentioned today, these two sites involve significant ongoing remediation requirements.

At Fort Detrick, there is a portion of the site mentioned earlier known as area B where groundwater contamination exists in an aquifer that may potentially be used for potable purposes. In Maryland, 30 percent of our drinking water comes from groundwater. Its protection is our highest priority. This area of contamination is also extremely geologically complex. The Army's technical cleanup approach did not account for that geological complexity and for the potential migration adequately. We were not successful over the past 2 years in negotiating a more thorough assessment and cleanup, and as a result pursued the NPL listing.

We sensed the Department of Defense was at many levels resisting the placement of the site on the NPL. Earlier this summer, EPA committed to proceeding with the listing, and in fact, as Ms. Bodine mentioned, earlier this month the site was formally proposed. We are looking forward to a more thorough and protective assessment and cleanup approach as a result.

At Fort Meade, while there is no immediate health risk at the site, there is the potential for an imminent and substantial endangerment in the future. This site, as you mentioned, is on the NPL and cleanup is ongoing. Significant technical work has been completed. There is significant technical work yet to be done, and that is our concern. To date, there is no Federal facilities agreement at the site, as you mentioned, and so there is no legally binding commitment for the time line and the cleanup activities.

In 2007, EPA issued the RCRA administrative order to the Army. Compliance with the order remains outstanding. Maryland is concerned because there is no binding commitment. Over the past several months, we have been in communication with the Department of Defense. DOD communicated its commitment to enter into the agreement on several occasions, but for reasons that are unclear, we were unable to get a commitment to a timeframe, when we could see that agreement, when we could expect it, when we would know for certain that we had a legally enforceable remedy in place. As a result, the department, working with the Office of the Attorney General for Maryland, issued a citizen suit notice against the facility. Our hope is to secure a binding commitment for the cleanup in the future.

Again, these two sites are not the norm. That being said, in conclusion, based on our experience with all of the DOD facilities, we would strongly advocate for your consideration four improvements to the process of working with DOD. First would be a significant increase in priority and funding for sites that DOD has transferred to third-party ownership. As I mentioned, in Maryland we have 114

of those, and just over 25 have been addressed, so there is much more work to do.

We would also recommend careful review of the current practice of performance-based contracting to the actual cleanup selection phase of the process. We believe it is possible that the trend to use of performance-based contracting is resulting in inadequate cleanup proposals. We would also suggest increased use by the Army of the partnering approach. This is a tiered-management approach that has been used quite successfully, particularly by the Navy and the Air Force and at other facilities in Maryland.

We also agree, as was mentioned earlier, that a significant effort and a time line for this effort to update the DSMOA process is in order.

Thank you very much for the opportunity to discuss our experience. We appreciate the opportunity to be here. Thank you.

[The prepared statement of Ms. Wilson follows:]

Testimony of Shari T. Wilson
Secretary of the Maryland Department of the Environment
Before the
Senate Committee on Environment and Public Works
Thursday, September 18, 2008

State—Federal Collaboration on Environmental Remediation at Department of Defense Installations

Chairman Boxer and honorable members of the Committee, thank you for the opportunity to share Maryland's perspective on environmental remediation at existing and former Department of Defense ("DoD") installations in our State.

As many of you may know, the Department of Defense has a significant and growing presence in Maryland. By way of background, there are 24 active DoD installations located in Maryland, 9 closed facilities and 114 sites that were previously used by the military, but have been transferred to local government, the private sector, or non-DoD federal agencies for reuse or redevelopment. A number of these installations—Fort Meade, Fort Detrick, Aberdeen Proving Ground, the Patuxent River Naval Air Station and Andrews Air Force Base—are undergoing major expansions as a result of BRAC and other federal programs. Nearly all of the active and closed facilities contain at least one area (and sometimes multiple areas) with soil and/or groundwater contamination as a result of historical waste disposal, munitions and other military activities. More than three-quarters of the 100+ formerly used defense sites have not completed the CERCLA process. It is likely that a significant number of these sites will ultimately require remedial action. Reaching sound remedial decisions and response actions that are protective of both human health and the environment is an issue of great importance to us.

I would like to say at the outset that overall Maryland has enjoyed a cooperative and successful working relationship with the Department of Defense. At many of the DoD sites in Maryland, remedial activities are proceeding in a satisfactory manner. While we do not question DoD's commitment to cleaning up these contaminated sites, our generally collaborative relationship with DoD recently was uncharacteristically strained at two facilities with significant ongoing remedial actions—Fort Detrick and Fort Meade—in both cases as a result of the Army's unwillingness to enter into binding enforceable agreements that would govern remediation of these sites going forward.

Fort Detrick

Fort Detrick is an Army Medical Installation and home to the Army Medical Research and Material Command and 36 other tenant organizations. Until 1969, Fort Detrick was the nation's center for offensive and defensive biological warfare research. It consists of three non-contiguous tracts of land designated as Areas A, B and C, totaling 1,230 acres. Soil and groundwater contamination in Areas A and C have been addressed. In Area A, the Army committed to maintain the existing groundwater extraction system near the source of trichloroethane ("TCE") contamination as a mechanism to contain the plume of contaminated groundwater to the facility. Groundwater monitoring continues in Area A and institutional controls are in place at the site to limit access.

On Area C, contaminated soils and ash deposits from an old incinerator have been removed to address soil contamination. No remedial action to address groundwater was required at Area C. Land use controls are in place to limit future use of the site.

Area B, the last of the three areas at the facility to be addressed, presents some challenging and difficult groundwater contamination problems because of its karst environment and fractured rock aquifer. This site was previously used by the Army for disposal of construction and demolition debris, incinerated biological wastes, animal carcasses, excess chemicals, herbicides and other wastes. In addition to an old unlined landfill on the site, there are multiple unlined trenches that were used for the disposal of miscellaneous waste. Ground and surface water both on and off-site is contaminated with TCE and perchloroethene ("PCE"). Waste material has been excavated and removed from one of the disposal pits. Plans for capping the disposal pits and remediating groundwater contamination are under development.

The State's active involvement with site assessment and other remedial activities at Area B dates back more than 15 years. Despite our efforts to work collaboratively with DoD, neither we, nor EPA, have been able to negotiate a binding, enforceable agreement with DoD that provides for remediation of Area B on acceptable terms. In 2007, the State and DoD commenced consent decree negotiations with DoD toward this end, but it quickly became apparent that these negotiations would not be successful. These failed efforts led us to support placing Fort Detrick on the NPL, which will subject DoD to a prescribed and binding remediation process under federal superfund law. On September 3rd, EPA proposed Fort Detrick for listing on the NPL.

Fort Meade

EPA listed Fort Meade on the NPL in 1998. This facility, originally comprised of more than 13,000 acres in Anne Arundel County, served as a training facility for many years and included infantry combat training operations and a mustard agent training area. Munitions degreasing, metal plating, photographic processing, salvage yard and other operations at the facility generated hazardous waste. The facility also contained landfills, incinerators, hazardous waste storage areas, and an explosive ordnance disposal area. Nine thousand acres of the facility were closed as a result of BRAC, nearly all of which was transferred to the Department of Interior and is now the location of the Patuxent Research Refuge. Soils and groundwater at the facility are contaminated with metals, chlorinated solvents, including TCE and PCE, and other pollutants at levels above safe drinking water standards and Risk Based Concentrations. Unexploded ordnance is present at multiple locations, and there are five separate and distinct groundwater plumes at the site, two of which have migrated to the wildlife refuge.

The State and EPA have been working cooperatively with DoD on the Fort Meade site since 1993. Since then, considerable progress has been made toward assessing the nature and extent of soil and groundwater contamination. Some areas of contamination have been remediated. However, much work remains to be done to complete the assessment and implement the necessary remedial actions. Up to this point, DoD has been unwilling to enter into a Federal Facility Agreement with EPA to govern the ongoing remedial activities at the facility. As a result, in August of 2007, EPA issued a unilateral administrative order to the Army under RCRA § 7003 requiring additional investigation and interim measures to protect public health.

Overall, we are satisfied with the progress of the cleanup at Fort Meade. Our principal concern with the Fort Meade cleanup has been DoD's unwillingness to commit to a timeline for entering into a Federal Facility Agreement or other binding enforceable agreement with EPA that provides for achieving compliance with the 2007 RCRA Order and addressing the contamination problems at the facility in an acceptable time frame. At one point in discussions with DoD staff, the Department understood that DoD would commit to entering into a Federal Facility Agreement, but then for reasons that are still not clear, we were unable to get such a commitment. The Department felt we had no choice but to notify DoD of our intention to bring suit against the Army under the RCRA citizen suit provisions to force compliance with EPA's RCRA Order, which we did through issuance of a RCRA citizen suit notice letter on August 19th. We remain hopeful that an acceptable agreement will be reached promptly—one that will obviate a need for further legal action on our part.

Formerly Used Defense Sites ("FUDS")

While we are otherwise generally satisfied with the progress being made on restoration of DoD facilities in Maryland, there are a number of changes and improvements that we believe would enhance the process and the program. We are concerned about the unacceptably slow progress on assessment and remediation of the former defense sites in Maryland. There are 114 of these sites in Maryland. Funding for assessment and remediation of the former defense sites is inadequate. Under our current DSMOA, DoD has funded work on only 26 of these sites—those that DoD considers its highest priority sites. The selection of the 26 currently funded sites was made without any input from the State. Some of these unfunded sites could pose a higher risk to public health or the environment than those sites receiving funding, but without complete assessments, we simply do not know. We favor a more collaborative and cooperative approach to identifying the high priority sites, and increased funding to ensure that thorough risk assessments of these sites that fully comply with EPA requirements are performed.

Partnering

We would like to see greater utilization of the partnering approach. Partnering provides a framework for fully involving all of the regulatory agencies and working though issues to achieve consensus through a tiered process. EPA Region III has given its strong support to utilization of "partnering" as a management approach to facilitate cleanup of DoD sites. It has proven to be a very helpful tool. Both the Navy and the Air Force have successfully employed formal or informal partnering at a number of sites in Maryland. It is our perception, however, that in recent years the Army has not demonstrated the same level of commitment to partnering with the State and EPA on its sites. The failure of the State's efforts to partner at both the Fort Detrick and Fort Meade installations was very disappointing to us.

Performance Based Contracting

We have observed a negative trend by DoD to increase use of "Performance Based Contracting" for the procurement of consultants during the assessment phase prior to selection of a remedy. A Performance Based Contract is awarded for a fixed price. It is our understanding that DoD favors this approach for the reason that it provides certainty with respect to costs. However, use of Performance Based Contracting to facilitate cost containment goals undercuts the remedy selection process. It gives the contractor an incentive to keep costs down and to steer

DoD toward proposing an unrealistic remedial action based on cost considerations, without regard to compliance with applicable or relevant state and EPA regulatory requirements, EPA policy and guidance, and whether ultimately the remedy is adequately protective of public health and the environment over the long term. DoD contractors working under Performance Based Contracts at both Fort Detrick and Fort Meade have recommended Monitored Natural Attenuation to address groundwater contamination. At one facility, the necessary conditions for selection of this remedy under EPA guidelines and policy were not present. At the other, the same recommendation was made without the necessary understanding of the hydrology at the site. We believe that DoD should abandon the use of Performance Based Contracting prior to selection of the remedy at a site.

The DSMOA

As is the case in other states, Maryland's regulatory oversight of nearly all of the CERCLA cleanups is proceeding under a Memorandum of Agreement between the State and the Department of Defense (the "DSMOA"), which governs the process of developing and implementing a remedial action plan at DoD installations. The DSMOA is intended to facilitate a more efficient and cost effective environmental restoration at DoD facilities and it provides for federal funding of state oversight activities.

Several recently adopted DoD policies relating to implementation of DSMOA Cooperative Agreements threaten to undermine the viability and effectiveness of a collaborative relationship between DoD and the states. The DSMOA and the Cooperative Agreement process have historically been very successful at promoting cooperation between DoD and the states at specific cleanups, and also in the development of policy and new technology. DoD's position that all of a state's DSMOA funding will be withheld if the state takes any enforcement action, including issuance of a notice of violation, without first exhausting the dispute resolution procedures under the DSMOA, is a transparent effort to leverage its power of the purse to constrain legitimate state enforcement actions. This effort and the interpretation of the DSMOA is contrary to the letter and spirit of the Federal Facilities Compliance Act, which subject federal facilities to the same environmental requirements and enforcement processes as private entities.

Last, DoD has also eliminated DSMOA and Defense Environmental Restoration Account ("DERA") funding to support activities such as participation in national workgroups devoted to policy development, remediation development and other technology sharing forums. State participation in the development of national policy and the dialogue on technology issues as they relate to DoD sites promotes a consistent and more uniform approach to environmental restoration of DoD sites and benefits DoD, as well as the states. Adequate training, and state participation in policy development are critical to a collaborative state/federal working partnership. Unfortunately, despite vigorous objection from the states, DoD has not indicated any intention to reconsider these policies. The DSMOA agreement is almost 20 years old, and it may be time to revisit the agreement. We think DoD should open a dialogue with the states toward that end.

Thank you for your interest in these important issues and for the opportunity to share Maryland's perspective.

Environment and Public Works Committee Hearing
September 18, 2008
Follow-Up Questions for Written Submission

Questions from:

Senator Barbara Boxer

Question #1: Your testimony describes serious concerns with DOD's approach to funding investigation and clean up work at Formerly Used Defense Sites.

Could you describe how you think DOD should change its approach to funding such work?

Substantial additional Federal funding for this work is needed. The U.S. Army Corps of Engineers manages an inventory of 9,908 Formerly Used Defense Sites ("FUDS"). The Corps has made the determination that 6,868 of these sites are FUDS "eligible," for FUDS funding which means that the FUDS program can spend restoration dollars for investigation and cleanup. The Corps has also determined (with minimal state input) that 3,824 of the "eligible" sites require no Department of Defense action. Consequently, the active inventory of FUDS sites that are eligible for the program's restoration funding is 3,044.

The FY 2007 estimated cost to complete assessment and cleanup of the active eligible FUDS sites was approximately $16 billion. Funding for the FUDS program for the last few years has been equal to approximately $58,000 per year for each of the 3,044 eligible active sites. At this current rate of spending, cleanup of the eligible FUDS sites could take 100 years.

This timeframe needs to be shortened. We believe DOD should request and allocate additional funding for the program to ensure more expeditious cleanup of these sites.

Question #2: Your testimony states that DOD's new and controversial approach to funding state oversight work under its Memorandum of Agreement "is a transparent effort to leverage its power of the purse to constrain legitimate state enforcement actions."

Can you please describe the potential impacts of the DOD's actions on protections of public health and environmental quality?

The potential impact on public health and the environment of DOD's interpretation of the DSMOA dispute resolution provisions by way of example, basically serves as a disincentive for States to take enforcement action. Maryland's DSMOA funding was suspended after taking an enforcement action of an Air Force facility in the State.

In 1996, prior to placement of Andrews Air Force Base on the National Priorities List, the State was the principal regulator overseeing remedial actions at the facility. The Department notified the facility that it had failed to obtain a required State permit for a waste water discharge from a portion of the facility where the CERCLA process had not been followed. After unsuccessful discussions with the facility, the Department issued a complaint and order to Andrews Air Force Base in advance of initiating the dispute resolution process outlined in the DSMOA. The U.S. Army Corps of Engineers DSMOA Office immediately suspended funding for work at Andrews Air Force Base until the State initiated the dispute resolution process and agreed to hold the enforcement action in abeyance.

While the dispute resolution process proceeded, additional issues regarding the facility's compliance with CERCLA were identified. Concurrently, the Air Force submitted a remedial action plan for an offsite groundwater release to the Department for review and approval. The proposed remedial action plan was approved. However, without any notification to Department, the Air Force implemented a removal action that was significantly different from, and in the Department's view, less environmentally protective, than the approved proposal.

The dispute was not resolved through the DSMOA process until 1999, three years later. Ultimately, the Air Force agreed to revise its procedures to ensure compliance with State and Federal law, but only after an unnecessarily prolonged process. With the threat of an enforcement action eliminated, there was no incentive for the Air Force to work for expeditious resolution.

It is our understanding that DOD has similarly suspended funding in other states that have exercised their enforcement authority without first exhausting the DSMOA dispute resolution process.

Senator James M. Inhofe

Question #1: In your testimony you state that "Overall, we are satisfied with the progress of the cleanup at Fort Meade." Then you go on to say "Our principal concern with the Fort Meade cleanup has been DOD's unwillingness to commit to a timeline for entering into a Federal Facility Agreement." Does the State of Maryland need a Federal Facility Agreement to clean up Fort Meade?

Yes, CERCLA requires the Army to execute a Federal Facility Agreement. There is a need for independent Federal oversight at DOD NPL sites. Remedial schedules and the requirement for EPA "approval" of DOD's remedy selection are central to the independent Federal oversight role envisioned by Congress. The State, which has no authority over DOD facilities under CERCLA, views the Federal Facility Agreement as a significant tool. Without a binding, enforceable agreement governing remedial activities, DOD is in a position to dictate clean up schedules, direct investigations, select response actions, and implement remedies without meaningful oversight.

Question #2: What is the current status of clean up action at Fort Meade?

The CERCLA process at Fort Meade ranges from being in the early phases of the Remedial Investigation to finalizing Feasibility Studies and preparing remedial decisions at over 17 different locations.

Has it stopped?

No, remedial activities are continuing.

If there is no FFA then when will clean up at Fort Meade cease?

This question is, perhaps best directed to DOD. From Maryland's perspective, the remedial program at Fort Meade will not be completed until remedial actions that are protective of human health and the environment, meet Applicable or Relevant and Appropriate Requirements, and protect and restore the groundwater resources of the State, are fully implemented and functioning as designed.

Question #3: Are there any areas of clean up at Fort Meade that are or would be outside of a Federal Facilities Agreement?

From Maryland's perspective, the NPL site should cover all areas where historic (pre-1986) releases of hazardous or toxic material from Fort Meade's activities have contaminated soil, groundwater or surface water, including the property transferred to the Department of Interior. It is our understanding that the issue of the property transferred to the Department of the Interior as part of the NPL site is one reason for delay in the execution of a Federal Facility Agreement.

Are there any other Federal agencies involved in the clean up at Fort Meade and how long have they been involved?

Yes. EPA and the Department of the Interior have been involved with cleanup activities at Fort Meade since 1993. In addition, the National Security Administration, in its role as lessor of a portion of the parcel on which the facility is located, has conducted remedial investigations on its parcel commencing in 1997. Finally, the Library of Congress has been involved since approximately 1999 in activities related to construction of an archive facility at Fort Meade.

Senator CARDIN. Thank you very much for your testimony.
Ms. Buthker.

STATEMENT OF BONNIE BUTHKER, PROGRAM MANAGER, OFFICE OF FEDERAL FACILITIES OVERSIGHT, OHIO ENVIRONMENTAL PROTECTION AGENCY

Ms. BUTHKER. Good morning. My name is Bonnie Buthker and I am the Department of Defense Program Manager for the Ohio Environmental Protection Agency.

I would like to thank Chairwoman Boxer, Ranking Member Inhofe, and all the members of the Committee for the opportunity to discuss Ohio's concerns regarding State involvement in the investigation and cleanup of Federal facilities.

Though it made significant progress in Ohio in addressing contamination at Federal facilities, much more work remains to be done. The three major issues I would like to highlight are the Army Corps' desire to investigate all potentially responsible parties before taking necessary action at formerly used defense sites contaminated with military munitions; the lack of funding to investigate and remediate known munitions-contaminate sites; and the problems with the Defense-State memorandum-of-agreement program.

The first major issue concerns the Army Corps' desire to investigate all potentially responsible parties before taking necessary actions at formerly used defense sites contaminated with military munitions, even though the Army Corps acknowledges that most of the contamination was caused by past military activities. One such example is the former Erie Army Depot site. This facility was used by the Army from 1918 until 1967 for the testing and proof-firing of live and inert rounds. Because of the potential hazards associated with the live rounds, in 2006 the Army Corps proposed a surface clearance of two former land ranges now used by a private club for hunting, fishing and tracking. However, they never did this work. Their position is that though the ordnance in these areas poses a safety hazard, they need to first determine if other parties may be liable for the costs to address this contamination.

The Ohio EPA strongly believes that the Army Corps, in conjunction with DOD, should remove these explosive rounds from these areas due to the potential safety hazard they pose. Subsequently, since the dangerous rounds could only be from past DOD activities, DOD should be held liable. Conducting a liability investigation will only delay this necessary cleanup.

The second major issue is the lack of necessary funding to investigate and cleanup munitions-contaminated sites. At Erie Army Depot, additional investigations are needed to determine the extent of ordnance present in Lake Erie and the surrounding areas. At the Ravenna Army Ammunition Plant, additional actions are needed to remove munitions that were dumped into a ravine and are now impacting the stream. In 2007, a white phosphorus round exploded in this area, and we are concerned additional rounds may explode.

Both these sites were scored by DOD as a high priority for funding for additional work. However, since DOD's priority is to first conduct preliminary investigations at all sites before funding additional work, there is no funding to conduct necessary actions at these two sites.

Because of sites such as Ravenna and Erie, Ohio EPA urges Congress to ensure adequate funding to DOD to address problems at priority sites, instead of using funding to only complete initial investigations onsites that may be less of a priority.

The third major issue is the problems with the DSMOA program. State involvement is crucial to the success of any Federal facility cleanup. Without funding through DSMOA, many States, including Ohio, would not be involved with the investigation and cleanup of DOD facilities within their State. States should be allowed to use DSMOA funding to participate with DOD to develop policies on how to address contamination at their facilities.

In addition, DOD should not be allowed to withhold funding to punish States when they take necessary actions, including enforcement, to protect their citizens. To correct the problems with DSMOA, Ohio EPA supports the amendments to 10 U.S.C. 2701(d) proposed by the Environmental Council of States.

In conclusion, the effective cleanup of Federal facilities is critical to the health and welfare of the citizens living in the communities near these sites, as well as to the environmental health of these sites. State oversight is a key component of this program. Our citizens look to the State to ensure that the contamination from past DOD and Department of Energy activities is addressed in a protective, expedited manner. We ask Congress to remove the barriers to effective State oversight and to provide funding to meet critical or high-priority needs at these sites.

Thank you for this opportunity to offer testimony. I would be pleased to answer any questions you may have.

[The prepared statement of Ms. Buthker follows:]

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Testimony of Bonnie Buthker
Department of Defense Program Manager for the
Ohio Environmental Protection Agency

U.S. Senate Environment and Public Works Committee

September 18, 2008

Good afternoon. My name is Bonnie Buthker and I am the Department of Defense Program Manager for the Ohio Environmental Protection Agency (Ohio EPA). I would like to thank Chairwoman Boxer, Ranking Member Inhofe, and all the members of the Committee for the opportunity to discuss Ohio's concerns regarding state involvement in the investigation and cleanup of federal facilities.

Ohio has several major federal facilities, both active and inactive, including uranium enrichment facilities, military bases, and ammunition production and testing facilities. During the past 14 years, Ohio EPA, working with both the Department of Defense (DoD) and Department of Energy (DoE), has made significant progress in cleaning up active and closed facilities within our state. We have worked in partnership with federal facility staff and stakeholders to establish protective, reasonable, and achievable cleanup goals. At the same time, we have worked to streamline the cleanup process so that limited cleanup funds available are used as efficiently as possible.

Though we have made significant progress in addressing contamination at federal facilities in Ohio, much work remains to be done and recent problems are now slowing progress and diminishing the efficiencies we achieved. The three major issues that I would like to highlight are:

- the Army Corps of Engineer's (Army Corps) desire to investigate all potentially responsible parties before taking necessary response actions at Formerly Used Defense Sites contaminated with military munitions contamination,
- the lack of necessary funding to investigate and remediate explosives and munitions contaminated sites,
- and the problems with the Defense State Memorandum of Agreement (DSMOA) Program.

Army Corps' Desire to Investigate All Potentially Responsible Parties Before Taking Necessary Actions to address Munitions Contamination at Formerly Used Defense Sites

Ohio EPA is concerned with the Army Corps' standing policy that a liability review for sites that contain munitions and explosives of concern must be completed for each site. Ohio EPA agrees that, if there is evidence that a non-military party is partially or fully liable for contamination, the Army Corps should conduct a liability review. However, for sites where the contamination present can only be due to past military activity (such as those with explosives or munitions contamination), Ohio EPA feels that such liability reviews are not warranted, cause major delays, and drain precious financial resources. A prime example of the misapplication of this policy can be illustrated by the Former Erie Army Depot site near Port Clinton, Ohio. This facility was used by the U.S. Army from 1918 through 1967 for the testing and proof firing of various types of live and inert ordnance, including Army artillery, small caliber munitions, mortar shells and rockets. Much of the ordnance was fired into a zone in Lake Erie. Remnants of this material, both exploded and unexploded, continually wash back onto the beach area today.

Because of the hazard associated with the accumulated ordnance, the Army Corps has conducted three removal actions to clear ordnance items from the beach area. In 2006, the Army Corps also proposed to conduct a surface clearance of two former land ranges now used by a private club for hunting, fishing, and trapping. However, this removal action has never been initiated. Although the Army Corps agrees that the ordnance present in these areas poses a safety hazard, they want to determine if a private company may be liable for the costs to address the munitions contamination. Their rationale is that, since the private company tests artillery at the site, the private company may be liable for the costs to remove the live ordnance from these areas. However, the Army Corps has no evidence that the company ever used live explosive rounds during their operation. The company has stated repeatedly that they only use inert projectiles.

Ohio EPA has repeatedly urged the Army Corps to take immediate action to remove these explosive rounds from these areas due to the potential hazard. We feel that there is no basis for conducting the liability investigation, which, by the Army Corps' own admission, could unnecessarily delay this clearance for several years. During this delay in action, hunters will continue to be at risk from the live ordnance which everyone agrees is present in these areas.

Lack of Funding to Investigate and Remediate Explosives and Munitions Contaminated Sites

The second major issue affecting progress at Ohio Federal Facilities is the lack of necessary funding to investigate and cleanup explosives and munitions at contaminated sites. At two of our munitions sites in Ohio, initial investigations have been completed and DoD has scored them as a high priority for funding for additional work to address

this ordnance. However, there is no funding to conduct the additional investigations or to implement necessary clean up actions.

For example, at the former Erie Army Depot, one of the two high priority sites, Ohio EPA has been pushing the Army Corps to determine the extent of the ordnance contamination present, especially if that material may be present in unrestricted areas that are accessible to the public. However, the Army Corps has told Ohio EPA that, until all preliminary investigations are completed at all Formerly Used Defense Sites (FUDS) nationwide, they will not have additional funding for further investigations or cleanup actions at the former Erie Army Depot.

At the Ravenna Army Ammunition Plant, the second of the two high priority sites, Ohio EPA has pushed for a permanent remedial action to address a site where munitions were dumped into a ravine and now are impacting a stream that contains a state endangered species. In 2007, a white phosphorus round exploded, and we are concerned that additional rounds may also explode. However, the Army has stated that it may take several years to receive funding to address this site.

Because of the issues raised by the ordnance problems at these two sites, Ohio EPA urges Congress to ensure adequate funding for DoD to address priority sites, instead of using funding to complete initial investigations on sites that may be less of a priority.

Defense State Memorandum of Agreement (DSMOA)

The third major issue involves the problems with the DSMOA Program. The DSMOA program provides funding for state involvement in the investigation and remediation of current and former DoD facilities. As you know, state involvement is crucial to the success of any federal facility cleanup program. Ohio EPA is mainly concerned about two interpretations affecting this program: the interpretation that DSMOA funding cannot be used to support state participation in work groups involving DoD policy development, and the interpretation that state enforcement of environmental laws may impact receiving funding under DSMOA.

Interpretation about reimbursement for time spent participating on work groups involved with Department of Defense (DoD) policy development and guidance. Ohio EPA has been forced to significantly curtail involvement in important work groups. When our participation in workgroups was funded under the DSMOA, we were involved with several different policy and guidance initiatives including those with the DSMOA, the Formerly Used Defense Sites program, and the Munitions Response Prioritization Protocol. Participation benefited both Ohio and DoD in several ways. It helped to ensure that Ohio EPA's concerns about DoD's policies were addressed before they were finalized. It also allowed Ohio EPA to raise real examples to DoD to help ensure that their policy and guidance would be applicable to actual DoD sites, thereby improving those policies. Lastly, it fostered state support and understanding for the DoD program and policies. These are the same benefits that Ohio EPA has had with DoE because of DoE's funding of state participation on their national policy committees.

However, since the DoD no longer provides funding for state participation on their committees, Ohio and other states have scaled back our involvement with these national workgroups.

Interpretation that State Enforcement actions may jeopardize states receiving funding under DSMOA. The Army Corps has not threatened to withhold state DSMOA funding if Ohio EPA took an enforcement action against a DoD site. However, because other states have been impacted by this policy, Ohio EPA feels that language should be added to clarify that entering into a DSMOA does not change or waive any enforcement authority the state has under state or federal law. It should also clarify that, when emergency situations that pose imminent risks to public health or welfare exist, states may have to take enforcement action prior to exhausting the DSMOA dispute resolution process. This would prevent DoD from withholding funding as a punishment for states that take necessary actions to protect their citizens.

To correct these two problems with the DSMOA, Ohio EPA supports the amendments to 10 USC 2701 (d) proposed by the Environmental Council of States to correct the issues with DSMOA. I've attached copies of the proposed language to my testimony for your consideration. These amendments will clarify that DoD can provide funding to states to participate in policy development. The proposed language will also ensure that DoD cannot condition DSMOA funding based on the manner in which a state exercises its enforcement authority.

Conclusion

Effective cleanup of federal facilities is critical to the health and welfare of the citizens living in the communities near these sites, as well as the environmental health of the sites. State oversight is a key component of the federal facility program. Our citizens look to the state to ensure that the contamination from past DoD and DoE activities is addressed in a protective, expedited manner. We ask Congress to remove the barriers to effective state oversight, and to provide sufficient funding to meet critical or high priority needs at these sites.

Thank you for this opportunity to offer testimony. I would be pleased to answer any questions you may have.

Attachments

Amendments to 10 USC 2701 (d) proposed by the Environmental Council of States to correct the issues with DSMOA:

(d) Services of Other Entities.

(1) In general. --Subject to paragraph (3), the Secretary may enter into agreements on a reimbursable or other basis with any other federal agency, any state or local government agency, any association representing states, any Indian tribe, or any nonprofit conservation organization to obtain the services of the agency, state or local government agency, association representing states, Indian tribe, or organization to assist the Secretary in carrying out any of the Secretary's responsibilities under this section. Services which may be obtained under this subsection include the identification, investigation, and cleanup of any off-site contamination resulting from the release of a hazardous substance or waste at a facility under the Secretary's jurisdiction, the transfer of property after cleanup, as well as discussion of policy and technical issues under this section.

New (4) State enforcement authority. --DoD cannot condition DSMOA funding based on the manner in which a state exercises its enforcement authority, or its willingness to enter into dispute resolution prior to exercising that enforcement authority.

Senator CARDIN. Thank you for your testimony.
Ms. Limbrick.

STATEMENT OF ELIZABETH LIMBRICK, ASSOCIATE PROJECT MANAGER, LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES

Ms. LIMBRICK. Good morning, Senator Cardin.

First, I want to start by thanking you for this opportunity to testify here today. My name is Elizabeth Limbrick, and I am a member of the InterState Technology Regulatory Council. I have been employed in the environmental field since 1995 in various capacities as a consultant, as a regulator at the New Jersey Department of Environmental Protection, and also as a responsible party at a quasi-State agency.

Through these positions, I have recognize that the pace of remediations at Federal facilities has actually greatly improved over the years and now often far exceeds what was common decades ago. The Federal partners have really embraced their duty and obligation to get their sites cleaned up. I attribute this to the DOE's and the DOD's use of innovative technologies and their motivation to bring these sites to a conclusion.

The military has invested in creating comprehensive internal environmental programs to address environmental issues such as the Air Force's Center for Engineering for the Environment and the Naval Facilities Engineering Command, the Army Environmental Center, and then of course, the Army Corps of Engineers.

In fact, a partnership has been formed with the United States Environmental Protection Agency, the New Jersey Department of Environmental Protection, the InterState Technology Regulatory Council, the DOD, the DOE, and industry that has led to the development of an innovative environmental Triad approach. This approach has three main components. They are systematic planning, a flexible dynamic work plan, and real-time analytical methods. It is this emphasis on the real-time measurements and the flexible work plan that empowers the team to make decisions in the field and to be able to collect the necessary data to characterize areas of concern and specifically focus their additional samples in areas where there may be greater uncertainty or they may be getting some unexpected results. Because of that, when you are out in the field you may find areas of contamination that could have gone unidentified otherwise through the traditional types of methods.

And then the final leg of the Triad approach, the systematic planning process, really requires a very high degree of cooperation among the stakeholders, and in particular between the regulator and the responsible party.

The result is that when you implement Triad, you get better information in a shorter timeframe, and that allows the parties to make better decisions, which really that is the ultimate goal of Triad. By having this more data, we can really characterize the sites better. We can have a better understanding of impacts to groundwater, the size and extent of contaminant plumes, and the potential for offsite migration. And then once we have that information, we can really target our remediation activities.

The DOD and the DOE have recognized and embraced this concept and they have successfully applied it at dozens of Federal facilities. It has resulted in accelerated cleanups and saved millions of taxpayer dollars. I have included some examples in my written testimony, but I just want to highlight three here.

The McGuire Air Force Base, which I know has come up several times throughout this hearing, at the C–17 hangar project, they saved 2 years and $1.3 million; the Vint Hill Farm Station, 2 years, $500,000; and at Camp Pendleton, they saved 3 years and $2.5 million.

Because we talked so much about McGuire, I would really like to talk about the C–17 hangar project that was done there. That project was a rapid turnaround construction project. It began when there was solvent contamination that was identified during an excavation for the new hangar. They used the Triad approach out here, and through that they got 4,500 analytical results and between that and having the early involvement of the regulators, the Triad team was able to characterize the site and conduct their active remediation in just one mobilization.

Between the investigation and the remedial excavation, it only took 3 weeks. And the entire Triad process, from the initial discovery of the contamination through the investigation and the active remediation, and then the institution of a natural remediation program, occurred in less than 5 months, and that really is a fraction of the typical timeframes you are looking at with standard investigations of a two-to 3-year timeframe.

As a result of implementing the Triad approach, the C–17 hangar project was completed on schedule, and I think this is really a good success story.

I would just like to conclude by saying that the Federal partners have shown a commitment to embracing innovative technologies for environmental remediations and investigations, such as the Triad approach, and by continuing to do this, they are going to accelerate the pace of cleanups and increase the confidence that sites are fully characterized, while also saving taxpayer dollars.

The DOD, the DOE and the InterState Technology Regulatory Council, as well as this Congress, are very serious about tackling these environmental issues and protecting human health and the environment.

I would like to thank you for your time, and I look forward to your questions.

[The prepared statement of Ms. Limbrick follows:]

United States Senate

Committee on Environment and Public Works

Oversight Hearing on Cleanup Efforts at Federal Facilities

September 18, 2008

Testimony of

Elizabeth Limbrick

Interstate Technology Regulatory Council (ITRC)

Good Morning Chairman Boxer, Ranking Member Inhofe, and distinguished members of the Committee. My name is Elizabeth Limbrick, and I am member of the Interstate Technology Regulatory Council. I have been employed in the environmental field since 1995 in various capacities as a consultant, a regulator at the New Jersey Department of Environmental Protection, and as Responsible Party (RP) at the quasi-state agency of the New Jersey Schools Development Authority. I want to thank you for this opportunity to be heard on the cleanup efforts at federal facilities.

Drawing on my experiences as a former Regulator and a member of the ITRC, I have recognized the pace of remediations at federal facilities has improved greatly over the years, and now often far exceeds that of what was common decades ago. I attribute this to the Department of Energy's (DOE's) and Department of Defense (DOD's) use of innovative technologies and their motivation to bring these sites to a conclusion. In the past, the military, in particular, has received criticism that the pace of cleanups was too slow. However the military has embraced their duty and obligation to get these sites cleaned up so that they can pursue their core mission of being "force ready." The DOD and DOE have also recognized that addressing environmental issues quickly reduces long-term liabilities and costs. Additionally with the Base Realignment and Closure (BRAC) efforts, the need to accelerate cleanups has become magnified. There is strong economic pressure to get these lands back into productive use for the local economies.

The military has invested in creating comprehensive internal environmental programs, including the Air Force Center for Engineering the Environment (AFCEE), the Naval

Facilities Engineering Command (NavFAC), the Army Environmental Center and the Army Corps of Engineers. With the advent of these facilities, the military has become more advanced with respect to environmental investigations and remediations.

A good example of this is the partnership formed with the United States Environmental Protection Agency (USEPA), the New Jersey Department of Environmental Protection, the Interstate Technology Regulatory Council, the United States Army Corps of Engineers, the Energy Department's Argonne National Lab, the Army, the Navy, and the private sector that led to the development of the innovative environmental Triad Approach. The Triad Approach has three main components: systematic planning, real-time dynamic workplans, and real-time analytical methods.

The emphasis on real-time measurements with a flexible workplan allows the field team to make decisions in the field and to collect the necessary data to characterize areas of concern, specifically focusing additional sampling in areas where there is greater uncertainty or where there are unexpected results. The result is that areas of contamination are much more likely to be identified during the site characterization than in conventional investigations where they could go undiscovered. This also allows for characterization and remediation to be conducted in a single mobilization, greatly increasing the pace of environmental cleanups.

The systematic planning process requires a high degree of cooperation among the various stakeholders, including the regulator and the responsible party. This also requires a new

level of open-mindedness that is generally not achieved under the conventional environmental remediations. However the result is that better information is obtained in a shorter timeframe which allows the parties to make better decisions, which is the ultimate goal of Triad.

Better decision making, in turn, allows the parties involved to target the remediation activities at an accelerated pace, often with substantial cost savings. By having more data, we can characterize the sites better and have a better understanding of impacts to groundwater, the size and extent of the contaminant plumes, and the potential for off-site migration. The DOD and DOE have recognized and embraced this concept.

The Triad approach has been successfully applied at dozens of federal facilities. This has resulted in accelerated cleanups and saved millions of taxpayer dollars including the following examples[1]:

Facility	Lead	Time Saved	Cost Savings
McGuire Air Force Base	Air Force	2 years	$1,300,000
Fort Lewis Small Arms Firing Range	Army	1-2 years	$500,000
Avon Park Air Force Range	Air Force	3 years	$1,600,000
Naval Air Station Barbers Point	Navy	Not yet Quantified	$24,000,000
Vint Hill Farms Station	Army	2 years	$500,000
Camp Pendleton	Navy	3 years	$2,500,000

I would like to take this opportunity to highlight the benefits of using the Triad approach at the McGuire Air Force Base. The C-17 Hangar project at McGuire Air Force Base

[1] Information compiled from www.TriadCentral.org, Triad Project Profiles.

(MAFB) was a rapid turnaround project that began when solvent contaminants were discovered in the excavated footprint of the new aircraft hangar. Using field analytical methods, over 4,500 analytical data points were obtained. This vast amount of data, along with the early involvement of the Regulators, allowed the Triad team to characterize the site and conduct active remediation in one mobilization. The investigation and remedial excavation were completed in three weeks. The entire Triad process, from initial discovery of the contamination through the investigation and remediation, and the institution of a natural remediation program occurred in less than five months, which is a fraction of the typical two to three year timeframe it would require under conventional strategies. As a result of implementing the Triad Approach, the construction of the C-17 Hangar was completed on schedule for the arrival of C-17 aircraft.

By continuing to encourage the DOD, DOE, and other federal partners to develop and embrace innovative technologies for environmental remediations, such as the Triad Approach, you can further accelerate the pace of cleanups and increase the confidence that sites are fully characterized, while also saving taxpayer dollars. The DOD, DOE, Interstate Technology Regulatory Council, and this Congress are serious about tackling environmental issues and protecting human health and the environment.

Thank you for your time. I look forward to your questions.

Elizabeth Limbrick

October 22, 2008

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Honorable Barbara Boxer, Chairman
Honorable James Inhofe, Ranking Member
Committee on Environment and Public Works
United States Senate
410 Dirksen Senate Office Building
Washington, D.C. 20510-6175

Dear Senators Boxer and Inhofe:

In your correspondence dated October 8, 2008, you attached follow up questions from the hearing that the Committee held on September 18, 2008. The hearing addressed cleanup efforts at federal facilities. I appreciate your interest in this topic and am pleased to provide the following responses. Your questions are reproduced below in italics.

Question from Senator Barbara Boxer:

1 *Your testimony states that you were at one point a state regulator. Do you agree that it would be wrong for DOD to use its financial power in an effort to constrain legitimate state actions to enforce public health, environmental, or worker safety protection?*

I absolutely agree. However, in my experience as a state regulator, I never saw this happen. The DOD worked cooperatively with me and my fellow colleagues.

2. *As a former state regulator, do you agree that DOD should work cooperatively with the states and the EPA when deciding which cleanup activities to fund and how to address threats at a toxic waste site?*

Absolutely, I agree. As stated in my answer above, the DOD has worked cooperatively with the State of New Jersey to address environmental impacts.

Questions from Senator James M. Inhofe:

1. *The Triad approach has three main components: systematic planning, dynamic work plans, and real-time analytical methods. Please explain how this approach speeds up the cleanup time table for a Superfund site.*

   A key component to the Triad approach is the use of real-time and near-time analytical methods rather than conventional laboratory analytical methods which often take two to three weeks to receive results. Additionally, by having access to these results while in the field along with delegating decision making powers to the field staff through the use of the dynamic workplan, the field staff are able to target sampling to areas where there is greater uncertainty or where there are unexpected results. Through this approach, the site conditions can be characterized more fully in a shorter timeframe. The result is that fewer mobilizations are required. Additionally, in some instances such as at McGuire Air Force Base, the characterization and remediation can be accomplished in one mobilization. The reduction in mobilizations accelerates the cleanup time table.

2. *Please explain the cost savings benefits of the Triad approach.*

   The use of real-time analytical methods often have a significantly lower per-analysis cost than their standard analytical counterparts. Also, as described above, the ability to rapidly adapt the sampling program based on the results of the real-time analytical methods allows the Triad team to focus the sampling in the most efficient manner possible. Finally, as described above, the elimination of redundant mobilizations results not only in time savings but also in monetary savings from the reduction in mobilization costs and the accompanying work plan development and documentation.

3. *I understand that this approach was used at the McGuire Air Force Base. Please explain how the Triad approach was able to save the American taxpayers $1.3 million dollars at McGuire Air Force Base.*

   The Air Force has estimated that $1.34 million in savings was realized by using the Triad program at the C-17 Aircraft Hangar project at McGuire Air Force Base[1]. Through the strategic planning process, the stakeholders

[1] " FASTRAC Method, Triad Approach: ITRC and McGuire Air Force Base - Fast Solutions! Big Savings!". August 2003. http://www.itrcweb.org/Documents/iITRC%2015%20%20Benefits%20TRIAD%20approach%20at%20McGuire%20AFB%20August%202003.doc

were able to establish the project goals and workplan early in the process which saved costly negotiations with the oversight agencies as the project proceeded. The cost savings are also attributable to the use of less expensive field analytical methods, the ability to adapt the sampling plan to the field conditions to develop the appropriate dataset, and the reduction in mobilizations as the site investigation and active remediation were completed in a single mobilization for this project. The Air Force estimated that using conventional methods would have required multiple mobilizations over an 18 to 24 month period.

4. *The Triad approach not only helps to accelerate cleanups but it saves money. Why is the approach not implemented more widely?*

The Triad approach is a relatively new method and, as such, some Regulators are hesitant to embrace it since it is different from the conventional methods. Consequently, Site Owners are hesitant to embrace the Triad approach where there is uncertainty whether the Regulator will accept it.

The Triad approach results in costs savings over the life of a project. However, the Triad approach requires an investment in time and money on the front end which can be a challenge to practitioners and Site Owners.

The Triad approach requires a high degree of cooperation and trust among all of the stakeholders which can be difficult to achieve when there is an inherent adversarial relationship between the regulators and those who are regulated. A successful Triad team is able to address these issues through the systematic planning process.

Although these barriers have historically impeded the widespread use of the Triad approach, there are significant efforts underway though the ITRC and the USEPA to breakdown these barriers through education and outreach.

5. *As a former New Jersey regulator and now a private sector contractor, what areas in terms of superfund cleanup have you seen the most improvement in? What areas do you see that need some work?*

I have seen a marked improvement in Superfund cleanups at many sites, especially at Brownfield sites where there is an incentive for a redevelopment project to proceed. However, even with these

improvements in the Superfund program, there are some areas that can be improved upon.

- Administrative Procedure Efficiency
  The Administrative procedures required for Superfund sites still remain burdensome and ultimately slows the site cleanup progress.

- Encouraging the Development and Use of Innovative Technologies
  It is often very tempting to opt for remedies which are less costly upfront. Therefore, non-permanent remedies, such as containment, are often an attractive first option. However, this creates a need for long term monitoring and maintenance which translates into prolonged liabilities. By funding and encouraging groups, such as the Interstate Technology Regulatory Council (ITRC) that teach State Regulators, Federal Partners, Site Owners, and Practitioners about innovative permanent remedies, these problems can be lessened and these sites can be restored.

- Prioritization
  Due to the limited funding for Superfund, many projects languish because of a lack of resources. Identifying opportunities to increase efficiency in the Superfund program can provide additional opportunity to accelerate cleanups. Additionally, prioritizing the Superfund projects and allocating funds to the high priority projects would allow those most valuable sites (from the public health, ecological, and economic perspective) to be addressed.

- Implementing Triad
  Finally, a shift from conventional investigation and remedial methods to implementation of the Triad approach at Superfund projects can also lead to faster cleanups and cost savings for these projects.

Thank you again for this opportunity to offer testimony. Please let me know if I can be of any further assistance.

Sincerely,

Elizabeth R. Limbrick

Elizabeth R. Limbrick
ITRC Member

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Senator CARDIN. I thank all of our witnesses.

I think the point that has been made here by our State people is worth repeating. That is, the State of Maryland or the State of Ohio or the State of California, the States of New Jersey and New York, welcome Federal facilities. We want Federal facilities. We think it is important for our Country and for our local economy. So Maryland has reached out for important Federal installations and bases, and the same thing is true in Ohio. There were traditional training missions performed at Fort Meade which has its certain importance to our Country, but also understandable risks to a community. At Fort Detrick, we have some of the most sophisticated labs in the world that are there doing work that is extremely important for our national security, and the community understands that, and welcomes that facility being located in Frederick, Maryland. They accept that.

So we understand the importance to our local economy. We understand the importance to our Country. As a result, in our State of Maryland we have been very aggressive on encroachment issues to make sure not only the facilities can operate today, but they can operate tomorrow. We are willing to make our own sacrifices at our own expense, put in the infrastructure, off-base infrastructure, because we know it is important to the facility and important to our economy.

But we expect from the Department of Defense, as what we expect from any industry located in our community, and that is that they will adhere to the requirements for operating a clean environment. If there is damage that has been done, we expect remedial action. We have Federal ways to help you and guide you as to what needs to be done and accept responsibility.

But we do not accept, and Ms. Buthker I thought your comments about the Department of Defense looking for every conceivable responsible party before they start. Well, let me tell you something, if you are a private company, you can't do that. We know that. And the Department of Defense, particularly in Ohio where they are the principal user of that facility, trying to delay entering into an effective remedial plan to me is avoiding their moral responsibility and legal responsibility. We can do a lot better on that.

Mr. Hirsch, I am very concerned, as the Chairman has pointed out, the use of a State law saying that it wouldn't be included in a Superfund, to me makes no sense at all. So I think we are going to take a look at that and see what we can do.

Secretary Wilson, let me just ask you a couple of questions, if I might. And that is, you pointed out the risk at Fort Meade, and the EPA pointing out the risk at Fort Meade. Can you tell us a little bit more as to why you think the DOD has not entered into a timely Federal facilities agreement, and what impact that is having on the predictability of the remedial work? You point out very clearly that there has been patchwork done, but not permanent remedial work, and there needs to be a game plan, a time schedule, and yet DOD has refused to give us any of the deadlines. What impact does that have?

Ms. WILSON. The impact is two-fold. First, as you have mentioned, and there are long-term remediation issues at play here. While there is no immediate health risk, we want to have con-

fidence that in moving forward the cleanup, the assessment, and the ultimate cleanup work itself will be done in a timely way. We want the residents of the area, the community, to have the same confidence. Without having that binding legal commitment, it is very difficult to say, yes, in fact we know it is there. So that is why we are taking the legal action that we are taking.

As to why DOD has not entered into this agreement, Senator, I cannot answer the question. I have talked to them many times over the summer. They say they are committed to doing so. I take their representatives at their word, but when we pressed for a time line by which that would be done, we couldn't get it.

Senator CARDIN. The State of Maryland has done something which is kind of unusual, and that is the State issued its RCRA citizens suit notice on August 19, 2008. When was the last time that the State has been forced to use a citizens suit of this kind? And what has been the response that you have noticed as a result of this notification?

Ms. WILSON. This is the first time the State of Maryland has used this legal tool. We have not yet received any formal response.

Senator CARDIN. Beyond the immediate community at Fort Meade and Fort Detrick, is there a concern that the contaminants also present challenges for the Chesapeake Bay? As you know, the Federal Government has invested a considerable amount of resources in its Federal partnership on the Chesapeake Bay, including action in this Congress under the farm bill and under the water bill. Is there a concern that what is happening at these sites may also impact the watershed itself leading into the Chesapeake Bay?

Ms. WILSON. Senator Cardin, that is a very good question. Typically, that is the case. We are very fortunate in these two sites that there is no direct impact to the Chesapeake Bay. The impact is to groundwater. As I mentioned earlier, that is a critical resource, particularly in the Fort Detrick area where, as you know, in that part of the State our groundwater supply is fairly tight. So we need to make sure that we protect every future water supply.

Senator CARDIN. I appreciate that.

Let me just ask Mr. Hirsch or Ms. Limbrick, on the Federal-State relations, you deal with the private sector. I think you raise good points here. Here we see in Maryland a fight that has taken place between the State and, by the way, two Federal agencies fighting each other. How do we adjust the policy here so that we can have a more cooperative effort in working between the private sector and the different levels of governments so that we achieve the objectives of these laws more effectively? Do you have any suggestions, either one of you?

Ms. LIMBRICK. I would suggest really an increased use of something like the Triad approach because that brings together the parties involved, all of the stakeholders. I refer mostly to bringing together the regulator and the regulated person, but it also brings to the table affected community members and anyone else who would have a stake in it. So the EPA has really been pushing for this Triad approach. I understand that they have set goals to have certain numbers of Triad cases brought into the department or the agency. I think by continuing to proceed down that path and continuing to publicize the successes they have had, that you can get

this really higher level cooperation among the different parties involved.

Senator CARDIN. Mr. Hirsch?

Mr. HIRSCH. If I may respond also, in California for example, the Secretary of CalEPA, our State Environmental Protection Agency, wrote to the U.S. EPA in January asking to be brought into the loop on being able to help with the design of this radiation survey for the site and requested other assistance. Despite the request from the Secretary of that agency, there has been no such involvement permitted to this date.

So frankly, as someone who has observed this for a long time, the only solutions here are to have dramatic changes at EPA and DOE, and really strong oversight by the Congress, because it is not working on the ground.

Senator CARDIN. And I think Chairman Boxer has indicated that she is prepared to followup on some of those suggestions.

Ms. Buthker, in regards to the relationship between your agency, the State of Ohio, and the Department of Defense and EPA, how would you characterize that relationship in trying to get the remedial work at Erie or other facilities that you mentioned in Ohio? We heard about what has happened in Maryland and other States. Could you just clarify a little bit more? We understand the problems you see with the policy positions taken by DOE on cleanup, but how if your working relationship in trying to get remedial programs moving forward?

Ms. BUTHKER. Our working relationship at the installation, or on the formerly used defense sites because they are not really installations, is very good and working with the people that are at the level. The problem is that a lot of the policies and procedures in place at DOD, they bind them and they can't do creative things and try to come up with solutions to the problems that we are facing.

That has affected probably our working relationship the most, is we just can't get to the point where we can use something like the Triad approach and sit down and say what makes sense to do at this site. You know, we can come up with a great solution, but then it goes above the people that we are dealing with, and they are like, it is against a policy or against—in the case of the FUDS, it is against the FUDS regulations to do this, and then we can't do anything.

Senator CARDIN. Well, let me thank all of our witnesses from the States and local government. As Chairman Boxer said, and as the representatives from the Federal agencies indicated, we want to get this right, including DOD wants to get it right. I think quite frankly it is just the point that Chairman Boxer mentioned is that DOD does its work in defense, not in environmental cleanup. EPA provides the guidelines there, and DOD doesn't want to spend the money, or won't want to put the attention to it, so they look for shortcuts to try to deal with an immediate problem, rather than trying to remedy the underlying risks. If we were giving grades right now, I think we would all would give unacceptable grades to the efforts being made to clean up military facilities as aggressively as we would expect if it were a private company or if it were a different circumstance.

So I think we need to look at the problems that have been raised. I think Chairman Boxer intends to followup on that to figure out ways that we can get a better commitment from DOD, recognizing the lead role that EPA plays in this in complying with remedial programs under Federal laws, and to look for ways that have been suggested here to get a better cooperative approach using all of the stakeholders, so that we don't have these long delays in dealing with the underlying environmental risks.

I found the hearing extremely helpful. We thank you all for your participation.

With that, the committee will stand adjourned.

[Whereupon, at 12:20 p.m. the committee was adjourned.]

[Additional material submitted for the record follows.]

Status of DoD Federal Facility Superfund Sites Without CERCLA FFAs

Name of Site	Responsible Agency	FFA Negotiation Status
1. Hanscom Field, MA	Air Force	FFA negotiations elevated.
2. McGuire Air Force Base, NY	Air Force	RCRA 7003 order effective on 11/26/2007; Negotiations elevated.
3. Langley Air Force Base, VA	Air Force	FFA negotiations elevated.
4. Andrews Air Force Base, MD	Air Force	FFA negotiations elevated.
5. Brandywine DRMO Salvage Yard, MD	DLA/Air Force	FFA negotiations elevated.
6. Tyndall Air Force Base, FL	Air Force	RCRA 7003 order effective on 5/19/2008; Negotiations elevated.
7. Air Force Plant #44, AZ	Air Force	SDWA order issued 7/13/2007. Notice of Intent to Comply received by EPA. FFA still required.
8. Middlesex Sampling Plant, NJ	Army Corps of Engineers	FFA negotiations ongoing.
9. Fort Eustis, VA	Army	FFA completed and approved by Army, DoD, EPA and Virginia; undergoing final public review.
10. Fort Meade, MD	Army	RCRA 7003 order effective 2/4/2008; Negotiations elevated.
11. Redstone Arsenal, AL	Army	State objections to RCRA/CERCLA integration approach; FFA negotiations elevated.
12. Naval Air Station (NAS) Whiting Field, FL	Navy	Close to agreement with Navy, but FFA negotiations now elevated.
13. Naval Computer Telecommunication Area Administrative Master Station (NCTAMS), HI	Navy	Close to agreement with Navy, but FFA negotiations now elevated.

DEFENSE STATE MEMORANDUM OF AGREEMENT (DSMOA) ISSUES AND EFFECTS ON STATES

By Carolyn Hanson, ECOS Senior Project Manager

STATEMENT OF ISSUE

Over the past 12 to 18 months, changes in the Department of Defense's (DOD's) interpretation of DSMOA policy have caused a variety of problems for some states overseeing cleanup of DOD facilities.

SUMMARY

New DOD interpretations of DSMOA policy are limiting state enforcement, are restricting the type of work that is eligible for DSMOA payment, are inconsistent from state to state, and are undermining development of joint state-DOD policy on subjects directly related to DOD cleanup activities.

- DOD's new policy withholds **all** DSMOA reimbursements when states use enforcement authority at a site in its DSMOA.
- DOD now has determined that DSMOA can only fund state employees for site-specific oversight work—national policy and guidance development work specific to DOD is no longer DSMOA eligible. Additionally, work related to property transfer recently has been deemed ineligible.
- DOD's new interpretation has determined that Defense Environmental Restoration Account (DERA) funds cannot be used to fund state associations, such as the Association of State and Territorial State Management Officials (ASTSWMO), working on national policy activities specific to DOD such as the Munitions Response Committee (MRC) or DSMOA Steering Committee.

REPORT

Background

Federal law (i.e., RCRA and CERCLA) requires DOD to pay for state oversight of environmental cleanup activities. In addition, many states have their own authorities that contain cost recovery requirements. DOD established the DSMOA Program in the late 1980s as a vehicle for reimbursement of these costs to states. DSMOA replaced a system

which impeded cleanups, where funding was not available for document review and oversight, or where inefficient cost-recovery mechanisms were the only alternative.

All states have some mechanism within their DSMOA against which state management and administrative function costs associated with overseeing DOD cleanups are reimbursed. As a component of these management and administrative functions, states generally include the costs of development and resolution of DOD-specific national environmental restoration and cleanup policy issues and projects being addressed through ASTSWMO, the Interstate Technology and Regulatory Council (ITRC), and the Environmental Council of the States (ECOS). States believe that the specific language of many individual State DSMOA agreements allows funding to work on such broader issues related to DOD environmental cleanup activities. DSMOA funding has historically allowed for these and similar activities, like training.

Overview of Issues
New DOD interpretations of DSMOA policy are limiting state enforcement, are restricting the type of work that is eligible for DSMOA payment, are inconsistent from state to state, and are undermining development of joint state-DOD policy on subjects directly related to DOD cleanup activities. These changes in policy have affected states in their oversight of the cleanup of DOD facilities. Appendix A contains examples of these effects.

- DOD's new policy withholds **all** DSMOA reimbursements when states use enforcement authority at a site in its DSMOA.
- DOD now has determined that DSMOA can only fund state employees for site-specific oversight work—national policy and guidance development work specific to DOD is no longer DSMOA eligible. Additionally, work related to property transfer recently has been deemed ineligible.
- DOD's new interpretation has determined that DERA funds cannot be used for associations representing states, such as ASTSWMO, working on national policy activities specific to DOD such as the MRC or DSMOA Steering Committee.

In a survey of the states about changes in DSMOA policy, 11 of 23 states responding indicated that they have been told that they must use the DSMOA dispute resolution process before exercising enforcement authority at any DOD facility regardless of the funding mechanism or media affected. Also, 15 of the 23 states responding indicated that they have been told that DSMOA funds cannot be used to pay for staff involvement in national policy and guidance development work specific to DOD. In addition, seven of the states responding had been told that site-specific work which they believe is DSMOA-eligible is not. A complete summary of the responses to the survey is provided in Appendix B.

In an effort to receive clarification on these new interpretations, ECOS sent a letter to DOD in April 2007 asking for written policy on these issues. In July, DOD sent a response stating that there had been no changes in interpretation of DSMOA policy.

Enforcement and Dispute Resolution
DOD's new policy prohibits states from exercising enforcement authority at any DOD facility, regardless of the funding mechanism or media affected (e.g., the issuance of a Notice of Violation for violation of an installation's NPDES permit) without going through formal dispute resolution, and regards this enforcement as a violation of the DSMOA. DOD may then withhold all DSMOA funds to the state. This linkage of DSMOA funding to state enforcement amounts to economic coercion, undermines basic state authorities, and has many states considering returning to expensive cost recovery actions.

While the DSMOA has no specific prohibition against state enforcement, it is clear that a state cannot use DSMOA funds for enforcement at sites covered by the DSMOA. When taking any type of enforcement action, such as a notice of violation or compliance order, states must use other state funding sources. Title 10 USC 2701 which governs DSMOA is clear that "DOD may not provide reimbursement of the agency for regulatory enforcement activities," but there is no language that directs DOD to withhold all DSMOA funding for other environmental oversight work when any enforcement action is taken. As a result, states disagree with DOD's interpretation of Defense Environmental Restoration Program (DERP) statutes regarding this issue. Also, state DSMOAs do not contain any reference that would restrict or limit states taking an enforcement action when DOD has violated state laws and regulations. Dispute resolution is designed to handle issues of disagreement such as the number of samples, location of monitoring wells, and other technical issues; it is not designed to handle clear violations of state laws and regulations, which warrant enforcement actions.

In a July 2007 letter to ECOS with regards to the enforcement issue, DOD quoted section IV.B of the DSMOA and stated, "It has always been the position of the Department that a refusal by a state to engage in dispute resolution pursuant to the DSMOA before engaging in an enforcement action would result in the suspension of all DSMOA payments. This position is not a change in interpretation." However, in a letter to South Carolina from the DSMOA Grants Officer in May 2006, DOD stated that the dispute resolution process is intended to "resolve any disputes related to an environmental restoration process;" "does not apply to unrelated compliance inspections at an installation;" and "does not require a state to waive or change any enforcement authority it may have." In the May 2006 letter, they emphasized that the dispute resolution process was "an opportunity to resolve disagreements through negotiation." Additionally, a letter to ECOS from Alex Beehler, Assistant Deputy Under Secretary for Defense, in May 2006 stated, "Alternative Dispute Resolution is intended to apply to enforcement actions by state media program offices only where the enforcement actions impact restoration activities at DERP sites, not to enforcement actions at non-DERP sites, or even at DERP sites where the enforcement action is unrelated to the DERP response."

Changes in DSMOA-Eligible Work
DOD's new interpretation that DSMOA may only be used for site-specific work is counter to the goal of the program to promote policy that states and DOD can use nationally at DERA and Base Realignment and Closure (BRAC) cleanups. In DOD's response to ECOS' letter about changes in DSMOA, DOD quoted part of Section 6 of the standard

DSMOA cooperative agreement and stated, "Other than a state's administration of the DSMOA or cooperative agreement, a state can only be reimbursed for work related to the installations listed in Attachment A of the cooperative agreement." While DOD states that this is not a change in policy, since many states had been using DSMOA funds to support involvement in DOD-related activities that were not site-specific, DOD's new interpretation on this is effectively a change in policy.

DOD's determination means that state staff cannot charge to their DSMOAs for time spent in meetings on DOD issues. This is a problem for many states, which have staff members dedicated to DOD sites and issues who are fully funded by DSMOAs. For example, under this interpretation, the staff person could charge time to work on a site that has unexploded ordnance on it, but could not charge time to go to a national meeting that discusses technologies for cleanup of unexploded ordnance. This change by DOD is limiting State participation on national policy issues through the Munitions Response Committee (MRC) the Formerly Used Defense Sites (FUDS) Forum, and the DSMOA Steering Committee – work that would result in mutually agreeable solutions to DOD concerns. This view would logically extend to all staff time for work done under ECOS, ASTSWMO, ITRC, or other auspices that may be related to environmental restoration at DOD sites, but is not site-specific. This change will prevent states from collectively providing input on national policy and guidance and will create delays in the cleanup and reuse of DOD sites. Although there is no language in 10 USC 2701 which governs the DSMOA program that prevents DOD from reimbursing states for non site-specific work, the solution that states support is modification to 10 USC 2701 to specifically allow reimbursement of state costs when working on discussion of policy and technical issues that relate to DOD environmental restoration program.

In addition to the limitations to site-specific work, DOD recently has told several states that work related to property transfer which states believed was DSMOA-eligible is not. This has included the review of Community Environmental Response Facilitation Act (CERFA) and Finding of Suitability to Lease (FOSL) documents. If funding for review of these documents is not available through DSMOA, there may be delays that keep the property from moving back into productive reuse, which is counter to the goals of DOD and the states. Again, states would recommend a change to 10 USC 2701 to clearly define these activities as allowable reimbursable expenses.

State Associations not Eligible for Funding

DOD has determined that ASTSWMO and ECOS are not grant-eligible organizations based on their interpretation of 10 USC 2701(d) which states that "the Secretary may enter into agreements…with any other federal agency, any state or local government agency, any Indian tribe, or any nonprofit conservation organization." DOD has asserted that ECOS and ASTSWMO do not qualify as nonprofit conservation organizations. Consequently, DOD will not continue to award cooperative agreements to ASTSWMO or ECOS for activities like the MRC and DSMOA Steering Committee where ASTSWMO has provided broad state representation to develop national policies and guidance that states will implement at DOD environmental cleanup sites.

However, by definition in 10 USC 2710(d), a nonprofit conservation organization is "any non-governmental nonprofit organization whose primary purpose is conservation of open space or natural resources. The federal government's definition of natural resources found in 40 CFR 300.5 is "land, fish, wildlife, biota, air, water, ground water, drinking water supplies, and other such resources." Given this definition and the role of ECOS and ASTSWMO in improving the capability of state environmental agencies' leaders in protecting human health and the environment, these state associations should be eligible for funding. In September 2007, ECOS and ASTSWMO sent a joint letter to DOD asserting the organizations' eligibility for DERA funding under 10 USC 2710.

NEXT STEPS

At the ECOS Spring Meeting in March 2007, the membership passed resolution 07-6 "DSMOA and Federal-State Collaboration" which outlined three issues that should be championed.

- DOD cannot condition DSMOA funding based on the manner in which a state exercises its enforcement authority, or its willingness to enter into dispute resolution prior to exercising that enforcement authority;
- DSMOA funding may be used for state staff costs to participate in national workgroups and other venues related to DOD environmental restoration program, and;
- DERA funds may be used for any trade association supporting state involvement in their collaborative work with DOD on activities related to DOD environmental cleanup activities, policy, and technology.

Since that time, DOD has identified site-specific work related to property transfer, such as CERFAs, FOSETs, and FOSLs, as ineligible. This has added an item that the states should work to address. As CERCLA 120(h) requires state concurrence on CERFA parcels and early dirty property transfers, DSMOA funding should be allowed for state staff costs associated with their review.

In order to move these issues forward, the states should engage in discussions with DOD about changing the DSMOA Cooperative Agreement language. Solving these issues would allow the DSMOA program to once again promote cooperation between states and DOD on both environmental cleanup actions and development of policy and technology. This cooperation has and will continue to save DOD hundreds of millions of dollars through mutual cooperation between states and DOD to promote streamlined investigative techniques, implement protective remedies requiring state flexibility, and reduce state enforcement by cooperation and coordination.

As necessary, ECOS and the states should ask the United States Environmental Protection Agency and the Office of Management and Budget for support of our position on these issues.

If these actions do not resolve the issues, the following simple amendments to 10 USC 2701 have been identified as a possible solution to correct the issues with DSMOA-eligible activities identified in this paper. 2701(d) could be amended to read:

> (d) Services of Other Entities.
>
> (1) In general. --Subject to paragraph (3), the Secretary may enter into agreements on a reimbursable or other basis with any other federal agency, any state or local government agency, any association representing states, any Indian tribe, or any nonprofit conservation organization to obtain the services of the agency, state or local government agency, association representing states, Indian tribe, or organization to assist the Secretary in carrying out any of the Secretary's responsibilities under this section. Services which may be obtained under this subsection include the identification, investigation, and cleanup of any off-site contamination resulting from the release of a hazardous substance or waste at a facility under the Secretary's jurisdiction, the transfer of property after cleanup, as well as discussion of policy and technical issues under this section.
>
> New (4) State enforcement authority. --DOD cannot condition DSMOA funding based on the manner in which a state exercises its enforcement authority, or its willingness to enter into dispute resolution prior to exercising that enforcement authority.

Appendix A – Examples of Effects of Policy Changes on States

Enforcement and Dispute Resolution

Colorado
Colorado has had ongoing problems with the Air Force and its DSMOA as a result of an enforcement action. In 2003, the State of Colorado issued an enforcement action against the Air Force Base Realignment and Closure Office to remediate friable asbestos from a demolished Air Force hospital found in a residential neighborhood. The state had no opportunity to invoke dispute resolution due to the immediate risk of exposure of asbestos to families living on contaminated properties. According to Colorado Department of Public Health and Environment staff, although DSMOA funds were not withheld, the Air Force initially used, and has continued to use, the DSMOA program and reimbursement of State costs as a means to retaliate for the State's actions. Hundreds of Air Force and state staff hours and tens of thousands of federal dollars have been spent arguing DSMOA-related issues such as eligible state services and accounting.

Maine
Maine is experiencing problems with DOD's interpretation of policy related to dispute resolution. According to Maine Department of Environmental Protection staff, Maine and EPA Region 1 are currently involved in "informal dispute resolution" with the Navy, but the disagreements they are having may not be resolved prior to using the formal dispute resolution process. During a recent meeting, Navy personnel claimed that dispute resolution costs are not covered by DSMOA. This assertion contradicts Section 7.3 of the 2006 DSMOA Cooperative Agreement guide, which provides information to DOD and the States on administration of the DSMOA program.

Changes in DSMOA-Eligible Work

Colorado
In addition to their issues with DOD on enforcement, Colorado has been told that review of property transfer documents is not a DSMOA-eligible activity. According to Colorado Department of Public Health and Environment (CDPHE) staff, recent interpretations by United States Army Corps of Engineers regarding DSMOA-eligible state services have prohibited the state from performing its statutory/regulatory responsibilities since the state has been told that their review and concurrence of a Community Environmental Response Facilitation Act (CERFA) document is not eligible for DSMOA reimbursement. CDPHE staff indicate that this interpretation causes significant concern, since 1) state concurrence is required under CERCLA 120(h)(4)(B) and is intended to identify uncontaminated parcels, and 2) until there is state regulatory concurrence, the parcels will not be identified as CERFA clean, and by default, must go through the regulatory processes set forth in CERCLA 120(h)(3). The State of Colorado does not have funding sources other than DSMOA to review these documents. CDPHE staff report that without the opportunity to review and discuss the findings of the report with military components, they may be left with no option other than to not concur with a CERFA determination. This would result in

unnecessary expenditure of federal funds for investigations and administration along with delays in property transfer.

Massachusetts
Massachusetts also is experiencing issues related to DSMOA eligibility of work related to property transfer documents. According to Massachusetts Department of Environmental Protection staff, DOD fiscal staff have determined that early property transfer documents/finding of suitability to transfer documents are legal documents and not remediation reports associated with cleanup. Massachusetts has been told it cannot charge for its time for review of such documents, which are provided by DOD. Massachusetts indicates that this is a problem for states since they spend many hours helping structure a property transfer to make sure the property is actually going to be cleaned up.

Montana
Montana has experienced difficulties with DOD identifying site-specific activities as ineligible. According to Montana Department of Environmental Quality staff, DOD has not specifically stated that only site oversight work is DSMOA-eligible, but it has deemed many other site-specific activities ineligible. Examples of site-specific work that Montana believes is DSMOA eligible but which DOD has determined ineligible include investigation or cleanup work performed by the state, and any meeting where a member of DOD is not present.

Ohio
Like several other states, Ohio has been experiencing issues related to whether activities are or are not DSMOA eligible. The Ohio Environmental Protection Agency has been told that some site-specific work such as CERFAs and FOSETs and involvement in national policy work is not DSMOA-eligible. Ohio also has been told that training costs are not reimbursable unless they are specified in the Joint Execution Plan (JEP). The state has also been informed that site-specific activities are reimbursable, but these activities have to be listed in the JEP. If they are not, the JEP must be revised to include these activities. According to Ohio Environmental Protection Agency staff, the state is having problems getting the installation to revise the JEPs in order to get these activities included.

State Associations Not Eligible for Funding

Michigan
Michigan identified ASTSWMO's funding ineligibility as an issue, since without funding ASTSWMO is unable to support state involvement in activities such as the DSMOA Steering Committee and the Munitions Response Committee. Michigan Department of Environmental Quality staff stated, "The loss of ASTSWMO as a national forum on the grants program is a major problem. There needs to be a forum for the many states to interact with DOD leadership and each other." They indicated that lower level DOD staff frequently have argued inaccurate policy statements which in the past have been cleared up by working with upper management of DOD through national forums such as ASTSWMO.

Nebraska

Nebraska also identified ASTSWMO's funding ineligibility as a challenge. Nebraska Department of Environmental Quality staff stated that not being able to participate with ASTSWMO on national policy issues would make it more difficult for the state to stay informed of current issues that may affect the quality of its oversight work on site-specific cleanups.

Appendix B – Questionnaire on DSMOA and Summary of Responses

Questionnaire

1. Has your state been informed of any changes in the past year about what are and are not DSMOA-eligible activities?
   ____ Yes ____ No

2. Has your state been told that funds from the DSMOA can only pay for site-specific oversight work?
   ____ Yes ____ No

3. Has your state been told that site-specific work which you believe is DSMOA-eligible is not? (i.e., review of Finding of Suitability for Early Transfer (FOSET) or Community Environmental Response Facilitation Act (CERFA) documents)
   ____ Yes ____ No

4. Has your state been told that DSMOA funds cannot be used to pay for staff to be involved in national policy and guidance development work specific to DOD? (i.e., Munitions Response Committee (MRC), DSMOA Steering Committee)
   ____ Yes ____ No

5. Has your state been told you must use the DSMOA dispute resolution process before exercising enforcement authority at any DOD facility, regardless of the funding mechanism or media affected?
   ____ Yes ____ No

6. Has your state had DSMOA reimbursements withheld because of enforcement actions by the state at a DOD site?
   ____ Yes ____ No

7. Does your state have any ongoing fiscal or administrative disputes with the DSMOA Grants Office?
   ____ Yes ____ No

8. If you have seen changes in DSMOA-eligible activities or had problems with DSMOA reimbursements in the past year, please provide a brief description of the change or problem.

9. If you have seen changes in DSMOA-eligible activities or had problems with DSMOA reimbursements in the past year, please indicate what the impact of these changes or problems is on your state's ability to address cleanup at DOD sites.

Summary of Responses

State	Has your state been informed of any changes in the past year about what are and are not DSMOA-eligible activities?	Has your state been told that funds from the DSMOA can only pay for site-specific oversight work?	Has your state been told that site-specific work which you believe is DSMOA-eligible is not?	Has your state been told that DSMOA funds cannot be used to pay for staff to be involved in national policy and guidance development work specific to DOD?	Has your state been told you must use the DSMOA dispute resolution process before exercising enforcement authority at any DOD facility, regardless of the funding mechanism or media affected?	Has your state had DSMOA reimbursements withheld because of enforcement actions by the state at a DOD site?	Does your state have any ongoing fiscal or administrative disputes with the DSMOA Grants Office?
Alabama	✓	✓	✓	✓	✓	✓	✓
California	✓	✓	✓	✓	✓		✓
Colorado	✓	✓	✓	✓	✓	✓	✓
Connecticut							
Florida							
Illinois	✓		✓	✓	✓		
Kentucky							
Maine				✓			
Michigan					✓		
Minnesota	✓	✓		✓	✓		
Missouri	✓			✓	✓		
Montana			✓				
Nebraska							
Nevada				✓	✓		
Ohio	✓	✓	✓	✓			✓
Oregon	✓			✓			
Rhode Island					✓		
South Carolina	✓	✓		✓			
South Dakota	✓	✓		✓	✓		
Tennessee							
Utah				✓			
Virginia	✓	✓	✓	✓	✓		
Washington				✓			

List of Acronyms

ASTSMWO – Association of State and Territorial Solid Waste Management Officials

BRAC – Base Realignment and Closure

CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act (Superfund)

CERFA – Community Environmental Response Facilitation Act

DERA – Defense Environmental Restoration Account

DERP – Defense Environmental Restoration Program

DOD – United States Department of Defense

DSMOA – Defense State Memorandum of Agreement

ECOS – Environmental Council of the States

FOSET – Finding of Suitability for Early Transfer

FOSL – Finding of Suitability to Lease

FUDS – Formerly Utilized Defense Sites

ITRC – Interstate Technology and Regulatory Council

JEP – Joint Execution Plan

MRC – Munitions Response Committee

RCRA – Resource Conservation and Recovery Act

09/03/2008 10:08 FAX 202 501 1550 OCIR AIR TEAM 002/003

United States Environmental Protection Agency
OSWER/OSRTI
Washington, DC 20460

NATIONAL PRIORITIES LIST (NPL)

Proposed Site September 2008

FORT DETRICK AREA B GROUND WATER | **Frederick, Maryland**
Frederick County

Site Location:

The Fort Detrick Area B Ground Water site is located on the Fort Detrick installation and is within the city limits of Frederick, Maryland.

Site History:

The Fort Detrick Area B Ground Water site is part of an active U.S. Army installation operated under the Army Medical Command. Area B was used as a disposal area for chemical, biological, and radiological material from the 1940s until 1970. Area B has been the primary location of waste management activities for Fort Detrick. Area B is the location of an active municipal landfill, former explosives storage area, and former waste disposal/test areas associated with former research activities.

Site Contamination/Contaminants:

The contaminants of concern are trichloroethene (TCE) and tetrachloroethene (PCE) in ground water.

Potential Impacts on Surrounding Community/Environment:

Wastes disposed of in Area B released TCE and PCE to ground water, contaminating residential drinking water wells above EPA's Safe Drinking Water Act maximum contaminant level for TCE and PCE. Due to the karst geology underlying the site, there is a potential that the contaminated ground water plume has traveled beyond the installation boundaries and may affect future drinking water resources in the Frederick area. The area surrounding Area B is a densely populated residential area.

Response Activities (to date):

The majority of residential drinking water wells have been connected to public water supplies. Fort Detrick provides bottled water to the remaining five residential wells affected by Area B. In June 2004, the Army removed contaminated soil, chemical containers, compressed gas cylinders, and laboratory waste in Area B.

Need for NPL Listing:

The State of Maryland referred the site to EPA because a long-term, comprehensive solution is needed to protect the remaining private drinking water wells in the area, as well as future drinking water resources. Other federal and state cleanup programs and enforcement mechanisms were evaluated. NPL listing provides the best approach to investigate and address all of the sources to ground water to protect human health and the environment at this site. EPA received a letter of support for placing this site on the NPL from the state.

[The description of the site (release) is based on information available at the time the site was evaluated with the HRS. The description may change as additional information is gathered on the sources and extent of contamination.]

For more information about the hazardous substances identified in this narrative summary, including general information regarding the effects of exposure to these substances on human health, please see the Agency for Toxic Substances and Disease Registry (ATSDR) ToxFAQs. ATSDR ToxFAQs can be found on the Internet at http://www.atsdr.cdc.gov/toxfaq.html or by telephone at 1-888-42-ATSDR or 1-888-422-8737.

09/03/2008 10:09 FAX 202 501 1550 OCIR AIR TEAM 003/003

EPA United States Environmental Protection Agency

OSWER/OSRTI
State, Tribal, and Site Identification Branch
Washington, DC 20460

NATIONAL PRIORITIES LIST (NPL)

WHAT IS THE NPL?

The National Priorities List (NPL) is a list of national priorities among the known or threatened releases of hazardous substances throughout the United States. The list serves as an information and management tool for the Superfund cleanup process as required under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).The NPL is intended primarily to guide EPA in determining which sites warrant further investigation to assess the nature and extent of public health and environmental risks associated with a release of hazardous substances.

There are three ways a site is eligible for the NPL:

1. **Scores at least 28.50:**
   A site may be included on the NPL if it scores sufficiently high on the Hazard Ranking System (HRS), which EPA published as Appendix A of the National Contingency Plan. The HRS is a mathematical formula that serves as a screening device to evaluate a site's relative threat to human health or the environment. As a matter of Agency policy, those sites that score 28.50 or greater on the HRS are eligible for inclusion on the NPL. This is the most common way a site becomes eligible for the NPL.

2. **State Pick:**
   Each state and territory may designate one top-priority site regardless of score.

3. **ATSDR Health Advisory:**
   Certain other sites may be listed regardless of their HRS score, if all of the following conditions are met:

   a. The Agency for Toxic Substances and Disease Registry (ATSDR) of the U.S. Public Health Service has issued a health advisory that recommends removing people from the site;
   b. EPA determines that the release poses a significant threat to public health; and
   c. EPA anticipates it will be more cost-effective to use its remedial authority than to use its emergency removal authority to respond to the site.

Sites are first proposed to the NPL in the *Federal Register*. EPA then accepts public comments for 60 days about listing the sites, responds to the comments, and places those sites on the NPL that continue to meet the requirements for listing. To submit comments, visit www.regulations.gov.

Placing a site on the NPL does not assign liability to any party or to the owner of any specific property; nor does it mean that any remedial or removal action will necessarily be taken.

For more information, please visit www.epa.gov/superfund/sites/npl/.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

NOV 13 2007

THE ADMINISTRATOR

The Honorable Michael W. Wynne
Secretary of the Air Force
Room 4E874
1670 Air Force Pentagon
Washington, DC 20330-1670

Re: Administrative Order, U.S. EPA Docket Number RCRA-02-2007-7308, McGuire Air Force Base, New Hanover Township, Burlington County, New Jersey

Dear Secretary Wynne:

This letter conveys my determination as to the finality of the Resource Conservation and Recovery Act (RCRA) section 7003 order (Order) issued by the U.S. Environmental Protection Agency on July 13, 2007, to the Air Force for contamination on the McGuire Air Force Base. After full and fair consideration of the points raised by the Air Force, EPA has concluded that the presence of hazardous and solid waste at McGuire Air Force Base may present an imminent and substantial endangerment, that the Order issued is appropriate and necessary to abate that endangerment, and that the Order is final in the form issued on July 13, 2007.

Under 42 U.S.C. § 6961(b)(2), "no [RCRA] administrative order issued to . . . a department . . . shall become final until such department . . . has had the opportunity to confer with the Administrator." You requested this opportunity by letter dated August 18, 2007. On September 25, 2007, we conferred briefly and you indicated that the Air Force intended to fully comply with the Order and that our discussion would satisfy your conference opportunity. This understanding was further confirmed in a phone conversation between Air Force Assistant Secretary William Anderson and EPA Assistant Administrator Granta Nakayama, as well as, in a subsequent letter from Mr. Nakayama to Assistant Secretary Anderson dated October 23, 2007.

As you know, McGuire Air Force Base was placed on the National Priorities List (NPL) eight years ago. Since that time, the Air Force has made insufficient progress in investigating and addressing the contamination at the site. EPA issued the Order because the Air Force must accelerate the study and cleanup of this NPL site and because our efforts to enter into a Federal Facility Agreement (FFA) with the Air Force have been unsuccessful to date.

Under the law, federal agencies are required to respond to NPL sites to the same extent and in the same manner as private parties. EPA attempted to negotiate a comprehensive and enforceable FFA that would govern the selection and implementation of the Air Force response

at this site. These agreements have been successfully entered into at approximately 150 out of 172 federal facility NPL sites. Given the Air Force's resistance to sign an acceptable FFA with essential provisions to ensure appropriate oversight and protectiveness, the imminent endangerment at the site necessitates that EPA move forward with the Order. As Congress specifically provided, nothing in the Superfund law affects the obligation of a federal agency to comply with any requirement under RCRA.

As stated above, after full and fair consideration of the points raised by the Air Force in its oral discussions and written materials, EPA has concluded that the presence of hazardous and solid waste at McGuire Air Force Base may present an imminent and substantial endangerment, that the Order issued is appropriate and necessary to abate that endangerment, and that the Order is final in the form issued on July 13, 2007. A written summary of the issues you raised along with EPA's response is enclosed. In accordance with Section XXVI, Paragraph 111 of the Order, the Order becomes effective within five (5) calendar days of the Air Force's receipt of my determination. According to Section XXIII of the Order, the Air Force then has 15 calendar days from the effective date of the Order to notify EPA in writing of its intent to comply.

We continue to stand ready to enter into the standard, model-based FFA that EPA requires at all federal sites. EPA's review of all Air Force alternative agreements received to date reveal continued omissions of key provisions, including some of the provisions clearly agreed to in the older 1988 and 1999 model language. We once again ask that you consider signing the FFA that EPA sent you last April. In the meantime, the final McGuire Order ensures that the Air Force responds to the imminent and substantial endangerment at McGuire Air Force Base in a timely and protective manner pursuant to EPA's oversight. Finally, we thank you for your commitment to comply with the Order to ensure timely and appropriate development of this important cleanup at the McGuire Air Force Base.

Sincerely,

Stephen L. Johnson

Enclosure

EPA RESPONSE TO ISSUES RAISED BY AIR FORCE REGARDING ISSUANCE OF RCRA 7003 ORDER AT MCGUIRE AIR FORCE BASE

Issue 1: EPA has the legal authority to issue non-CERCLA orders at NPL sites.

As a legal matter, EPA's use of non-CERCLA administrative order authority at McGuire Air Force Base is not limited, prohibited, or restricted in any way by any provision in CERCLA, other laws, regulations or Executive Orders. EPA may use its RCRA section 7003 order authority to address a threat to human health and the environment at any site where the statutory pre-requisites are met, including NPL sites. There is no irreconcilable conflict between CERCLA and RCRA. In such circumstances, courts have long recognized that there is no implied repeal of a statute by a later enactment. When two statutes are capable of co-existence, absent a clearly expressed congressional intention to the contrary, each is to be regarded as effective. *Morton v. Mancari*, 417 U.S. 535, 550-551 (1974); *County of Yakima v. Confederated Tribes and Bands of the Yakima Indian Nation*, 502 U.S. 251, 264 (1992), *United States v. Waste Industries, Inc.*, 734 F.2d 159, 160 (4th Cir. 1984) (RCRA section 7003 order available to EPA regardless of availability of CERCLA remedy).

RCRA sections 7003 and 6001 provide EPA with the legal authority to issue the Order to the Air Force at McGuire Air Force Base (AFB). Federal agencies like the Air Force are subject to EPA's section 7003 abatement authority to the same extent as private parties. CERCLA § 120(i) expressly provides that "[n]othing in this section shall affect or impair the obligation of any department, agency, or instrumentality of the United States to comply with any requirement of the Solid Waste Disposal Act [42 U.S.C.A. section 6901 et seq.] (including corrective action requirements)."

Issue 2: The standard for Imminent and Substantial Endangerment for RCRA 7003.

In general, to find an imminent and substantial endangerment (ISE), the Agency does not need proof of actual harm. A reasonable cause for concern that health or the environment may be at risk is enough. EPA need only show that there is a potential for imminent threat. *See, e.g., United States v. Waste Industries, Inc.*, 734 F.2d 159 (4th Cir. 1984) (unnecessary for EPA to show that an emergency exists to establish basis for section 7003 order).

Under RCRA section 7003, there must be a demonstration that the activities "may present" an imminent and substantial threat. Similarly, the term "endangerment" means a threatened or potential harm, and does not require proof of actual harm. The endangerment must also be "imminent," meaning the factors giving rise to the future harm are present even though the harm may not be realized for years. Because the operative phrase is "may present," however, there must only be a showing that there is a potential for imminent threat of a substantial or serious harm. Regarding "substantial," there is no requirement to show a level of contamination above a statutory level or to quantify the risk, level of contamination, or numbers of people who may be threatened

with harm. Finally, the presence of a threat to either human health or the environment is enough to meet the threshold.

Issue 3: The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) § 120 and Defense Environmental Restoration Program (DERP) (10 USC § 2701) require the Air Force to conduct response actions under CERCLA. What is the legal or other basis for Environmental Protection Agency (EPA) to administratively order the Air Force to respond to such releases under Section 7003 of Resource Conservation and Recovery Act (RCRA)?

EPA agrees that CERCLA provides broad discretionary authority to take response actions in order to protect human health and the environment. CERCLA section 120 mandates federal facility agreements and other steps once a site is on the National Priorities List (NPL). After years of trying to convince the Air Force to sign an agreement to move the cleanup forward, the imminent and substantial threats at McGuire required EPA to consider other actions. In the absence of an acceptable FFA, EPA is using an appropriate legal authority to ensure timely and protective cleanup.

Issue 4: What is the basis(es) and authority for EPA negating the Air Force's lead agency role under CERCLA pursuant to Executive Order 12580 and DERP by assuming a complete oversight/enforcement role under RCRA?

The Order does not negate the Air Force's lead agency role. It merely provides a legally enforceable mechanism to ensure a response to the imminent and substantial endangerment with appropriate EPA oversight of Air Force actions. Nothing in CERCLA, other laws, regulations or Executive Orders limits, supersedes or prohibits EPA from using RCRA section 7003 abatement authority to address a threat to human health or the environment and to secure a legally enforceable oversight approach. Where, as here, the Air Force has refused to enter into an enforceable FFA with EPA under CERCLA 120(e) – and where, as here, site investigation and cleanup have not proceeded in a timely manner – there is no legal barrier to prevent EPA from securing a different enforceable oversight mechanism that a RCRA section 7003 order provides. EPA's ensuring that it has adequate oversight (through the RCRA section 7003 Order at McGuire) is consistent with the purpose and intent of CERCLA section 120. EPA's oversight (whether through a CERCLA section 120 FFA or an order issued under other federal environmental statutory authority) does not negate the Air Force's lead agency status.

Issue 5: On what authority and rationale has EPA issued an order in lieu of the remedy specified for failure to enter into an IAG (Congressional notification), and on what authority does it seek elements that are not specified in the statutory IAG?

The annual reporting mechanism in CERCLA section 120(e)(5) covers many aspects of cleanup progress for purposes of keeping Congress informed. Where no FFA has been signed, the report offers an opportunity to explain why no agreement was reached. Nothing in this section suggests or states that an annual reporting mechanism is

intended to replace EPA's oversight responsibilities for ensuring protective and timely cleanup of a federal facility that is on the NPL, nor does the language in the statute suggest that reporting to Congress is the sole vehicle for ensuring cleanup where DoD refuses to sign an FFA. CERCLA section 120(a) requires that federal agencies comply with CERCLA in the same manner as private parties, and section 120(e)(4) is clear that the FFA shall "include, but shall not be limited to," the three minimum elements referred to in the statute. Based on many years of experience overseeing private party and federal facility cleanups, EPA has included in the Order those terms and conditions needed to ensure proper oversight so that the Air Force can complete the necessary cleanup work in an efficient and timely manner.

Issue 6: On what basis(es) and authority can EPA justify use of a RCRA order in lieu of a CERCLA Section 106 order, which requires DOJ concurrence? How does EPA reconcile this approach with its own guidance, which generally prefers CERCLA Section 106 orders at National Priorities List (NPL) sites? [If DOJ has been consulted in issuance of the McGuire order, please indicate with whom EPA consulted.]

As a legal matter, EPA is authorized to use the enforcement authorities (including RCRA section 7003) it believes are necessary and appropriate to achieve proper oversight of the cleanup at McGuire. Nothing in any statute requires EPA to choose one abatement authority over another in deciding which approach will be most effective. Furthermore, EPA has issued guidance encouraging the selection of the most appropriate ISE authority for the situation at hand; that guidance clearly recommends that the most appropriate statutory authority should be used under the circumstances presented at a site.

Issue 7: Given that the McGuire cleanup has proceeded under CERCLA since the beginning (and certainly since its listing on the NPL in 1999), with full participation by EPA, what is the legal or factual basis for compelling cleanup under RCRA?

As an enforcement matter, EPA has determined that the Order is appropriate given that the presence of hazardous waste at the site may present an imminent and substantial endangerment to human health or the environment.

Issue 8: What is the legal and factual basis for EPA's determination of imminent and substantial endangerment (e.g., nature/level and extent of contamination, specific environmental and human health receptors and nature of harm or threat), and has this determination ever been communicated to the Air Force previously (if so, to whom and in what form)?

> ***What evidence supports the finding (EPA Office of Solid Waste and Emergency Response guidance on 7003 orders requires such evidence prior to issuance of a unilateral order, p. 24)?***
>
> ***Which areas of concern and/or substances may constitute an imminent and substantial endangerment (applying the 10 factors listed in EPA's RCRA 7003 guidance, p. 10)?***

Is there any current solid or hazardous waste activity that may constitute imminent and substantial endangerment?

EPA refers the Air Force back to the Order, the McGuire Administrative Record, and EPA's response to issue number two in this enclosure as EPA's support for issuance of the Order. Specifically, in the McGuire RCRA Order, the findings of fact detail conditions at the Base including hazardous and solid waste present at McGuire as well as detail its past or present handling, disposal or storage practices. The findings of fact also support EPA's determination that present conditions may present an imminent and substantial endangerment to human health and/or the environment.

Issue 9: The order does not identify any actions required to abate conditions that may present an imminent and substantial endangerment (it only appears to identify documents, plans and other deliverables but no actions). What are the actions required to abate? What is EPA's basis for not following its own guidance that requires any RCRA Section 7003 order to have findings of fact that describe the problems at the site or facility, relate them to the actions required to abate the conditions that may present an imminent and substantial endangerment, and have the findings of fact support each element of the relief sought.

a. The failure to require performance standards in lieu of dictating processes implies that the Air Force is uncooperative or lacks the sophistication and technical capabilities to perform work under EPA's own RCRA Section 7003 guidance. What is the basis for such a conclusion? If there is no such conclusion, then what is EPA's rational for departing from its own guidance to require site-specific performance standards for cooperative respondents?

The RCRA Order's findings of fact support EPA's determination that present conditions at McGuire may present an imminent and substantial endangerment to human health and/or the environment. In addition, Section VI of the Order (Work to be Performed) sets forth the actions needed to be taken by the Air Force to address the human health and environmental threats posed by McGuire. The Air Force must first determine the nature and extent of contamination with respect to each Area of Concern at McGuire, assess the risks associated with that contamination, and evaluate potential corrective measures before specific abatement actions and performance standards can be selected.

Issue 10: On what basis does EPA make its guidance documents mandatory, enforceable provisions in the order when such documents themselves indicate they are not legal requirements or enforceable?

As a legal matter, EPA is authorized to include the terms and conditions it determines are necessary to ensure protection of human health and the environment when it issues a RCRA section 7003 abatement order. Nothing in any law or regulation limits EPA's ability to draw on policy guidance when determining appropriate terms and conditions for an order.

Issue 11: EPA has indicated willingness to streamline the cleanup effort, yet the order fails to identify performance criteria and adds many documents and processes that are not required for CERCLA cleanups, or in a typical (model) RCRA order.

a. How will this order expedite cleanup and allow the Air Force to meet a 2012 completion goal?

b. What time frames will EPA commit to in reviewing and responding to deliverables?

c. How does EPA propose to reconcile the previously done and already agreed-to work (including existing documents such as work plans) with the provisions of the order?

The model FFA developed and agreed to by EPA and DoD ensures effective and efficient cleanups of federal Superfund sites. The Region has consistently communicated to the Air Force its position that an FFA based on the model would be the best vehicle to use to address the cleanup of McGuire. Absent such an FFA, the RCRA Order issued to the Air Force is an effective option. The RCRA Order does provide for a timely cleanup of McGuire.

One of the first submittals under the Order is a Site Management Plan (SMP) which must include proposed schedules and deadlines for the completion of all tasks to be performed at the 41 Areas of Concern. Therefore, to a large extent, the Air Force determines, subject to EPA review and approval, how quickly it carries out its response work.

The RCRA Order states at Paragraph 34 that "(i)f any of the items required by Section VI. (Work To Be Performed) have already been submitted or completed, Respondent may propose that any such submitted or completed item be used to satisfy the requirements of this Administrative Order." Moreover, the Air Force has submitted and continues to submit documents, including work plans, to EPA for its review and approval. EPA has been working with the Air Force to ensure that submittals are consistent with the RCRA Order. EPA has not caused delay to any response work taking place at McGuire.

Issue 12: The order contains no provision for work completion or termination. How will this order interact and not duplicate procedures agreed to between EPA and DoD in the Joint Remedial Action Completion Report guidance issued in January 2006 for NPL sites?

Paragraphs 52, 53 and 54 of the McGuire Order address the completion of corrective measures for the Areas of Concern. For instance, the Air Force shall prepare and submit to EPA a "Final Corrective Measures Implementation Completion Report" at the completion of all corrective measures for McGuire. In addition, Section XX of the Order addresses the termination of the Order. The process required in RCRA is very similar to the process used under CERCLA.

Issue 13: Under paragraph 91 of the order, what permits does EPA view as required in light of the CERCLA Section 121(e) exemption?

The McGuire Order relies solely on RCRA authorities and thus the CERCLA Section 121(e) permit exemption is not implicated by this Order. The Air Force, working with the respective permit-issuing authorities will need to identify any permits that are needed for response work.

Issue 14: Provide the basis for concluding that McGuire is the "highest priority" site in terms of posing serious risks compared to all of the sites in New Jersey where no order has been issued? If McGuire does not present the "highest priority" risk then explain why EPA is not following its guidance on RCRA Section 7003, indicating that unilateral orders should be prioritized on a risk basis.

It is not necessary for EPA to determine that McGuire is the "highest priority site" in New Jersey. McGuire Air Force Base was placed on the National Priorities List on October 22, 1999. By definition, the cleanup of McGuire is a priority. Section 105(a)(8)(B) of CERCLA establishes criteria to prepare the list of national priorities among the known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States. In addition, since its listing on the NPL in 1999, not a single remedial investigation/feasibility study has been completed and the Air Force has not entered into an FFA for McGuire. It is, therefore, a priority for the Region to ensure the investigation and cleanup proceed apace.

MARYLAND DEPARTMENT OF THE ENVIRONMENT
1800 Washington Boulevard • Baltimore MD 21230
410-537-3000 • 1-800-633-6101

Martin O'Malley
Governor

Anthony G. Brown
Lieutenant Governor

Shari T. Wilson
Secretary

Robert M. Summers, Ph.D.
Deputy Secretary

August 19, 2008

The Honorable Michael B. Mukasey
United States Attorney General
U.S. Department of Justice
950 Pennsylvania Avenue, NW
Washington, DC 20530

The Honorable Robert M. Gates
Secretary of Defense
U.S. Department of Defense
1000 Defense Pentagon
Washington, DC 20301

Colonel Daniel L. Thomas
Installation Commander
Fort George G. Meade
4551 Llewelyn Avenue, Room 203B
Fort Meade, MD 20755

The Honorable Stephen L. Johnson
Administrator
U.S. Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, NW
Washington, DC 20460

RE: Fort Meade

Dear Sirs:

The State of Maryland Department of the Environment hereby gives notice of its intent to bring suit under § 7002 of the Resource Conservation and Recovery Act, 42 U.S.C. § 6972, against the United States Department of the Army for hazardous waste contamination at and from Fort George G. Meade. Fort Meade has been a permanent United States Army Installation since 1917 and once occupied 13,500 acres of land in Anne Arundel County, Maryland. At all relevant times, the Army has been a generator of solid and hazardous waste and is the owner and operator of Fort Meade. The Army has transferred portions of the Fort Meade Installation to third parties. Portions of parcels transferred require additional work to remediate contamination. All portions of the Fort Meade Installation that are, or were owned or operated by the Army, or which have become contaminated as a result of activities conducted by the Army, are the subject of this Notice.

Groundwater at Fort Meade lies within separate and distinct aquifers. Investigation reveals that the aquifers and soils of Fort Meade became contaminated by various substances used, discharged and disposed by the Army, including solvents, degreasers, pesticides, polychlorinated biphenyls, heavy metals, including lead, chromium, mercury and arsenic, waste fuels, waste oils and unexploded ordinance. Some of the contamination has been remediated, but significant contamination remains and must be addressed.

The Site is listed on the NPL, and various investigations and remediations have been ongoing under the supervision of EPA. However, due to the Army's failure to comply with the requirements of CERCLA, EPA issued an Order under RCRA on August 27, 2007 directing the Army to clean up the Site and to abate all conditions that may present an imminent and substantial endangerment to human health or the environment. (See Administrative Order U.S. EPA Docket Number RCRA-03-2007-0213TH). The RCRA Order is incorporated by reference as though fully set forth herein. The Army has failed to comply with the Order. The State of Maryland Department of the Environment hereby gives notice that it intends to file suit under § 6972 (a)(1)(A) to enforce the RCRA Order and require the Army to comply with it.

In addition, as set forth above and in the RCRA Order, the contamination at Fort Meade may present an imminent and substantial endangerment to health and the environment. As the generator of the contamination, the past and present owner and operator of Fort Meade, and as one who has caused or contributed to the past or present handling, storage, transportation and disposal of the solid or hazardous wastes which cause the endangerment, the Army is responsible for abating this condition. The State of Maryland Department of the Environment intends to bring suit under § 6972(a)(1)(B) to force the Army to abate this condition.

The Maryland Department of the Environment is aware that the U.S. Army has stated that it intends to enter into a Federal Facility Agreement with EPA which has the potential to bring the facility into compliance with the RCRA Order. Our agency supports this effort and stands ready to assist the parties to finalize the Federal Facility Agreement to the extent requested. The Department also believes that, due to the conditions at Ft. Meade, it is imperative that compliance with the RCRA Order be achieved as soon as possible.

Notice of this endangerment and of the State's intention is hereby given pursuant to 42 U.S.C. §§ 6972(b)(1)(A) and (b)(2)(A). Please contact me at 410-537-3084 if you would like to discuss this matter further.

Sincerely,

Shari T. Wilson
Secretary

cc: The Honorable Martin O'Malley, Governor, State of Maryland
The Honorable Douglas F. Gansler, Attorney General, State of Maryland
Donald S. Welsh, Regional Administrator, EPA Region III

United States Senate
WASHINGTON, DC 20510

June 30, 2008

Gene Dodaro,
Acting Comptroller General of the United States
Government Accountability Office
441 G St., NW
Washington, DC 20548

Dear Comptroller Dodaro:

We are writing to express our grave concern over recent reports that the Department of Defense (DOD) is refusing to sign final orders issued by the Environmental Protection Agency (EPA) to clean up toxic chemicals dumped around McGuire Air Force Base in New Jersey, Fort Meade in Maryland, and Tyndall Air Force Base in Florida ("Pentagon Fights EPA on Pollution Cleanup," *The Washington Post*, June 30, 2008). We ask that you begin an investigation into this apparent disregard of not only the EPA's statutory authority to enforce such action, but also public health and safety.

These bases are all listed as Superfund sites, meaning that the chemicals dumped around these bases pose "an imminent and substantial danger to the public health or welfare." Some of the chemicals in question are known to cause cancer or other serious health problems, yet DOD has failed to act aggressively as they slowly seep into the soil and drinking water aquifers, threatening environmental problems for generations to come.

DOD has claimed that it is voluntarily cleaning up all three sites. EPA has the legal authority and practical expertise to assess DOD's efforts and has deemed them insufficient. Rather than working with EPA to determine what more could be done to protect public health and safety, DOD has blocked EPA at every turn, refusing to recognize the law and challenging EPA's authority.

As a result, EPA has been forced to issue a final order, which legal experts recognize as their most potent enforcement tool. Such an order requires a polluter to follow the EPA's recommendation for cleanup. Other governmental agencies, including NASA and the Department of Energy, have previously complied with EPA's final orders. DOD itself has signed final orders in the past but refuses to do so now.

We urge you to conduct an immediate investigation into the DOD's refusal to sign the EPA's final orders regarding the pollution at McGuire Air Force Base, Tyndall Air Force Base, and Fort Meade. Specifically, we hope that you will review whether DOD has failed to comply with

federal law, and what needs to be done to ensure the DOD cooperates with the EPA in future final orders.

Thank you for your attention to this issue, and we look forward to your response.

Sincerely,

ROBERT MENENDEZ
United States Senator

FRANK R. LAUTENBERG
United States Senator

BILL NELSON
United States Senator

Department of Toxic Substances Control

Linda S. Adams
Secretary for
vironmental Protection

Maureen F. Gorsen, Director
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Arnold Schwarzenegger
Governor

November 6, 2008

Mr. Dan Hirsch
President, Committee to Bridge the Gap
605 Waldeberg Road
Ben Lomond, California 95005

Dear Mr. Hirsch:

At the September 18, 2008 hearing before the U.S. Senate Committee on Environment and Public Works, Senator Boxer asked for confirmation of certain communications the State has had with U.S. EPA regarding cleanup of the Santa Susana Field Laboratory (SSFL). I address those matters below.

(1) In several meetings with the State, U.S. EPA Region IX representatives have clearly stated that, should SSFL be added to the National Priorities List (NPL), U.S. EPA does not intend to treat California law about SSFL cleanup, SB 990, as an applicable or relevant and appropriate State requirement (ARAR) that must be complied with in the cleanup. They have stated that in that case, the land use scenario they would apply at the site in establishing cleanup levels may be open-space, not the rural residential or suburban residential land-use scenarios called for by SB 990, which would result in substantially less contamination required to be cleaned up. U.S. EPA may therefore select remedies that are inconsistent with State law and considerably less protective than required under State law.

(2) U.S. EPA has also indicated to the State that if the site is added to the NPL, U.S. EPA may take steps so that the State will no longer be in charge of overseeing the investigation and remediation, and therefore will lose the ability to dictate investigative actions and select the final cleanup remedy for the site. Experience shows that the lead federal agencies may select remedies without significant State input. U.S. EPA has said it might insist that the State lose some enforcement authority, including the authority to enforce closure and post-closure permit requirements, and waste discharge requirements for response actions conducted onsite. This is a matter of grave concern because U.S. EPA may have different policies than the State on various cleanup issues of concern to the State, such as the application of the State's non-degradation policy.

(3) In its January 15, 2008 letter to U.S. EPA Region IX, the State requested specific assistance from U.S. EPA in areas related to the characterization and assessment of radionuclide contamination at the SSFL. In particular, the State asked that it be involved in the planning for the radiological survey U.S. EPA is to perform as per H.R. 2764, so that the survey can meet the State's data needs under our State law, SB 990, governing the cleanup. U.S. EPA's response to these requests has been tepid at best. U.S. EPA is now involved in the design of a background study and radiation survey for Area IV because it was compelled to do so by H.R. 2764, but U.S. EPA has not involved the State in a meaningful way in the development of the corresponding planning documents. U.S. EPA (along with the U.S. Department of Energy to a degree) has developed a "Scope of Work" document without State input. The State has been given only limited opportunity to comment on this outline, and most of the State's suggestions and requests were not incorporated into a subsequent revision.

Sincerely,

Norman E. Riley
SSFL Project Director