CHARRTS No.: HECCEE-01-001 Hearing Date: September 16, 2015 Committee: HECCEE Member: Congressman Shimkus Witness: Acting ASD(EI&E) Conger

Question: #1

Executive Order 12580 Authority Sites

Question: Of the DoD sites being cleaned up under CERCLA, for what percentage of sites has DoD asserted lead agency authority under E.O. 12580? What is the role of EPA at those sites? What is the role of the States at those sites?

Answer: The Department of Defense (DoD) asserts lead agency authority under Executive Order (E.O.) 12580 at 100% of sites being cleaned up under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLA regulations define a "lead agency" as "the agency that provides the [personnel] to plan and implement response action under the NCP." (40 CFR 300.5) This section goes on to state that DoD "will be the lead agency" for releases on or from DoD facilities. DoD conducts its cleanup program with oversight from state and/or Federal environmental regulators.

The U.S. Environmental Protection Agency (EPA) is the lead regulator at those DoD sites identified on the CERCLA National Priorities List (NPL). EPA defines a lead regulator as "the primary regulatory agency (i.e., EPA or the state) that oversees cleanup work at an operable unit, an area of contamination, or an NPL site under the applicable regulatory framework." As lead regulator, EPA is responsible for National Priorities List (NPL) site listings and deletion decisions, and its CERCLA oversight obligations. Additionally, pursuant to 42 U.S.C. sections 120(e)(1) and (2), EPA is responsible for entering into an Interagency Agreement (IAG) with the lead agency.

States are involved throughout the investigation and selection of cleanup action, and we engage them through Restoration Advisory Boards (RABs). CERCLA section §121 (f) summarizes the "substantial and meaningful involvement by each State" in cleanups undertaken in that state. This includes state participation in long-term planning for all cleanup activities within the state, and an opportunity for states to review and comment on investigations and planned cleanup activities. DoD seeks state involvement throughout the decision-making process.

Also, states are often a signatory to IAGs. DoD conducts its cleanup program in collaboration with state and Federal environmental regulators, and believes the regulators are fully involved in the decision-making process at DoD sites.

¹ Office of Solid Waste and Emergency Response Memorandum, "Lead Regulator Policy for Cleanup Activities at Federal Facilities on the National Priorities List," November 6, 1997

CHARRTS No.: HECCEE-01-002
Hearing Date: September 16, 2015
Committee: HECCEE
Member: Congressman Shimkus
Witness: Acting ASD(EI&E) Conger
Question: #2

Federal vs. State Environmental Laws

Question: How does DoD address and comply with State environmental laws that are more stringent than Federal laws? Does DoD recognize a role for State environmental agencies in determining what State requirements are applicable and relevant and appropriate to DoD's environmental assessment and cleanup activities?

Answer: As provided in CERCLA §121(d), State environmental laws that are more stringent than federal laws may be "Applicable or Relevant and Appropriate Requirements" (ARARs) that are attained during a DoD cleanup. CERCLA ARAR determinations are made on a site-specific basis, consistent with CERCLA regulations. DoD recognizes the important role the State environmental agencies play in determining what State requirements are ARARs, as identified in CERCLA §121(d).

CHARRTS No.: HECCEE-01-003
Hearing Date: September 16, 2015
Committee: HECCEE
Member: Congressman Shimkus
Witness: Acting ASD(EI&E) Conger

Question: #3

State Environmental Agencies

Question: What role do State environmental agencies have in the decision-making process regarding environmental assessments and cleanups conducted by DoD?

Answer: CERCLA section §121(f) summarizes the "substantial and meaningful involvement by each State" in cleanups undertaken in that state. This includes state participation in long-term planning for all cleanup activities within the state, and an opportunity for states to review and comment on investigations and planned cleanup activities. States also have a key role in identifying State cleanup standards during selection of a CERCLA cleanup action, and State acceptance of the proposed cleanup action is one of the nine CERCLA remedy selection criteria. DoD seeks State involvement throughout the decision-making process at its sites under the Defense Environmental Restoration Program (10 U.S.C. 2700 et. seq). We take proactive steps to identify and address issues of concern with the States. States are offered opportunities to comment on a site's relative risk and provide vital information that DoD uses to prioritize and sequence sites for cleanup. At National Priorities List sites, States have the opportunity to be signatories on Interagency Agreements.

CHARRTS No.: HECCEE-01-004 Hearing Date: September 16, 2015 Committee: HECCEE Member: Congressman Shimkus Witness: Acting ASD(EI&E) Conger

Question: #4

Sovereign Immunity

Question: Does DoD invoke sovereign immunity with respect to cleanups under CERCLA: A. With respect to deciding what is an Applicable or Relevant and Appropriate Requirement (ARAR)? B. With respect to determining the appropriate cleanup standards? C. with respect to applying land use controls or restrictions?

Answer: CERCLA §120(a)(4) directs DoD to comply with the majority of state laws concerning removal and remedial action. DoD does not "invoke" sovereign immunity, but rather complies with state laws as directed by Congress. Some state laws fall within the criteria set by Congress in CERCLA section 120, while others do not. DoD instead follows the additional criteria in CERCLA section 121 and CERCLA regulations when determining what state requirements are CERCLA cleanup standards, also called ARARs. These decisions are made on a site-specific basis, and the state has a key role in identifying what State requirements should be viewed as ARARs. DoD is not aware of an example where DoD has explained that a state requirement is not an ARAR due to the waiver of sovereign immunity in CERCLA section 120. While CERCLA ARAR decisions are made on a site-specific basis, in general, DoD does not view State land use control laws (e.g., restrictive covenants or notices) as an ARAR. CERCLA §121(d) provides the criteria used to identify ARARs and, in general, these State land use control laws do not qualify as a cleanup standard (i.e., "a level or standard of control for such hazardous substance").

CHARRTS No.: HECCEE-01-005
Hearing Date: September 16, 2015
Committee: HECCEE
Member: Congressman Shimkus
Witness: Acting ASD(EI&E) Conger

Question: #5

Federal Facilities Agreements

Question: With respect to federal facilities agreements, what is DoD's policy with respect to making changes to the agreements? Does DoD unilaterally make changes to a federal facilities agreement? Is the length of time for completion of the cleanup something DoD would change in a federal facility agreement?

Answer: DoD does not unilaterally make changes to a federal facility agreement (FFA). DoD's policy requires any changes to the FFA should be mutually agreed to between the signatories of the FFA. The FFA establishes the framework and schedule to for conducting cleanup activities at the site and is only changed if all parties mutually agree.

CHARRTS No.: HECCEE-01-006
Hearing Date: September 16, 2015
Committee: HECCEE
Member: Congressman Shimkus
Witness: Acting ASD(EI&E) Conger

Question: #6

Formerly Used Defense Sites

Question: How many formerly used defense sites are known to exist in the United States and its Territories? How many have been reported to the Hazardous Waste Compliance Docket? Why haven't more of these sites been added to the docket?

Answer: There are 2, 710 Formerly Used Defense Sites (FUDS) properties in the United States and its Territories.

DoD does not report or track FUDS on the Docket because FUDS properties were transferred from DoD control prior to the creation of the Docket.

While CERCLA section 120(c) creates the Federal Agency Hazardous Waste Compliance Docket, this Docket lists sites on federal facilities where a federal agency stores, treats, or disposes of hazardous waste under Resource Conservation and Recovery Act (RCRA); or a hazardous substance release has been reported under CERCLA section 103. This information is provided by the current federal property owner regarding their existing operations and activities at the site. Since FUDS properties were transferred from DoD control prior to the creation of the Docket, DoD does not report FUDS properties to the Docket. Being listed on the Federal Agency Hazardous Waste Compliance Docket is not a precondition to being addressed through DoD's cleanup program. The Defense Environmental Remediation Program (DERP), which includes FUDS, follows the CERCLA cleanup process and thus investigates and responds to DoD releases of CERCLA hazardous substances or pollutants and contaminants.

CHARRTS No.: HECCEE-01-007 Hearing Date: September 16, 2015 Committee: HECCEE Member: Congressman Pallone Witness: Acting ASD(EI&E) Conger

Question: #7

Lead Agency Authority

Question: During the second day of this hearing, state witnesses testified about potential issues related to agencies that are responsible parties asserting "Lead Agency Authority". Can you explain what this authority is and why your Department makes use of this authority?

Answer: Several CERCLA provisions, such as section 104 on response actions, are vested directly with the President. The President delegated these CERCLA cleanup authorities under Executive Order 12580, Superfund Implementation (January 23, 1987, as amended) to DoD at DoD facilities. CERCLA regulations, referred to as the National Contingency Plan (NCP), define a "lead agency" as "the agency that provides the [personnel] to plan and implement response actions under the NCP. EPA, the USCG, another federal agency, or a state ...may be the lead agency for a response action." (40 CFR 300.5). This same section of the NCP states that DoD "will be the lead agency" for releases on or from DoD facilities. As the lead agent, DoD has the responsibility to investigate, fund, and implement response actions for releases on or from DoD facilities and must comply with the requirements of CERCLA, the NCP, and the Defense Environmental Restoration Program law (10 U.S.C. 2700 et.seq.). Federal and/or state environmental regulatory agencies provide oversight of DoD cleanup activities.

CHARRTS No.: HECCEE-01-008
Hearing Date: September 16, 2015
Committee: HECCEE
Member: Congressman Pallone
Witness: Acting ASD(EI&E) Conger

Question: #8

Lead Agency Authority

Question: During the second day of this hearing, state witnesses testified about potential issues related to agencies that are responsible parties asserting "Lead Agency Authority". Does this authority apply differently at National Priority List sites and non-NPL sites?

Answer: CERCLA regulations define a "lead agency" as "the agency that provides the [personnel] to plan and implement response action under the NCP." (40 CFR 300.5) This section goes on to state that DoD "will be the lead agency" for releases on or from DoD facilities. DoD conducts its cleanup program with oversight from state and/or Federal environmental regulators. At NPL sites, the U.S. Environmental Protection Agency primarily provides the regulatory oversight of DoD response actions. At non-NPL sites, the State environmental agency primarily provides the regulatory oversight of DoD response actions.

CHARRTS No.: HECCEE-01-009
Hearing Date: September 16, 2015
Committee: HECCEE
Member: Congressman Pallone
Witness: Acting ASD(EI&E) Conger

Question: #9

DoD Relationships with the States

Question: According to state testimony, assertions of lead agency authority were more of a problem before 2008. Please explain what your Department has done since 2008 to improve working relationships with states when your Department leads cleanups?

Answer: Since 2008 DoD has initiated and participated in the following groups to communicate and collaborate with the states and other stakeholders; provide greater transparency of the Department's cleanup program; and exchange views, information, and advice regarding important cleanup issues: Defense and State Memorandum of Agreement (DSMOA) Steering Committee, Formerly Used Defense Sites (FUDS) Forum Working Group, and Munitions Response Dialogue (MRD).

The DSMOA Steering Committee is composed of DoD representatives and state environmental regulators, and focuses on issues related to managing and implementing the DSMOA program. The Steering Committee also addresses overarching issues impacting cleanup progress, such as complex groundwater sites.

The FUDS Forum Working Group provides a mechanism for improving FUDS program-related communication between DoD representatives and state environmental regulators. Participants focus on issues impacting cleanup of FUDS (e.g., rights of entry).

The MRD includes DoD and EPA representatives, state environmental regulators, and Federal land managers. The Department established the MRD to focus on issues related to cleaning up DoD's munitions response sites.

Additionally, DoD has strengthened its cleanup policies and guidance to reinforce the importance of working with states during the cleanup process. Department representatives also participate in meetings and events with state regulatory organizations, such as the Association of State and Territorial Solid Waste Management Officials, the Environmental Council of the States, and the Interstate Technology Regulatory Council. During these meetings and events DoD listens to the states' concerns, communicates with them about the Department's cleanup initiatives and policies, and gathers information to improve its cleanup policies and procedures.

CHARRTS No.: HECCEE-01-010
Hearing Date: September 16, 2015
Committee: HECCEE
Member: Congressman Pallone
Witness: Acting ASD(EI&E) Conger

Question: #10

DoD Relationships with the States

Question: Similarly, state witnesses expressed concerns that, primarily before 2008, agency claims of sovereign immunity frustrated cleanup efforts. When and why might your Department or employees of your Department claim sovereign immunity in the context of Superfund cleanups?

Answer: CERCLA §120(a)(4) directs DoD to comply with the majority of state laws concerning removal and remedial action. DoD does not "claim" sovereign immunity, but rather complies with state laws as directed by Congress. Some state laws fall within the criteria set by Congress in CERCLA section 120, while others do not. As an example, if a state law did not concern "removal and remedial action" but instead covered aesthetics, then it would not fall within the criteria set by Congress and therefore would not fall within the waiver of sovereign immunity.

CHARRTS No.: HECCEE-01-011 Hearing Date: September 16, 2015 Committee: HECCEE

Member: Congressman Pallone Witness: Acting ASD(EI&E) Conger

Question: #11

Sovereign Immunity

Question: What has your Department done since 2008 to limit claims of sovereign immunity?

Answer: DoD has issued detailed guidance to help ensure a more consistent implementation of CERCLA requirements.

CHARRTS No.: HECCEE-01-012 Hearing Date: September 16, 2015 Committee: HECCEE Member: Congressman Pallone

Witness: Acting ASD(EI&E) Conger

Question: #12

Cleanup Priorities

Question: Lastly, state witnesses at the second day of this hearing raised the concern that priorities for cleanups are not always determined based on risk. Obviously, limitations on resources for cleanup make prioritization necessary and important. What factors does the Department consider in making funding decisions for cleanups across your inventory of contaminated sites?

Answer: The Department of Defense (DoD) uses a "worst first" approach to making funding decisions for cleanup across our inventory of contaminated sites. This means that DoD addresses sites with the highest potential risk to safety, human health, or the environment before sites posing a lesser risk. We use the Relative Rise Site Evaluation (RRSE) methodology for hazardous waste sites and the Munitions Response Site Prioritization Protocol (MRSPP) for munitions response sites to determine a site's risk relative to other sites. We also consider site-specific information and "other factors" to determine the sequence for cleaning up sites. These "other factors" include concerns expressed by stakeholders and regulators, cultural and social factors, economic factors, future mission requirements, and community redevelopment needs at Base Realignment and Closure facilities.

CHARRTS No.: HECCEE-01-013 Hearing Date: September 16, 2015 Committee: HECCEE Member: Congressman Pallone Witness: Acting ASD(EI&E) Conger

Question: #13

Quick and Effective Cleanup

Question: What does your Department do to ensure that contaminated sites posing serious or immediate threats to human health are cleaned up quickly and effectively?

Answer: The Department of Defense (DoD) eliminates serious or immediate threats to human health through containment measures, removal actions, or other risk management actions. After removing or containing the immediate threat, DoD integrates the site into the cleanup program for additional investigation and cleanup activities as necessary.

CHARRTS No.: HECCEE-01-014 Hearing Date: September 16, 2015 Committee: HECCEE Member: Congressman Pallone

Witness: Acting ASD(EI&E) Conger

Question: #14

Sufficient Budget

Question: How does your Department ensure that budget requests will be sufficient to cover pressing cleanup needs?

Answer: Congress has provided the Department of Defense (DoD) with stable funding, which allows us to effectively prioritize, sequence, and clean up sites. DoD established goals for the cleanup program that help the DoD Components to plan, program, and budget resources in accordance with the Department's Planning, Programming, Budgeting, and Execution (PPBE) process. Effective execution of the PPBE process is essential for the DoD Components to prioritize funding to meet legal requirements. The DoD Components work with the states to develop annual work plans and schedules to ensure DoD is cleaning up sites. We spend approximately \$2 billion each year on cleanup, and continue to request adequate funding to meet our requirements.

CHARRTS No.: HECCEE-01-015
Hearing Date: September 16, 2015
Committee: HECCEE
Member: Congressman Pallone
Witness: Acting ASD(EI&E) Conger
Question: #15

Effects of a Government Shutdown

Question: Did the 2013 government shutdown affect your ability to meet your cleanup obligations on schedule?

Answer: The 2013 government shutdown had little impact on the Department of Defense's (DoD's) ability to meet its cleanup obligations on schedule. The DoD Components experienced limited issues due to the shutdown, such as delays in getting funding on contracts and awarding contracts.

CHARRTS No.: HECCEE-01-016
Hearing Date: September 16, 2015
Committee: HECCEE
Member: Congressman Hudson
Witness: Acting ASD(EI&E) Conger
Question: #16

Hazardous Waste Compliance Docket

Question: What percentage of DoD's hazardous waste facilities have been identified on the Federal Facilities Hazardous Waste Compliance Docket as required by CERCLA? Why would a DoD site not be listed on the Docket?

Answer: Approximately 22 percent of the Department of Defense's (DoD's) hazardous waste cleanup facilities have been identified on the Federal Agency Hazardous Waste Compliance Docket as required by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). While CERCLA section 120(c) creates the Federal Agency Hazardous Waste Compliance Docket, this Docket lists sites on federal facilities where a federal agency stores, treats, or disposes of hazardous waste under RCRA; or a hazardous substance release has been reported under CERCLA section 103. DoD provides this information regarding their existing operations and activities. If a DoD facility does not meet one of these statutory requirements, it is not reported to the Docket. Being listed on the Federal Agency Hazardous Waste Compliance Docket is not a precondition to being addressed through DoD's cleanup program. DoD follows the CERCLA cleanup process and thus investigates and responds to DoD releases of CERCLA hazardous substances or pollutants and contaminants.

CHARRTS No.: HECCEE-01-017
Hearing Date: September 16, 2015
Committee: HECCEE
Member: Congressman Latta
Witness: Acting ASD(EI&E) Conger
Question: #17

State Land Use Control Laws

Question: Does DoD recognize and comply with State land use control laws and regulations related to environmental cleanups? Why or why not?

Answer: DoD recognizes and considers State Land Use Control laws and regulations as part of cleanup implementation, and complies if they are applicable to the site circumstances at a DoD facility. Sometimes DoD is unable under Federal law to comply with a portion of a State Land Use Control laws (e.g., restrictive covenants) on an active military installation if it provides the State a real property interest or the right to enforce a specific land use on federal jurisdiction property. DoD attempts, in those relatively rare instances where it cannot comply with the letter of a state land use control law, to comply with the spirit.

CHARRTS No.: HECCEE-01-018
Hearing Date: September 16, 2015
Committee: HECCEE
Member: Congressman Latta
Witness: Acting ASD(EI&E) Conger
Question: #18

State Land Use Control Laws

Question: Does DoD view State land use control laws related to environmental cleanups, such as those requiring restrictive covenants and restrictive notices, as being applicable and relevant and appropriate requirements under CERCLA? Why or why not?

Answer: While CERCLA "Applicable or Relevant and Appropriate Requirements" (ARARs) decisions are made on a site-specific basis, in general, DoD does not view State Land Use Control laws (e.g., restrictive covenants or notices) as an ARAR. CERCLA §121(d) provides the criteria used to identify ARARs and, in general, these State Land Use Control laws do not qualify as a cleanup standard (i.e., "a level or standard of control for such hazardous substance").

CHARRTS No.: HECCEE-01-019 Hearing Date: September 16, 2015 Committee: HECCEE

Member: Congresswoman DeGette Witness: Acting ASD(EI&E) Conger

Question: #19

BRAC I-IV Sites

Question: For the purposes of these questions, Construction Complete is defined as any necessary physical construction is complete, whether or not final cleanup levels or other requirements have been achieved; or EPA has determined that the response action should be limited to measures that do not involve construction. The closest equivalent terminology under DoD cleanup would be Last Remedy In Place (LRIP), as identified through the EPA-DoD Goal Harmonization Project. How many sites were closed under BRAC I-IV? Of those sites, how many have achieved construction completion of all environmental cleanup? What was the median length of time for site cleanup to be reach construction completion at BRAC I- IV sites?

Answer: As Congresswoman DeGette states, the U.S. Environmental Protection Agency's site-level Construction Complete is roughly equivalent to the Department of Defense's installation-level Last Remedy in Place (LRIP). Accordingly, DoD has closed 210 installations that were part of Base Realignment and Closure (BRAC) rounds I-IV.

One hundred forty-five (69 percent) of the installations closed under BRAC rounds I-IV have achieved Construction Complete/LRIP.

The median length of time for the 145 installations to reach Construction Complete/LRIP was 5.6 years. Additionally, the average length of time for the 145 installations to reach Construction Complete/LRIP was 8.9 years.

CHARRTS No.: HECCEE-01-020 Hearing Date: September 16, 2015 Committee: HECCEE

Member: Congresswoman DeGette Witness: Acting ASD(EI&E) Conger

Question: #20

BRAC V Sites

Question: For the purposes of these questions, Construction Complete is defined as any necessary physical construction is complete, whether or not final cleanup levels or other requirements have been achieved; or EPA has determined that the response action should be limited to measures that do not involve construction. The closest equivalent terminology under DoD cleanup would be Last Remedy In Place (LRIP), as identified through the EPA-DoD Goal Harmonization Project. How many sites were closed under BRAC V? Of those sites, how many have achieved construction completion of all environmental cleanup? B. What was the median length of time for cleanup to be completed at BRAC V sites completion of the cleanup?

Answer: As Congresswoman DeGette states, the U.S. Environmental Protection Agency's site-level Construction Complete is roughly equivalent to the Department of Defense's installation-level Last Remedy in Place (LRIP). Accordingly, DoD has closed 31 installations that were part of Base Realignment and Closure (BRAC) round V.

Fourteen (45 percent) of the installations closed under BRAC round V have achieved Construction Complete/LRIP.

The median length of time for the 14 installations to reach Construction Complete/LRIP was 10.8 years; this includes a median length of 4.4 years to complete the preliminary assessment and site inspection (PA/SI) phases, a median length of 4.7 years to complete the remedial investigation and feasibility study (RI/FS) phases, and a median length of 6.6 years to complete cleanup phases. Additionally, the average length of time for the 14 installations to reach Construction Complete/LRIP was 14.6 years; this includes an average length of 8.7 years to complete the PA/SI phases, an average length of 8.9 years to complete the RI/FS phases, and an average length of 8.8 years to complete cleanup phases.

CHARRTS No.: HECCEE-01-021 Hearing Date: September 16, 2015 Committee: HECCEE

Member: Congresswoman DeGette Witness: Acting ASD(EI&E) Conger

Question: #21

BRAC Site Cleanup

Question: For the purposes of these questions, Construction Complete is defined as any necessary physical construction is complete, whether or not final cleanup levels or other requirements have been achieved; or EPA has determined that the response action should be limited to measures that do not involve construction. The closest equivalent terminology under DoD cleanup would be Last Remedy In Place (LRIP), as identified through the EPA-DoD Goal Harmonization Project. For BRAC sites that are not cleaned up yet, what stage of the cleanup process are they at? Please provide a list of each BRAC site and stage of cleanup it is in (investigation through construction completion).

Answer: Eighty-two Base Realignment and Closure (BRAC) installations have not achieved Construction Complete/Last Remedy in Place (LRIP). The Department of Defense is in various stages of the cleanup process at the 6,944 sites on these installations: 435 sites (6 percent) are in study phases; 170 sites (2 percent) are in active cleanup phases leading up to the Remedy in Place (RIP) milestone, which occurs when the cleanup system at a site is constructed and operational; and 6,339 sites (91 percent) have achieved the RIP milestone.

Please refer to the spreadsheet "BRAC Installations that have not Achieved Construction Complete-LRIP.xlsx" for a list of the 82 BRAC installations that have not achieved Construction Complete/LRIP. This spreadsheet provides the number and percentage of sites that are in the study and cleanup phases and that have achieved RIP at each installation.

DoD Base Realignment and Closure Installations that have not Achieved Construction Complete at all Sites

								Number of	Percentage
				Number of	Percentage	Number of	Percentage	Sites at	of Sites at
DoD		BRAC	Number of	Sites in	of Sites in	Sites in	of Sites in	Construction	Construction
Component	Installation Name	Round	Sites	Study	Study	Cleanup	Cleanup	Complete	Complete
Army	ALABAMA AAP	I	39	1	3%	0	0%	38	97%
Army	ARTHUR MACARTHUR USARC	V	1	1	100%	0	0%	0	0%
Army	CAMP BONNEVILLE	IV	24	0	0%	1	4%		
Army	DEVENS RESERVE TRAINING FACILITY	II	78	1	1%	2	3%	75	96%
Army	FORT GEORGE G MEADE	I	15	1	7%	1	. , 0		87%
Army	FORT GILLEM	V	11	5	45%	1	9%	5	
Army	FORT MCCLELLAN	IV	130	11	8%	14	11%	105	81%
Army	FORT MCPHERSON	V	9	4	44%	1	11%	4	
Army	FORT MONMOUTH	III	35	19	54%	0	0%	16	46%
Army	FORT MONROE	V	30			13			
Army	FORT ORD	II	68	13	19%	3	4%	52	76%
Army	FORT RITCHIE	IV	6	0	0%	1	17%	5	83%
Army	FORT SHERIDAN	I	71	1	1%	1	1%	69	97%
Army	FORT WINGATE DEPOT ACTIVITY	I	48	14	29%	0	0%	34	71%
Army	KANSAS ARMY AMMUNITION PLANT	V	17	0	0%	3	18%	14	82%
Army	LETTERKENNY ARMY DEPOT	IV	39	0	0%	2	5%	37	95%
Army	OAKLAND ARMY BASE	IV	15	3	20%	0	0%	12	80%
Army	PUEBLO CHEMICAL DEPOT	I	57	12	21%	9	16%	36	63%
Army	RIVERBANK ARMY AMMUNITION PLANT	V	6	0	0%	2	33%	4	67%
Army	SAVANNA DEPOT ACTIVITY	IV	142	33	23%	2	1%	107	75%
Army	SENECA ARMY DEPOT ACTIVITY	IV	85	5	6%	0	0%	80	94%
Army	SIERRA ARMY DEPOT	IV	12	0	0%	1	8%	11	92%
Army	STRATFORD ARMY ENGINE PLANT	IV	4	2	50%	0	0%	2	50%
Army	TOOELE ARMY DEPOT	III	29	0	0%	1	3%	28	97%
Army	UMATILLA CHEMICAL DEPOT	I	118	0	0%	1	1%	117	99%
Army	USARC NIAGARA FALLS (AMSA 5)	V	2	1	50%	0	0%	1	50%
Navy	ADAK NAS	IV	97	0	0%	1	1%	96	99%
Navy	AGANA NAS	III	39	1	3%	0	0%	38	97%
Navy	ALAMEDA NAS	III	43	6	14%	3	7%	34	79%
Navy	BRUNSWICK NAS	V	14	4	29%	1	7%	9	64%
Navy	CECIL FIELD NAS	III	34	1	3%	0	0%	33	97%
Navy	CONCORD NWS	V	23	11	48%	0	0%	12	52%
Navy	CROWS LANDING NALF	II	9	0	0%	1	11%	8	89%

DoD Base Realignment and Closure Installations that have not Achieved Construction Complete at all Sites

								Number of	Percentage
				Number of	Percentage	Number of	Percentage	Sites at	of Sites at
DoD		BRAC	Number of	Sites in	of Sites in	Sites in	of Sites in	Construction	Construction
Component	Installation Name	Round	Sites	Study	Study	Cleanup	Cleanup	Complete	Complete
Navy	DAVISVILLE NCBC	II	25	1	4%	1	4%	23	92%
Navy	EL TORO MCAS	Ш	29	2	7%	1	3%	26	90%
Navy	MARE ISLAND NSY	Ш	52	16	31%	0	0%		
Navy	MOFFETT FIELD NAS	II	35	0	0%	2	6%		
Navy	PUERTO RICO NAVACT	IV	43	11	26%	6			
Navy	PUGET SOUND NS	II	11	1	9%	0	0%	10	
Navy	SAN DIEGO NTC	Ш	7	1	14%	0	0%	6	86%
Navy	TREASURE ISLAND NS	Ш	36	7	19%	3			
Navy	TREASURE ISLAND NS HUNTERS PT ANNEX	II	70	1	1%	5	7%	64	91%
Navy	WILLOW GROVE NAS	V	5	0		2		3	
Air Force	AFRL MESA	V	1	1	100%	0	0%	0	
Air Force	BERGSTROM AFB	II	236	1	0%	2	1%	233	99%
Air Force	BROOKS CITY-BASE	٧	70	1	1%	0	0%	69	99%
Air Force	BUCKLEY ANNEX	V	6	2	33%	0	0%	4	67%
Air Force	CARSWELL AFB	II	13	1	8%	0	0%	12	92%
Air Force	CASTLE AFB	II	375	2	1%	0	0%	373	99%
Air Force	CHANUTE AFB	l	292	6	2%	10	3%	276	95%
Air Force	EAKER AFB	II	35	1	3%	0	0%	34	97%
Air Force	ENGLAND AFB	II	231	2	1%	5	2%	224	97%
Air Force	FOUR LAKES COMM AIR GUARD STATION	V	1	1	100%	0	0%	0	0%
Air Force	GALENA FOL	V	51	39	76%	0	0%	12	24%
Air Force	GEN B MITCHELL	V	15	1	7%	0	0%	14	93%
Air Force	GENTILE AFS	Ш	48	1	2%	0	0%	47	98%
Air Force	GEORGE AFB		216	21	10%	0	0%	195	90%
Air Force	GRISSOM ARB	II	26	2	8%	0	0%	24	92%
Air Force	HOMESTEAD	Ш	16	1	6%	0	0%	15	94%
Air Force	K.I. SAWYER AFB	Ш	149	2	1%	0	0%	147	99%
Air Force	KELLY AFB	IV	738	3	0%	2	0%	733	99%
Air Force	LORING AFB	II	85	1	1%	0	0%	84	99%
Air Force	LOWRY AFB	II	46		2%	0			
Air Force	MARCH	Ш	58	1	2%	0			
Air Force	MATHER AFB	I	125	1	1%	0	0%	124	
Air Force	MCCLELLAN AFB	IV	338	119	35%	58	17%	161	48%

DoD Base Realignment and Closure Installations that have not Achieved Construction Complete at all Sites

								Number of	Percentage
				Number of	Percentage	Number of			of Sites at
DoD		BRAC		Sites in				Construction	
_	Installation Name			Study	Study				Complete
	MYRTLE BEACH AFB	III	194	1	1%	Осапар	0%		
	NEWARK AFB	111	154	1	7%	0	0%		93%
	NORTON AFB	11	206		0%	0			
	O'HARE IAP ARS	IV	48	1	2%				98%
	ONIZUKA AS	IV	7	1	14%		0%		86%
	ONTARIO IAP AGS	IV	7	1					
		IIV	9	1	11%		0%		89%
	PEASE AFB	1	83	1	1%	0			99%
	PLATTSBURGH AFB	III	322	4	1%	5			
Air Force	REESE AFB	IV	78	1	1%	2	3%	75	96%
Air Force	RICHARDS-GEBAUR AFB	II	61	1	2%	0	0%	60	98%
Air Force	RICKENBACKER ANGB	II	82	1	1%	0	0%	81	99%
Air Force	ROME RESEARCH SITE	Ш	749	1	0%	1	0%	747	100%
Air Force	ROSLYN ANGB	IV	43	1	2%	0	0%	42	98%
Air Force	TED STEVENS INTERNATIONAL AIRPORT	V	58	1	2%	0	0%	57	98%
Air Force	WILLIAMS AFB	II	82	2	2%	0	0%	80	98%
Air Force	WURTSMITH AFB	II	73	3			0%	70	96%
		Totals:	6,944	435	6%	170	2%	6,339	

CHARRTS No.: HECCEE-01-022
Hearing Date: September 16, 2015
Committee: HECCEE
Member: Congressman Cárdenas
Witness: Acting ASD(EI&E) Conger

Question: #22

Groundwater Remediation

Question: What is the Department doing to develop new technologies for groundwater remediation?

Answer: DoD invests in groundwater remediation technologies through the Strategic Environmental Research and Development Program (SERDP) and the Environmental Security Technology Certification Program (ESTCP). Together SERDP and ESTCP conduct basic and applied research, advanced technology development, and demonstration and validation. Current efforts in groundwater remediation are focused on (1) so-called complex or recalcitrant sites for which no current technology solution exists, including large dilute plumes, fractured bedrock, and source zones in complex geological environments that cause persistent groundwater plumes, (2) long-term effects of treatment technologies, (3) long-term site management, and (4) contaminants of emerging regulatory concern.

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Question: #23

Remediation for Perchlorate Contamination

Question: Does the Department have any ongoing activities aimed at improving remediation for perchlorate contamination?

Answer: Strategic Environmental Research and Development Program (SERDP) and Environmental Security Technology Certification Program (ESTCP) have had extensive investments spanning more than a decade in the sampling, treatment, bioremediation, natural attenuation, and ecotoxicity of perchlorate, as well as in diagnostic technologies to trace it sources. This work is concluding and no new work is necessary. The cleanup community is already using the improved diagnostic and sampling technologies to identify sources of perchlorate as well as the treatment technologies developed.

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Question: #24

Groundwater Remediation

Question: How can affected communities make use of the technological advancements DOD discovers?

Answer: On sites for which the DoD has management responsibility, environmental remediation is performed as a contracted service. These contracts incorporate new technology as it is demonstrated and becomes available. Beyond that, Strategic Environmental Research and Development Program (SERDP) and Environmental Security Technology Certification Program (ESTCP) make available a wide variety of training products including guidance documents, best-practices manuals, and on-line training that are available to anyone on the SERDP/ESTCP web site, www.serdp-estcp.org. Science developed in SERDP and ESTCP is published in the primary peer-reviewed literature.