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COPY

AUG 22 2005

The Honorable Anthony J. Principi
Chairman
Defense Base Closure and Realignment Commission
2521 South Clark Street, Suite 600
Arlington, VA 22202

BRAC Commission

AUG 22 2005

Received

Dear Chairman Principi:

The Department appreciates the opportunity to provide testimony at the August 11, 2005, Commission hearing regarding environmental and reuse considerations associated with the list of Base Closures and Realignments recommended by the Department of Defense. I appreciate the analysis the Commission is now conducting to evaluate the Department's recommendations against the force structure plan and selection criteria.

In reviewing environmental considerations, I would like to highlight a few issues. First, and most importantly, the Department is starting with a mature restoration program through which the Department has developed significant information on environmental conditions on our installations, restoration projects are already identified and in various stages of completion, and required funding and goals have been established to achieve required environmental actions. As discussed in my written testimony and reflected in the enclosed chart, the Department has already invested \$576 million in installation restoration at the 33 major installations proposed for closure. This equates to 84 percent of sites identified at Response Complete or Remedy in Place. The sites remaining will cost the Department between \$1.03 billion and \$1.05 billion, with half of that required for remediating military munitions as part of the Military Munitions Response Program sites for which the Army provided costs as of the end of Fiscal Year 2003.

Second, consistent with practice in prior BRAC rounds, the Department did not include environmental restoration costs in the cost of closure calculations. Since the Department of Defense has a legal obligation to perform environmental restoration regardless of whether a base is closed, realigned, or remains open, environmental restoration costs at closing bases are not costs attributable to a closure or realignment action. This approach responds to Government Accountability Office (GAO) concerns that determining final restoration costs could be problematic before a closure decision, since neither reuse plans nor studies to identify related restoration requirements would have been initiated.



During the hearing and in subsequent follow-up letters, the Commission asked the Department to answer a number of questions for the record. Responses to the specific questions follow:

1. *[From Chairman Principi's August 12, 2005 letter to Mr. Grone] Commissioner Coyle asked the Panel a question concerning an earlier question that the Chairman raised about the cost of environmental cleanup at Cannon Air Force Base in New Mexico being zero. Commissioner Coyle asked that if you think it is going to be zero, then why is it zero and if it is some other number, what would you think a more likely number would be?*

Tab 6 of the Cannon AFB data submitted to the BRAC Commission estimates a cost to complete (CTC) of \$1.2 million. This number is valid and consistent with the information provided in the Fiscal Year 2003 Defense Environmental Restoration Program (DERP) Annual Report to Congress used in developing the recommendations, and as well as the Fiscal Year 2004 Annual Report to on the program.

The expressed concern appears to arise from statements in the report to Congress by The Congressional Research Service (CRS) *Military Base Closures: Role and Cost of Environmental Cleanup*, updated June 27, 2005 (page CRS-6). In that report, CRS reported \$0 as the estimated CTC for Cannon AFB. A footnote to this information stated: "DoD indicated that all planned cleanup actions were complete as of the end of Fiscal Year 2004." While it is true that remedies for all planned cleanup actions are in place at Cannon, the Department expects to incur \$1.2 million to reach response complete, which is reflected in the BRAC data submitted to the Commission.

2. *[From Chairman Principi's August 12, 2005 letter to Mr. Grone] Commissioner Coyle asked the Department of Defense to provide information on the Navy's track record in relation to estimating environmental cleanup cost. He asked for a comparison of the estimated environmental cleanup costs at Navy bases in BRACs one through four, the actual dollars spent to date and the current cost to complete.*

In 1995, much of the effort in the cleanup program was focused on characterizing contaminated sites and analyzing remedial alternatives. At such early stages, estimates for final remedies are likely to change. At the start of Fiscal Year 1996, the Navy estimated the CTC for the installation restoration sites from the 1988, 1991, 1993 and 1995 BRAC rounds to be \$2.214 billion in Fiscal Year 1996 dollars. Over the next nine years, the Navy expended \$1.908 billion in then year dollars and has an end of Fiscal Year 2004 CTC of \$0.801 billion in Fiscal Year 2004. Therefore, the total cost for the prior rounds is \$2.709 billion which is a 23 percent increase over the initial estimate. All the numbers have been normalized

to constant Fiscal Year 2005 dollars. Given the cleanup program is much further along at this stage, the Navy expects much less cost growth.

Compared to 1995, we currently have a mature installation restoration program under DERP. Installation restoration sites have been identified and are being actively worked with state and EPA regulators. For instance, the Navy expended \$56.5 million at Naval Submarine Base New London through Fiscal Year 2003 for installation restoration. Clean-up technologies have vastly improved in the ensuing 10 years and have been implemented to accelerate restoration and lower cost where possible. We are confident that the DERP CTC numbers used in the BRAC 2005 Criterion 8 process are more accurate than prior rounds.

3. *[From Chairman Principi's August 12, 2005 letter to Mr. Grone] Commissioner Coyle also asked for additional information on the \$23 million environment cost estimate for the New London Naval Submarine Base. This question relates to how the Navy's estimate would increase if it was based on the environmental standards of the State of Connecticut.*

The State of Connecticut, particularly the Department of Environmental Protection, has been an active partner with the Department of the Navy in the Installation Restoration program at Naval Submarine Base New London. The Department of Environmental Protection has worked closely with the Navy in performing its oversight role since October 26, 1994. Under the Defense and State Memorandums of Agreement (DSMOA), DoD has provided reimbursement funding for the regulatory oversight of the New London program. The Department has provided the State of Connecticut as much as \$1.5 million annually between the period Fiscal Year 1995 to Fiscal Year 2004 for oversight of New London as well as the restoration sites at Naval Undersea Warfare Center Detachment in East Lyme and the Naval Weapons Industrial Reserve Plant in Bloomfield.

In addition, the State of Connecticut, the Environmental Protection Agency, and the Department of Navy signed a Federal Facility Agreement (FFA), that "(i) *Provide for the appropriate involvement by the State in the initiation, development, selection and enforcement of Remedial Actions to be undertaken at the NSB New London (NSBNL), including the review of and comment on all applicable data as it becomes available; consultation regarding studies and reports; the development of action plans and other deliverables; and identification and integration of State ARARs* for the Remedial Action process;*"
(*ARARs- *Applicable, Relevant and Appropriate Requirements*)

The FFA commits the Navy to completing remedial action required agreed to by the three parties before conveying the property. This FFA anticipates that remedy

selection will be the product of a three-party discussion, taking into consideration the use to be made of the property, and allows for early transfer of property before remediation is complete.

4. *[From Chairman Principi's August 12, 2005 letter to Mr. Grone] Commissioner Bilbray asked for an assessment of the cost to complete environmental restoration numbers included in the GAO report (refer to GAO-05-785, page 46). He asked for information on what is included in the \$949 million figure that GAO uses in their report. He also questions why the cost to cleanup operational ranges is not included in the environmental restoration total and why the estimate is provided with such a wide range of costs. In his example he uses Hawthorne Army Depot and the upper end of the cleanup amounts for the operational ranges to show how the cost to cleanup Hawthorne for reuse could increase by \$147 million.*

The DERP's cost to complete estimates include completion costs for response actions (i.e., identification, investigation, and removal actions, remedial actions, or a combination of removal and remedial actions) to address Installation Restoration Program (IRP) and Military Munitions Response Program (MMRP) hazards. All anticipated costs required to complete the restoration of the site, as well as the costs of complying with applicable legal and regulatory requirements are included in the estimates.

As stated in Policy Memorandum Four—Selection Criteria 7 and 8, “although remediation of munitions contamination is a form of environmental restoration, the costs of remediating munitions contamination on operational ranges are not captured in existing estimated costs to complete. Estimates of such costs are not available in an auditable or certifiable without site survey and preliminary analysis of contamination, which is not attainable within the BRAC analytical timeframe.” The Army provided low and high cost estimates for a few installations which have operational ranges for information purposes only. These costs were not used in the decision making process nor should they be considered as part of the cost to complete.

5. *[From Frank Cirillo's August 16, 2005, letter to the clearinghouse] It is our understanding that the Department provided environmental restoration cost data for each facility recommended for closure, based upon the Defense Environmental Restoration Program, Annual Report to Congress for Fiscal Year 2003 (FY2003 Report). During the Environmental Hearing August 11, 2005, the Prepared Statement for Philip W. Grone provided a chart that gives the environmental restoration cost to complete for the 33 major installations proposed for closure. During a review of the data we could not confirm the following costs: Fort Monroe, \$20M; Kansas AAP, \$79.8M and WK Kellogg Regional Airport, \$36.2M. Previous responses to clearinghouse questions (CT-0563 and E0474) indicate the*

WK Kellogg Regional Airport and Fort Monroe costs to complete environmental restoration are \$0. From the FY2003 Report Kansas AAP has \$33.39M. Please provide the certified data to back up the costs to complete environmental restoration shown in the chart. It would be beneficial if the certified environmental restoration cost to complete data for all 33 installations were provided.

The data provided in the chart were derived from the cost to complete information provided in the Summaries of Scenario Environmental Impact (SSEIs) supporting the recommendations. In order to err on the conservative side, the chart included the high end of the Military Munitions Response Program costs estimates, if they were reported. This methodology explains the differences in the numbers seen in the chart and that reported in the responses to Commission inquiries. Specific explanations for each of the installations mentioned are detailed below:

Ft. Monroe: Ft. Monroe Installation Restoration cost to complete as reported in the FY 2003 report to Congress and included in the certified data is \$0. In the Ft. Monroe SSEI which summarizes certified data, the Army reported an estimate of \$500 thousand to \$20 million for clearance and restoration for the moat. Erring on the side of being conservative, the \$20 million was used in the chart provided in the testimony. The Army's response to Commission inquiry E0474 only reported the installation restoration cost of \$0 and not the moat cost.

Kansas AAP: Kansas AAP Installation Restoration cost to complete as reported in the FY 2003 report to Congress and included in the certified data is \$33.2 million. In the Kansas AAP SSEI, the Army reported an estimate of \$4.7 million to \$46.6 million for operational range cleanup. As stated above, this estimate was for information purposes only and should not be included in our cost to complete estimate because it does not have the same level of fidelity as the Installation Restoration Program and Military Munitions Response Program estimates. The high end of this range cost was inadvertently included in the chart provided in the testimony. The correct CTC for Kansas AAP is \$33.2 million. A similar error occurred with Lone Star AAP. The high end of the estimate (\$5.8 million) to cleanup three ranges was inadvertently included in the chart provided in the testimony. The correct CTC for Lone Star is \$2.7 million.

WW Kellogg Regional Airport: The Kellogg Regional Airport Installation Restoration CTC as reported in the Fiscal Year 2003 report to Congress and included in the certified data is \$36.2 million. The Air Force's response to the Commissions inquiry (CT-0563) indicating \$0 for restoration shows that the restoration was completed in May of 2005. The difference in the figures reflects the fact that the Air Force completed the remaining cleanup between the time the estimate used in the Fiscal Year 2003 report to Congress and in the certified data

was developed and the response to inquiry. The Chart used in the testimony reflects certified data as of Fiscal Year 2003 to be consistent with the material provided to the Commission.

The chart used in the testimony and enclosed here is based on certified data whose source is the SSEIs provided to the Commission with each recommendation. The cost to complete costs include Installation Restoration Program and Military Munitions Response Program numbers that were reported on the SSEI's. As noted in the response to question four, the costs for operational ranges were not included.

Thank you for the opportunity to provide comments on these issues. If I can be of further assistance, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink that reads "Philip W. Grone". The signature is written in a cursive style with a long horizontal line extending to the right.

Philip W. Grone
Deputy Under Secretary of Defense
(Installations and Environment)

Enclosures as Stated

Enclosure 1

| Installation | Invested Through FY03 (\$M) | Cost-to-Complete FY04+ (\$M) | Total Sites | Preliminary Assessment/ Site Inspection | Remedial Investigation/ Feasibility Study | Remedial Design/ Remedial Action | Remedy In-place/ Response Complete |
|--|-----------------------------|------------------------------|-------------|---|---|----------------------------------|------------------------------------|
| Brooks City Base | 41.9 | 4.2 | 17 | 0 | 0 | 0 | 17 |
| Cannon Air Force Base | 12.5 | 1.2 | 27 | 0 | 0 | 0 | 27 |
| Concord NWS | 54.9 | 40.1 | 69 | 9 | 17 | 1 | 42 |
| Deseret Chemical Depot | NA | 66.9 | 32 | 3 | 5 | 3 | 21 |
| Ellsworth Air Force Base | 67.4 | 27.0 | 21 | 0 | 0 | 0 | 21 |
| Fort Gillem | 27.1 | 18.0 | 13 | 0 | 6 | 0 | 7 |
| Fort Mcpherson | NA | 8.8 | 14 | 2 | 0 | 0 | 12 |
| Fort Monmouth | 11.0 | 2.9 | 44 | 1 | 0 | 0 | 43 |
| Fort Monroe | NA | 20.0 | 17 | 13 | 0 | 0 | 4 |
| General Mitchell International Airport | 2.1 | 0.0 | 9 | 3 | 0 | 0 | 6 |
| Hawthorne Army Depot | 28.3 | 383.2 | 144 | 18 | 3 | 5 | 118 |
| Kansas AAP | 30.7 | 33.2 | 35 | 1 | 16 | 2 | 16 |
| Lone Star AAP | 21.3 | 2.7 | 57 | 0 | 3 | 1 | 53 |
| Massachusetts Military Reservation (MMR) | 83.5 | 146.8 | 85 | 4 | 7 | 5 | 69 |
| Mississippi AAP | NA | 2.3 | 48 | 2 | 0 | 0 | 46 |
| New London NSB | 56.5 | 23.9 | 29 | 4 | 6 | 2 | 17 |
| New Orleans NSA | 0.2 | 0.0 | 5 | 0 | 0 | 0 | 5 |
| Newport Chem Depot | NA | 1.2 | 18 | 1 | 2 | 0 | 15 |
| Niagara Falls International Airport ARS | 9.2 | 1.4 | 14 | 0 | 0 | 0 | 14 |
| Onizuka Air Force Base | 0.0 | 0.0 | 5 | 0 | 0 | 0 | 5 |
| Pittsburgh International Airport | NA | NA | 3 | 0 | 0 | 0 | 3 |
| Portsmouth NSY | 46.8 | 47.1 | 35 | 3 | 8 | 0 | 24 |
| Red river Army Depot | 17.9 | 49.1 | 54 | 0 | 13 | 1 | 40 |
| Riverbank AAP | 50.2 | 10.5 | 13 | 1 | 0 | 0 | 12 |
| US Army Garrison Selfridge | NA | 13.3 | 12 | 8 | 0 | 0 | 4 |
| Willow Grove NAS | 6.3 | 10.3 | 13 | 0 | 4 | 0 | 9 |
| Wk Kellogg Regional Airport | 7.9 | 36.2 | 10 | 0 | 0 | 0 | 10 |
| Total | 576 | 961 | 843 | 73 | 90 | 20 | 660 |
| *Includes only \$146.8 for Otis AFB (provided separately by the Air Force) | | | | | | | |
| Umatilla army depot** | 54 | 10 | 120 | 0 | 0 | 1 | 119 |
| ** Umatilla Army Depot funded in previous BRAC rounds | | | | | | | |
| Naval Air Station Atlanta | NA | 0 | NA | NA | NA | NA | NA |
| Naval Station Ingelside | NA | 0 | NA | NA | NA | NA | NA |
| Naval Station Pascagoula | NA | 0 | NA | NA | NA | NA | NA |
| Naval Station Support Activity Corona | NA | 0 | NA | NA | NA | NA | NA |

Enclosure 2

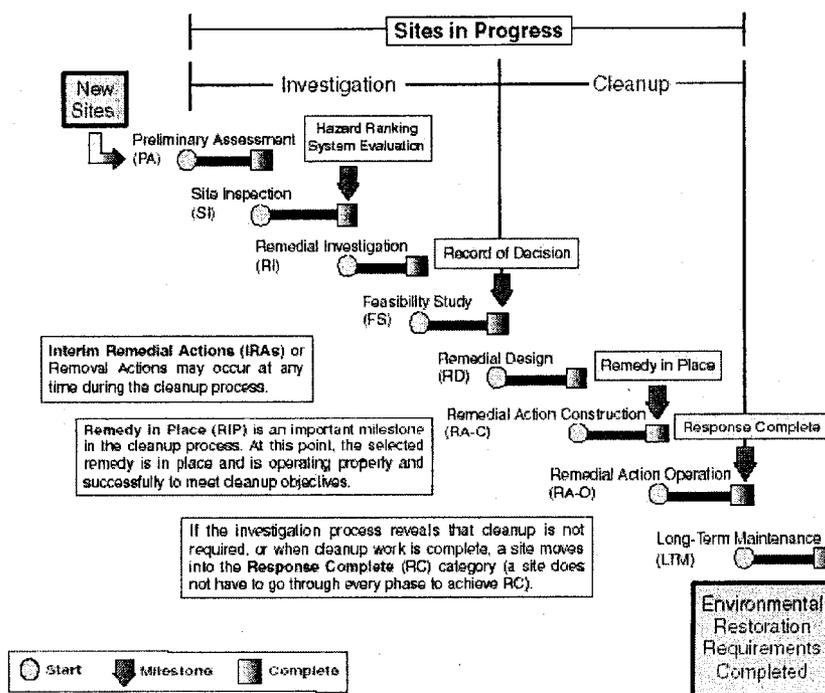
DON QFR RESPONSES FROM 11 AUG 05 BRAC COMMISSION HEARING

Department of the Navy -

- 1) New London - Provide a detailed breakdown of Department of the Navy estimates for completing cleanup at New London. What roles did the Federal EPA and CT Department of Environmental Protection play in establishing cleanup standards and cost estimates?

The Department of the Navy carefully considered the impact of costs related to potential environmental restoration by using the Defense Environmental Restoration Program (DERP) costs funded through the Defense Environmental Restoration Account (DERA). These were chosen because they were a source of known, pre-existing environmental restoration projects that could be certified. The DERP follows Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), passed by Congress in 1980, which established a requirement and a framework for the identification, investigation, and cleanup of hazardous substances resulting from past practices. The CERCLA approach, which the DoD uses for all DERP sites, is

Figure 13
CERCLA Environmental Restoration Process Phases and Milestones



outlined below:

Partnership between the Department of the Navy, the states, and other Federal agencies facilitates the successful environmental cleanup at Department of the Navy installations. The Department of the Navy has continually involved the EPA and the state of Connecticut in planning and implementation of the environmental cleanup and restoration activities at NSB (NSB) New London.

The Department of the Navy has a Federal Facility Agreement (FFA) signed in January 1995 with U.S. Environmental Protection Agency (EPA) and the then State of Connecticut Commissioner for the Department

of Environmental Protection, to involve the EPA in the environmental restoration process by detailing the agency's and the State's roles in the environmental restoration process at NSB New London. Since, NSB New London is a DERP installation; the Department of the Navy follows the CERCLA process. State standards and regulations are taken into account depending on their applicability and appropriateness to the cleanup. The FFA notes in pertinent part:

[From the Purpose of Agreement section of the FFA between the EPA, the State of Connecticut and the Department of the Navy regarding NSB New London]:

“(i) Provide for the appropriate involvement by the State in the initiation, development, selection and enforcement of Remedial Actions to be undertaken at the NSB New London (NSBNL), including the review of and comment on all applicable data as it becomes available; consultation regarding studies and reports; the development of action plans and other deliverables; and identification and integration of State ARARs for the Remedial Action process;”*

*(*ARARs- Applicable, Relevant and Appropriate Requirements)*

Additionally, the Department of the Navy has a Defense and State Memorandums of Agreement (DSMOA) with the State of Connecticut. DSMOA establishes an ongoing partnership between the state and DoD. DSMOAs, which facilitate active state participation in DoD's cleanup program, provide the states with funding to reimburse their contributions to DERP. DoD provides reimbursement to the states for technical services for up to one percent of DERA and one and one half percent of BRAC costs. Additionally, DSMOAs specify that DoD will reimburse states for regulatory oversight provided in support of Federal environmental restoration activities at DoD installations. Acceptance of these funds indicates state regulatory involvement in the DoD DERP program. The current DSMOA that the Department of the Navy has with the State of Connecticut was signed in April 1998, and the State of Connecticut was reimbursed for less than \$1 million for FY04 (from the *Defense Environmental Programs Fiscal Year 2004 Annual Report to Congress*). Through FY95 through FY04, the state of Connecticut has received DSMOA funding for actions at DoD installations ranging from \$1.5M to less than \$1M annually. After signing a DSMOA, the State of Connecticut and the Department of the Navy enter into a 2-year cooperative agreement (CA) that outlines the activities the state will perform and the funding it will receive. The current CA for the State of Connecticut was signed in July 2004 and lasts until June 2006.

The remaining \$23.9 million listed as Cost to Complete for NSB New London from DERA the pays for the Cost to Complete (CTC) clean-up, yearly inspections, groundwater monitoring and any anticipated long-term monitoring and maintenance associated with the cost at 10 remaining sites identified at NSB New London. "Clean-up" under DERP is undertaken on a "clean to current use" standard, which in the case of New London is industrial. Of the 23 CERCLA sites originally identified at NSB New London, 13 sites have been cleaned up including 3 landfill sites that have been capped. The three-landfill sites that are capped include on-going groundwater monitoring and yearly inspections. Monitoring at these sites was planned for 30 years. The first site monitoring began in 1998 and the other landfill sites began in 1999 and 2001.

A specific summary of the current, as of Fall 2004, installation restoration costs at NSB New London is provided below:

**NSB NEW LONDON, CT
INSTALLATION RESTORATION PROGRAM (CTC Data as of President's Budget Submission-Fall
2004 submission)**

| <u>IR Sites</u> | <u>CTC Costs*</u> | <u>CTC Details</u> |
|---|------------------------------|--|
| Site 2 - Area A Landfill | \$1,682,100 | Site has been capped. Estimate is based upon current costs for O&M of the cap. |
| Site 3 - Area A Downstream | \$1,673,610 | Site has been remediated. Estimate is based upon current costs to monitor and maintain the wetlands restoration. |
| Site 6 - DRMO | \$1,547,428 | Site has been capped. Estimate is based upon current costs for O&M of the cap. |
| Site 7 - Torpedo Shops | \$1,367,871 | The ROD stipulates that the soil will be excavated and disposed off-site. GW will be monitored. |
| Site 8 - Goss Cove Landfill | \$2,008,811 | Site has been capped. Estimate is based upon current costs for O&M of the cap. |
| Site 10 - Fuel Oil Storage Tanks (Lower NSB) | \$2,478,238 | This CTC is based on in-situ type clean up alternatives (soil vapor extraction, air sparging) and enhanced bioremediation. |
| Site 11 - Power Plant Oil Tanks (Lower NSB) | \$2,189,184 | This CTC is based on in-situ type clean up alternatives (soil vapor extraction, air sparging) and enhanced bioremediation. |
| Site 13 - Building 79 Waste Oil Pit (Lower NSB) | \$2,156,649 | This CTC is based on in-situ type clean up alternatives (soil vapor extraction, air sparging) and enhanced bioremediation. |
| Site 14 - Overbank Disposal Area Northeast | \$86,105 | This CTC is costs associated with preparing a no further action ROD. |
| Site 17 - Building 31 (Lower NSB) | \$955,169 | This CTC is based on excavation of lead contaminated soil and disposal off-site. |
| Site 19 - Solvent Storage Area (Lower NSB) | \$800,503 | This CTC is based on excavation of lead contaminated soil and disposal off-site. |
| Site 21 - Berth 16 (Lower NSB) | \$1,249,386 | This CTC is based on excavation of lead contaminated soil and disposal off-site. |
| Site 22 - Pier 33 (Lower NSB) | \$1,744,016 | This CTC is based on excavation of lead and TPH contaminated soil and disposal off-site. |
| Site 24 - Building 174 (Lower NSB) | \$1,289,693 | This CTC is based on excavation of PAH and TPH contaminated soil and disposal off-site. |
| Site 25 - Lower Base Incinerator (Lower NSB) | \$1,786,019 | This CTC is based on excavation of lead contaminated soil and disposal off-site. |
| UST 01 - Dolphin Mart | \$84,857 | This CTC is 3 years of monitored natural attenuation. |
| UST 05 - Mitchell Manor (NY) | \$42,967 | This CTC is 1 year of monitored natural attenuation. |

**NSB NEW LONDON, CT
STATE OF CONNECTICUT ARARS**

| Requirement | Citation | Status |
|--|--|--------------------------|
| Remediation Standard Regulations | CSG 22a-133k; RCSA 22a-133k - 1 through 3 | Applicable |
| Hazardous Waste Management: Generator and Handler Requirements, Listing, and Identification | RCSA 22a-449© 100-101 | Applicable |
| Hazardous Waste Management: Treatment, Storage or Disposal Facility Standards | RCSA 22a-449© 104 | Applicable |
| Hazardous Waste Management: Generator Standards | RCSA 22a-449© - 102 | Applicable |
| Connecticut Guidelines for Soil Erosion and Sediment Control | Connecticut Council on Soil and Water Conservation | To Be Considered |
| Water Quality Standards | CSG 22a-426 | Applicable |
| Inland Wetlands and Watercourses | CSG 22a-37 through 45. RCSA 22a-39-1 through 15 | Applicable |
| Water Pollution Control | RCSA 22a-430-1 through 8 | Applicable |
| Coastal Management Act | CSG 22a-90 to 112 | Applicable |
| CT Endangered Species Act | CSG 26-303 to 314 | Applicable |
| State Hazardous Waste Management: Interim Status Facilities and Groundwater Monitoring Requirements, Closure and Post-Closure Requirements | RCSA 22a-449© 105 | Relevant and Appropriate |
| State Solid Waste Management | RCSA 22a-209-1 to 15 | Applicable |
| Safe Storage of Oil and Chemical Liquids | RCSA 29-337-1 to 3 | Applicable |
| Air Pollution Control - Control of Organic Compound Emissions | RCSA 22a - 174-20 | Applicable |
| Air Pollution Control - Control of Odors | RCSA 22a-174-23 | Applicable |
| Air Pollution Control - Control of Hazardous Air Pollutants | RCSA 22a-174-29 | Applicable |
| Air Pollution Control - Control of Particulate Emissions | RCSA 22a-174-18 | Applicable |
| Connecticut Water Diversion Policy Act | CSG 22a-365 to 378 | Applicable |
| Tidal Wetlands | RCSA 22a-30-1 through 17 | Applicable |
| Control of Noise Regulations | RCSA 22a-69-1 through 7.4 | Applicable |

Notes: CSG = Connecticut General Statutes
RCSA = Regulation of Connecticut State Agencies

**NSB NEW LONDON, CT
FEDERAL ARARS**

| Requirement | Citation | Status |
|---|---|--------------------------|
| Cancer Slope Factors | | To Be Considered |
| Reference Dose | | To Be Considered |
| Clean Water Act: Section 402, National Pollution Discharge Elimination System | 33 USC 1342 40 CFR 122 through 125 | Applicable |
| Clean Water Act: Section 404 | 33 USC 1344; 40 CFR Part 230 and 33 CFR Parts 320-323 | Applicable |
| Executive Order 11990: Protection of Wetlands | Executive Order 11990, 40 CFR Part 6, Appendix A | Applicable |
| Executive Order 11988: Floodplain Management | Executive Order 11988 | Applicable |
| Fish and Wildlife Conservation Act | 16 USC Part 661 et seq.; 40 CFR Section 6.302 | Applicable |
| Coastal Zone Management Act | 16 USC Parts 1451 et seq. | Applicable |
| Federal PCB regulation under TSCA | 40 CFR Part 761 | Applicable |
| RCRA - General requirements | 40 CFR Part 264 Subpart A | Relevant and Appropriate |
| RCRA - Preparedness and Prevention | 40 CFR Part 264 Subpart C | Relevant and Appropriate |
| RCRA - Contingency Plan and Emergency Procedures | 40 CFR Part 264 Subpart D | Relevant and Appropriate |
| RCRA - Releases from Solid Waste Management Units | 40 CFR Part 264 Subpart F | Relevant and Appropriate |
| RCRA - Closure and Post-Closure Requirements | 40 CFR Part 264 Subpart G | Relevant and Appropriate |
| Clean Air Act - National Emissions Standards for Hazardous Air Pollutants (NESHAPs) | 40 CFR Part 61 | Relevant and Appropriate |
| Clean Air Act - Non-methane organic compounds NMOCs | Proposed Rule - 56 FR 24468, to be codified at 40 CFR Part 60 Subpart WWW | To Be Considered |
| USEPA Technical Guidance - Final Covers on Hazardous Waste Landfills and Surface Impoundments | EPA/ 530-SW-89-047 | To Be Considered |
| Water Quality Criteria for DDT and Metabolite | EPA 440-80-038 | To Be Considered |
| Technical Basis for Deriving Sediment Quality Criteria for Non-Ionic Organic Contaminants for Protection of Benthic Organisms by using Equilibrium Partitioning | EPA-822-R-93-011 | To Be Considered |
| NOAA Incidence of Adverse Biological Effects within Ranges of Chemical Concentration in Marine and Estuarine Sediments | Long et al. | To Be Considered |
| Guidance on Remedial Actions for Superfund Sites with PCB Contamination | OSWER Directive 9355.4-01 | To Be Considered |

Notes: USC = United States Code; CFR = Code of Federal Regulations

How estimates are done and evolve over time:

The Department of the Navy, as well as Army and Air Force, use a proven parametric model for estimating cleanup costs. This model incorporates past experience with specific cleanup technologies as well as the professional judgment of Department of the Navy remedial project managers. The Cost-to-Complete (CTC) for individual sites are added to provide a base-wide CTC. The CTCs are updated annually and provided to regulators, the public and the Congress.

The following provides some insight on how CTC estimates might change if an active base gets approved for closure. There will be some marginal additional costs for closing such units as currently operating underground storage tanks. However, closure costs for operating units were included separately in the BRAC analysis and thus accounted for already. Some adjustments may also be necessary depending on the status and level of specificity of the LRA's reuse plan at the time a site is cleaned up. In many cases, there is no or minimal additional cost for conducting cleanups to be compatible with reuse plans. For example, in cases where DoD conducts "removals" (contamination excavated), there is no change in cost. The cleanup is the same for all uses. In a relatively small subset of sites where a specific reuse plan is incompatible with current use, the Department of the Navy and the LRA will work together to resolve the incompatibility. Department of the Navy remedy selection officials consider both the historical use of the property and the reasonably anticipated use. Simply put, each remedy selection is unique. For example, a practical land use plan should incorporate an existing landfill and designate the parcel as open land, park, or recreation area. Many sites can be cleaned up to non-restricted or residential standards for marginal cost increases over land with use restrictions. In other cases, where a parcel had a long history of heavy industrial use, a similar industrial use for the future might be more appropriate. We are optimistic that close collaboration between LRAs and DoD can result in land use plans that accommodate the needs of the community, recognize historical uses and special environmental conditions and result in practical, cost-effective remedy selections that can be supported by all parties, including regulators.